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The hands do part of the talking: a study of gestures in explanatory discourse

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ABSTRACT

The hands do part of the talking: a study of gestures in explanatory discourse

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From the perspective of sociocultural theory (Vygotsky, 1986, 1978), all learning, before it becomes a matter of internal mental processing, takes place at an intermental level, in the interaction of a less capable individual with a more skilled one and is posited to be fundamentally mediated by verbal language. Although it does not deny language this status, the present work seeks to show that, in face-to-face interaction in educational settings, the communication that ensues between teachers and learners is effected not only by means of verbal language, but also with the aid of gestural action. In order to demonstrate this, the present study, which draws on the gesture theory of Kendon (2004), investigates the various functions, general and specific, taken on by the gestures produced by one EFL teacher during explanatory discourse episodes in which he sets out to explain both vocabulary and grammar structures to his students. The findings suggest that, generally speaking, the gestures used by the teacher contribute to the creation of utterance meaning in two ways: they contribute both referential and pragmatic meanings to the utterances that they are a part of. Additionally, gestures are found to have several specific roles as regards the needs of the communicative event wherein they are used. Furthermore, the study demonstrates that the types of gestures used by the teacher varied not as a function of the type of explanation – vocabulary as opposed to grammar – in which they were produced, but as a function of the degree of concreteness of the actual object of the explanatory discourse.

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RESUMO

As mãos também falam: um estudo de gestos no discurso explanatório

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Do ponto de vista da teoria sociocultural (Vygotsky, 1986, 1978), o aprendizado, antes de ocorrer num plano mental, ocorre num nível interpsicológico, ou seja, na interação entre um indivíduo menos apto no que diz respeito a uma determinada habilidade ou conhecimento e um indivíduo mais experiente capaz de auxiliá-lo. Além do mais, atribui-se à língua verbal um papel preponderante na mediação do processo de aprendizagem. Embora não negue à língua um tal status, o presente trabalho busca demonstrar que, na interação face-a-face que ocorre em situações de aprendizagem em contextos formais, a comunicação entre professores e alunos se dá não somente através da língua verbal, mas também por meio da ação gestual.Com a finalidade de demonstrar essa hipótese, o presente estudo, que se fundamenta na teoria de gestos de Kendon (2004), analisa as diversas funções, gerais e específicas, desempenhadas pelos gestos de um professor de inglês como língua estrangeira durante episódios de discurso explanatório nos quais assume a tarefa de explicar aos seus alunos questões relativas a vocabulário ou estruturas gramaticais. Os resultados sugerem que, de modo geral, os gestos utilizados pelo professor contribuem para o significado dos enunciados de dois modos: os gestos operam em conjunto com a fala para a criação tanto de significado referencial quanto pragmático. Outrossim, observa-se que os gestos desempenham vários papéis específicos no que diz respeito às necessidades do evento comunicativo em que são utilizados. Por fim, a análise demonstra que os tipos de gestos produzidos pelo professor variam não em função do tipo de explicação – explicação de vocabulário em comparação com explicação de estrutura gramatical – em que ocorrem, mas em função do grau de concretude do objeto do discurso explanatório.
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Introduction

The need to study gesture in the EFL classroom

> The hand at rest is beautiful in its tranquillity, but it is infinitely more appealing in the flow of action. […] When the hand is at rest, the face is at rest; but a lively hand is the product of a lively mind. The involvement of the hand can be seen in the face, which is in itself a sort of mirror to the mind. One of the saddest sights there is is to watch the hands of the mentally disturbed. When the brain is empty, the hands are still. (Napier, 1980, p.4)

Segment 1. (from **10_L1_VE_Jaws**[1])

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01. S:        'Jaws'?
02. T:        ((teacher remains silent))
03. S:                   Ah. (8.1) ((sts. on task))
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At first glance, the segment above can hardly qualify as a dialogue or a piece of dialogue. Especially if one thinks of a dialogue as comprehending an exchange of information carried out chiefly by means of words. What we see in the transcript is that only the student seems to be doing the talking, the teacher remaining silent throughout. Of course, communication must also be taking place with the aid of some semiotic device or tool other than language, or speech, to be more precise. Were it not so, the brief exchange transcribed above would possibly have gone astray, which is not the case, as we can grasp from the student's confirmation in her second and last turn at talk ("Ah.", in line 03). Therefore, what is it, then, that has played a role in enabling communication to occur between these two interactants? Obviously, the analyst has been economical when transcribing the exchange. Contextual information, which could have been given as analyst's comments in brackets, has deliberately been omitted from the excerpt

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[1]This segment, which has been purposely modified here, is further analysed in section 2.5.3, for different purposes. Information on the full episode from which the segment has been taken is provided in Chapter 3.

above, with the aim of drawing attention to the issue of nonverbal communication, or communication that is carried out through media other than language, since this nonverbal aspect of communication might have gone unnoticed or have been given less importance than it seems to deserve.

What has actually taken place in the exchange chosen to start this dissertation is that part of the communication that has ensued has been realized by gesture instead of speech. The student had been engaged in a reading task, when, puzzled by a new word, she turns to the teacher for help, thus interrupting the activity for a short while. Instead of asking a fully developed question, perhaps because she does not wish to disturb her classmates, who are working individually on the same task, she only asks "'Jaws'?", in line 03. The teacher looks at the student and holds his own jaw with his left hand, and then, opens and closes his mouth. After the student demonstrates that she has understood, the teacher smiles. The student then goes back to the reading activity. Thus, given the nature of the task on which students are engaged, the teacher and the student manage to keep their exchange as private as possible in a way that the other students remain on task. This has only been possible thanks to the student's shortened question and modulated voice and to the teacher's gesture, which was performed in silence. Figure 1 presents the meaningful part of the gesture used by the teacher:

Figure 1. The teacher holds his own jaws with left hand and makes biting motion so as to make salient what he is drawing attention to.

By demonstrating the relevance of gesture in a short communicational exchange, the example above is meant to be a starter to the introduction to the thesis that I turn to in what follows.

1.1 Background of research and statement of the problem

This dissertation is an investigation of the use of gestural action that one Brazilian teacher of English as a foreign language (EFL) performs when elaborating vocabulary and grammar explanations in collaboration with his students in the classroom environment. The research is to be informed by the gesture theory developed by Adam Kendon (2004, 1995, 1994, 1990, 1988, 1980, 1973 and 1972) and by sociocultural theory, or SCT, for short. The former is intended to provide the framework for explaining the gesture phenomenon and its relationship with speech, whereas the latter is intended to offer the analytical tools for the interpretation of gestural action vis-à-vis its specific context of occurrence, viz. the foreign language education environment.

In the past three decades, there has been renewed interest in the phenomenon of gesture as a fundamental component of human communication, and a consequent increase in the amount of research carried out in the area. The study of gestures owes much of its current state to the efforts of David McNeill (2000, 1992 and 1985) and Adam Kendon (ibid.). During approximately the same period of time, motivated by an interest in the processes as well as in the types of interaction involved in the teaching and learning of foreign languages, a number of researchers (Lantolf, 2006) have directed their efforts towards applying a neo-Vygotskian – another expression for Sociocultural Theory – theoretical framework in their investigations of second language learning and teaching, on the grounds that this theory offers the adequate tools for the investigation of both the intrapsychological and the interpsychological dimensions of learning, in addition to conceptualizing both dimensions as complexly interdependent and assigning language a fundamental role in linking them.

Recently, the growing interest in the issue of gestures has also begun to have some influence in the area of second language development research, as can be attested by the work of such researchers as Lazaraton (2004), McCafferty (2002), McCafferty and Ahmed (2000), Negueruela, Lantolf, Jordan and Gelabert (2004), and

Rodrigues (2005), to name but a few. Interestingly, much of the research on the role of gesture in the context of second language development has been carried out from the perspective of sociocultural theory (Rodrigues 2005; Negueruela et al, 2004; McCafferty, 2002; McCafferty and Ahmed, 2000), possibly due to its emphasis on the role of language and symbolic tools in cognitive and cultural development.

However, a close reading of some of the studies mentioned in the previous paragraph reveals an inclination towards the adoption of categories that come from the theory developed by McNeill (2000, 1992, 1985). This appropriation in itself is not problematic. What does seem complicated, at least to a certain extent, is the fact that McNeill's framework seems to have been adopted irrespectively of the focus of the research. In other words, McNeill's theory has been used to explain the role of gestures in studies that focus both on the intrapsychological, or cognitive, and the interpsychological dimensions of L2 development. In enumerating the current lines of inquiry in the gesture field, McNeill (2000) explicitly locates his own line of investigation within a cognitive arena concerned with intrapsychological matters. In an apparent contrast to this orientation stands the line of research pursued by Kendon (2004), which seeks to explicate gestural action from an interaction perspective.

In a piece of research that I conducted for my MA thesis (Rodrigues, 2005) I relied on the gesture typology provided by McNeill (1992) in order to investigate the gestures of one EFL teacher during episodes of vocabulary explanations. I was able to find out that the teacher investigated resorted to gestures for several reasons, which included the illustration of the meaning of newly introduced lexical items. However, since my intention was to look at gesture as it was produced for the benefit of interlocutors, I felt that the framework and the typology provided by McNeill (ibid.) did not allow me to understand the role of gesture in the construction of utterance meaning, especially because the definition of gesture that I adopted from McNeill (ibid.) did not cover gestural action whose function was other than illustrating the meaning of co-occurring speech.

Given the points raised in the previous paragraphs, the present study proposes to investigate the role of gestural action as it occurs in episodes of explanation in the EFL classroom from the perspective of the theory developed by Adam Kendon. In the section of this work devoted to the review of the relevant literature, movements are made with a view to framing the object of analysis and establishing the standpoint from which it shall be investigated. Also, I find it necessary to interpret the findings of the study in the light of SCT, to the extent

that it has been integrated into the second language research arena. However, SCT is also the theoretical framework that I employ to show in which ways McNeill's and Kendon's perspectives are complementary and the manners in which they differ. Thus, I offer an outline of SCT as both the theoretical framework against which to explicate the gesture theories in question and in the light of which gestural action in the EFL classroom will be ultimately interpreted. Then, the principles of the theories of gesture are presented.

1.2 Objectives of the study

This dissertation has both a theoretical concern, namely choosing an adequate theory to approach the gesture phenomenon in the context selected and assessing the import of gesture as a semiotic tool, which is tackled in the chapter devoted to the review of the literature, and an empirical one, which is related to an investigation of the nature of the teacher's gestures in the context of his explanatory discourse and the different ways in which his gestures are related to his talk, to the content of the explanation and to their context of use. The need for choosing a theoretical perspective from which to study gesture, as already suggested, is grounded on the fact that a substantial part of the research on gesture related to the FL classroom context and FL teaching and learning has applied the categories provided by McNeill, which have a psycholinguistic background and were proposed with the intent of capturing the relationships that gesture holds with thinking and with language. Since my intention is to analyse gesture in its public manifestation and as a symbolic product fashioned for the benefit of interlocutors (learners in one particular EFL class), I need to turn to a theory that provides both the adequate categories and a coherent framework within which these categories fit. This leads me to choose the gesture theory developed in the works of Kendon (2004; 1995; 1994; 1990; 1988; 1980; 1973; 1972) to inform the study that I report in the present dissertation. Additionally, given that my personal way of looking at classroom processes and behaviour is informed by SCT, I deemed it necessary to demonstrate the feasibility of working under the assumption that gesture is a symbolic tool that serves various purposes in the L2 classroom environment. As will be explained in more details in chapter 2, within Sociocultural Theory (henceforth SCT), language as it is actualized in speech is the main semiotic tool that we humans have at our disposal for mediating our relationship with others and with

ourselves. Although not an empirical concern of this study, an attempt is made in chapter 2 to demonstrate that and illustrate how gesture, either in isolation or in conjunction with speech, may play the role of a symbolic tool in communicational events where participants interact face-to-face. These theoretical concerns having been set in Chapter 2, there remains the need for a detailed investigation of the nature and the roles of the teacher's gestures in the episodes selected for the study[2]. The following are the specific objectives of the empirical investigation that has been carried out for this dissertation:

1) to identify the kinesic components of the gestures produced by the teacher and to demonstrate that the parts that compose gesture may lend themselves to different combinations;

2) to identify the general types of gestures that the teacher employs when explaining vocabulary or grammar. In other words, the objective was to find out in which ways the gestures used by the teacher aid in the attainment of utterance meaning;

3) to unveil the particular contributions that gestures provide to the utterances they are a part of and to the episodes in which they occur. Although, the second objective already aims to find out the functions of gesture in the context selected, a deeper analysis was needed that would reveal the specific roles played by gesture as regards the highly specific nature of its context of occurrence, namely, vocabulary and grammar explanations;

4) to find out in which ways the gestures used by the teacher relate to the content of the explanation being offered. My concern here was whether there existed any sort of relationship between the type of gesture used and the context wherein it was used, and with the actual object of explanation, regardless of whether it was explanation of the meaning of a vocabulary item or of a grammar structure.

In order that the just listed objectives could be achieved the following research questions were asked:

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[2] Information regarding the participants in the research as well as the context of research can be found in Chapter 3.

1) What types of speech and gesture configuration, that is, variations in gesture performance, can be found in the discourse analysed?

2) What are the general functions of the gestures used by the teacher as he explains vocabulary or grammar structure? Do the findings provide a firm ground on which to base the claim that gesture use varies in relation to the specificity of the explanatory discourse, that is, vocabulary explanation, as opposed to grammar explanation?

3) What are the specific contributions that gestures bring to the explanatory discourse that they help construct?

4) How are the gestures used by the teacher related to the object of his explanatory discourse?

1.3 Organization of the chapters/dissertation

In Chapter 2, I offer an outline of SCT – the theory chosen in this work to explain how teaching and learning take place – where the concepts of the intrapsychological and interpsychological dimensions of cognitive and cultural development are explained; then the study of gesture is located within the wider field of nonverbal communication; a brief presentation is offered of the current main lines of inquiry in the field of gesture studies; next, a comparative presentation is made of McNeill's and Kendon's ideas on gesture, which is followed by a test of both theories against some examples so that it can be demonstrated why Kendon's framework has been adopted to inform the present study; after that, I offer a discussion whereby I attempt to demonstrate that gesture is as much a semiotic tool as verbal language is and as such has a decisive role in the mediational work that takes place in the L2 teaching and learning environment; then, a brief review is offered of a number of L2 studies concerned with the role of gesture, where I draw attention to some points that have not been addressed by L2 studies of gesture, thus situating the present investigation; subsequently, an outline is made of the concept of explanation in the foreign language education area.

Chapter 3 provides a description of the steps that have been taken in the execution of the study. Detailed information is offered both on data collection techniques and on the steps taken for data analysis. Since the material collected initially in the classroom was not the final data

that was subjected to analysis, a description is provided of how this material has been filtered and segmented into pedagogic activities and episodes so that only the gestures occurring within explanatory discourse episodes could be transcribed, annotated and analysed. Information is also provided as regards participants and setting.

In Chapter 4, I present the analysis of the data collected in the classroom described in the method chapter. The analysis aims to answer the four research questions listed previously. The first part of the analysis aimed at a structural description of the gestures encountered in the data, whereas the remainder was devoted to the study of the functions and uses of gestures in the explanatory discourse episodes.

Chapter 5 summarizes the findings of the research, discusses a few pedagogical implications, and draws attention to some limitations to be found in the study and also proposes how future research might contribute to the understanding of the role of gesture in the L2 classroom.

2

Weaving theories together

> Communicative actions and events are directly perceived, and carry deep meanings at emotional and intuitive levels (Vygotsky 1978). However, these direct perceptions of meanings in the environment – 'firstness' in Peirce's scheme – are combined with, folded into, and integrated in social, cultural, and symbolic meanings that are largely brought along and shaped by language itself. (van Lier, 2000, p. 258)

Introduction

The current chapter reviews the literature that has been deemed relevant for the analysis to be reported in Chapter 4. As stated previously, my object of study is the gestural action of one EFL teacher during explanatory discourse episodes where, in collaboration with his students, he formulates explanations of vocabulary items unknown to students or difficult grammar structures, regardless of whether the explanation is of meaning, usage or collocation. To approach my object of analysis, I need both a theoretical framework that will enable me to understand the gesture phenomenon itself and a theoretical framework that, representing a particular view of general education and L2 teaching and learning will allow me to look at gesture from the perspective of L2 teaching and learning. In the present chapter, sociocultural theory, the latter framework, will be presented first, for it will pave the way for the discussion of the two main gesture theories and to assess the ease with which gesture may be brought into the sociocultural theoretical framework as a semiotic tool apt for mediating both intrapersonal and interpersonal relationships. By doing so, I hope to establish the choice of a theoretical framework that will allow me to look into the gesture phenomenon in a way that is coherent with both the intents of my research and with the broader framework on which I rely to understand L2 education. Then, I offer a brief presentation of the main lines of inquiry in the area of gesture studies and carry out a comparative discussion of the two of those that have been most influential.

Therefore, the chapter is organized as follows: section 2.1 presents the main tenets of SCT; after that, with the intent of verifying

the plausibility of studying gesture from a SCT perspective, section 2.2 proposes a discussion of the role of gesture as a semiotic tool and establishes links with the concept of mediation; section 2.3 situates gesture studies within the field of nonverbal communication studies; then, section 2.4 makes an outline of some of the main lines of inquiry in gesture studies; next, section 2.5 provides a comparative discussion of the gesture theories of McNeill (1992) and Kendon (2004) and explains the choice of the latter to guide the investigation of gesture in the EFL classroom; after that, section, 2.6 offers a brief review of L2 research on gesture; then, section 2.7 reviews some studies on explanations and attempts to point to some problems regarding those studies that have looked at gestures and explanations; section 2.8 is a summary of the chapter.

2.1 Sociocultural theory

Sociocultural theory attempts to explain how people organize their minds and use them for living (Lantolf & Pavlenko, 1995). It examines what Vygotsky referred to as higher forms of mental activity, that is, the different forms of consciousness, which encompass such functions as voluntary attention, logical memory, rational thought, the planning, execution and monitoring of mental processes (Mitchell & Myles, 1998).

In order to explain how higher forms of consciousness are developed, Vygotsky proposed what came to be known as his "general genetic law of cultural development," according to which,

> Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition. We may consider this position as a law in the full sense of the word, but it goes without saying that internalization transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underlie all higher functions and their relationships. (Vygotsky, 1986, p. 163)

This law of cultural development is the basis of the theory that

Vygotsky developed. One very important aspect of the theory that is only implicit in the law just quoted is that, for Vygotsky, the human mind is mediated by symbolic tools or signs (Lantolf & Appel, 1994, p. 7). In order to explain the concept of mediation, Vygotsky establishes a parallel between physical tools and symbolic tools. Generally speaking, tools are employed in order to mediate our actions upon objects. However, physical tools (e.g. hammers, knives, saws) serve to establish a link between our actions and the physical world, whereas psychological tools are used to mediate our relationships with others and with ourselves: "psychological tools are internally directed at organizing and controlling our mental activity in ways that would not be possible in their absence" (Vygotsky, 1978, p. 55).

In accordance with Vygotsky (1978), the most important psychological tool for the mediation of our mental activity and for the management of our relationship with others is language. Language is seen to have two functions in mediation, namely, the communicative, or interpsychological function, and the egocentric, intrapsychological function, which mediate our relationship with other individuals and with ourselves, respectively. Language, as all the other psychological or symbolic tools that human beings may employ, needs to be learned by the child in the same way as the many higher mental functions previously mentioned are learned.

Furthermore, according to Lantolf and Appel (1994), a fundamental point in Vygotsky's theory is that, in the learning process, responsibility is usually distributed between two people. A more skilled person undertakes to assist a not yet capable person in the performance of a particular task, the complexity of which is beyond the individual's current abilities. Such assistance is mediated chiefly by language. A child is deemed to have attained a certain level of development when s/he reaches school age, the *actual developmental level*, wherein s/he is capable of functioning, that is, carrying out tasks and solving problems without the help of a more skilled individual (the expert). Vygotsky (1978) demonstrated that beyond the actual developmental level, the novice can also successfully engage in problem-solving activities, only now s/he needs to be assisted by a more knowledgeable person. This level Vygotsky called the *potential level of development*.

Moreover, Vygotsky reasoned that if learning was to be effective, it should take place neither in the actual developmental level nor ahead of the potential level of development. He proposed that learning would be more effective if it took place in the *zone of proximal development* (henceforth ZPD), which is

the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 86, *italics* in original)

The process through which a child develops higher psychological functions, or higher forms of consciousness, has its origins outside the individual, in the dialogic interaction between the child and the adult, or a more capable peer. Additionally, that process "…is directed by language as the most powerful of semiotic systems" (Lantolf & Appel, 1994, p. 9).When the child engages in learning by carrying out tasks and problem-solving activities under the guidance of an expert, s/he goes through a process called *other-regulation*, in which the expert is vested with most of the responsibility for the actions to be taken. When the child has managed to internalize or appropriate the new knowledge or skills, s/he is said to have attained *self-regulation*. At this point, the child is able to function independently. Importantly, when self-regulation is attained, speech has played an effective part in helping interactants to achieve "states of intersubjectivity" (Rommetveit, 1979, p. 94) in which they have come to have a shared or mutual understanding, in addition to an agreed-upon focus on an object or topic (Wertsch, 1985).

It is necessary to note that Wood, Bruner and Ross (1976) proposed the concept of *scaffolding* as a theoretical construct that identifies the qualities of the differential dialogic assistance that the child is offered by the expert as the form of other-regulation which they deemed most conducive to learning during interaction within the ZPD. According to these authors,

This scaffolding consists essentially of the adult "controlling" those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence. The task thus proceeds to a successful conclusion. We assume, however, that the process can potentially achieve much more for the learner than an assisted completion of the task. It may result, eventually, in development of task competence by the learner at a pace that would far outstrip his unassisted efforts. (Wood et al, 1976, p. 90)

Through experiments, Wood, Bruner and Ross (1976) identified the following six scaffolding functions: recruitment of attention or

interest in the task, reduction in degrees of freedom, direction maintenance, marking critical features, frustration control, and demonstration of an idealized version of the solution to the problem[3]. These might possibly be viewed as labels that the authors devised to qualify the speech acts that constitute the body of scaffolding.

As stated previously, speech has two functions that play a fundamental part in the interaction that takes place within the ZPD, a communicative function and a cognitive function, thus constituting a powerful semiotic mediating tool in both interpsychological and intrapsychological processes, respectively. On the one hand, speech serves a communicative function when it is strategically used by the expert and the novice in such a way that the latter's attention is guided throughout the completion of a given task, as when the expert points out saliencies or relevant aspects of the environment, for instance. On the other hand, in the course of learning, as the child appropriates new knowledge and skills, s/he is usually observed to voice self-directed statements, questions, and directives – private speech – aimed at regulating his or her own mental activity and physical actions. Initially, these utterances share structural similarities with those produced by the expert assisting the child within the ZPD. Eventually, private speech loses its structural properties and "goes underground" as inner speech (Wertsch, 1991, p. 41), that is, it becomes verbal, propositional thought. According to Mitchell and Myles (1998), "the fully autonomous individual has developed inner speech as a tool of thought, and normally feels no need to articulate external private speech" (p. 148).

Vygotsky (1978) asserts that language is primarily used for the mediation of the interaction between the child and the adult – insofar as the educational context is concerned. Nonetheless, he claims that, at some point in the child's development, language, as it becomes private speech and then transforms itself into inner speech, takes on the additional functions of organizing the child's mental activity. In other words, speech that was initially directed at mediating the interaction of child/adult dyads becomes a tool for the mediation of relationships with the self.

Thus, inner speech is speech that has lost its structural

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[3] Although the concepts presented so far were mainly derived from studies of children, Vygotsky acknowledged that, when in the face of tasks of enhanced complexity, the adult individual tends to revert to "child-like knowing strategies to control the situation and gain self-regulation" (Lantolf & Appel, 1994, p. 15). This process is termed the *principle of continuous access* by Frawley and Lantolf (1985). Thus scaffolded teaching, for instance, may be employed to assist adults learning a foreign language.

similarities with social speech and has taken on new properties. According to Vygotsky (1934), the properties of inner speech may be assigned to two groups: syntactic and semantic. Inner speech is syntactically characterized by abbreviation. In order to understand inner speech, the author analysed the characteristics of private speech, which, in his view, is the immediate antecedent of inner speech. He observed that private speech undergoes abbreviation through a process of *predicativity*. Children were observed to utter self-directed statements or questions of which the subject and words associated with it were deleted in favour of the predicate and other words related to it. The conditions for abbreviation to occur were provided by either the linguistic or the extralinguistic context.

Vygotsky listed three semantic properties of inner speech. These are the predominance of "sense" over "meaning," "agglutination," and the infusion of sense into a word. Here it becomes necessary to distinguish between the "sense" of a word and its "meaning". According to the author, "the sense of a word [….] is the aggregate of all the psychological facts emerging in our consciousness because of this word" (1934, p. 305), whereas "meaning is only one of the zones of the sense that a word acquires in the context of speaking" (ibid.). Vygotsky's use of the term 'agglutination' is equivalent to that in studies of language typology (Wertsch, 1985, p. 126) that classify as "agglutinative" languages that strongly rely on the morphological process of affixation in order to create new meanings. As for word sense, it is more dynamic than word meaning, since it is enriched owing to its interaction with its linguistic context. This amounts to saying that a word – an inner speech word, to be more precise – is "infused with sense" (ibid.).

In sum, inner speech is verbal, propositional thought that, despite having lost structural properties of external speech and having taken on characteristics of its own, is the basis of the microgenesis of speech, since, according to Vygotsky, it is a microcosm of consciousness, a minimal idea unit that contains traces of a whole composed of speech and thought that, given its internal tension, is capable of triggering speech production. Therefore, Vygotsky considered inner speech as the genuine unit of analysis of consciousness. However, it is important to note that Zinchenko (1985) challenged the validity of inner speech as a unit of analysis, proposing instead *tool-mediated goal-directed action* as a better alternative for the study of consciousness. Additionally, Wertsch (1998) saw in the Bakhtinian concept of 'utterance' a good possibility for the study of consciousness, because an utterance, as Bakhtin (1986)

theorized, is always dialogical.

David McNeill, who, according to Lantolf (2000), is one of the most important current researchers doing work in the microgenetic domain, has chosen the notion of inner speech as the starting point for his theory of the 'growth point', which seeks to explain how gesture, speech, and thought are interrelated. This issue is again taken up in 2.5, where I present and compare the theories of McNeill and Kendon. Having introduced the main tenets of SCT, I turn now to a discussion of gesture vis-à-vis the concept of mediation.

2.2 Gesture and mediation

The objective to be attained in this section is to propose that gesture, whether occurring together with speech or on its own, could be considered a semiotic tool in the Vygotskian sense, given the diversity of uses that it can be put to by interactants seeking to suit their particular communicative needs in the activities or events that they may be taking part in. Guiding the discussion is the question whether we can claim for a place for gesture among semiotic tools and, if the answer is positive, what evidence there is that could be raised in favour of this claim.

In other words, in the current section, an attempt is made to propose that, and to demonstrate to what an extent, *gesture* takes part in the process of *mediation*. In the lines that follow, the concept of mediation is presented again, some of its relevant aspects are again examined[4] and then, some examples are briefly discussed with a view to unveiling possible links between gesture and mediation.

Traditionally, the concept of *mediation* is explained by means of an analogy with the use of physical tools that human beings employ in order to bring about changes in their environment. Tools serve to establish an indirect link between humans and the world, or particular elements of it that necessitate changing or transforming so that some human need may be fulfilled. Examples related to actions carried out on nature, for instance, include the use of saws, chainsaws, chisels, hammers, and mallets, all of which are tools employed in the process of furniture making, from the cutting down of trees through to the assembling of the parts of a piece of furniture. Our actions on nature are *mediated* by these tools. It could be further argued that it is the very use

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[4]Mediation has already been partially dealt with in section 2.1.

of tools that enables us to bring about changes on nature.

Similarly, the relationships that we hold with ourselves and with others – intramental and intermental functioning, in sociocultural theory jargon – are mediated. The difference lies in the fact that in these forms of psychological functioning, the tools that we use are symbolic, not physical, and the mediation that takes place is, therefore, *semiotic*. Moreover, the tools human beings use, whether physical or symbolic, are fashioned to achieve particular purposes and, in addition to being taken on by succeeding generations, are continuously modified to suit the needs of these generations, along a phylogenetic scale.

Despite the .wide use of the term *mediation*, not all of the implications of the concept are usually taken into account (Hasan, 2005). Hasan proposes an illuminating semantic analysis of the concept, which I will try to reproduce here in order to position my study of gesture. According to this author, if we consider that *mediation* derives from the verb *mediate*, then we are in a position to have within sight all of the elements involved in the process of mediation. Any process of mediation requires a number of participants and circumstances[5]. The participants are the *mediator*, that is, the person who does the job of mediating, the object of mediation, which is the *content* or *semiotic force* conveyed through mediation, and the *mediatee*, that is, the person to whom "…mediation makes some difference" (ibid., p. 136). The circumstances for mediation to occur are the *modality*, which refers to the semiotic means by which mediation is realized, and the *site* or location wherein the process of mediation may be brought into being.

Applied to the context of the present investigation, the concept of *mediation* as analysed previously would yield the following configuration: as for the participants, the teacher, because he is the more knowledgeable person regarding the object of study[6], is the *mediator*, the knowledge construction of aspects of the foreign language is the *content* of mediation, and the learners are the *mediatees*; as for the circumstances, the *modality* is language – although it is the very pre-eminence of language that is somehow questioned here, as will be shown shortly – and the *site* is one EFL classroom (described in Chapter 3). It is important to note that, according to Hasan (ibid.), most studies of mediation focus either on the content or on the site of mediation. As far as the current investigation is concerned, the scope of the analysis, as previously stated (Chapter 1), is the gestural action of the teacher in

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[5]Here only the components of *semiotic* mediation will be tackled.

[6]It should be clear, however, that the *mediator* role can be played by peers.

situations where he explains meaning, form, or use of vocabulary items and grammar structures.   In other words, the study focuses on the *mediator* and on the *modality*. This is not to deny, however, that for the analysis carried out in the present study, all the remaining components of mediation needed to be taken into account, even if only occupying the background.

Language, that is verbal language, is considered to be the most powerful semiotic tool for mediation, both of intramental and of intermental processes. However, although this is not to deprive language of that position, I wish to propose that, in the face-to-face interaction between teacher and students in the contexts analysed in chapter 4, gesture also plays the role of a semiotic tool. In order to make things clearer, it is necessary to say that although language is posited to be the most powerful of semiotic tools, when it is put to use in communication, it is actualized in the form of utterances, and utterances are, in the words of Lantolf and Pavlenko (1995), "[…] the dialogic output of real speakers and listeners engaged in real goal-directed activities" (p. 110) and this "[…] dialogic output arises from culturally formed motives and is embedded in real circumstances." (ibid.). Nonetheless, according to Kendon (2004), utterances can be made of speech, gesture, or of a blend of gesture and speech, and as such, could be said to be the minimal unit of communication in face-to-face interaction. If we look at Segment 2[7], which has already been addressed as Segment 1 in Chapter 1 in a somewhat altered format, we may see more clearly the role of gesture in utterance:

Segment 2. (from **10_VE_Jaws_PA2**)

```
01.S:      'Jaws'?
02.T:      (....................................3.2..................................)
           |~~(0.7)~~***(1.3)***/***|-.-|⁸
           [              GP1           ]
           [                GU1                ]

03. S:                       Ah. (8.1) ((sts. on task))
```

---

[7]Already addressed in Chapter 1.

[8] The symbols used in the gesture annotation are borrowed from Kendon (2004). The symbols ~~ stand for the preparation phase of the gesture, the ** stand for the meaningful portion of the hand action, and the symbol -.- stands for the withdrawal of the gesturing hand. GP1 means "gesture phrase 1" and GP2 means "gesture unit 1", the square brackets identifying boundaries of gestural action.

In line 01, there is an instance of speech – language as it is put to use in this context – acting as an utterance. A student engaged in a writing task and not knowing the meaning of a word, asks the teacher for help. Interestingly, as already explained before, she does not ask a fully elaborated question such as "What does the word *jaws* mean?" She simply asks "`'Jaws'?`" and, given the context in which the utterance is produced, this is understood by the teacher. However, when it comes to the teacher's response, we have a different picture. What the transcript shows us is that the teacher remains silent (line 02). Nonetheless, in line 03, the student says "`Ah.`" in a way that she seems to be showing to have understood. But what she has understood was not communicated in words by the teacher. In line 02, although the teacher remained silent, he produced a complex gesture[9] that clarified the meaning of the word 'jaws' to the student. Thus, if this extract can be considered a short exchange in which a problem is solved, then we might say that the three moves that compose it are constituted of utterances that have been successful in establishing communication, and of the three utterances, two are fashioned in the language modality and one is realized in the gestural modality, in a somewhat equal status. The gesture used by the teacher in this exchange enabled him to meet his communicative needs, allowing for interaction to keep going and, by the same token, the stream of activity wherein the exchange takes place. If the first, verbal, move in the exchange led to a response on the teacher's part – a gestural response – the teacher's gestural contribution triggered a further move by the student who initiated the interaction. In sum, gesture seems to have been drawn upon as a semiotic tool just as much as language has. The meaningful part of this gesture is represented in Figure 1 (p. 19), already shown in Chapter 1:

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[9] This gesture is also studied in section 4.3.1.5.

Figure 1. The teacher holds his own jaws with left hand and makes biting motion so as to make salient what he is drawing attention to.

It has been recently suggested that semiotic mediation may be of two kinds (Wertsch, 2007): *explicit* and *implicit*. According to Wertsch,

> […] mediation […] is explicit in two senses. First it is explicit in that an individual, or another person who is directing this individual, overtly and intentionally introduce a "stimulus means" into an ongoing stream of activity. Second, it is explicit in the sense that the materiality of the stimulus means, or signs involved, tends to be obvious and nontransitory. (p. 180)

An example of explicit mediation is the use of notes taken on a piece of paper in order to assist memory when, for instance, an individual needs to remember a list of items to buy from the supermarket. On the other hand, as far as *implicit* mediation is concerned one of its main characteristics

> […] is that it involves signs, especially natural language, whose primary function is communication. In contrast to the case for explicit mediation, these signs are not purposefully introduced into human action, and they are part of a preexisting, independent stream of communicative action that becomes integrated with other forms of goal-directed behaviour. (ibid., p. 181)

If language is seen as a sign system that serves the purposes of implicit mediation, something different seems to be the case in what

concerns gesture, especially those analysed in this study. Consider Segment 3 (also analysed as Segment 36 in section 4.4.2.1, Chapter 4):

```
Segment 3. (from 16_VE_Curly_PA4)

01. Laura:   I would love to have curly hair.
02. T:       You would? ((nodding))
03. Laura:   Uh hum.
04. Carlos:  Curly?
05. Laura:   Yeah.
06. T:       ((teacher gestures only))
             |~~~~
             [ GP1
             [ GU1

07. Carlos:  What does
08. T:       ((gesturing))
             ~~~~~~~~~~~~~
               GP1 (cont.)
               GU1 (cont.)

09. T:                 (………1.1………)
                       *******|-.-|
                          GP1  ]
                     GU1 (cont.) ]

10. Carlos:                   Ah curly, okay.
11. Laura:   I don't know, because you can straighten
12.          sometimes (xxxxxx).
13. Silvana: Yeah.
```

In this extract, which is similar to the one in Example 4.3, a student lets the teacher know that he is not familiar with the meaning of a word ("Curly?", line 04) and the teacher, having turned to face the student and without saying a word, performs a gesture whereby he offers the student a visual representation of the meaning of 'curly', the stroke phase of which is illustrated in Figure 2 (p. 21):

Figure 2. With forefinger extended teacher models a curl of hair.

Because this gesture is made in the absence of speech and thanks to the unconcealed and somewhat exaggerated manner in which it is fashioned, it is made explicit not only to the student in question, but also to all the other students who happen to be looking at the teacher. Given the fact that the student shows that he has understood the meaning of the word 'curly' – in line 10, he says "Ah curly, okay." – we might suggest that the gesture used by the teacher has played a role in mediating the interaction and this has been accomplished in an *explicit* way. This might put gesture in a different position from language, since language is believed to take a part in *implicit* mediation. However, consider Segment 4 (also studied in section 4.2.2.1, Chapter 4):

```
Segment 4. (from 2_VE_Brunette_PA1)

06.Laura:   (xxxxxxxx) ah Johnny Depp, for example,
07.         erm I like erm erm you know, dark,
08.         olive-skinned and brunette guys.
09.T:       No, brunette only for girls=
            |~~*******|~~~~~~~~~*********|
            [   GP1  ][   GP2          ]
            [              GU1
```

```
10. Laura:                                    Ah, for girls!?
                                             -.-.-.-.-.-.-

                                              GU1 (cont.)

11. T:        =yeah.
              -.-.-.|

               GU1  ]

12. Laura:    How do you say? Brown- hair guys?
13. T:        Brown-hair guys. ((nodding))
```

In this excerpt, a student makes incorrect use of the word 'brunette' and the teacher instantly corrects her by means of a metalinguistic comment: "No, brunette only for girls" (line 09). As the teacher says "for girls", he turns the palm of his left hand up in the direction of the student as if to mark that part of the discourse as an offer (GP2). This gesture, although one cannot say it is not perceived by the teacher's interlocutor, in which case it would have been useless, is not performed in an overt manner. Rather, it seems to be fitting nicely with the words it accompanies so that an ensemble is formed the objective of which is to counter the mistaken use of the word by the student, rather than to provide a visual image of the meaning of the word at issue. In other words the mediating role played by gesture in this example seems to be *implicit*, since the gesture is not foregrounded. A visual representation of this gesture is provided in Figure 3 (p. 23):

.
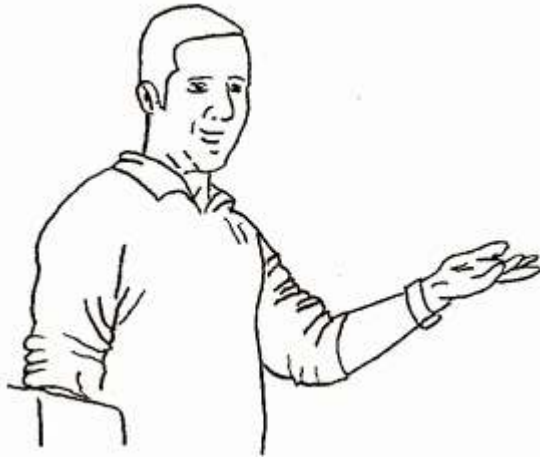
Figure 3. Palm-up open hand used to mark portion of speech as an offer, or something to be taken into consideration.

Behind the concept of mediation, especially mediation by signs, or symbolic mediation, lies the fact that for it to be deemed successful, during a communicative event some degree of mutual understanding has to be attained, that is, *intersubjectivity*[10] must be achieved in order for mediation to be effective. This seems to have been the case with all the examples studied so far, since in all of those, interactants manifest their comprehension of what the teacher communicates either in speech or in gesture. The attainment of mutual understanding seems to be plain in Segment 2 (the stroke phase of this gesture is depicted in Figure 1, on pages 02 and 19, respectively), which I present again, for the sake of illustration:

Segment 2. (from **10_VE_Jaws_PA2**)

```
01.S:        'Jaws'?
02.T:        (...................................3.2....................................)
             |~~(0.7)~~***(1.3)***/***|-.-|
             [             GP1             ]
             [             GU1                 ]

03. S:                         Ah. (8.1) ((sts. on task))
```

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[10] See section 2.1 for an explanation of the term 'intersubjectivity".

In this example, the student faces a problem regarding knowledge of vocabulary during a writing task, which is the pedagogical activity in which the exchange takes place. She turns to the teacher for help. The teacher, the more experienced partner in the interaction, explains to her the meaning of the word in question – in gesture. The student demonstrates understanding and goes back to the task. In sum, taken into account the fact that in the beginning of the interaction the student did not know the meaning of the new word she encountered and that in the end she signals that now she knows it, and that after that, the pedagogical activity keeps flowing, since the student goes back to her writing task, we might say that the gestural action of the teacher has been helpful in aiding both interactants to reach a status of *intersubjectivity*.

In order to round off the discussion of *mediation*, I wish to comment briefly on the similarities and differences between language and gesture, insofar as these two are accorded the status of *semiotic tools*. Thus, if, on the one hand, language is considered the chief semiotic tool in mediation because it comprehends a repertory of fully conventionalized forms and a set of rules of combination to organize those forms hierarchically, all shared by a community of speakers, gesture, on the other hand, is no less a semiotic tool than language, since it is also shared by a community of users. What makes gesture different from language is that in the case of gesture, what is shared is not a set of combinatorial rules and a repertory of forms. What is actually shared is, on the one hand, a repertoire of variably conventionalized forms, as in the case, for instance, of emblematic gestures – that is, more or less conventionalized gestures that have a direct verbal translation, such as the rubbing of the tips of thumb and forefinger for expressing 'money' – and a repertory of *techniques of representation*[11] (Kendon, 2004). Moreover, language and gesture, at least as we saw them in the episodes analyzed in this study, far from competing, seem to function in a harmonious manner, with the ultimate goal of enabling interactants to reach mutual understanding.

Having established a link between gesture and the concept of mediation, with special attention to the role of the former as a semiotic tool, I now wish to introduce the topic of gesture. I shall start doing so by showing the place occupied by gesture studies in the field of nonverbal communication studies.

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[11]These will be explained in section 2.5.2.

2.3 Gesture and nonverbal communication

It is only recently that the study of gestures has become an independent field of academic inquiry with an agenda of its own. This may be taken as a sign of maturity that the area has reached. The attainment of such maturity was pointed out by Kendon (2004) to be the launching, in 2001, of "Gesture", a scholarly journal entirely devoted to the field, of which he was one of the first editors.

However, the study of gestures is part of another area of research, kinesics, which, in turn, is one of the subfields of nonverbal communication studies, and as such, has been the focus of systematic scholarly attention since the beginning of the twentieth century, although there are studies that date from as far back as the sixteenth century (McNeill, 1992; Kendon, 2004).

According to Argyle (1972, 1975), the nonverbal signals that humans employ to communicate include *proximity*, *bodily contact*, *orientation*, *appearance*, *posture*, *head-nods*, *facial expression*, *gaze*, *nonverbal aspects of speech*, and *gestures*. The study of these nonverbal signals gave rise to such fields of research as *proxemics*, *haptics*, *oculesics*, *paralinguistics*, and *kinesics*, among others (Birdwhistell, 1970; Argyle, 1972, 1975; Kellerman, 1992).

In accordance with Argyle (1972), nonverbal communication, up to the time when he was writing, had been studied from three perspectives. Some scholars, because they were highly influenced by the advances made by Chomsky (1957, 1965) in linguistic theory, attempted to reveal through minute analysis of the different types of nonverbal communication traces of a structure such as that of verbal language (Argyle, 1975; Birdwhistell, 1970). Other researchers approached both verbal and nonverbal communication as phenomena governed by contextual rules. These researchers obtained their data from field situations that had not been overly affected by their presence or by their research activities (Argyle, 1975). Finally, a third group of researchers believed that the only effective way to study nonverbal communication was through experimentation.

Regardless of the approach adopted, studies had shown that different types of nonverbal communication had a number of functions, which included the management of the immediate social situation, the sustaining of verbal communication, and the contribution of meaning to utterances. Moreover, the meaning of utterances was found to be affected by at least two types of nonverbal signals, the prosodic features of spoken discourse and the kinesic behaviour of the speaker. The latter

interests us the most, since it encompasses the types of hand and arm movement[12] with which the present study is concerned – 'gesture'. Kinesic signals, which include posture, tactile behaviour, facial expressions, looking, and gestures, are intimately connected to verbal behaviour (Knapp & Hall, 1992). They may repeat, contradict, substitute, complement, highlight, and regulate verbal behaviour (Argyle, 1975; Knapp & Hall, 1992). Gestures seem to hold a privileged position as compared to the other types of kinesic signals, since they may relate to speech in all of the aforementioned ways, in addition to having the capacity to develop into a fully codified system resembling verbal language – in the necessary circumstances, of course (McNeill, 1992; Kendon, 2004).

Although I have been referring to nonverbal elements of communication as *signals*, the use of such terminology cannot remain unquestioned. There are, according to Argyle (1975), at least two reasons why the treatment of elements of nonverbal communication as *signals* needs to be elucidated. The first one refers to the way in which participants relate to such nonverbal elements. If the speaker, or sender, as it was fashionable to say at the time Argyle was writing, had at least some degree of conscious control over and awareness of his/her own nonverbal behaviour, being able to formulate verbal accounts to explain such behaviour, and if the interlocutor, or the receiver, was able to notice that nonverbal behaviour and perceived it as meaningful, that is, if s/he perceived it as part of the "message", then the element of nonverbal behaviour could be considered as "communicative" and be referred to as a "nonverbal signal" (ibid.).

Argyle also raised the question why humans would make use of bodily communication in the first place, since they were endowed with the "power of language" (1975, p. 10), which, according to him, is more elaborate, subtle, and flexible, as compared to the seemingly more primitive signals that make up nonverbal communication, a view that has predominated in most of the major theoretical accounts of language in the twentieth century (for a discussion of this, see McNeill, 1992, 2000; Kendon, 2004). Argyle considers a few of the possible answers to that question. He proposes that humans might make use of nonverbal signals in order to make up for a hypothetical lack of verbal encoding in some areas of our experience. Shapes, for instance, are communicated more effectively when the hands are used than when only speech is

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[12] In this dissertation 'gesture' is defined as meaningful motion of the hand, arms, or the whole body.

available, since there seem to be considerably more shapes and forms than there are words to name them with (Argyle, 1975). This last point, however, may not be true of every language, since, as has been advocated by Talmy (2000), every language affords its speakers a particular way of conceptualizing reality.

Another possible explanation for the use of nonverbal signals is that they are more powerful than linguistic signs for conveying interpersonal attitudes and information about personality. Furthermore, since nonverbal signals are not totally under the sender's control – that is, the actor, in modern jargon (Kendon, 2004) – they tend to be genuine and idiosyncratic (Argyle, 1972, 1975). This, of course, does not apply to all nonverbal signals, given the fact that some of them are much less under control, and therefore, may even not be considered signals in the sense described previously in this section. Moreover, Argyle believes that a focus on some signals may be disturbing, as when a person openly verbalizes his/her dislike of an interlocutor. Finally, the author notes the usefulness of the possibility of conveying information over two expressive modes in such a way that the information expressed in one mode interacts with that conveyed in the other.

The studies reviewed so far in this subsection, as well as those from which they drew substantial information, directly or indirectly paved the way for the advances made in the study of gestures, especially in the theories of McNeill (2000, 1992, 1985) and Kendon (2004, 1994, 1980, 1972). To a certain extent, the theories of gesture that currently enjoy appreciation are a refinement and reinterpretation of the views on gestures as they were investigated as one of the components of kinesics. Having situated the study of gesture within the field of nonverbal communication studies, I now wish to proceed to an outline of the four main lines of inquiry in gesture studies as they are currently developed.

2.4 Some lines of inquiry in gesture studies[13]

As noted by McNeill (2000), the present status of studies on gesture is marked by a division in the interests that motivate scholarly research. These interests reflect both differences in the views regarding the nature of gesture and the objectives to be achieved by the study of it.

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[13]The identification of the main lines of investigation in gesture studies is borrowed from McNeill (2000). Indeed, most of the ideas laid out in this section are based on McNeill's introduction to his book *Language and gesture*.

Currently, studies on gesture may be arranged in four major groups. The first group comprehends studies that relate the use of gesture to *action* (examples are Haviland, 2000; Kendon, 2004, 2000, 1995; Özyürek, 2000; Goodwin, 2000; Furuyama, 2000; Lebaron & Streeck, 2000; Streeck, 2002, 1993; Streeck & Hartege, 1992), that is, an effort is made in order to explicate in which ways gesture plays a role in social interaction, and gestures "are seen as instruments of human communication" (ibid., p. 9). The second group subsumes those studies that, being informed by psycholinguistics and cognitive psychology, seek to throw light into the processes whereby gestures come into being and to understand and explain the relationships that gestures hold with speech as it is produced in realtime (McNeill & Duncan, 2000; Kita, 2000; Nobe, 2000; Mayberry & Jaques, 2000; Levy & Fowler, 2000; Butcher & Goldin-Meadow, 2000; Goldin-Meadow, 2003). In other words, there is a strong concern with finding out what relations exist between gesture, speech and *thinking* – the term 'thinking' is used here in order to highlight the dynamic character of the mental processes with which gestures, in this approach, are believed to be bound at their origin. In the third group, we find research whose aim is to provide computational *models* of gesture production (Kraus, Chen & Gottesman, 2000; De Ruiter, 2000; McNeill, 2000). According to McNeill (ibid.), in this tradition, once the process of gesture production is understood in its totality, researchers must be able to design a model that accounts for that process and, if the model proves to be computational, when it is run, its outputs should allow for comparisons with the gestures and speech that we can encounter in real life situations. The fourth group includes studies that are devoted to the investigation of the use of gestures by signers, that is, by users of such *sign languages* as ASL (American Sign Language) or LIBRAS (Língua Brasileira de Sinais), and to the investigation of the process that leads to the appearance or creation of sign languages (Liddell, 2000; Morford & Kegl, 2000; Stokoe, 2000; Armstrong, Stokoe & Wilcox, 1995; Kendon, 1990, 1988, 1984, 1980; Kyle & Woll, 1985; Bellugi & Newkirk, 1981; Klima & Bellugi, 1979).

One point I wish to highlight is that, though apparently differing in their objectives and approaches to gesture, from a SCT perspective, the first two traditions are complementary rather than mutually exclusive. This is so because, as we saw in the discussion of SCT previously, there are both an internal and an external dimension to our cognitive being and, on one hand, our thinking, although taking shape privately, has its origins in the communicational experiences that we continuously have with others; on the other hand, our gestures and

speech, because they aim to help us to relate to others, are fashioned as symbolic objects for the benefit of our interlocutors, or fellow interactants, and at the same time as material expressions of our momentary cognitive beings (McNeill, 2000). Thus, given that, as stated previously, my personal stance on L2 teaching and learning is based on SCT, of the four lines of research briefly presented above, only the first two are of interest to my study, namely, those concerned with the interpsychological and the intrapsychological dimensions of the processes in which gesture use takes place. Certainly, the objective of my investigation is to understand the nature and the role of gestures used by one particular teacher as he interacts with his students in highly specific EFL classroom situations, which would be enough for me to state that, for my study, I adopt an interpsychological view of gesture.

Nonetheless, I think it wise, instead of providing a detailed account of the four lines of research aforementioned or of moving straight on to a discussion of the one option adopted, to provide a comparative account of both the intrapsychological and the interpsychological perspectives on gesture. I propose to do so by discussing the theories of gesture developed by McNeill (1992) and Kendon (2004), who are the main representatives of the two theoretical perspectives, the intrapsychological and the interpsychological, respectively. The presentation of their theories is followed by a probe into some examples so that it can be empirically demonstrated why one and not the other serves best the purposes of my research.

2.5 The inside versus the outside: choosing the appropriate theoretical stance from which to study gesture in the EFL classroom context

The aim of this section is to discuss the main features of two gesture theories that presently enjoy an academic reputation as evidenced in the number of studies that draw on them (e.g., Holler & Wilkin, 2009; Sekine, 2009; McCafferty, 2008; Negueruela & Lantolf, 2008; Goodwin, 2000; Kita, 2000; Nobe, 2000; and Özyürek, 2000), that is, the theories developed by McNeill and Kendon, respectively, and to choose the one which offers the best tools for analysing the gestures in the explanatory discourse episodes selected for the present study.

2.5.1 Gesture and the inside

One of the two most fruitful theories of gesture in contemporary times, that developed by David McNeill and collaborators (e.g. McNeill, 1992; McNeill, Levy & Pedelty, 1990; McNeill & Levy, 1982) over the past three decades, posits that gesture, or gesticulation, in their own manner of speaking, is part and parcel with speech in the constitution of utterances in face-to-face interaction and plays a highly significant role in the process of communication, rather than being mere embellishments or accompaniments to the speech they are seen to occur with. Therefore, gesture is believed to be co-expressive with its co-occurring speech.

Additionally, and equally important, this theory hypothesizes that the overt connection that one can see between gesture and speech is the result of a dialectic relationship between two seemingly incompatible modes of thinking. Those two modes are believed to take place concurrently prior to the coming into being of those utterances closely accompanied by gesticulation. The first of these modes of thinking is of a linguistic categorial nature while the second one is imagistic. The apparent conflict lies in that linguistic categorial thinking is analytic and linear whereas imagistic thinking is global and synthetic. However, it is the very clash of these two modes of thinking that is posited to be at the origin of the process that leads up to the formation of those utterances that are composed of speech and gesture.

The linguistic categorial portion of thought, during utterance production, is spread out in a segmented, linear fashion. Meaning is broken down into small, discrete parts and transformed into words and these, in turn, are put together in a hierarchical manner. On the other hand, in utterance production, the imagistic component of thought is conveyed through gesticulation in a way that it seems a visual or visible version of the mental image is produced concurrently with speech. And this version is regarded as having the same characteristics of the mental image it renders visible, that is, it is global-synthetic and noncombinatoric.

However, according to McNeill (1992), as an utterance unfolds "The image arises first and is transformed into a complex structure in which both the gesture and the linguistic structure are integral parts." (p. 29). The most important piece of evidence for this claim is suggested to be the way gesture phases are integrated with the speech they accompany. Prior to the stroke, which is the most meaningful part of the gesture, there usually is a preparation phase in which the hand moves to a relevant position, and the stroke itself synchronizes temporally,

semantically, and pragmatically with its speech counterpart.

McNeill proposes a theory of the 'growth point' to explain the integration of imagery and propositional thinking reflected in the integration that we find of gesture and language in spoken utterances. A growth point is the complex idea unit that leads up to utterance formation through a process of 'unpacking' whereby the imagistic content of thought is expressed by means of gesture and the linguistic categorial portion of thought is given expression to by means of words. According to the theory, this idea unit already contains the totality of meaning that is materialized in the utterance, which amounts to saying that the utterance contains all the elements that constituted its primitive stage, viz., the combination of global, synthetic, imagistic thought and thought in terms of linguistic categories.

Nonetheless, it is necessary to highlight the particularity of the gestures that McNeill and colleagues take into consideration in order to develop their theory. Based on a proposal made by Kendon (1988) that gestural action can be organized into different types according to the manner in which it is used as a component of utterances, McNeill (1992) devised a continuum along which those types of gestural action were organised relatively to their relationship to speech. This continuum, which was termed Kendon's continuum, is shown in Table 1, below.

Table 1. *Kendon's continuum* (based on McNeill, 1992)

Gesticulation	**Emblems**	**Pantomime**	**Sign language**
Motion that has a meaning related to what is being said	Conventionalised forms (e.g., the thumbs up gesture for 'OK')	Mime of actual patterns of action (in the absence of speech)	Similar to verbal language but encoded in a different medium

McNeill suggested that those types of gestural action could be further distinguished in accordance with a number of criteria along four different continua (2005; 2000). The criteria are the relationship of gesture to speech, the extent to which gesture has linguistic properties, the degree of conventionality of gesture, and its semiotic characteristics.

The gesture types proposed by Kendon (1988) include gesticulation, emblems, pantomime, and sign language and a detailed description of the various configurations they enter into along the four continua is offered by McNeill (2005; 2000). According to McNeill (2005) "'Gesticulation' is motion that embodies a meaning relatable to the accompanying speech." (p. 5). 'Emblems' are gestures that have conventionalized forms and meanings, an example of which is the

thumbs-up gesture for "OK". The term 'pantomime' refers to gestures that mime actual patterns of action and are produced in the absence of speech. Finally, sign languages only differ from verbal languages in the medium in which they encode meaning, viz., hands, arms and the face, or even the whole body. Table 2 below offers more details of the four continua.

Table 2. *Kendon's continuum extended* (from McNeill, 2000)

Continuum 1	Gesticulation	Emblem	Pantomime	Sign Language
Relationship to speech	Obligatory presence of speech	Optional presence of speech	Obligatory absence of speech	Ditto
Continuum 2	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Relationship to linguistic properties	Linguistic properties absent	Ditto	Some linguistic properties	Linguistic properties present
Continuum 3	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Relationship to conventions	Not conventionalized	Ditto	Partly conventionalized	Fully conventionalized
Continuum 4	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Character of the semiosis	Global and synthetic	Global and analytic	Segmented and synthetic	Segmented and analytic

What is important to retain from this table is that the sort of gestural action accounted for by the theory proposed by McNeill (2005; 2000; 1992) is only that which falls under the heading of 'gesticulation', which has the following characteristics: it only occurs with speech, lacks any conventionalization, conveys meaning in a global and synthetic fashion, and does not possess linguistic properties. This is in stark opposition to the speech it co-occurs with, which is fully conventionalized, segmented, and analytic.

Furthermore, gesticulation, as McNeill (2005) proposes, is further divided into four subtypes: iconics, metaphorics, beats, and deictics. A gesture is said to be iconic when it presents "…images of concrete entities and/or actions." (ibid., p. 38) by means of imitating one or more of the physical aspects of those entities or actions. Metaphoric gestures only differ from iconic ones in that they present images of abstract entities rather than of concrete ones. They are metaphoric

because the image they create is not the image of their actual referent but that of a third entity in terms of which such referent is understood and/or depicted. Beats, on the other hand, are characterized not by the shape taken by the hand in performing the gesture but by the quality of its movement. Unlike iconics and metaphorics, which usually have a preparation phase, a stroke, and a retraction phase, beats are rapid up and down or back and forth motions that resemble beating musical time (Levy & McNeill, 1992). Finally, deictics are pointing gestures performed with an extended forefinger, although the full hand and other body parts can also be used. Having presented McNeill's stance on gesture, I turn now to a discussion of the gesture theory of Kendon, whose approach is interpsychological.

2.5.2 Gesture and the outside

The point of departure of the theoretical stance developed by Kendon (2005, 2004) is the relationship of gesture and language. According to this author, whether or not gesture is part of language is a matter fully dependent upon the definition of 'language' and the conditions to be met by a semiotic mode for it to be regarded as a language or as having features of a linguistic system. Thus, if language is thought of as being comprised of a set of symbolic instruments that can be put to the expression of our thoughts so that these are made known to others and if the question whether, by definition, language is characterized by its medium of expression is not an issue, then we might claim for a place for gesture among the symbolic instruments that may be subsumed under the term 'language' (Kendon, 2000, p. 57, in McNeill, 2000).

It is not asserted by Kendon (ibid.), however, that gesture is, as we see it in use by people in face-to-face interaction, a fully independent linguistic system possessing both a set of syntactic rules and a repertoire of conventionalized lexical forms. When this is the case, gestural action ceases to be 'gesture' and becomes sign language, a linguistic system in its own right, the main distinguishing feature of which is its medium of expression. What is maintained is that gesture is one among a number of semiotic modes that we have at our disposal when we engage in interaction with others. The role of gesture is best understood when we take into account Kendon's discussion of the concept of 'utterance' as well as the particular manner in which he classifies gestures.

According to Kendon (2004), the term 'utterance' is used to refer

to any combination of action that is perceived by fellow interactants as giving information or as being the result of the speaker/actor's intention to 'give' information. Action that has this characteristic, argues Kendon (ibid., p. 7), plays the role of a 'move', 'turn', or 'contribution'[14] to the ongoing communication event. 'Action' in this context refers both to speech and gesture. Similarly to McNeill (1992), Kendon states that gesture and speech are "…two different kinds of *expressive resources* available to speakers" (2000, p. 11, in McNeill, 2000). However, according to this perspective, "…the gestures employed within an utterance, like the words that are employed, are components of a speaker's *final product*" (p. 111). Thus Kendon suggests that gestures are not the outcome of a mental process that leads up to utterance formation, since utterances are posited to be made up of speech, gesture, or of a combination of both in an effort to attain intersubjectivity. Additionally, utterances are considered to be symbolic objects created in accordance with the specific needs of the interactional event that they help to unfold.

Moreover, at times, words can be vague or too general to express what the speaker means (ibid., p. 51) and, in such cases, it is only through the concurrent use of gestures that the speaker can manage to attain the totality of meaning needed for a given utterance as regards the communicative needs of the ongoing interaction or communicative event. This is possible because gesture adds layers of meaning to the spoken component of the utterance. Thus, for instance, although this is not to deny that the context for the clarification of the meaning of a problematic word or phrase can also be, and often is, provided by the discourse in which it is embedded, an ambiguous word or expression may be made clearer by the use of an accompanying gesture or the stance from which the speaker expects his or her interlocutor to regard what is being said may be marked by an appropriate gesture. Kendon argues further that

> Gesture and speech […] are composed together as components of a single overall plan. We have to say that although each expresses somewhat different dimensions of the meaning, speech and gesture are co-expressive of a single inclusive ideational complex, and it is this that is the meaning of the utterance (ibid., p. 61).

In the previous paragraph a hint was given as regards the types of

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[14] Kendon (2004) uses these terms interchangeably to refer to each turn taken by participants in a communicational situation.

meaning a gesture may contribute to an utterance. It was seen that by gesturing a speaker may act upon a specific word or expression by making salient the particular meaning s/he intends that word or expression to have. However, a gesture may not only act upon a discrete item of the spoken discourse but may also operate upon whole stretches of discourse, marking the speaker's position as regards what s/he is saying or highlighting a particular piece of information as a focal point. Gestures of the former type are said to have *referential* functions whereas those of the latter type are said to have *pragmatic* functions.

The *referential* functions of gesture may be realized in two particularly distinct ways. On the one hand, the meaning of a given word may be made clearer or complemented by the use of a gesture that creates a *representation* of some particular aspect of the referent of that word, which becomes the referent of the gesture as well. On the other hand, the referential function of gesture may be attained by means of *gestural deixis* or *pointing*, that is, by the use of pointing gestures that make use of an extended forefinger, an open hand, some object available in the interactional setting, or some extensible body part such as the chin, the feet, or even the lips, as has been noted for some cultures (Sherzer, 1972). The pointing digit – or any other of the aforementioned – may be directed at a concrete object to be found in the interactional setting or it may be directed at an abstract object or entity that is not objectively available. Additionally, the shape assumed by the gesturing body part is closely dependent on the manner in which the gesturer intends to single out the object the pointing is directed at.

According to Kendon (2004), *representation* can be achieved by means of a number of techniques that include *modelling*, *enactment* and *depiction*. In modelling, the hands or fingers are used as if they were the actual object that they stand for, that is, the hands or fingers take on the shape of the entity that they purport to represent. In contrast, in enactment, a body part – hand, finger, or even the whole body – engages in the production of an action sequence that bears close resemblance to some actual pattern of action which is the referent of the discourse, the gesture being a part of such discourse. Alternatively, in depiction the hands, which may take on various shapes in accordance with the object being depicted, move about in such a way that they are perceived as creating an object in midair for the appreciation of co-participants in the interactional event.

The classifications in the two preceding paragraphs notwithstanding, no hard and fast line can be drawn between one type of gesture and the other (Kendon, 2004). For instance, a pointing gesture

may, in addition to locating the object or entity referred to in the discourse, draw attention to such features of the object as shape or size. In a similar vein, a gesturing body part may be used in such a way that it assumes the shape of the object that it is to represent, standing as a model for that object, and at the same time enact a certain pattern of action. Such a gesture would be the result of the combination of two techniques of representation, viz., *modelling* and *enactment*.

Gestures with *pragmatic* functions are altogether different from gestures with referential functions. Whereas the latter tend to be created at the time of speaking and are not usually considered conventional, the former type comprehends gestures that have varying degrees of conventionality, constituting, at times, a repertoire of forms shared by a given community. Many of these gestures are symbols that have been shaped out of actual patterns of action in which the hands are used to handle objects for practical rather than symbolic purposes. Pragmatic gestures contribute to the creation of utterance meaning in three ways. They may qualify or tag an utterance as being one particular speech act, in which case the gestures are said to have *performative functions*. Additionally, gestures may be used to show that what the speaker is saying is to be interpreted in one particular manner, for example, as a hypothesis or as a categorical denial. Such gestures are said to have *modal functions*. Furthermore, gestures may be used that serve to mark aspects of the structure of the discourse that they accompany. These gestures have *parsing functions*, the term 'parsing' being taken "to mean 'dividing into and indicating the structural parts of a discourse'" (Kendon, 2004, p. 159). The different types of functions performed by gesture and their techniques of representation can be seen in schematic form in Figure 4 (p. 37):

Figure 4. *Functions of gesture and techniques of representation*
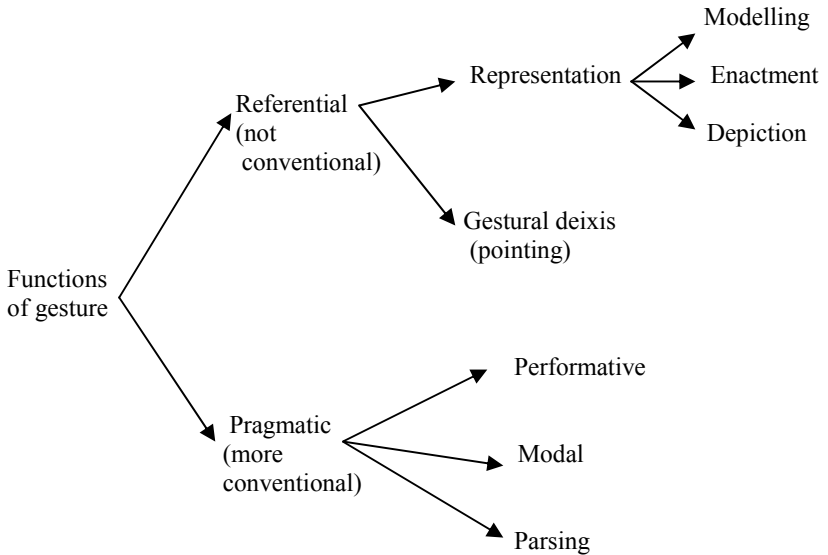
2.5.3 The two theoretical perspectives confronted

I have devoted the previous subsections to a discussion of the main aspects of the two most prominent contemporary theories of gesture and, in the present subsection, I make the choice of the theoretical stance that is to inform the current research and state the grounds on which that choice is made.

If considered from a SCT perspective, McNeill's theory examined here seems to be concerned with intrapsychological processes that lead up to utterance production and with the role that gesture plays in such processes. If looked at in the light of SCT, Kendon's theory seems to be concerned with the interpsychological dimension of communication and with the role of gesture in helping construct the communicative exchanges that make up face-to-face interactional events (McNeill, 1992). Such assumptions might suffice to suggest how far apart lies the scope of each of the theories reviewed and to ground the choice of the theoretical perspective that best suits the needs of the current piece of research, namely Kendon's theory of gesture as an utterance component. However, another set of important contrasting

points must be brought to our attention so that it can be made clear in what ways Kendon's interpsychological approach may be more useful for the purposes of this study.

A number of fundamental weaknesses can be found in McNeill's approach – it should be clear that these are weaknesses only insofar as the objectives of the current piece of research are concerned. The first weakness concerns the fact that McNeill's theory only seems to account for gestures that convey ideational meanings, that is, since the focus of the theory is on the gesticulation end of Kendon's continuum proposed by McNeill (2000, 1992)[15], only gestures that create images are favoured. Thus emblems, pantomime, and other somewhat conventionalized gestures are dismissed. In Segment 5, for instance, teacher and students have been talking for some time over an activity in which students are supposed to describe the physical features of famous people that they admire.

Segment 5. (from **4_VE_Sparkling eyes_PA1**)

```
15.Helena16: Claudia Raia erm both have (0.6) energy
16.         and beautiful appearance=
17.T:       Uh hum.
18.Helena:  =but (0.4) more erm their eyes is BIG and=
19.T:       For themselves.
20.Helena:  =(xxxx) I don't know exactly how to (xxx)
21.T:       A:::h        they have sparkling eyes.
                         |~~~~~~~~~*********/**|-.|
                         [           GP1          ]
                         [             GU1            ]

22.Helena:  ((giggles)).
23.T:       Uh huh ((nodding)).
```

In this segment, Helena, who has been talking about two famous Brazilian artists, turns to the teacher for help to find a word that best describes the eyes of the two artists. Having grasped what the student means, the teacher says "Ah they having sparkling eyes" (line 21), thus providing her with the word that she needs. However, as the exact meaning of the English word 'sparkling' might be vague not

only to the student concerned, but also to the other students taking part in the activity, the teacher makes a gesture as he aids the student in the lexical search, gesture phrase 1[17] (GP1) in the transcript. As the teacher says "They have", he moves both hands up into bunch facing each other in front of face. Then, as he says "sparkling", he moves both hands away from face and, in the meantime, opens them so that palms are facing obliquely upwards and fingers are fully extended at around shoulder level. The motion pattern performed by the hands and the shape they take on seem to be a concrete illustration of the meaning of 'sparkling'. This gesture has iconic properties in that it provides a visual representation of aspects of the meaning of the lexical item that it accompanies and illustrates. Therefore, in GP1, an iconic gesture, which is one type of gesticulation, was used by the teacher. This gesture is illustrated in Figure 5:
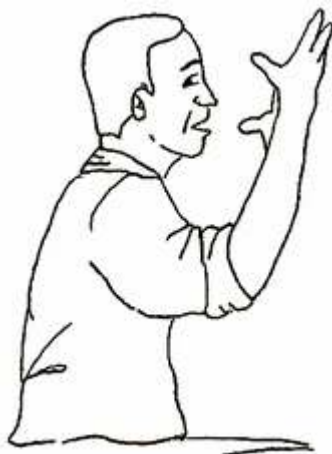
Figure 5. Gesture stroke produced as the teacher says "sparkling".

Interestingly, in this example the teacher seems to entertain the possibility that the meaning of 'sparkling' may be somewhat vague. Thus, he uses a gesture that seems to be functioning as the explanation of the meaning of the newly introduced lexical item. McNeill's category seems to work fine for capturing such nuances of the gesture such as the

---

[17] Generally speaking, a gesture phrase is the portion of bodily action that is perceived as meaningful by fellow interactants (Kendon, 2004).

manner in which it relates to speech and to its material referent. However, if we consider the second gesture phrase (GP2), the one synchronising with 'eyes' (line 21), then we are faced with a difficulty. After performing the stroke that coincides with 'sparkling', instead of bringing his hand back to some position of rest, the teacher performs a second gesture, lowering both hands to chest line, away from body and towards students, in a palm presentation movement. This gesture may be interpreted as one of presenting as an offer to interlocutors that which is being said or has just been said, in this case, the lexical item that the student needed in order to communicate her ideas. What is problematic in this example is, insofar as McNeill's theory is concerned, the fact that the stroke in GP2 does not seem to be creating an image of some object or entity nor does it seem to have an imagistic counterpart in the thinking of the teacher. On the contrary, it is a somewhat conventional gesture (Kendon, 2004) bearing the pragmatic function of marking the teacher's speech as one specific kind of speech act(.

The second weakness lies in the sorting of gestures into semiotic categories rather than into categories of functions. Distinguishing gestures in this fashion gives rise to a rigid typology based solely on the manners in which gestures are related to their referent. Furthermore, the inclusion of deictic gestures and beats in the list of gesture types proposed by McNeill (1992) seems to be in contradiction to the choice of gesticulation as an object of study, since gesticulation is primarily the creation of images, and these are one of the most important factors in the theory of the growth point, which lies at the core of McNeill's theory. 'Beats' and deictics are not images and do not have a referent, whether objective or abstract. Beats are said to be formless biphasic movements that mark out parts of the spoken discourse and deictics are those gestures that point to some entity, objectively present or not, which is referred to in speech. Consider Segment 6 for an illustration of the use of beats.

Segment 6. (from **18_GE_Passive Voice I_PA5**)

```
01. T:      Okay, very nice, so here guys I wanna
02.         call your attention to two specific parts
03.         of this text (1.6) particularly (0.6)
04.         right below Julia Robert's picture and
05.         the title (0.6) lines twelve and
06.         thirteen, right? Did you find that? (0.6)
```

```
07.      It says for more than a century it was
         |~~~~~~~***|****|**************|~~~***
         [    GP1  ][ GP2][     GP3    ][ GP4
         [                      GU1


08.          thought that a beautiful face was
         |******|~~~~~~~******|*******|****
         [ GP5 ][     GP6    ][ GP7  ][ GP8
                      GU1 (cont.)


09.          appealing because it was a collection of
         *********|*******|******|********|******
            GP8  ][ GP9  ][ GP10 ][  GP11 ][ GP12
                      GU1 (cont.)


10.          average features (0.3) right?(0.4) then
         *******|*******************|
           GP12 ][      GP13        ]
                 GU1 (cont.)              ]
```

In this segment, the teacher is introducing the students to one particular form of the passive voice. In lines 07 through 10, he says "*for more than a century it was thought that a beautiful face was appealing because it was a collection of average features*", reading an example sentence from his course book. Just before he starts reading the sentence, the teacher moves his left hand away from his body towards the book held in his right hand at stomach level. As the hand is moving away, index finger extends fully and remaining fingers, along with thumb, hang loosely downwards. Palm is held facing downwards. With index finger held away on a horizontal plane, the teacher performs several beating motions, each of which synchronizes with a particular segment of speech, as can be seen in the annotated transcripts in Segment 6. The problem with this example lies in the fact that, although the beating gestures do play a role in marking out the important parts of the structure under consideration and the rhythm of speech as well, they do not present images of any sort, which constitutes a paradox as regards the theory of the growth point. For a better understanding of this gesture, it is visually represented in Figure 6 (p. 42):

Figure 6. Forefinger raised upwards to signify "pay attention to" as teacher says "*for more than a century*".

Additionally, the choice of only those gestures that are subsumed under 'gesticulation' leaves no room for the study of gestures that seem to have some varying degree of conventionality such as those named 'emblems' or 'quotable gestures' (Kendon, 2004). Similarly, there seems to be no room for 'pantomime' or 'enactment' (ibid.). The main reason for the exclusion of such gestures from the scope of the theory developed by McNeill and collaborators may be, on the one hand, the fact that emblems do not present images that have a mental counterpart which is equally imagistic and, on the other hand, the fact that both emblems and pantomime may occur in the absence of speech. The exclusion of such gestures as emblems and pantomime as away from the scope of a psycholinguistic gesture theory renders it inappropriate as regards the needs and goals of the present study, since my interest lies in studying gesture as a semiotic mode that the teacher may draw on when engaged in communication with students, which entails that *all sorts of meaningful gestural action* produced by the teacher during explanatory discourse episodes need to be adequately tackled. These considerations lead us to a short discussion of the points that make Kendon's interpsychological perspective eligible for the current study.

Kendon's definition of utterance as a complex unit that can be variously made up of speech, gesture, or of a combination of both conforms to the objectives set for my piece of research, viz., to

investigate gestures produced by the teacher during explanatory discourse episodes in one EFL classroom, regardless of whether such gestures serve to create images or to operate on chunks of spoken language. Thus, if we use Kendon's theory, the totality of gestures in Segments 2 and 3 discussed previously would be accounted for. Therefore, the second gesture (GP2) in Segment 2, based on Kendon (2004), is interpreted as a pragmatic gesture with a performative function. Whereas the gesture in GP1 serves to create a visual representation of the meaning of 'sparkling', the gesture in GP2, which closely follows the previous one, serves to mark the speech, that is, the new word, and the accompanying explanatory gesture, as an offer of information to the student, who may either accept or reject it. From that point on, the student may choose whether or not to include the new word in her discourse. Moreover, the meaning of the beating gestures in Segment 3 does not lie solely on the quality of motion that defines them in McNeill's theory. Part of the meaning of those gestures can be found in the form assumed by the hand and fingers. It should be recalled that, in performing the beats, the teacher holds an upward extended index finger as if to show that special attention should be paid to the words he is saying, a function of the extended forefinger that has been noted, among others, by Calbris (1990). In other words, beats are believed to have an emblematic component (Kendon, 2004).

An additional strength in Kendon's theory lies in the fact that by allowing gestures to occur independently of speech it makes it possible to unveil to what an extent gestures can be used to suit the demands of the interactional event wherein they are produced. Such a possibility, as we saw in the beginning of this section, is not available in an intrapsychological stance on gesture, which only accounts for gesticulation, or representational gestures produced in synchrony with speech. Consider Segment 2, again[18]:

```
Segment 2. (from 10_VE_Jaws_PA2)

01.S:        'Jaws'?
02.T:        (.................................3.2......................................)
             |~~(0.7)~~***(1.3)***/***|-.-|
             [               GP1              ]
             [                GU1                  ]
```

---

[18] This has already been addressed in Section 2.2. Stroke phase is depicted in Figures 1 and 2, on pages 2 and 19, respectively.

```
03. S:                    Ah. (8.1) ((sts. on task))
```

In this segment, a student asks the teacher for an explanation of the meaning of the word 'jaws', to which the teacher responds by drawing attention to his own jaws, pointing to them and outlining them. Not one word is said, which doe not prevent the student from grasping the meaning of the word, as we can see in Line 03, where he says "Ah", showing understanding of the teacher's actions.

Additionally, Kendon's contention that gestures have both referential and pragmatic functions, as discussed in section 4.1.2, is in agreement with a functional view of language[19] in which it (language) is seen as a resource for construing meaning of such different orders as *ideational*, *interpersonal*, and *textual* (Halliday, 1985). Although the gestures that are the concern of the present study do not constitute a linguistic system, it is not possible to deny that they may be used in such a manner that those meanings can be construed in collaboration with, or even in the absence of, speech. A claim has been made that gestures with *referential* functions aid in the construal of *ideational* meaning, gestures with *performative* and *modal* functions aid in the construal of *interpersonal* meanings, and those with *parsing* functions collaborate in the organisation of speech as text, in other words, they aid in the construal of *textual* meanings (Rodrigues, 2007).

Nonetheless, the two theoretical perspectives confronted in the foregoing pages cannot be said to be mutually exclusive. On the contrary, they should be viewed as complementary. What ultimately grounds the option for one to the exclusion of the other is the objectives set for the research to be carried out. Here, it might be useful to recall Vygotsky's contention that thought, that is, intrapsychological activity has its roots in interpsychological activity, that is, social interaction in its various guises (1986).

As I stated in the introductory chapter to this dissertation and further clarify in the method chapter, the objective of this study is to investigate one teacher's gestural action within explanatory discourse episodes taking place in one EFL classroom. Therefore, I must say a few words as regards studies that have focused on gestures produced in L2 educational contexts. By doing so, I hope to clarify in which ways the

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[19] The adoption of a functional view of language to inform studies set within the SCT tradition, which is the case of the present investigation, has been proposed by Hasan (2005) and Wells (1999). Systemic functional linguistics (SFL) has been extensively suggested as a potential candidate (Wells, ibid.).

study that I carry out in this dissertation contributes to the field of gesture studies and helps us to better understand what really goes on in the classroom when the teacher engages in explanatory discourse, that is, in explanations of vocabulary and grammar.

2.6 Gesture in L2 research

As stated before, L2 researchers have begun to investigate the role of gestures in L2 development and much of the focus of their research has been placed on the gestures produced by L2 learners. However, interest has also started to emerge in those gestures produced by L2 teachers. In the paragraphs that follow, I present a brief review of research that has been concerned with the issue.

In a study informed by SCT, McCafferty and Ahmed (2000) reported that Japanese learners of English in a naturalistic setting *appropriated* gestures that referred to abstract concepts such as "marriage". The participants in their study were assigned to four groups: Japanese native speakers, American native speakers, Japanese learners of English in a classroom environment, and Japanese students learning English in the United States. All the participants were asked to express their views on marriage by answering a set of questions posed by the researcher. The Japanese learners in the naturalistic environment (in the US) produced the same metaphoric gestures for the concept of "marriage" as the American participants. McCafferty and Ahmed claimed that the use of such gestures by the non-native speakers might reflect their efforts to adapt to the target culture.

Also informed by SCT and based on McNeill's gesture theory, McCafferty (2002) video recorded the interaction between a Korean student of English and an American graduate student at an American university in order to investigate how they created a zone of proximal development wherein learning could take place and mutual understanding could be reached. The use of gestures was found to facilitate both language learning and the interaction between the participants. Both participants employed gestures in order to elicit vocabulary, regulate interaction, and establish spatial relationships. According to McCafferty, the gestures aided the participants to develop "a sense of shared physical, symbolic, psychological, and social space" (p. 201). In other words, gestures played a fundamental part in the creation of a ZPD.

Changing the focus from learners to the teacher, Lazaraton

(2004) claims that the input teachers offer their students may go beyond speech in the target language. In an investigation of unplanned vocabulary explanations in an English-as-a-second-language (ESL) classroom in the US, the author found that, in addition to spoken discourse, the teacher's input included the use of gestures. Metaphorics, iconics and beats played an important part in clarifying the content of speech, for, according to Lazaraton, they all added redundancy to the spoken discourse of the teacher.

Rodrigues (2005) conducted a similar study in an English-as-a-foreign-language (EFL) classroom at a Brazilian university with the aim of discovering whether in such a context gestures would be used in the same way as they were in Lazaraton's study. More specifically, following McNeill's gesture classification (1992), the objective of the study was to identify the types of gestures used by a teacher in her formulation of vocabulary explanations, and to examine the relation of those gestures to speech, as well as their role in the structuring of interaction. The results showed that the teacher used deictics, beats, metaphorics, and emblems. These gestures had an important role in signalling to the learners the transition from conversation that had a naturalistic tone to interaction that had a clear pedagogical intent. Deictics played an important part in the structuring of conversational events as they were used for assigning turns at talk, as well as for signalling to the students what was expected of them in terms of participation. Finally, corroborating Lazaraton's findings, Rodrigues (2005) found instances of iconic and metaphoric gestures functioning as illustrators and clarifiers of the content of speech.

In a study of gestures produced by English speaking learners of Spanish and Spanish speaking learners of English, Negueruela, Lantolf, Jordan and Gelabert (2004) applied the concept of *motion event* borrowed from cognitive semantics (Talmy, 2000) in order to investigate whether advanced learners would show a shift in their gesturing towards the FL gesture pattern as regards the encoding of manner information. According to Talmy (ibid.), motion events can be categorized according to criteria that include *figure*, *ground*, *path*, *motion*, *manner*, and *cause*. Different languages may employ different linguistic elements to encode such pieces of information that may be contained in a motion event. In some, *manner* of motion, for instance, may be encoded in the verb, whereas in others that information needs to be conveyed through other constituents of the sentence, for example, an adverbial phrase. Languages also differ in how they encode *path* information. This, in fact, is one criterion that Talmy uses to organize

languages into two groups. Languages such as English utilize adverbial particles to encode *path* information and tend to conflate *manner* information in the verb. These are called satellite-framed languages. The second group comprises verb-framed languages. In such languages – Spanish, for instance – manner information is conveyed through lexical components of the sentence other than the verb, while path information is conflated in the verb. When they use gestures as they speak, native speakers of English and Spanish coordinate them with speech in different ways. English speakers tend to synchronize manner gestures with manner verbs and express path only in speech. Spanish speakers, on the other hand, synchronize gestures that indicate path of motion with verbs that convey the same information. Negueruela, Lantolf, Jordan and Gelabert (2004) hypothesized that advanced speakers of a foreign or second language might change the manner in which they coordinate gestures and speech toward a more target-like pattern. However, their study, which included L1 English speakers of Spanish and L1 Spanish speakers of English, did not yield any evidence of such adaptation.

The studies just reviewed fall in at least two categories: they are concerned with the role of gestures either on the intrapsychological level (Lazaraton, 2004; McCafferty and Ahmed, 2000; Negueruela et al., 2004) or the interpsychological level (McCafferty, 2002; Rodrigues, 2005). However, despite this difference, they all seem to rely on the theory developed by McNeill (1985, 1992, 2000), which, as pointed out in subsection 2.5.1 of this paper, is chiefly aimed at seeking explanations for the role that gesture plays regarding intrapsychological processes and has developed categories with a view to achieving that purpose. Thus, a study seems to be lacking that not only will look at gestures produced by teachers but also will examine them as symbolic artefacts created for the benefit of interlocutors. In other words, study is needed that looks at teachers' gestures as a semiotic tool used publicly with the intent of facilitating the interaction and the co-construction of knowledge by teachers and students of a foreign language. This is the main motivation of the present dissertation.

Having presented some studies of gesture carried out in the L2 education context, I now proceed to a brief presentation of the concept of *explanatory discourse*, which is, in pedagogic terms, the immediate context of use of the gestures that I investigate.

2.7 Explanatory discourse

Although the common view tends to see explanations as being synonymous with giving definitions of concepts or examples, a number of studies have shown that definitions and examples are only some of the forms that an explanation may take, or even only some of the elements that people (teachers, in our case) may resort to in order to help learners reach understanding of a concept, a word, or a task. Such studies vary in their scope and in their description of explanations. What they have in common is the fact that they seek to describe the mechanics of what has come to be known as explanatory discourse (Kennedy, 1996).

According to Tsui (1995), explanations may be about procedures, concepts, and vocabulary or grammar rules. These types of explanations are also arranged under two major headings depending on whether they communicate procedures or content. Content explanations comprise vocabulary, texts, and grammar rules, whereas procedural explanations clarify a task that the teacher wishes the students to accomplish. In her study, Tsui also identified the ways in which explanations may be given. She found that teachers state grammar rules and make use of linguistic devices such as exemplification, paraphrases, repetitions and definitions. Another important finding of the study is that the length of an explanation may vary according to the degree of complexity of the item in question. Nonetheless, Tsui points out that an abusive use of linguistic devices or strategies is likely to lead to confusion rather than to understanding, a view that is in line with Chaudron (1982).

Yee and Wagner (1984) attempted to improve on Chaudron (1982) by providing a description of the discursive segments of which explanations may be composed. They distinguished between planned and unplanned explanations and pointed to the fact that the former are usually realized through framing and focusing statements, the explanation statement, examples and restatements.

Faerch (1986) advanced a similar view. The author equates explaining with talking about the linguistic code, that is, "metatalk", in her words. According to Faerch, a sequence of acts is performed when an explanation is given: first, the students' attention is drawn to the problem, then inductive work is carried out, next a rule is formulated and, finally, examples are given.

Focusing on content explanations, Cicurel (1985) opts to divide them into two categories: semantic explanations and grammatical explanations. When clarifying a grammar point, a teacher usually

formulates rules and tries to help learners to understand it through a strategic presentation of those rules. Cicurel notes that the discourse of grammar explanations is broken down or simplified with the aid of gestures, key words and model sentences. As far as vocabulary explanations are concerned, the author demonstrates that these are carried out mainly by means of paraphrases, definitions, and the creation of a situation or context.

Underlying these studies is the view that explanations occur throughout segments of discourse, a view taken up by Kennedy (1996), who proposes the term 'explanatory discourse'. Some of the authors cited have pointed to the importance of nonverbal behaviours such as gestures in the composition of explanations. However, they have not examined the matter, possibly because gestures and other nonverbal behaviour are usually seen as peripheral to communication.

2.8 Summary of the chapter

The purpose of the present review has been many-fold. First, it was meant to present a summary of the sociocultural theoretical framework, through which I propose that the phenomenon of gesture can be investigated, explained, and evaluated in terms of its role in the L2 education context. Second, it presented the two theories that have currently been in favour among scholars worldwide, with particular attention to the points that may most clearly aid in positioning the theories vis-à-vis SCT. Third, Section 2.6 has reviewed a few recent studies that have focused on the gesture phenomenon in the context of L2 learning and teaching. Finally, it has reviewed a number studies that have looked into the explanatory discourse of the L2 classroom.

The contributions that the theoretical perspectives of McNeill and Kendon might bring to studies of the classroom differ as a result of the aspects of the gesture phenomenon that they choose to emphasize. With the theory of the 'growth point', McNeill has proposed a comprehensive framework for the explanation of his views on gesture and its relationship with speech and thought. His stance on 'gesture' might be incorporated as an important contribution to SCT theory regarding the intrapsychological dimension of consciousness. In other words, McNeill has contributed to furthering our understanding of the microgenesis of speech production and has reconceptualized the notion of 'inner speech' as a unit of analysis.

As far as L2 development research is concerned, one might

assume that, from the gesture typology and the relationships existing between gesture and thought proposed by McNeill, his theoretical framework is suitable for studies on the intrapsychological aspects of the learning process. For example, such a perspective might bring insights into the mental processes that learners of foreign languages engage in during speech production (Negueruela *et al.*, 2004). Additionally, researchers might have the necessary tools for unveiling the stages that the language learner goes through before appropriating concepts that are specific to the foreign language culture (McCafferty & Ahmed, 2000).

Nonetheless, given the emphasis conferred to the pragmatic value that gesture can contribute to utterances and the view that "the semantically coherent gesture-speech *ensemble* is a speaker achievement" (Kendon, 2004, p. 127) or "*final product*" (ibid., p. 157) offered to interlocutors, one might find Kendon's perspective insightful regarding the manner in which speech and gesture intertwine to form the complex semiotic tool that mediates the interaction between teacher and learners in the foreign language classroom.

In the chapter that follows I provide information as regards the steps that I have followed both for data collection and for data analysis. Information is also given on the participants and on the setting of the study.

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3

Preparing the ground for the study

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> It has become clear that visible bodily action is often integrated with speech in such a way as to appear as if it is its partner and cannot be disregarded, if we are to have a full understanding of how utterances within the context of an interaction are intelligible for the participants. (Kendon, 2004, p. 3)

Introduction

The purpose of the current chapter is to provide information as regards the several steps that were taken for the development of the study. Initially, the objectives of the study are stated and, then, the research questions that guided the study are presented. Next, a description is given of the context of the study, which includes information on the setting and the participants. After that, information is offered on the steps of data collection, with details on techniques of speech transcription and gesture annotation, as well as on the explanatory discourse episodes selected for analysis and the pedagogic activities in which they were embedded. Then, the criteria for data analysis and interpretation are presented. Finally, a summary is given of the chapter.

3.1 Objectives

As stated in the introduction chapter, the current study had both a theoretical and an empirical concern, namely, to choose an adequate gesture theory to inform the analysis to be carried out in chapter 4 and to investigate the nature and the functions of the gestures produced by one EFL teacher during explanatory discourse episodes. The first concern, being a theoretical one, was dealt with in the chapter devoted to the review of the literature. The second concern, in fact, the main objective of this piece of research, is tackled in chapter four, which is devoted to

the data analysis. The empirical analysis had four objectives[20], which are listed next for the sake of clarity:

1) to identify the kinesic components of the gestures analysed;

2) to identify the general types of gestures that the teacher employs when explaining vocabulary or grammar;

3) to unveil the particular contributions that gestures provide to the utterances that they are a part of and to the episodes in which they occur;

4) to find out in which ways the gestures used by the teacher relate to the content of the explanation being offered;

In order for these objectives to be fulfilled, four research questions were formulated. These are listed in the next section.

3.2 Research Questions

In order to achieve my goals, I propose the following questions. Research question 1, which has a structural character, aims at a description of the kinesic components of the gestures found in the data. Research questions 2 and 3 concern the general functions taken on by gesture as regards the utterances of which they are part and the roles they play as regards the specificity of their context of use, viz., episodes of vocabulary or grammar explanation in one upper-intermediate EFL classroom. Finally, Research Question 4 is concerned with the nexus between the functions taken on by gesture and the nature of the object of the topic being explained. The following are the research questions:

1) *What types of speech and gesture configuration, that is, variations in gesture performance, can be found in the discourse analysed?*

2) *What are the general functions of the gestures used by the teacher as he explains vocabulary or grammar structure? Do*

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[20] These have already been presented in Chapter 1 and are repeated here for ease of reading.

the findings provide a firm ground from which to raise the claim that gesture use varies in relation to the specificity of the explanatory discourse, that is, vocabulary explanation, as opposed to grammar explanation?

3) *What are the specific contributions that gestures bring to the explanatory discourse that they help construct?*

4) *How are the gestures used by the teacher related to the object of his explanatory discourse?*

3.3 Context of research

The participants in the study proposed here are a teacher and upper-intermediate EFL learners enrolled in an extracurricular course (Inglês VIII) offered by Universidade Federal de Santa Catarina (UFSC), in Brazil. Both teacher and students are Brazilian Portuguese native speakers. The English teachers in the extracurricular courses are graduate students in English and Literature at the Programa de Pós-Graduação em Inglês (PPGI) at the same university. The teacher in this particular group, who holds an MA from the same university, enjoys a reputation as a highly experienced professional. Also, there were 13 students (11 female and 2 male) in the class chosen for analysis. All but one of the students were either undergraduate or graduate students at UFSC. Since the group met only once a week, on Fridays, they had four classes on the same day. Usually, for other groups classes are taught twice a week, either on Mondays and Wednesdays or on Tuesdays and Thursdays.

The materials adopted in the class were the textbook, the teacher's guide, CD's and workbooks from the *American Inside Out* series by Kay and Jones (2001). Additionally, the teacher brought handouts to be used in group-work and transparencies to use with the aid of an overhead-projector. He also brought songs and videos that were connected to the main topic of the lessons.

The reason for choosing an upper-intermediate group is that at this level the learners are already able to understand and to make themselves understood in English and the gestural action of the teacher is not solely constrained by an avoidance of the use of the students' first language, which might be the case with learners at a beginner level.

3.4 Method of data collection

Data, or rather, the raw material that originated the data for the study, have been collected through classroom observation, note taking, and video recording during one month. Since the focus of the research is on the teacher's gestural action, one camcorder was placed in the classroom in such a way that the image of the teacher could be framed. The teacher was not aware of the objectives of the study until the data had been collected.

A total of eight classes were recorded, only the first one of which was used for the study. The reason for choosing only one class to use in the research was that the amount of work involved in the speech transcription and the gesture annotation occurring in all the episodes contained in the eight classes would have taken up far more time than was available. Additionally, a preliminary viewing of the recordings revealed the patterns of gesture to occur throughout the eight classes recorded. Since this is an exploratory study realized through microanalysis of gestural action in its context of use and the examples found in the first class seem to be representative of those found in the remaining classes recorded, an analysis of the other lessons would not have been crucial as regards the objectives of the research. Additionally, the first class recorded had the best examples of the patterns found in the other classes. In what follows, a description is offered of the several steps taken in the collection and preparation of the data.

3.4.1 Procedures for data preparation

In order for the data to be prepared for analysis, several steps had to be taken after the recordings had been made. Each step is described below in list format:

1) Initially, the recordings of the eight classes were viewed once so that the decision could be made as to the number of classes that would be necessary for the study (see 3.4 above). The class chosen for the study was the first one observed and filmed, which took place on the fifth of September of 2008;

2) Second viewing of full video recording: during this stage, the pedagogic activities[21] of the class were identified that contained explanatory discourse episodes; also their time boundaries were identified and notes were taken on each of the activities so that information could be gathered in relation to the context of occurrence of gestures;

3) Third viewing of full video recording: at this point, the explanatory discourse episodes were identified along with their time boundaries and notes were taken on each of them so that their context of occurrence could be defined and information regarding the object of explanation could be gathered. Additionally, video clips were made of each episode so as to facilitate subsequent viewings;

4) Fourth viewing (only videos of explanatory discourse episodes): at this stage, the spoken components of both vocabulary explanations and grammar explanations were transcribed;

5) Fifth viewing (of episodes only): this is the stage at which the first part of gesture annotation took place. Gestures were identified and their synchrony with speech was established;

6) Sixth viewing: the second part of gesture annotation was carried out at this point. A detailed description was made of each of the kinesic components of the gestures. Additionally, the gestures were arranged according to the categories provided in Kendon (2004). The full transcripts of all the episodes are provided in Appendix II.

3.4.2 Identification of pedagogic activities

As stated previously, before the explanatory discourse episodes could be identified it was necessary to identify the pedagogic activities in which the episodes occurred. This was necessary in order that information could be gathered as regards the contexts of occurrence of the explanation episodes. Most often, an episode was not in itself the

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[21]Detailed information on the pedagogic activities is provided in section 3.4.2.

main activity going on in the class. Rather, it was more likely to have emerged during activities that were part of the lesson plan, such as tasks, written or spoken, individual or collective. In the lesson selected for the study, five pedagogic activities were found that contained explanatory discourse episodes and gesture. The activities, which were identified according to their objectives, are listed below:

1) PA1[22]: Describing famous people → in this activity, which took place in the beginning of the class, the teacher stuck magazine clippings containing photographs of famous people on the wall around the board and asked students to give physical descriptions of famous people that they admired. The activity involved the whole group;

2) PA2: Photograph description → for this activity, students were asked to look carefully at two computer-generated images of a man and a woman in their textbooks (from exercise 2 on page 78 of the upper-intermediate *American Inside Out* volume) and match the words from two columns in order to describe the faces;

3) PA3: Group discussion → the students were given handouts containing questions related to beauty, personality and relationships. The students were to join in small groups and discuss the questions. Later, there was a whole class discussion of the questions;

4) PA4: Reading → in this activity, the students were asked to read the text "Is Beauty in the Eye of the Beholder" from page 79 of their textbooks and find out whether the statements provided in a list were true or false. The students were supposed to read the text silently and individually in order to do the exercise. The answers were checked collectively;

5) PA5: Written exercises on passive report structures → students were asked to do exercises 2 and 3 of page 80 of their textbooks. For the first part, they were supposed to rearrange words provided in a list in order to make the beginnings of sentences.

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[22] The letters P and A in the labels from PA1 through to PA6 stand for "Pedagogic" and "Activity", respectively. The numbers identify the activities according to the order in which they occurred. Thus, "PA1", for instance, means "Pedagogic Activity One".

For the second part, they had to match the beginnings of sentences with endings provided in exercise 2. While this was done individually, the answers to the written exercises were checked collectively.

3.4.3 Identification and selection of episodes

After the pedagogic activities were identified, the recordings were viewed again so that the explanatory discourse episodes could be identified. Every time one episode was spotted, information was taken down regarding its time boundaries – that is, the moment an episode was initiated and the moment it was brought to a close – and the topic of the explanation. A video clip of each episode was made and stored in a special file[23] for further work. A total of 19 episodes were identified, 17 of which involved explanatory discourse on lexical items and 2 on grammar structures[24]. Once the episodes had been identified and the video clips had been made, the episodes were given labels so that reference to them could be made easy and clear. These labels identified the order of occurrence of the episode, the type of explanation it contained, the topic of the explanation and the pedagogic activity in which it was embedded. Thus, for example, the first episode of explanatory discourse, which involved explanatory discourse on a piece of vocabulary – the expression "dark-skinned" – and took place during the first of the pedagogic activity selected, was labelled "1_VE_Dark-skinned_PA1". Below is a list of the episodes identified in the data:

a) 1_VE_Dark-skinned_PA1;
b) 2_VE_Brunette_PA1;
c) 3_VE_Full lips_PA1;
d) 4_VE_Sparkling eyes_PA1;
e) 5_VE_Jaw_PA2;
f) 6_VE_Dimples_PA2;
g) 7_VE_Cheeckbones_PA2;
h) 8_VE_Smooth_PA2;

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[23] The software employed for the analysis of the videos was provided with the video camera (Sony, DCR-SR45) that I used for filming the classes.

[24] As can be seen from the transcripts (see Appendix II), although there were far more vocabulary explanations in the data than grammar explanations, the latter were visibly much longer than the former.

i) 9_VE_Sparkling_PA2;
j) 10_VE_Jaws_PA2;
k) 11_VE_Smooth2_PA2;
l) 12_VE_Perfect bone structure_PA2;
m) 13_VE_Hazel_PA3;
n) 14_VE_Arched_PA4;
o) 15_VE_Gentle features_PA4;
p) 16_VE_Curly_PA4;
q) 17_VE_By and large_PA4;
r) 18_GE_Passive Voice I_PA5;
s) 19_GE_Passive Voice II_PA5.

3.4.4 Speech transcription

In transcribing the speech component of the episodes, I draw extensively on the Jefferson System (Jefferson, 2002; Atkinson & Heritage, 1984):

Italics	to indicate that what the speaker was saying was being read from some written source or being recalled from such a source;
(( ))	to frame comments made by the researcher;
(xxx)	to indicate inaudible speech;
::	to show that a vowel sound was elongated;
CAPITALS	to mark stressed words;
?	to mark an utterance as a question;
S[25]	to indicate unidentified student;
Sts	to indicate that more than one student was speaking at a time;
(0.0)	to indicate pauses in speech in seconds or tenths of seconds;
==	to indicate latching. Placed at the end and at the beginning of latched utterances;
Note:	Overlap was indicated by placing the beginning of the overlapping speech just below the speech that it overlapped with.

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[25] Students were assigned fictitious names so that their identities could be protected.

3.4.5 Gesture annotation

Gesture annotation included the identification of the phases of each gesture and the representation of those just below the lines of transcribed speech in a way that gesture-speech synchrony could be demonstrated. Additionally, during this stage of the research, the phases of each gesture were described in details and the gestures were assigned to categories according to their functions in the utterances where they occurred. In annotating gestures, I observed the following conventions from Kendon (2004):

| to mark the boundaries of gesture phrases and gesture units[26];
~~ to indicate the preparation phase of a gesture;
/ to indicate that a gesture phase was divided into two or more parts;
*** to represent the stroke action of a gesture;
-.-.- to identify the recovery phase of a gesture unit;
[ ] to frame gesture phrases;
[ ] To frame gesture units;
GP Gesture Phrase (followed by number of gesture phrase in the episode);
GU Gesture Unit (followed by number of gesture unit in the episode).

3.5 Data analysis and interpretation

The data that constitute the ultimate object of analysis have a rather complex character. Gestures are not analyzed *per se*. Rather they are studied in their relationship with the speech that is produced during explanatory discourse episodes, here considered one type of problem-solving activity. The collaborative work carried by teacher and learners in order to clarify the meaning, form or usage of lexical items or grammar structures is a genuine form of what Zinchenko (1985) labelled *tool-mediated goal directed activity* and the discourse produced therein functions as a broad context for the interpretation of any gestural action. The utterances within which gestures actually occur function as the immediate context for the ascription of meaning to the gestures. The episodes selected for the study have been organized into

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[26]Terms referring to the phases of gestures are defined in chapters 2 and 4.

groups according to the recurrence of the observed phenomena. Prototypical examples are chosen and are then analyzed and interpreted according to the existing literature on explanations and gesture and the SCT framework with a view to answering the research questions presented in section 3.2.

The analysis took on different forms depending on the research question that was to be answered. Thus, in what regards Research question 1, which has structural concerns, the analysis consisted in identifying the phases of the teacher's gestural action and synchronizing them with speech, in addition to identifying recurrent patterns[27] of gesture configuration. As regards Research Question 2, based on previous theory, general patterns of functions performed by gesture were searched for in the episodes so that it could be demonstrated how gesture aids in the fashioning of utterances. Additionally, for Research Question 3, the data were scrutinized in order that the specific role of gesture in the explanatory discourse episodes could be unveiled. Furthermore, as regards Research Question 4, examples were analysed and compared so that it could be established whether the topic of an episode of explanatory discourse would favour the occurrence of one particular function of gesture.

It is necessary to say here that the analysis was somewhat hybrid. If, on the one hand, I chose to study all the gestures used by the teacher in the episodes analysed, on the other hand, the discussion in the data analysis chapter had to be based on single examples, given the difficulty in establishing with any degree of definiteness that a given gesture was found to play one particular role and not any other. The same gesture might be used for one purpose in one episode and for another in a different episode. This is so mainly because it is the speech that gestures accompany that serves as the immediate context for the attribution of meaning to gestures (McNeill, 2005), both for the analysts and for the participants in the interactions.

Thus, for example, the tables[28] in chapter 4 showing numbers of gestures performing particular functions are only to serve as illustrations. They aim to facilitate the reader's access to the instances of behaviour under discussion. By looking at a table, the reader will know in which episode one given gesture is to be found and which gesture unit it refers to in the episode. The use of those tables notwithstanding, for the present study, the concern is with *how* gesture is actually put to use during explanatory discourse episodes in the EFL class chosen for analysis and with

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[27] It is important to note here that the boundaries between data analysis and transcription/annotation are not very clear. In other words, when transcription and annotation were being made, part of the data analysis was simultaneously occurring.

[28] All tables are provided in Appendix I.

the effects it might have on the communicative exchanges. In other words, although tables are provided of gestures and the episodes in which they are found, the concern of the dissertation is not with counts and quantitative analyses. Rather than seek generalizations, the current study aims to analyse excerpts that best illustrate the arguments being made. All the findings, which refer to the gestural action of one single teacher in highly specific situations, can be countered or given strength to by further studies involving different teachers in similar contexts of explanatory discourse as well as in different contexts of interaction.

3.6 Summary of the chapter

In this chapter, I have presented the objectives of the research and the research questions designed for attaining the objectives proposed. The context of research has been described and information has been provided as regards the different steps that were followed, from the techniques for collecting the raw data in the classroom to the procedures of data analysis and interpretation. In the chapter that follows, the data analysis is carried out.

4

The nature of the gestural action of one EFL teacher in episodes of explanatory discourse

> How then did hominids evolve from mimesis to language? The first step could not have been simply to acquire phonological skill and construct an oral–verbal lexicon, grafted onto a mimetic brain. Nor could it have resided in the sudden acquisition of intentionality, reference, or any of the other features already present in mimetic culture. The most likely initial source of arbitrary symbols in mimetic culture would have been in the standardization of mimetic performance – that is, in gesture. Some degree of semiotic invention was inevitable in a mimetic culture, in the form of gesture. (Donald, 1991, p. 220)

Introduction

In Chapter 2 of this dissertation, I attempted to demonstrate that from a sociocultural perspective gestures are a powerful semiotic tool in mediating the collaborative construction of knowledge, linguistic knowledge, in our case. This seems to be so thanks to the high flexibility of gesture to come together with speech in various circumstances in order to create and communicate meanings in ways that are highly context-determined. The present chapter aims at presenting the analysis of the data collected in the classroom environment described in Chapter 3 with a view to throwing light onto gestural action as it is used by an EFL teacher in very specific situations that can be found in foreign language classrooms, namely, explanatory discourse, in our case, vocabulary and grammar explanations. In general terms, the analysis that I present in the current chapter reflects two distinct views on my object of analysis: by tackling my first research question, in addition to testing the applicability of the theoretical stance selected to guide the study, namely, the theory developed by Kendon (2004), I attempt to provide a structural description and explanation of the teacher's gestural action in the context selected, viz., his explanatory discourse; then, by tackling my other three research questions, I seek to offer an explanation of the functions of the gestures produced by the teacher, by relating these to his speech, to their context of use, and to the responses that he

obtains from his students as he interacts with them over vocabulary or grammar difficulties. Thus, this chapter is organized as follows: in section 4.1, I provide an analysis of the kinesic features, that is, of the parts that constitute the gestures found in the data; in section 4.2, I seek to analyse the teacher's gestures in order to unveil the general utterance meanings that they bring into the teacher's discourse; then, in section 4.3, I attempt to demonstrate the specific, context-determined meanings of the teacher's gestural action; finally, in section 4.5, I discuss the relationships that hold between gestures and the object of the teacher's explanatory discourse.

4.1 A detailed analysis of gestures in classroom explanatory discourse episodes: an application of the chosen theoretical stance

The present section is devoted to a detailed analysis of the gestures that occur in the explanatory discourse episodes selected for the study and seeks to answer my first research question, *What types of speech and gesture configuration, that is, variations in gesture performance, can be found in the discourse analysed?* Here, a description and analysis is offered of the different kinesic components of gestural action in the episodes studied and some variations of gesture performance are illustrated.

4.1.1 The kinesic components of gesture and their integration with speech

The objective of the present section is twofold. First, by resorting to a number of examples, it attempts to illustrate the various components that come together in the composition of a piece of gestural action. However, it must be acknowledged that several studies have been devoted to the issue of analysing gestures into their components (see for example, Kendon, 2004, 1980, 1972; McNeill, 2005, 1992) and that, if the task carried out in this section is to contribute to existing theories, such pay-off is in the way of testing their applicability as regards the context of my study. Second, the section aims to demonstrate how it is that utterances are fashioned that contain both speech and gesture during explanatory discourse episodes, that is, in situations in which the teacher is faced with the need to elaborate explanations on the meaning, usage, or form, of new lexical items or difficult target language grammar

structures, or when students are offered help in finding the right word to communicate their ideas. In sum, given the context chosen for the study, an effort is made to unveil the various parts a gesture can be broken down into as they are used in the construction of utterances and how these are put together with speech in the teacher's explanatory discourse.

It has already been suggested that in gesturing, the hand leaves a position of relaxation, performs a pattern of motion that is perceived as having meaning relevant to the ongoing communicational event, and returns to its initial resting position, or is made to rest at a new location (Kendon, 2004; McNeill, 1992). The whole movement, from the moment the hand leaves a position of rest, usually close to the body, performs a meaningful pattern of action, and relaxes again is referred to as a 'gesture unit'. The segment of motion that is perceived as expressive and is characterized by constituting the part of the gestural action containing the greatest amount of effort (Kendon, 2004) is referred to as the 'stroke' phase of the gesture. However, it should be noted that before the hand or any other gesturing body part is in an adequate position and configuration for the stroke to be performed, the body part involved, usually the hand, needs to leave a position of rest, normally close to the body, and move to a relevant position. This movement in which the hand is made to leave a position of rest and reach the place where the stroke action is to be carried out is named the 'preparation' phase of the gesture unit. The preparation phase in conjunction with the stroke phase constitutes the 'gesture phrase'.

After the stroke has been performed, the gesturing limb usually moves to a rest position, either the initial position or a new one, close to the body or against some object available in the setting. The retrieval of the hand towards a position of relaxation is termed the 'recovery' phase of gestural action and, although it is not considered part of the gesture phrase, it takes part in the composition of the gesture unit, which is a sum of the preparation, the stroke, and the recovery phases (Kendon, 2004). These are the canonical components of gestural action. Several variations in gesture performance are noted for the examples analysed in this section. However, before these are discussed, in what follows an example is analysed so that an illustration can be offered of all the phases of gestural action defined so far.

4.1.1.1 Simple gesture unit illustration

Gesture units have been found to contain one or more gesture phrases (Kendon, 2004; McNeill, 1992), the most common pattern being the gesture unit that contains one single gesture phrase followed by a recovery phase (McNeill, 1992). In my own data, I have found instances of this pattern, which I have labelled *simple gesture units*. I take advantage of one example in order to illustrate the kinesic components of gesture. Consider Segment 7 below, where students have been engaged in a task in which they need to describe the physical characteristics of famous people that they admire. The talk that is underway is already one characterized by a didactic objective, viz., that of having students practice vocabulary related to physical descriptions of people[29]. However, at one point, talk which had been related to the task at hand gives way to the embedding of metalinguistic commentary when one student seems not to be able to find an English word that describes her own colour of skin.

```
Segment 7. (from 1_VE_Dark-skinned_PA1)

07. Laura: Yeah, he's dark-skinned but not- she's
08.        not erm so dark, I mean, she's like me
09.        or a little bit more.
10. T:     Uh hum ((nodding)) olive-ski:nned.
                          |~~~~~~********|-.-.-|
                          [      GP3     ]
                          [          GU2         ]
```

In lines 07 through 09 Laura says "Yeah, he's dark-skinned but not- she's not erm so dark, I mean, she's like me or a little bit more", signalling that she is in doubt as to which word to use, to which the teacher responds by saying "Uh hum olive-ski:nned" (Line 10). It is interesting to note here that the teacher's verbal contribution is closely accompanied by gesturing. When he says "ski:nned", he slides the palm of his right hand back and forth in a rubbing fashion on the back of his left hand four times, as illustrated in Figure 7:

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[29]This activity has been described in section 3.4.2 of the method chapter.

Figure 7. Teacher slides right hand against back of left hand as he says "skinned".

This is the *stroke* phase of the gesture and it coincides temporally with the lexical item whose referent is somehow being drawn attention to by the stroke action, in other words, the rubbing action highlights or directs attention to the speaker's skin and that action coincides with the pronunciation of the word 'skinned'. However, for this action to be performed in close temporal proximity to its verbal *partner*, hand action must have been started beforehand, and that is what we see in the *preparation* phase of the gesture in which the left hand, as the teacher is saying "olive", rises to stomach level, palm turned down and fingers in a loose bunch. Left arm is held in a horizontal position parallel to front of body. Next, right hand rises, palm down and fingers close together and extended, and is placed on the back of left hand, where the stroke action is to be performed. Moreover, once the stroke action has been carried out in temporal and semantic synchrony with the relevant word in speech ("skinned"), the hands must resume a position of rest. Thus, during the *recovery* phase, fingers of both hands relax; right hand is slowly placed on desktop while left hand is placed on waist. In the example analysed, the recovery phase is carried out in the absence of speech.

The analysis of Segment 7 has provided an illustration of the simplest configuration of gestural action into a gesture unit as has been found in the data, which I have called a *simple gesture unit*. During the

data analysis, however, I have been able to identify gesture units that contained from one to several gesture phrases. These I have labelled *complex gesture units*. In the next section I examine an instance of gesture that contains more than one gesture phrase.

4.1.1.2 Complex gesture unit illustration: more than one gesture phrase

The example analysed previously contains a simple gesture unit, that is, a gesture unit which only has one gesture phrase and that has a preparation phase, a stroke phase, and a recovery. However, it is to be noted that a single unit of gestural action can contain several gesture phrases. When that is the case, gesture phrases can take different forms. They can either have a preparation phase in which the hand or another body part is moved to an adequate position before the stroke action is performed, as has been noted for the less complex example analysed previously or they can be made up of only the stroke action. Segment 8 offers a segment in which one gesture unit contains six gesture phrases:

Segment 8. (from **18_GE_Passive Voice I_PA5**)

```
56.        here erm eighty-five etc. Lip disks,
           ****|-.-|                 |*******|**
           GP49]                     [  GP50 ][
             GU10  ]                 [   GU11

57.        scars and tattoos ARE consɪdered to be
           ********|*******|******************|
             GP51  ][ GP52 ][      GP53        ]
                          GU11 (cont.)

58.        attractive is a variation of that.
           ~~*******/******|*****|-.|
           [    GP54   ][ GP55]
                  GU11 (cont.)    ]
```

In this segment the teacher, who has written a couple of sentences on the board illustrating one form of the passive voice – the passive report structure that takes the pronoun 'it' as a dummy subject – reads a sentence from his book which illustrates an alternative form of

the passive voice. In lines 56 through 58, he says "*Lip disks, scars and tattoos are considered to be attractive* is a variation of that". As the teacher says "*Lips disks, scars and tattoos*" (lines 56 and 57) he performs three downward beating motions (GP50, GP51 and GP52) with his left hand forefinger extended and striking against the page of the book each time, as is illustrated in Figure 8:

Figure 8. Index finger is used to highlight words, as if in list.

Next, as he says "are" in line 57, he turns his left hand so that it is held with palm facing upwards and fingers extended towards book, the stroke action being followed by a post-stroke hold during which the teacher says "*considered to be*". Then, as he says "*attractive is a variation*", he produces two additional gesture phrases, the first one synchronizing with "*attractive is a*" (line 58, GP54) and the second one coinciding with the three first syllables of "*variation*" (line 58, GP55). During GP54, the teacher, who has turned left to face board, extends his left forearm somewhat outwards and raises left hand towards board with palm vertical and fingers spread and extended loosely. Then, he oscillates left hand wrist in a manner that suggests the idea of 'approximation', which is represented visually in Figure 9 (p. 69):
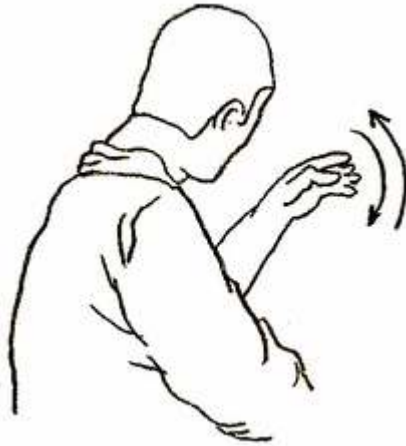
Figure 9. Left hand is made to oscillate in a gesture that stands for 'variation'.

Following this stroke action, as the teacher starts saying "`variation`" he turns his left hand palm up, still directed at sentence written on the board (Line 58, GP55). Finally, as he pronounces the last syllable of "`variation`", the teacher moves his hand downwards towards a rest position. Through Segment 8 it can be seen that a gesture unit can contain more than one gesture phrase, six in the present case, and that when this happens, strokes are not necessarily preceded by a preparation phase, as for gesture phrases 50 through 53 and 55.

In this and in the previous section I have examined some excerpts in order to describe and explain the different parts of which a gesture unit is made up and to illustrate two types of configuration that I have found in the data collected for the study. Nonetheless, additional components exist that can enter into the configuration of manual action that is perceived as gesture. This is the topic of the next two sections.

4.1.1.3 Pre- and post-stroke hold illustration

In addition to the three phases discussed and illustrated in the analysis of the *simple gesture unit* in section 4.1.1.1, there may be other features which occur in accordance with the needs of the speaker at the moment of creating an utterance that suits the communicative needs of

the communicational event. Such additional features include freezing
the motion of the gesturing limb at different moments. Kita (1990) has
identified a *pre-stroke hold*, which refers to the momentary freezing of
the movement of the body part involved prior to the onset of the stroke,
and a *post-stroke hold*, which refers to the freezing of the relevant body
part in the position and configuration achieved right at the end of the
stroke action. All of the additional features of gestural action are
illustrated by recourse to examples drawn from the data.

Consider Segment 9, where two gesture units are described that
contain a post-stroke hold and a pre-stroke hold, respectively. Although
the current analysis aims to illustrate the particular features of gestural
action *per se*, it should be borne in mind that each of the phases that
make up a gesture unit occurs strictly in accordance with the needs
relative to utterance construction within particular contexts of
occurrence and therefore may have variable meanings.

Segment 9. (from **11_VE_Smooth2_PA2)**

```
01. T:       Yeah? That's it? So he- what about
02.          'smooth'? 'Smooth'.
03. S1:      Skin.
04. S2:      Skin.
05. T:       S::kin, yeah. So, 'smooth' means soft to
             |~~**********|~~~~~**********************
             [     GP1    ][           GP2
             [                        GU1

06.          touch (0.2) without hai:r, yeah? When you
             *****************************____|-.|
                       GP2 (cont.)       ]
                        GU1 (cont.)              ]

07.          talk about a surface (0,9) you say that
                  |~~~~~~~**************************
                  [               GP3
                  [               GU2 (cont.)

08.          something is 'smooth' when (0.6) the
             ********|***********|****|~~~~~~~~~~
              (cont.)][    GP4    ][ GP5][  GP6
                            GU2 (cont.)
```

```
09.            surface is really regular. So, also your
               ~~~********************|~~~~~~~~~~~~~~
                    GP6 (cont.)     ][      GP7
                        GU2 (cont.)

10.            hand slides easily along it, yeah? (0.7)
               ~~~~~*************/*********/*****|-.-.|
                         GP7 (cont.)              ]
                         GU2 (cont.)              ]
```

In Segment 9 students have been working individually on a textbook activity in which they are supposed to match words from one list to words from a second list and, then, use the resulting phrases to describe one of two images provided on the same page of the textbook. The images are of a male and a female face created by a computer programme. During answer checking phase of the activity, the teacher asks the students what word goes with the word 'smooth', to which two students answer "skin", in lines 03 and 04. After that, the teacher engages in an elaboration of the meaning and usage of the word 'smooth'. In lines 05 and 06, the teacher provides two definitions of the lexical item saying "So smooth means soft to touch (0.2) without hair, yeah?" As he says "so", the teacher moves one step back so that his arms are held away in front his body, his right hand lying on the inside of his left arm, a position reached at the end of the stroke of a previous gesture. After that, the teacher slides the palm of his right hand up and down upon the whole length of left forearm starting as he says "smooth" and stopping only at the end of the speech, in such a way that a visual demonstration is offered of a surface which has the quality of being 'smooth' and is maintained so that it can be carefully examined by the students. Figure 10 (p. 72) provides a visual illustration of this type of hold:

Figure 10. Right hand is frozen into a post-stroke hold.

Following the stroke, instead of immediately moving his arms to some rest position, the teacher holds his right hand still upon the anterior part of his left forearm, which is still extended outwards towards the audience. This freezing of the stroke action is called *a post-stroke hold* and, in the present situation, seems to be a way of prolonging the visual display for the benefit of students. The post-stroke hold is performed when the teacher says "yeah?" (Line 06), in a confirmation check. It is only after this confirmation check has been made that the teacher's right hand leaves the left forearm surface and moves downwards to the right in a recovery motion.

In the same segment of interaction a second hold in the motion of the gesturing limb is seen, only now it takes place during the performance of a different phase of the gesture phrase. In lines 06 through to 10, the teacher elaborates further on the meaning of the word 'smooth' and as he says " So, also your hand slides easily along it, yeah?", he slides his left hand slowly forward along the surface of a desktop, brings it back to its initial position, slides it slowly forward one more time, and then performs a final quick sliding motion in a way that, by means of a visual display, an example is given of a surface that is smooth. However, prior to this stroke action, the hand had to embark on a preparation motion so that it would be in the appropriate location and shape. Thus, with palm down and fingers extended pointing towards right, the teacher moves his left hand down

and rests it against the top of the desk. Nevertheless, at the end of the preparation phase, in his speech ("So, also", Line 09) the teacher has not yet reached the point where the stroke action is to be performed, that is he still has something to say before he produces the locution which is to be accompanied by a gesture, that is, by the meaningful part of the gesture, the stroke. Thus, before the moment comes for the stroke to be carried out and as the teacher says "your hand" in lines 09 and 10, he needs to freeze his left hand in a *pre-stroke hold* in order for the upcoming stroke action to coordinate temporally with the segment of speech with which it is to cohere in semantic terms, viz., the locution "slides easily along it, yeah?", in line 10. In addition to these two types of hold, a third type is to be noted in the present data, viz., a hold or freezing of action within a stroke, which I have named *within-stroke hold*. A visual representation of this stroke can be seen I Figure 11:

Figure 11. After having placed left hand on desktop, teacher freezes gesture into a pre-stroke until he starts saying "smooth".

4.1.1.4 Within-stroke hold illustration

In addition to the two previous types of hold in gestural action, a third one, not mentioned in the literature, has been found in the data analysed for this dissertation. At some moments, the gesturing limb is

seen to freeze during stroke performance, in what I have labelled a *within-stroke hold*. An instance of this type of hold in gesturing is analysed in Segment 10.

```
Segment 10. (from 8_VE_Smooth_PA2)

01. Isaura:   'Smooth'?
02. T:        (.........1.6.........) erm it means either no hair
              |~~~~~~~********************************
              [                       GP1
              [                       GU1

03.           (0.6) or soft to touch (.........1.8.........).
              ****/**********************|-.|
                       GP1 (cont.)          ]
                         GU1 (cont.)         ]
```

In Segment 10 students are working in the same activity as described for Segment 9, viz., they are working individually on a textbook activity where they need to match words and expressions from two columns and use the resulting phrases to describe two faces provided on the same page. At one point, one student, who does not seem to be able to continue the activity because she does not know the meaning of a word, asks the teacher for help, asking "Smooth?" in line 01. The teacher makes a second pause and then provides the student with two alternative definitions of 'smooth: in lines 02 and 03 he says "erm it means either no hair (0.6) or soft to touch". The two definitions are closely followed by an expressive movement of the two forelimbs. As the teacher says "erm it means either no hair" (line 02), he slides his right hand up and down on his left forearm three times and, as he says "or soft to touch" (line 03) he repeats that pattern of action, only now it is performed somewhat more gently. The stroke action of GP1 (Gesture Phrase 1) seems to draw attention to an example of a surface that has the quality of being 'smooth', that is, through gestural action the teacher manages to give an illustration of the two meanings contained in the definitions.

What is interesting to note in this example is the fact that the stroke action is divided into two parts, being separated by a hold, that is by a freezing of the gesturing forelimbs. After offering the student the first definition of 'smooth', the teacher makes a short pause in his speech and coordinates that pause with a freezing of his gestural action

in a manner that suggests that he might be either gaining time to think of an alternative definition or extending the visual display provided in the gesture, for during the pause in speech, the teacher keeps his right hand on top of his left forearm. See Figure 12 for an illustration of this type of hold:

Figure 12. Within-stroke hold, in which a gesture is frozen during its stroke phase.

4.1.1.5 Summary of section 4.1

The present section has been devoted to the discussion of a number of examples that illustrate the various forms taken by gestural action in the data. First, it has been shown that the gestures in the data occurred in the form of simple gesture units, that is, gesture units containing only one gesture phrase, or complex gesture units, in which case they have been found to have more than one gesture phrase. As, regards the kinesic components of the gesture units, the data analysis has revealed that the gestures examined have a preparation phase, a pre-stroke hold, a stroke, a within-stroke hold, a post-stroke hold, and a recovery phase, of which only the preparation phase and the stroke seem to be obligatory, as advocated by Kendon (2004). Although holds have been reported in the literature (Kendon, ibid.; Kita, 1990; McNeill, 1992), no mention has been found of holds within a gesture stroke. I

have not made any attempt to quantify the occurrences of each patterning of gestural action. What is important to retain is that a gesture unit may contain a preparation phase, a stroke phase, and a recovery phase and that of these only the preparation phase and the stroke constitute the gesture phrase, since these are perceived by interactants as meaningful and only the stroke is obligatorily present in a gesture phrase (Kendon, 2004). Additionally, a gesture unit may contain one or more gesture phrases. In the section that follows, an attempt is made to identify and discuss the different types of semantic contributions that gestures in the data analysed contribute to the utterances that they are a part of. The hierarchic structure of gesture is illustrated in the following diagram (based on McNeill, Levy and Pedelty, 1990[30]):

```
                    Gesture Unit
                         |
              Gesture Phrase  +  Recovery
                 |           |
            Preparation    Stroke
                 |           |
              Hold         Hold
           (pre-stroke)  (within-stroke
                          or post-stroke)
```
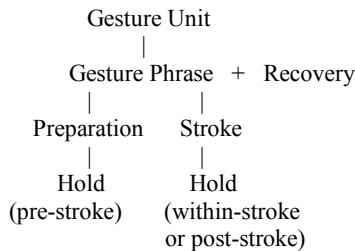
Having discussed the teacher's gestures in terms of their kinesic organization and demonstrated the applicability of the theory chosen to guide the study, I now turn to the analysis of some examples in order to identify the main utterance functions performed by the gestures in the data.

4.2 Contributions of gestures to utterance meaning: how gestures contribute to utterance construction in semantic terms

In this section, several examples are analysed and interpreted that illustrate the several functions taken on by the gestures in the data as regards the type of meaning that they bring in for utterance formation. The section addresses my second research question, *What are the*

---

[30] Although this diagram is based on McNeill, Levelt and Pedelty (1990), it must be noted that those authors, differently from Kendon consider the gesture phrase to include the preparation phase, the stroke and the recovery, or retraction, as they prefer to call it. Additionally, Kita (1990) is credited with the discovery of holds in gesture performance, although that author does not entertain the possibility of holds within a gesture stroke.

general functions of the gestures used by the teacher as he explains vocabulary or grammar structure? Do the findings provide a firm ground on which to base the claim that gesture use varies in relation to the specificity of the explanatory discourse, that is, vocabulary explanation, as opposed to grammar explanation? Whereas the previous section has been devoted to a description of the different components of which the gestures in the data are made up and their variations, the aim of the present section is to provide a description of the several types of function taken on by the gestures in the explanatory discourse episodes analysed in such a way that it can be demonstrated how it is that gestures contribute to the construction of utterances in semantic terms. In what follows, examples are given and discussed of gestures according to the types of meaning that they have been found to contribute to utterances in the teacher's explanatory discourse[31] (see discussion of Kendon's gesture theory in Chapter 2). I have been able to find gestures that aid in utterance construction by bringing in both referential and pragmatic functions. Gestures found to have *referential functions* (Kendon, 2004), that is, gestures that have the function of contributing propositional[32] meaning to utterances are discussed in section 4.2.1 and those gestures with *pragmatic functions* (ibid.), or more specifically, those that contribute modal, parsing and performative meanings to the utterances of which they are a part, are discussed in section 4.2.2.

4.2.1 Gestures with referential functions

Gestures with *referential functions* help to create representations of aspects of reality that we experience (Kendon, ibid.). The analysis of the explanatory discourse episodes has revealed that the gestures produced by the teacher achieve referential functions in two very diverse manners. On the one hand, they seem to provide a *representation* (ibid.) of a discrete element of reality. On the other hand, the referential function of gestures was also achieved through *deixis* (ibid.), that is, it was realized by means of actions in which a body part

---

[31] It is important to note that, although the focus of the study is on the teacher's gesture and discourse, his discourse, even in those cases where he engages in long grammar explanations, is the dialogic output of his interaction with his students.

[32] Although there is a distinction between *referential* and *propositional* functions (Lyons, 1981; Cruse, 1973), Kendon uses both terms interchangeably in order to refer to the capacity that gestural action possesses, in cooperation with speech, to semiotically construe our experience of the world.

was used to point at some contextual element which was the referent of, or was related to, the spoken component of the utterances. Representational gestures are discussed in 4.2.1.1 and those with deictic functions are discussed in 4.2.1.2.

4.2.1.1 Representational gestures

Consider Segment 5[33] again, in which the teacher uses a representational gesture:

```
Segment 5. (from 4_VE_Sparkling eyes_PA1)

14.Helena[34]: Claudia Raia erm both have (0.6) energy
15.          and beautiful appearance=
16.T:        Uh hum.
17.Helena:   =but (0.4) more erm their eyes is BIG and=
18.T:        For themselves.
19.Helena:   =(xxxx) I don't know exactly how to (xxx)
20.T:        A:::h       they have sparkling eyes.
                        |~~~~~~~~~**********/**|-.|
                        [          GP1        ]
                        [             GU1            ]

21.Helena:   ((giggles)).
23.T:        Uh huh ((nodding)).
```

This segment[35] has been taken out of a larger piece in which teacher and students have been interacting over a task that calls for a description of personalities whom the students admire, as has been explained in section 4.1.1.1. Helena, who has been talking about two Brazilian female artists, experiences difficulty in finding an adequate word to describe the eyes of these two personalities, a problem that can be seen in lines 18 and 20, where she says "their eyes is big and (xxxx) I don't know exactly how to (xxxx)".

Although the student cannot find the necessary word, she does seem to be able to make herself understood by the teacher. In line 21, as

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[33] Already dealt with in Section 2.5.3.

[34] In all transcripts, the teacher is identified as **T.** and the students are assigned fictitious names so that their anonymity is maintained.

[35] See full episode in Appendix II.

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the student is still talking, the teacher says "A:::h", showing that he has understood her and then, before Helena has ended her turn, he offers her the word that she seems to be trying to find. The new lexical item comes in a sentence that functions as a summary of the student's words: still in line 21, the teacher says "they have sparkling eyes". Although the word 'sparkling' is probably the word that Helena needed and either could not recall or did not know, there still is the possibility that the exact meaning of this word may remain obscure to her and to the other students participating in the conversation. Thus, in a probable anticipation of this difficulty, the teacher produces a representational gesture (GP1) as he says "they have sparkling" in line 21. This is visually represented in Figure 5:

Figure 5. Hands are opened with fingers spread at eye level as the teacher says "sparkling".

At the same time as he says "they have", the teacher raises both hands up into bunch facing each other in front of his face in preparation for the impending stroke action, which is the meaningful part of the gesture. Next, as the teacher says "sparkling", he moves his hands away from his face and, in the meantime, opens them so that palms are facing obliquely upwards and fingers are fully extended at around shoulder level. The stroke action of this gesture may be considered a *semantic specifier* (Kendon, 2004). However, in the example analysed, the gesture may be considered a semantic specifier

only insofar as its context of use is taken into account, that is, the fact that the gesture has been used in a pedagogical context. Otherwise, it might simply be providing an illustration of what its verbal counterpart stands for, given that it makes explicit the meaning of the co-occurring speech, as intended by the teacher. If we conceive of the term 'sparkling' as meaning 'the quality of that which emanates gleams of light', then we might interpret the opening of the hands and the spreading out of the fingers in GP1 as a pattern of action that represents or stands for the emission of light, the spread fingers indicating the gleams of light and the preceding closed hands standing for the source of light. Confirmation for this interpretation of GP1 may be found in Segment 11, a segment of interaction in which, working on a textbook activity, students are supposed to match words and expressions of two columns and then use them to describe a female and a male face provided on the same page of the textbook where the activity is given.

Segment 11. (from **9_VE_Sparkling_PA2**)

```
1. Isaura:  'Sparkling'?
2. T:       Shining.
3. Isaura:  Shining? (0.6)
4. T:                    Yeah, emitting light of some
           |~~~~***/***/****/****/*****|-.-.|
           [               GP1            ]
           [                GU1                ]

5.          kind.
```

In this example, not knowing the meaning of the word 'sparkling', which appears under the first column of the activity described in the previous paragraph, Isaura turns to the teacher for help, asking "Sparkling?" in line 01. The teacher promptly answers by providing the student with the synonymous word 'shining', in line 02. Still troubled, in line 03 Isaura says "Shining?" probably asking for further clarification. At the same time as the student begins speaking now, the teacher starts producing a gesture. The preparation phase and the first part of the stroke of the gesture are carried out in the absence of speech on the part of the teacher. The teacher prepares for the stroke action of the gesture by raising his left hand up in front of his face, palm neutral turned away from body, fingers spread and partially extended. Next, the teacher closes his left hand into fist and opens it again very

quickly five times, as if mimicking some object emitting light in a flickering manner. At the same time he turns slowly to the right so as to make his hand visible to all students. However, it is important to note that after a brief pause following the student's question, the teacher confirms his answer, which had been echoed by the student in question format, and provides a paraphrase of the term 'shining' saying "Yeah, emitting light of some kind" in lines 04 and 05. The first and second closing and opening of the hand take place before the teacher has started speaking while the other three synchronize with the segment "Yeah, emitting". A visual representation of this is offered in Figure 12:
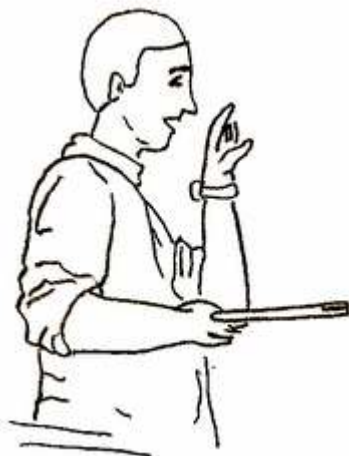
Figure 12. Left hand closes and opens several times to signify "emitting".

In Segment 5, the hand stands for some light-emitting object while the fingers moving in and out stand for the rays of light emitted. This action is an illustration of the meaning of both 'shining' and 'emitting' and the locution "emitting light of some kind" in lines 04 and 05 is a definition of the term 'shining' and serves to explain the meaning of the term 'sparkling', the only difference being that in that example there is only one stroke phase whereas in Segment 11 there are five of those, the repetition of the stroke action being consistent with the idea of an intermittent issuing of light. Both in Segment 5 and in Segment 11 we have instances of gesture with referential functions, that

is, gestures that are used for providing a visual representation of some aspect of reality that is at issue. Additionally, the fact that in Segment 11 the gesture co-occurs with the verb in the locution "`emitting light of some kind`", which can be taken as a direct verbal equivalent of the gesture, may be giving support to the interpretation of the gesture in Segment 5 as having the same meaning, although in that example it was the gesture that was intended to clarify the meaning of its co-occurring speech. For the sake of illustration, in Table 3 (Appendix I), I provide a list of the representational gestures that have been found in the episodes analysed in the study.

Having discussed two instances of representational gestures, I now turn to the presentation of a second type of gesture that appears in the data, viz., gesture that has deictic properties.

4.2.1.2 Deictic gestures

Generally speaking, these are gestures in which a body part is used in order to point at some object with a view to locating it (Kendon, 2004). Eventually, some object may also be used to do the pointing. Consider Segment 12:

```
Segment 12. (from 18_GE_Passive Voice I_PA5)

72. T:       (…0.7…) For this reason how do they call
73.          him?
74. Sts:     King.
75. T:       (.) The kin::g, exactly, so you would say
76.          Pelé (0.9) is considered (2.1) to be
77.          (1.7) the king (1.5) of soccer, the
78.          eternal (2.6) king of soccer, yes? O:r
79.          you could say (1.3) it is thought (2.6)
80.          that Pelé (1.6) is the eternal etc, yeah
81.          so these are (1.0) structures that are
             |~~~~~~~~~***/*****/***************/***
             [               GP65
             [               GU17

82.          possible when you wanna make it more
             ********|~~
              GP65   ]
              GU17 (cont.)
```

```
83.          impersonal, instead of saying 'people',
84.          'society', the public in general, yeah?
```

The segment contained in Segment 12[36] is part of the discourse produced as the teacher provides the students with an explanation of two particular passive voice structures that are used for reporting information and which can take one of the two following forms: IT + AUX + REPORTING VERB + THAT or SUBJECT + AUX + REPORTING VERB + TO + MAIN VERB. A number of examples with the two forms have been written on the board and now the teacher tries to have students participate in the construction of additional examples. Thus, taking up a word suggested by one student (line 74) to characterize Pelé, the famous Brazilian football player, the teacher creates sentences using the two passive voice forms. On the board he writes *Pelé is considered to be the king of soccer* and *It is thought that Pelé is the eternal king of soccer* (Lines 76 through 80). Then, after having written the examples on the board, the teacher makes a summarizing statement on those examples: "so these are (1.0) structures that are possible when you wanna make it more impersonal, instead of saying 'people', 'society', the public in general, yeah?" As he makes this metalinguistic comment, the teacher produces a complex pattern of gestural action, of which the first part is of interest here. When he says "these are", he directs an open left hand towards sentences written on the board, palm held upwards, which can be better visualized in Figure 13 (p. 84):

---

[36]This segment has been taken from the same episode as Segment 8, analysed in sections 4..1.1.2.
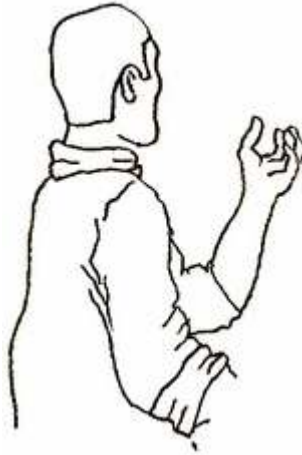
Figure 13. Teacher points at sentences written on the board using his palm up left hand as he says "these are".

Given the characteristics of this gesture, that is, the use of the hand to point at something and the motion as motion towards something, it is considered to be a gesture with deictic properties. Through this gesture, attention is directed to the sentences written on the board. This is necessary, for those sentences constitute the referent of the verbal deictic "these" (line 81) and are the scope of the metalinguistic comment in lines 80 through 84. The pointing gesture serves both to locate that which is the referent of the verbal deictic and to mark it as the object of commentary, the latter being one of the functions that have been identified for the palm up open hand gesture (Kendon, 2004).

Table 3 (Appendix I) provides a list of the episodes that contain deictic gestures. So far, I have analysed gestures that have *referential* functions, more specifically, representational, and one example of pointing, or deictic, gesture. Figure 14 shows in schematic form the gestures that have been dealt with so far:

Figure 14. *Types of referential gestures and their uses*

	Representation	→ Illustrating
Referential		
	Pointing	→ Identifying

In addition to gestures that contribute to utterance meaning in this fashion, the data analysis has revealed that the teacher made extensive use of gestures that related to his speech and to the ongoing interaction not in terms of referential meaning but in terms of pragmatic meaning. These gestures are discussed in the next section.

4.2.2 Gestures with pragmatic functions

In the paragraphs that follow I set out to discuss those gestures which bear pragmatic functions[37]. These gestures have been found to contribute to utterance meaning in three ways. They are seen to add interpersonal meaning to utterances, in which case they mark utterances as being one particular speech act or communicative move. These gestures are referred to as *performative gestures* (Kendon, 2004). The gestures analysed here have also been found to show the perspective from which the speaker regards what he is saying or the manner in which he wishes what he is saying to be considered by his audience. Such gestures are known as *modal gestures* (ibid.). Finally, gestures have been found that act on the structure of the verbal discourse that they co-occur with. These gestures have been called *parsing gestures* (ibid.). The analysis carried out in the following sections, though revealing, only captures the general pragmatic functions of gestures just mentioned. I offer a more detailed analysis of the specific ways gestures with pragmatic functions are put to use in the teacher's explanatory discourse in section 4.3.3 and following subsections.

4.2.2.1 Performative gestures

As explained previously (Chapter 2), gestures with performative functions are used to show what type of speech act one particular segment of discourse is (Kendon, 2004). They may be used to show that a given utterance is to be regarded as a question, an offer, or a request, among others. Consider Segment 4 again (already addressed in Section 2.2 of Chapter 2):

---

[37]   These have been discussed at length in Chapter 2.

```
Segment 4. (from 2_VE_Brunette_PA1)

06.Laura:    (xxxxxxxxx) ah Johnny Depp, for example,
07.          erm I like erm erm you know, dark,
08.          olive-skinned and brunette guys.
09.T:        No, brunette only for girls=
             |~~******|~~~~~~~~~********|
             [  GP1   ][      GP2      ]
             [                GU1

10.Laura:                                  Ah, for girls!?
                                            -.-.-.-.-.-.-

                                             GU1 (cont.)

11.T:        =yeah.
             -.-.-.|

              GU1   ]

12.Laura:    How do you say? Brown- hair guys?
13.T:        Brown-hair guys. ((nodding))
```

     Segment 4 is a piece from the same pedagogic activity (PA1[38]) from which Segment 5 discussed previously (section 4.2.1.1) was taken, the one where students describe famous people. In this segment Laura is talking about a famous American artist whom she likes. At one point, in lines 07 and 08, when she explains why she likes this particular artist, saying "I like erm erm you know, dark, olive-skinned and brunette guys", she misuses the word 'brunette'. The student uses that word to describe a male person; however, that lexical item can only be used for describing female persons. Upon hearing this, the teacher immediately corrects the student, explaining the usage of the word at issue. In line 09, he says "No, brunette only for girls". Here, instead of producing a representational gesture to synchronize both temporally and semantically either with "brunette" or "girls", and because what is at issue is not the meaning of the word but how it is to be used, the teacher produces two gestures. The first one (GP1) synchronizes with "brunette" and is used to counter what the student has said previously and to prepare the ground for an impending

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[38] See Method chapter.

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corrective statement. This gesture, in which the teacher turns the palm of left hand towards his interlocutor, is represented in Figure 15:

Figure 15. Palm turned toward interlocutor in gesture of denial.

Following the gesture of denial, the teacher produces a gesture that synchronizes with "`for girls`", the new information that he is providing, and the gesture used is one that acts on this portion of discourse in terms of its interpersonal meaning, that is, in term of its quality as part of an exchange. Figure 16 is an illustration of this gesture:
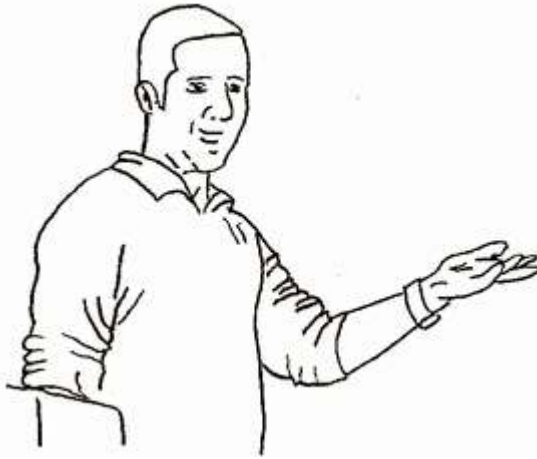
Figure 16. Left hand is held palm up in presentation manner to mark
part of speech as "offer".

In line 09, as the teacher says "No, brunette" he moves his
left hand outwards and upwards to shoulder level and turns palm toward
Laura (GP1). Then, as he says "for girls", still in line 09, he turns
his left hand so palm up in an outward rotation of the wrist and a
simultaneous extension of forearm (GP2), thus performing a palm-
presentation movement. This gesture takes on the role of presenting the
spoken discourse it co-occurs with. More specifically, it marks the new
information given orally as an offer. In other words, it is as if in the
gesture the new piece of information is being offered as an object for
inspection on the part of the student. It is important to note that it is this
part of the teacher's discourse that is taken up by Laura. Thus, because
they signal to the interlocutor what type of move a given discourse
segment is, these gestures are said to have performative functions.

A list is provided in Table 3 (Appendix I) of all the occurrences
of performative gestures in the explanatory discourse episodes studied.
The list shows the episodes in which performative gestures are used as
well as the gesture unit and gesture phrase within which they are
located. Having analysed an example of performative gesture, I turn
next to a discussion of a modal gesture, the second type of gesture with
pragmatic function found in the data.

4.2.2.2 Modal gestures

Some gestures have been observed to act on portions of spoken discourse that, differently from those that have performative functions, an example of which was analysed in the previous section, seem to mark whole stretches of speech in terms of the perspective from which the speaker relates to what he or she is saying or in terms of how he or she intends interlocutors to interpret such discourse. Such gestures may, for instance, show that a speaker regards what he or she is saying as a hypothesis, a denial, or as something he or she is not completely sure of. Gestures of this type are said to have modal functions (Kendon, 2004). An instance of a gesture acting to 'modalize' the discourse that it co-occurs with is given in Segment 13:

```
Segment 13. (from 18_GE_Passive Voice I_PA5)

51.        having everything here in this place
52.        would be too long, would be complicated,
53.        so (0.5) we put a 'dummy' (0.5) subject
              |~~~~~~************************** 
              [              GP46
                    GU10 (cont.)

54.        here, yeah? And this represents the whole
           ****/*****|~
              GP46    ]
            GU10 (cont.)
```

In Segment 13, after having written an example on the board to illustrate one particular form of the passive voice – this has been described for Segment 12 (section 4.2.1.2) – the teacher explains the reasons for the specific ordering of the words in that sentence. In lines 51 and 52, with the aid of pointing gestures, the teacher explains that changing the order of the words would be something difficult to do and that the outcome would be an unusually long sentence. Then, in lines 53 and 54, saying "so (0.5) we put a 'dummy' (0.5) subject here, yeah?" he offers a solution to the problem, that is, by referring to the pronoun 'it', which is used as the subject of the sentence being analysed, he demonstrates how the sentence can be made shorter. The sentence that the teacher is discussing is *Until thirty years ago it was believed that milk and mango couldn't go together* and the contrast that he is trying to build is with a hypothetical sentence where

the subject slot would be filled by the words "`milk and mango`", which would demand complex changes in the ordering of the remaining words. This might have the undesired effect of making the sentence unintelligible.

It should be noted that as the teacher comments on the use of the pronoun 'it' in subject position as the solution to the word-order problem, he engages in a complex pattern of gestural action that appears to show his stance on the new information that he is offering the students. During a pause of five tenths of a second and as he says "`we`" (Line 53), he raises his left hand to the side of his face, with index finger extended pointing upward. This upward motion of his left hand is closely followed by his right hand, which rises up to the right side of face, index finger fully extended upwards. This is the preparation phase of the gesture phrase (GP46). Next, as the teacher says "`put a dummy subject here`", he wiggles both index fingers several times in a gesture that could be understood as bracketing what is being said in speech. This is a narrow-gloss gesture (Kendon, 2004) – also named an emblem (McNeill, 1992) – that stands for inverted commas ("") in written language and is used for similar purposes, viz., to show the speaker's wish that interlocutors regard a given segment of discourse in one particular manner, in the present case that the students should regard the expression "`dummy subject`" as tentative and that he cannot take full responsibility for it, since it might be the case that he may be using the words of another, possibly from a grammar book, that is, he might be quoting the words of another. Figure 17 (p. 91) is an attempt to provide a visual illustration of this gesture:

Figure 17. Forefingers wiggle to mean "in brackets" as the teacher says "dummy".

In Table 3 (Appendix I) a list can be found of the episodes that contain gestures with modal functions. Both gesture units and gesture phrases are identified.

4.2.2.3 Parsing gestures

Having analysed an example of a modal gesture, I now turn to the presentation and analysis of an instance of a gesture that has parsing functions (Kendon, 2000, 2004), that is, a gesture that acts on the speech that it accompanies in such a manner that it highlights relevant parts of that speech as regards its logical and textual organization. Consider Segment 14:

```
Segment 14. (from 19_GE_Passive Voice II_PA5)

01. Carlos: Unmarried women sometimes is- it is- it
02.         is (1.0) assumed uhh are looking for
03.         husbands.
04. T:      Well, when you have this kind of
            |~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~*
            [                 GP1
            [                 GU1
```

```
05.          impersonal sentence, so normally
             ******************/************
                        GP1 (cont.)
                        GU1 (cont.)

06.          you start by this 'it', yeah so it is
             ****************/****|~~~~~~~~***|
                 GP1 (cont.)   ][    GP2    ]
                        GU1 (cont.)

07.          sometimes assumed (0.8) that women (2.4)
```

In Segment 14, which has been taken from a larger episode where the teacher engages a second time in the explanation of the particular form of the passive voice discussed previously. The explanation episode is embedded in the correction phase of a written grammar exercise which students had been assigned as an individual activity. At one point one student, Carlos, does not seem to be able to correctly use the form of the passive voice that is the focus of the exercise.

Noticing the student's difficulty, the teacher intervenes (lines 04 through 06) and tells him how the sentence should start, that is, that the sentence should begin with the pronoun 'it' as subject. He says "Well, when you have this kind of impersonal sentence, so you normally start by this 'it', yeah" (lines 04 through 06). This utterance might be broken down into two parts so that its logical organization can be displayed. Thus, the first clause may be considered to be the statement of a premise and the second one may be the conclusion resulting from that premise. In logical form, the organization of the utterance could be stated as "if A, then B". Remarkably, it is in the gestural action performed synchronously with this segment of speech that we may find evidence for such an interpretation of the logical organization of the utterance.

As the teacher says "Well, when you have this kind of" in line 04, he moves his left forearm upwards towards left and closes it into a finger bunch, palm facing downwards. This is the preparation phase of the upcoming stroke action. Then, as the teacher says "impersonal", he moves bunched hand slowly somewhat upwards and then downwards further to the left towards Carlos, the student who has been facing difficulty, which can be seen in pictorial representation in Figure 18 (p. 93):

Figure 18. Left hand is closed into finger bunch as the teacher says "impersonal sentence".

Next, as the teacher says "so `normally you start by this`" (lines 05 and 06), he opens his left hand out of bunch shape and moves it further up outwards towards student, palm held vertical and fingers extended together forward, which is illustrated in Figure 19:

Figure 19. Bunched hand is opened, palm up directed at audience, as the teacher says "so normally start by this".

After that, he raises his hand up a little and then brings it down in a short amplitude thrust, palm still vertical and fingers extended, the downward thrust synchronising with "it" (line 06). Figure 20 is a visual representation of this beating motion:

Figure 20. Palm up left hand beats once to emphasize "it".

The first part of the stroke action, the finger-bunch motion that synchronises with "impersonal sentence" may be interpreted as an effort on the part of the teacher to index the information contained in that segment of speech as something that deserves special attention. The opening of the hand that takes place as the teacher says "so you normally start by this" seems to be marking this part of the discourse as the consequence of the premise expressed in the previous clause and indexed by the first part of the stroke. Thus, it might be argued that this gesture functions as a visual display of the logical organization of the utterance that it is a part of.

An alternative interpretation might be that the grabbing action suggested by the closing of the hand into a bunch shape marks the information given orally as 'topic' and the subsequent opening of the hand marks the clause that it synchronises with as 'comment. In other words, the stroke action of the gesture phrase in Segment 14 (GP46) may be marking the discursive structure of the utterance that it helps to fashion. In both interpretations the gesture may be said to have what Kendon has called *parsing functions* (2004). In Table 3 (Appendix I), I

offer a list of the episodes that contain gestures with parsing functions. Gesture units and gesture phrases are also identified. A schematic presentation of gestures with pragmatic functions can be found in Figure 21:

Figure 21. *Types of pragmatic gestures*

	Performative	→ Specifying speech act
Pragmatic	Modal	→ Showing attitude
	Parsing	→ Structuring discourse

Although the current study does not aim to provide a quantitative analysis of the data, as I examined the explanatory discourse episodes I could note an apparent tendency – which can be better visualized in Table 3 (Appendix I) – that gestures with referential functions are more used in episodes of vocabulary explanation than in episodes of grammar explanation and, conversely, gestures with pragmatic functions are more used in episodes of grammar explanation[39]. Out of a total of 94 gestures with referential functions, 65 were found in episodes of vocabulary explanation whereas only 29 were found in episodes of grammar explanation. As regards gestures with pragmatic functions, out of a total of 113 occurrences, 16 were found in explanatory discourse episodes whose focus was on vocabulary whereas 97 were found in those episodes in which the focus was on grammar structure. This information is summarized in Table 4, below:

Table 4. *Gesture distribution*

Gesture Type	Context		Total
	Vocabulary	Grammar	
Referential	65	29	94
Pragmatic	16	97	113

---

[39] This issue will be dealt with in due detail in section 4.4.

4.2.2.4 Summary of section 4.2

The aim of the current section has been to offer a description and analysis of the gestures used by the teacher during explanatory discourse episodes and their semantic functions. It has been demonstrated that the gestures employed by the teacher have both referential and pragmatic functions. Additionally, a suggestion has been made that there probably is a relation between the type of explanation in which a gesture occurs and the type of gesture used. This issue is tackled in section 4.4. Before that, in section 4.3, I offer a discussion of the specific role played by gesture in the explanatory discourse episodes analysed. This is necessary because, although the analysis carried out so far has shown that the gestures produced by the teacher within his explanatory discourse perform the functions identified in Kendon (2004), these functions seem to be very general and a deeper look into the data is thus needed before it can be established in which ways specific types of gestures are linked to specific types of explanation. In other words, an analysis needs to be carried out that unveils the more context-determined role of gestures. Nonetheless, the analysis carried out so far has demonstrated that the functional categories presented in Kendon (2004) can be applied with positive results as regards general utterance meaning.

4.3 The specific role of gesture in the explanatory discourse episodes: going deeper into the referential and pragmatic dimensions of gestures

In section 4.2, I have indirectly sought to demonstrate that the gestures analysed play an important part in the construction of the utterances produced by the teacher during explanatory discourse episodes. I have attempted to do that by showing that gestures contribute two major types of meaning to the utterances that they are a part of. The first one, where the meaning is referential, that is, meaning of a propositional kind, in which case gesture aids in the description of a particular event, that is to say, the meaning conveyed gesturally is part of the content of what the teacher wants to say. The second type of meaning is pragmatic, that is, it is related to the communicational situation and to the teacher's speech as discourse. Several functions were identified that gestures have as regards the sort of meaning they contribute to utterances. However, those functions are somewhat general

and can be found in most communicational events, irrespective of the contexts of use of the gestures. Thus, the particular ways gestural action aid in the construction of the teacher's utterances in the specific environment where it is used – explanatory discourse – remain to be unveiled. Generally speaking, the data analysis so far has demonstrated that gestures with referential functions act as illustrators vis-à-vis the meaning that they are used to convey and deixis has been carried out not only through speech, but also through pointing gestures. As has been said before, both pointing gestures and representational gestures are considered to have referential functions. They differ, however, in the manner in which they bring referential meaning into utterances. Whereas the latter create images of aspects of their referent, usually also referred to in speech, the former bring referential content to the utterance by actually locating some relevant entity, either in the immediate environment or in a virtual, symbolic space laid out in front of the speaker. Additionally, pragmatic gestures have been demonstrated to segment the spoken discourse into smaller parts, to qualify that discourse, and to mark the teacher's intentions as regards what he is saying. However, if we are to have a better picture of the role of gesture in the particular context chosen for investigation in this dissertation, a more detailed analysis needs to be carried out. This is not to dismiss the categories of functions proposed by Kendon (2004) or to disqualify the theoretical background adopted for the study. In fact, that author warns that finer-grained analyses are always welcome when the general categories do not seem to capture the specificity of the context under scrutiny (ibid., p. 107). Thus, the task set for the current section is to provide a discussion of the role of gesture as illustrator (4.3.1), describe and explain the particular uses that pointing is put to (4.3.2), and to discuss the specific role played by gestures with pragmatic functions (4.3.3). The section aims to answer my third research question, *What are the specific contributions that gestures bring to the explanatory discourse that they help construct?*

4.3.1 The illustrating role of gestures

In the current section, an effort is made with a view to disclosing what specific roles representational gesture plays in the explanatory discourse episodes studied. Generally speaking, by analysing the data I have sought to demonstrate that gestures are used by the teacher to provide a visual *illustration* of the meaning of a new vocabulary item.

However, illustration takes place in varied, context-sensitive manners. Illustration has been found to be achieved in the following different ways[40]:

1) Gestures are used that provide meaning that is parallel to that already provided in the teacher's words, that is, the teacher makes use of gesture to offer examples of what is being explained;

2) Through gestural action the teacher clarifies the meaning of the lexical item being explained by making it more restricted, that is, he provides the students with a gestural expression that *complements* the meaning of what is said in speech;

3) The teacher uses gestures that function as supplements to the meaning provided verbally;

4) By resorting to gestures, the teacher manages to offer his students a visual display of the object that is being talked about;

5) Finally, the teacher uses gestures that create an image of the object of a verbal deictic expression.

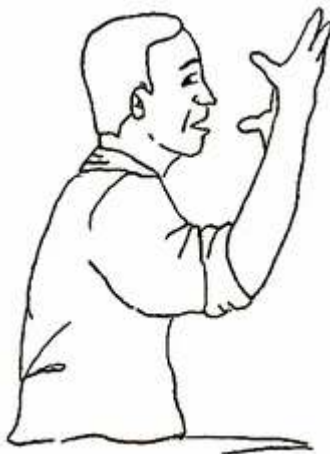Each of these functions is discussed and exemplified in the ensuing subsections.

4.3.1.1 Gesture as expression parallel to the meaning provided in words

As stated previously, instances of gesture use were found in which the meaning conveyed in gesture is parallel to or the same as that provided in speech. However, what makes the gestures important is that, since the meaning of the lexical item in discussion is unknown to the students, the gesture seems to provide them with an example of the meaning of the new word. Consider Segment 5 (p. 99), which has already been discussed in section 4.2.1.1:

---

[40] These context-sensitive roles that gestures may taken have been mentioned by Kendon (2004), who suggests that different typologies, whether of gesture functions or gesture forms highly important when they serve to describe the local meanings taken on and/or produced by a gesture in its context of use.

```
Segment 5. (from 4_VE_Sparkling eyes_PA1)

15.Helena:    Claudia Raia erm both have (0.6) energy
16.           and beautiful appearance=
17.T:         Uh hum.
18.Helena:    =but (0.4) more erm their eyes is BIG and=
19.T:         For themselves.
20.Helena:    =(xxxx) I don't know exactly how to (xxx)
21.T:         A:::h        they have sparkling eyes.
                          |~~~~~~~~~*********/**|-.|
                          [          GP1        ]
                          [            GU1          ]

22.Helena:    ((giggles)).
23.T:         Uh huh ((nodding)).
```

In this segment, which takes place during an activity where students are describing famous people that they admire, Helena is making a list of the qualities shared by two famous female Brazilian artists when she faces the need to find a word that can describe in detail the eyes of the two artists. In line 18, Helena says "but more erm their eyes is BIG and". However, seemingly dissatisfied with that word, in line 20 she acknowledges that she can not get her ideas across the way she would have liked to: "I don't know exactly how to (xxxx)". Then, in line 21, the teacher intervenes and provides her with the word she needs. He says "they have sparkling eyes". The word 'sparkling' is possibly better than 'big' to express what the student means. Nonetheless, there is the risk that the meaning of the word will remain obscure to the student. Thus, as he says "sparkling", the teacher produces a gesture that functions as a visual example of the meaning of the word in question. Having raised both hands in bunch shape in front of his face, the teacher moves them away, opening them as he is doing so in a way that the palms are made to face upwards and the fingers are fully extended, as can be apprehended schematically from Figure 5 (p. 100):

Figure 5. Hands are opened with fingers fully spread at eye level as teacher says "sparkling".

The meaning of the word 'sparkling' is 'emitting light', and the gesture seems to be conveying exactly this meaning by representational means. However, as said before, this expressive parallelism notwithstanding, by creating a visual example of the meaning of the new lexical item, it is the gesture that is doing the explaining. And the gesture is noticed by the student. Perhaps because of the emphatic way the teacher makes the gesture, Helena reacts by giggling (line 22). Table 5 in Appendix I provides a list of the episodes in which gestures are used that offer an expression parallel to the meaning conveyed in speech.

4.3.1.2 Gesture as semantic complement

In addition to providing an expression whose meaning is redundant with that of the speech that it accompanies, gesture may function to make more restricted the meaning of a given word, thus clarifying it. Gestures of this kind seem to complement the meaning of their verbal counterpart, the verb 'complement' here being defined as "to provide something felt to be lacking or needed" (Random House Webster's Unabridged Dictionary, 1997, p. 418).

The following excerpt, part of which has already been shown in

section 4.1.1.3, provides an illustration of a gesture with this function:

```
Segment 15. (from 11_VE_Smooth2_PA2)

01. T:      Yeah? That's it? So he- what about
02.          'smooth'? 'Smooth'.
03. S1:     Skin.
04. S2:     Skin.
04. T:       S::kin, yeah. So, 'smooth' means soft to
            |~~*********|~~~~*********************
            [    GP1    ][          GP2
            [                  GU1

05.         touch (0.2) without hai:r, yeah? When you
            *****************************|-.|
                        GP2 (cont.)      ]
                         GU1 (cont.)          ]

06.         talk about a surface (0.9) you say that
07.         something is 'smooth' when (0.6) the
08.         surface is really regular. So, also your
09.         hand slides easily along it, yeah? (0.7)
```

In Segment 15, the teacher is checking students' answers to a written exercise on collocation. After acknowledging some students' contributions, the teacher provides a verbal definition of 'smooth', the term under discussion. In lines 05 and 06 he says "skin, yeah. So, 'smooth' means soft to touch (0.2) without hair, yeah?" As he says "so", the teacher takes one step backward in a way that his arms are held away from his body, right hand having been placed on top of left forearm. Next, as he is saying "'smooth' means soft to touch (0.2) without hair", he strokes his left forearm up and down several times in a way that a visual display is given of a surface upon which the hand can slide easily, this being one of the senses of the word 'smooth'. The sliding motion of the teacher's right hand is represented visually in Figure 22 (p. 102):

Figure 22. With right hand, teacher strokes left forearm as he says "smooth".

      This gesture seems to be refining the meaning of the word 'smooth'. However, this meaning restriction operated by gesture can only be understood when taken in conjunction with the speech component with which it synchronises, viz., the definitions of 'smooth' given in lines 05 and 06. In Table 5 (Appendix I), I offer a list of the episodes in which gestures are used as semantic complements.

4.3.1.3 Gesture as supplement

      In some contexts gestures were found that concur to the achievement of utterance meaning by bringing aspects of meaning that are not present in their verbal counterpart. In other words, the meaning conveyed by these gestures 'supplement' that of the speech that they accompany. 'Supplement' is here defined as "to add to" (Random House Webster's Unabridged Dictionary, 1997, p. 1912). An instance of these gestures is analysed in the following excerpt (Segment 16, p. 103), which has been taken from the same episode as Segment 15, analysed in section 4.1.1.3:

```
Segment 16. (from 11_VE_Smooth2_PA2)

05.          touch (0.2) without hai:r, yeah? When you
06.          talk about a surface (0.9) you say that
             |~~~~~~~*************************
             [                GP3
             [                GU2 (cont.)

07.          something is 'smooth' when (0.6) the
             *********|***********|
              (cont.)][   GP4    ]
                      GU2 (cont.)
```

During the correction of a written exercise in which students were supposed to match words from two columns in order to describe two computer generated faces provided in their textbooks, the teacher feels the need to elaborate on the meaning of the word 'smooth', which appears in one of the columns. Hence, in lines 06 through 08 the teacher provides the students with the description of a situation in which the word 'smooth' could be used. He says "When you talk about a surface (0.9) you say that something is 'smooth'". However, in the process of describing this hypothetical situation, the teacher engages in one pattern of gestural action (GP3) that seems to be conveying meaning that is not present in the words he utters. As he is saying "about a" (line 07), his left hand descends towards the top of a desk in front of him, palm down and fingers extended and close together. At the same time, teacher leans forward towards the desk. This pattern of action is clearly a preparation phase that leads to the main part of the gesture, as we can see in the flat palm facing down with fingers close together in a way that is congruent with the idea of something flat, in this case the desk surface which is to be touched in next to no time. Then, as soon as the teacher starts saying "surface" (line 07), he lays his flat hand on the top of the desk and makes it slide slowly back and forth along desktop. This pattern of action does not exactly portray the meaning of 'smooth', which is the lexical item under discussion. What it does is to act upon one given surface in a manner that its smooth character is made salient to participants in the interaction. In actuality, what is shown by the gesture is the effect of action carried upon an object that possesses the quality of being smooth. As said before, this information is conveyed through the gesture, the speech component most close to it in semantic terms

coming only after this depictive gesture gives way to a beating gesture (GP4) that synchronises with "`smooth`" (line 08), represented visually in Figure 23:

Figure 23. Left hand is made to slide against desktop to mean "smooth".

A list of gestures that function as supplements to speech can be found in Table 5 (Appendix I). That table includes detailed information regarding the gesture units in which the gesture with supplementing functions occur.

4.3.1.4 Creation of image of topical object

The data analysis revealed a number of gestures that have the particular function of creating an image that will serve as a visual display of the object that is brought into attention in the spoken component of utterances. In other words, these gestures seem to provide a visual illustration of the referent or of aspects of, the word that they synchronise with. An example of these is analysed with the aid of the following segment, which has been taken from the same activity as the examples analysed in sections 4.3.1.2 and 4.3.1.3, that is, the correction phase of a written exercise in which students had to describe two faces provided in their textbooks using expressions that they had put together

by combining words from two columns.

```
Segment 17. (from 12_VE_Perfect bone structure_PA2)

01. T:      'Perfect'?
02. S:      Teeth.
03. T:      Tee:th, uh huh. What else, per- one more,
04.         'perfect?
05. S:      Smile (xxxx).
06. T:      'Smile', 'perfect' (0.4)
07. S                         Eyes?
08. T:      Yeah, you could f- fill in into a lot of
09.         them, right? 'Cause this is a (0.4) erm
10.         hmm subjective thing. 'Perfect- also they
11.         say 'perfect bone structure' (0.3) It's a
12.         very common expression, 'perfect bone
                            **|~~~*******/*****
                            [     GP5
                             GU2 (cont.)


13.         structure', yeah?
            **********|-.-.-|
          GP5 (cont.)]
              GU2 (cont.) ]
```

In Segment 17 the teacher is checking with students which words could go with the adjective 'perfect' when he introduces the expression "perfect bone structure" (line 11), a collocation that students seemed not to be familiar with. Then, after he comments on the currency of the expression, in line 12, the teacher repeats it once and as he does so he produces a gesture (GP5) that serves to create an image of what might be taken as an instance of a 'perfect bone structure'. Only a very short moment before he repeats the expression, the teacher prepares for stroke action by turning his left hand inwards towards chest, palm vertical and fingers extended together towards right. At the same time, the teacher takes a step back and projects chest outwards. Then as he starts saying "perfect bone structure", left hand performs a rapid beating gesture that synchronises with "perfect" and serves to draw attention to it in virtue of its importance in the phrase. Next, as the teacher is saying "bone structure", his left hand touches left part of chest with fingertips. After that, still touching chest, thumb goes down along left side of body towards lower part of abdomen, all fingers being spread and extended (Figure 24, p. 106).
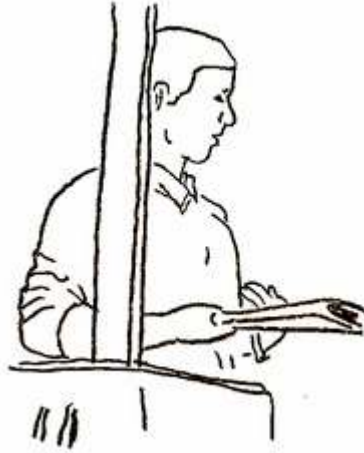
Figure 24. Teacher projects chest outwards and slides thumb against left side of body as he says "perfect bone structure".

In this example, it is possible to see that by using his whole body and by using his left hand and forefinger, the teacher manages to create a sketchy image of what might be considered a 'perfect bone structure'.

Table 5 (Appendix I) offers a list of gestures that have been found to have the function of creating images of the topic of some instances of explanatory discourse.

4.3.1.5 Create an image of or draw attention to, object of verbal deictic expression

Some of the gestures that I have studied in the explanatory discourse episodes have shown to have a role in providing the complement of verbal deictic expressions, which, were it not for the gestures, would remain obscure. In the data analysed this is achieved in two ways. First, gestures are used that create an image of the object to which attention is directed verbally. Second, gestures are used that, by pointing or even coming into contact with, identify the object of a verbal deictic expression, whether or not there is a close temporal synchrony between gesture and speech. For an example of the first, consider the following excerpt:

Segment 18. (from **14_VE_Arched_PA4**)

```
01. Tania:    Teacher, what 'arched' ((mispronounces))
02.           means?
03. T:        'Arched' means with this shape here (0.8)
              |~~~~~~~~**********|*******************|
              [        GP1      ][       GP2        ]
              [                    GU1
```

       The segment in Segment 18 is part of a larger episode in which, during a written activity to be performed individually on the students' textbook, a student voices to the teacher that she does not know the meaning of the word 'arched', in lines 01 and 02: "Teacher, what 'arched' means?" Since Tania, the student, has mispronounced the word 'arched', the teacher firsts offers her a model of the correct pronunciation and immediately provides a definition of the lexical item in question: in line 03 he says "'Arched' means with this shape here (0.8)". Although giving the definition of an unknown word may be one way of explaining the meaning of that word, in the present case, it seems that what is carried out in speech does not suffice to clarify the meaning of the word. The only new information to be found in the definition is 'shape', which is a rather general term. Additionally, the definition contains two verbal deictic expressions, viz., 'this' and 'here', which do not aid much in the sense of adding relevant meaning to the utterance. However, something else must have happened in order that full utterance meaning can be achieved. This is to be found in the gesture (GP2) that the teacher makes to accompany the second part of the definition. Out of a position reached at the end of a previous stroke, the teacher who has been frowning in order to exaggerate the shape of his left eyebrow, places forefinger at inner end of eyebrow and then slides it to the left along curved eyebrow. Combined with the frowning action of the teacher, his left hand gesture serves to outline or draw attention to the higher-than-normal shape of the eyebrow and thus create an image of the object of the verbal deictics 'this' and 'here'. It is my belief that an image is created not because the hand is used to give shape to an object or aspects of it in midair. Rather, in the current example, the image is brought about by the unusually pulled eyebrow and the locating and outlining motion of the forefinger upon full length of eyebrow, shown in Figure 25:
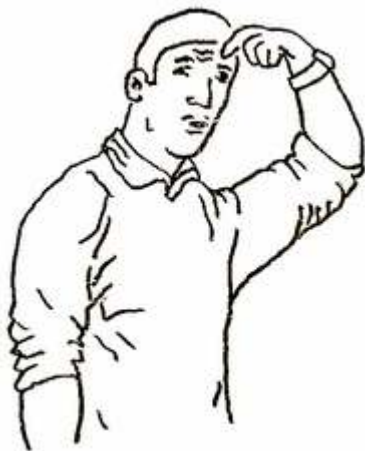
Figure 25. Using left forefinger, teacher draws attention to "arched" nature of eyebrows.

Now consider Segment 19, for an illustration of a gesture of the second type, the one in which a relevant body part points to or touches the object of deixis:

Segment 19. (from **10_VE_Jaws_PA2**)

```
01.S:        'Jaws'?
02.T:        ((    teacher gestures    ))
03.S:                        Ah. (8.1) ((sts. on task))
04.T:        Remember the movie abo- the movie series
05.          by Steven Spielberg about the shark?
06.          Terrible shark. So, {it was} called
07.          'jaws' (..0.6..) in honour to this part
                              |~~~~~~****************|
                              [        GP4          ]
                                GU2 (cont.)

04.          here (0.5) {that's moving this bite
05.          here}, yeah?
```

In the same activity in which students are expected to put together phrases that are to be used in the description of the two computer-generated faces shown in the textbook, not knowing the meaning of the word 'jaws', a student turns to the teacher for help:

"Jaws?" (line 01). The teacher responds by pointing to his own jaws and, at a later point, mentions a film called "Jaws" (line 07). Then, he explains that the film had such a name because of the jaws of a ferocious shark that appeared in the film: he says in lines 07 through 09 "in honour to this part here (0.5) that's moving this bite here, yeah?" As in Segment 18, analysed previously, if the deictic verbal expression 'this' in "in honour to this part" had been used alone, it would have remained vague, not adding much information as regards the need for meaning clarification. Similarly to what took place in Segment 18, here also what solves the problem is a deictic gesture (GP4) that the teacher synchronises with his locution. As he starts saying "in honour", the teacher places the tips of index, middle and ring fingers of his right hand on his own chin and then beats against chin several times as he goes on saying "to this part". This is represented visually in Figure 26:

Figure 26. Right hand touches chin as teacher says "to this part".

As can be noted, it is the gesture that identifies the body part that is the object of reference of the deictic word 'this' and that helps making less vague the meaning of the term 'part'. The word 'this' in itself does no more than make reference to something that is to be found in the proximity of the person speaking. Not so helpful either is the term 'part', which means 'an element or piece that comes together with other

elements in order to make a whole'.

In this section, examples have been analysed of gestures that create images that serve as objects of verbal deictic expressions or that identify in the relevant context the object the deictic word refers to. In Table 5 (Appendix I), I provide a list of the gestures that play such a part in the explanatory discourse episodes studied. Figure 27 provides a summary of the work carried out in the current section:

Figure 27. *The uses of representational gestures*

Functions

General	Specific	Local uses/roles
Referential	Representation (illustration)	→ Expression parallel to the meaning provided in words → Gesture as semantic complement → Gesture as supplement → Creation of image of topical object → Create an image of or draw attention to, object of verbal deictic expression

Having presented a discussion of the specific role played by representational gestures in explanatory discourse episodes, which are one type of gesture with referential functions, I now proceed to a discussion of the different uses that the teacher whose explanatory discourse I have analysed makes of gestural deixis, another type of gesture with referential functions.

4.3.2 The uses of gestural deixis[41] in explanatory discourse episodes

According to Kendon (2004), pointing gestures are those movements performed prototypically with an extended forefinger that serve to indicate the location of an entity, whether in the interactional environment or in an abstract space established during the course of the communicational exchange. The data analysis has revealed that in the episodes studied deictic gestures – the term 'deictic' is synonymous

---

[41] The terms 'deixis' and 'pointing' are used interchangeably in this study.

with 'pointing' – have a varied range of functions, besides the initial one of indicating location. Usually, information regarding some physical characteristic of the object identified by the pointing is added by specific configurations that can be taken by the body part being used for pointing. The following functions of pointing have been identified[42]:

      1) Locating the referent of verbal deictic expression;
      2) Displaying object by outlining some of its features;
      3) Drawing attention to an object;
      4) Individuating something for commenting upon;
      5) Singling out object for its relationship to the topic of discourse.

4.3.2.1 Locating referent of deictic expression

A common occurrence of pointing gestures in the data was in situations where the sheer location of the object of verbal deixis needed to be identified. The next excerpt offers an illustration of such a case:

Segment 20. (from **18_GE_Passive Voice I_PA5**)

```
41.         general believed that. So, I can put-
42.         instead of saying people believed, I
43.         could say it ((teacher draws rectangle
44.         around example sentence)) it was
45.         believed, "it" ((teacher draws circle
46.         around "it")) means ((teacher draws
47.         curved arrow from circle to embedded
48.         sentence on the right)) this whole idea
49.         here that milk and mango could go-
50.         couldn't go together, but of course (0.9)
                              |~~~~~~~~~~~~~~~~~~~
                              [          GP42
                              [          GU10


51.         having everything here in this place
            ***/*****************/************|
                    GP42 (cont.)             ]
                  GU10 (cont.)


52.         would be too long, would be complicated,
```

---

[42]These functions have been observed by Kendon (2004).

```
53.          so (0.5) we put a 'dummy' (0.5) subject
54.          here, yeah? And this represents the whole
```

In this segment[43], the teacher has been explaining the form and use of the passive voice that takes the pronoun 'it' as a subject. For the sake of illustration, he has written the following example sentence on the board: *it was believed that milk and mango couldn't go together*. After the sentence has been written, the teacher draws a rectangle around the clause "it was believed" and then draws a circle around the subject pronoun "it". Having done that, the teacher draws a curved arrow from the circle around "it" toward the embedded clause "that milk and mango couldn't go together". Next, he comments on the problems that an inversion of syntactic elements would pose, namely, that the noun phrase 'milk and mango' can not take subject position in place of 'it' because this would require too many changes in sentence construction and the result might sound clumsy. What the teacher is attempting to do here is to establish a comparison between the form of the passive voice structure that takes the pronoun 'it' as subject and the passive voice structure that takes the subject of an active voice embedded clause as subject of the main clause, as in "Pelé is considered to be the king of soccer", an example that the teacher writes on the board later on in the same episode, this example being in contrast with "People believed that Pelé is the king of soccer". The teacher has been trying to demonstrate that such a syntactic operation is not desirable, if not incorrect. Thus, in lines 50 through 54 he says "but of course having everything here in this place would be too long, would be complicated, so we put a dummy subject here, yeah?" It is easily noted that the teacher's speech contains such deictic expressions as "here" and "this" (line 51). In case only the words were to be taken into account in this exchange, comprehension would have been seriously compromised, since, as mentioned previously, such deictic words only indicate 'proximity to the speaker', thus providing no clear indication of the actual location of their objects, the entities they purport to locate. However, if we look at the full episode we may notice that

---

[43]This segment has been taken from the same episode from which Segments 8, 12 and 13 were drawn.

communication is not hindered and that interaction continues, which indicates that deixis has been achieved. What is important to note is the way such deixis is achieved. It is not only through the use of the verbal deictic expressions, as we have just seen. Much of the merit shall go to symbolic bodily action (GP42), as it is going to be demonstrated.

In line 50, as the teacher says "but of course", his left hand opens with palm down and fingers extended and rises up towards left part of board, in preparation for the upcoming stroke. Then, his hand, palm down and pointed at second part of sentence ("that milk and mango couldn't go together"), beats once as teacher pronounces first syllable of "having", as is visually illustrated in Figure 28:
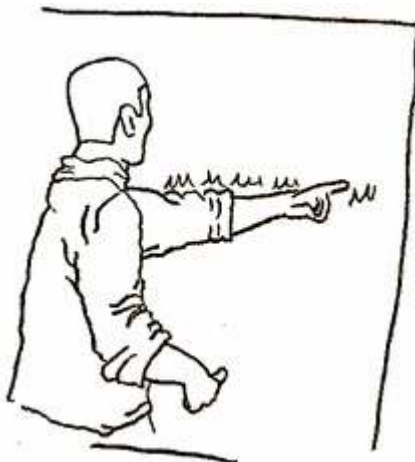
Figure 28. Pointing to sentence on the board with left forefinger, teacher beats once as he says "having".

Next, his hand moves towards left as he says "everything" (line 51) and beats again over circle drawn around "it" as the teacher says "here". After that, as the teacher says "in this" (line 51), his hand moves a little upwards in another beating motion, still over "it" (Figure 29, p. 114).
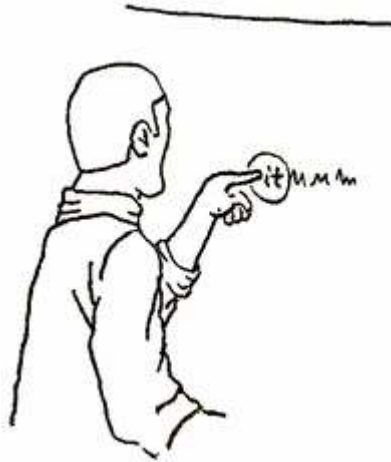
Figure 29. Teacher performs beating motion as he says "everything here".

Finally, left hand is held in the position reached at the end of the stroke as the teacher says "`place`" (line 51), in a way that attention to the position taken by the subject pronoun 'it' is prolonged. From these considerations it might be assumed that it is only with the aid of gestural action that full deixis is achieved, for it is ultimately the gestures of the teacher that identify with precision the objects referred to by the verbal deictic expressions "`here`" and "`this`" that appear in line 51. In Table 6 (Appendix I), a list is provided of the episodes in which gestures with locating functions were found.

4.3.2.2 Displaying/outlining

During data analysis, I have been able to find gestures that, in addition to serving to locate objects or entities made reference to in speech, since the body part involved enter into very particular configurations, serve to draw attention to physical aspects of the object being located. It is as if a pointing gesture conflated information related to such aspects of objects as volume, area, shape, and length. An instance of a pointing gesture with this characteristic is examined with the aid of the following segment, which has already been shown in section 4.3.1.5:

```
Segment 19. (from 10_VE_Jaws_PA2)

01. S:      'Jaws'?
02. T:      ((    teacher gestures    ))
03. S:                 Ah. (8.1) ((sts. on task))
04. T:      Remember the movie abo- the movie series
05.         by Steven Spielberg about the shark?
06.         Terrible shark. So, {it was} called
07.         'jaws' (..0.6..) in honour to this part
                          |~~~~~~***************|
                          [          GP4        ]
                            GU2 (cont.)

08.         here (0.5) {that's moving this bite
09.         here}, yeah?
```

This segment has been taken from the describing faces activity described earlier in section 3.4.2 of the Method chapter. Here, upon encountering an unknown word, a student turns to the teacher for help. He asks "Jaws?" in line 01. Then, after explaining the meaning of the problematic word by means of a gesture and after some time has elapsed during which students are still engaged in the activity, the teacher addresses the whole class and reminds them of a film in which a shark was obstinately hunted by one of the characters. After explaining that the film had been given the title "Jaws" in a reference to the huge jaws of the shark in question, the teacher makes a silent pause of six tenths of a second, during which he engages in a pattern of gestural action (GP4).

During the preparation phase of the gesture, he places his right hand in front of his chin, palm turned inwards and fingers drawn into loose bunch. Then, during the stroke phase (Figure 26, p. 116), with finger bunch he beats against chin several times.

Figure 26. The teacher places his right hand on his own chin as he says "to this part here".

The hitting of the finger bunch against the chin is clearly a way of locating the object that is under discussion, the jaw. However, a claim might be made that, given the shape assumed by the hand, the fingers drawn together into a bunch, seem to be drawing attention to the shape and volume of the entity being pointed at or being drawn attention to. Of course the way shape and volume are shown by the hand is highly schematic. What is important to retain here is that, besides pointing to the body part, the gesture seems to be showing physical characteristics of the object identified. I have labelled this sort of pointing *displaying/outlining*. Table 6 (Appendix I) offers a list of the explanatory discourse episodes that contain gestures used for the purposes of display.

4.3.2.3 Drawing attention to

The data analysis has revealed the existence of pointing gestures that serve to draw attention to an object that is being talked about, even though in speech a deictic expression is absent. An example of such gestures is analysed in what follows[44].

---

[44] This segment has been drawn from the same episode of explanatory discourse as the one in

```
Segment 21. (from 14_VE_Arched_PA4)

07.T:        'High arched', means (0.2) higher (0.3)
08.          naturally higher than most people (0.6)
09.          yeah?
10.Tania:    But the eye, not the- arched
11.T:                              The eyes or the
                                   |~~~***
                                   [ GP14
                                   [ GU3


12.          eyebrows, yeah. Normally
             *******|-.-.-.|
             (cont.)]
               GU3 (cont.) ]

13.          the eyebrows, yeah? Normally.
```

In this segment, which takes place as the answers to a written activity are being checked, the teacher is elaborating on the meaning of the word 'arched' as in the expression 'high arched', used to describe the eyebrows. The student Tania seems somewhat confused as to the usage of the expression: "But the eye, not the- arched" (line 15). To this the teacher responds by saying that the expression may be used to describe both the eyes and the eyebrows, although the preference would be for the eyebrows: "The eyes or the eyebrows, yeah. Normally the eyebrows, yeah? Normally" (lines 16 through 18). As the teacher says "or", he raises his left hand with forefinger fully extended toward left eyebrow, palm turned to body. Then, as he says "the eyebrows", he touches his left eyebrow with extended forefinger, drawing attention to that part of his face, possibly with the intent of establishing a contrast between that particular part of the face with the eye, which is what was causing the student difficulty. A visual representation of this gesture is provided in Figure 30:

Segment 18, shown in section 4.3.1.5.

Figure 30. Forefinger used to highlight "arched" nature of eyebrows.

After that, forefinger relaxes and hand descends to a rest position against lap. As we can infer from the description of the gesture and its context of use, the pointing has not been carried out with the purpose of locating something which is not currently under attention or to identify the object of some verbal deictic expression. The pointing gesture in this example probably functions only to direct attention to some relevant entity. To give further support to this claim, it might be added that the gesture was performed with a prototypical hand and finger configuration for such situations, viz., the extended forefinger with remaining fingers flexed. A list of the episodes that contain gestures of the type discussed in this section can be found in Table 6, in Appendix I.

4.3.2.4 Individuating for commenting upon

During data analysis several gestures were identified that function to single out an entity as the object of a comment that is either already being made verbally or is on the brink of being realized. Consider the following segment for a discussion of an instance of a pointing gesture with that function:

```
Segment 22. (from 7_VE_Cheeckbones_PA2)

01. Isaura:    'Cheekbones'?
02. T:         Well, these are your cheeks, right? So,
                                              |~~~
                                              [ GP2
                                              [ GU1


03.            the cheekbones are the bones underneath
               ******************|
                      GP2        ]
                          GU1 (cont.)

04.            the skin and the muscles that (….1.6….)
05.            form this- this part.
```

During the face description exercise described previously, Isaura indirectly signals that she does not know the meaning of the word 'cheekbones', which is to be used in an expression for a later description of the computer-generated faces provided on the book. Probably in order to avoid further complications resulting from lack of vocabulary, the teacher turns to the student and points to his own cheeks and at the same time says "Well, these are your cheeks, right?" (line 02). This way the teacher manages both to anticipate a lexical problem and to start creating a situation for the explanation of the meaning of the new term. Then, in lines 02 through 05, he provides the student with a definition of the word "cheekbones". He says "So, the cheekbones are the bones underneath the muscles and the skin that (1.6) form this- this part." As he says so, he holds both hands close to his cheeks, with fingers spread and palms turned to sides of face. This is the preparation phase of the gesture. Then, as he is saying "the cheekbones are", in line 03, he presses forefingers against both cheeks several times so as to locate cheekbones. This gesture serves to locate the cheekbones in virtue of the comment that is going to be made about it: "the bones underneath the skin" (lines 03 and 04). What is more, the pressing of the fingertips against the skin is consistent with the idea of showing or pointing to, something which is under the skin, the bones. For a schematic visual representation of this gesture stroke, consider Figure 31:
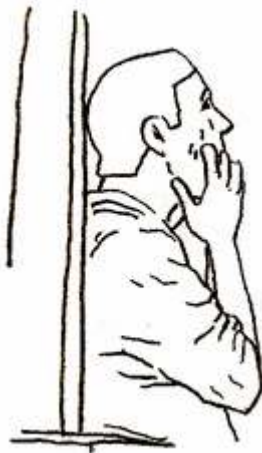
Figure 31. Fingers of both hands are pressed against cheeks as the teacher says "the cheekbones are".

Table 6 (Appendix I) provides a list of the episodes in which the teacher used pointing gestures for individuating purposes.

4.3.2.5 Object pointed at is linked to the topic

Examples were found of pointing gestures that function to identify an entity that is in some way related to the topic of the discourse. The speech with which the pointing gesture synchronises is not the main focus of the discourse but is closely related to it. Segment 23[45] offers an illustration of a gesture with such a function:

Segment 23. (from **19_GE_Passive Voice II_PA5**)

```
13. S:    It is assumed that sometimes unmarried
14.       women.
15. T:    Well, when you speak that informally, it
16.       would be ok. If you think of what would
17.       be the perf- grammatically perfect
18.       sentence, you would have these adverbs
```

[45]This segment has been drawn from the same episode as Segment 14, shown in section 4.2.2.3.

```
19.         (0.2) right next to the: the th- the
                                   |~~~~~~~~****
                                   [   GP22
                                   [     GU4

20.         thinking verb, yeah? So it is sometimes
            ***/**|-.-.-.|
             GP22 ]
             GU4 (cont.) ]

21.         assumed would be the best choice,
22.         grammatically speaking. Of course even
```

In this segment, the teacher has been engaged in the explanation of the passive voice form that takes the pronoun 'it' as the subject of the main clause when he is faced with the need to explain the position that should be taken by an adverb in relation to the verb. However, the verb in such constructions is usually of a very particular kind and the teacher encounters some difficulty in recollecting the term that describes it. After some hesitation, he manages to find the word he is looking for. He calls the verb a 'thinking verb'. What is the under discussion in this segment is the ordering of the words in this particular passive voice structure and this is the topic of the discourse, special attention being drawn to the verb. Remarkably, as the teacher sets out to give the name of the verb, he starts the preparation phase of a gesture. His right hand rises up outwards and forearm starts rotating so that palm can be turned up as he says "the" (line 19). However, the teacher hesitates a little and interrupts what can be seen as the beginning of a stroke. His right forearm then flexes inwards and upwards and hand turns palm to body and moves towards head, prolonging the preparation phase of the gesture, or preparing for a new gesture. Next, as he starts saying "the thinking verb" (lines 19 and 20), his right hand rapidly touches his right temple with fingertips and moves away in a forward thrust, palm vertical turned to body and fingers extended upwards. The stroke of this gesture is represented in Figure 32 (p. 122):
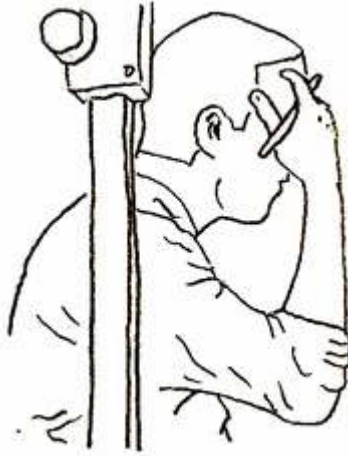
Figure 32. Teacher touches temple with right hand as he says "the thinking".

By touching his own temple, the teacher manages to direct attention to the head as the locus of our thinking and, although the gesture partially synchronises with the word "thinking" (line 20), it is only indirectly related to that word, that is, it does not point to 'thinking' as an object, but to an entity that is believed to be the seat of our reasoning processes. Thus, the pointing is done towards an object that is related to the topic currently under attention, viz., a verb that has the qualities of a 'thinking verb'. A list of episodes that contain gestures of the type discussed in this section is given in Table 6 (Appendix I). Figure 33 (p. 123) presents a summary of the functions of pointing gestures analysed so far.

Figure 33. *The uses of pointing*

Functions

General	Specific	Local uses/roles
Referential	Pointing	→ Locating referent of deictic expression
		→ Displaying/outlining
		→ Drawing attention to
		→ Individuating for commenting upon
		→ Object pointed at is linked to the topic

In section 4.3.2 and subsections I have attempted to discuss the particular uses to which representational and pointing gestures are put to in the teacher's explanatory discourse. I turn now to a similar discussion of gestures with pragmatic functions.

4.3.3 The uses of gestures with pragmatic functions in explanatory discourse episodes

As stated previously (sections 4.2.1 and 4.2.2), gestures that have pragmatic functions differ from those with referential functions in that the latter depict aspects of the propositional content of an utterance, whereas the former provide information that is related to the structure of the verbal discourse and to the nature of the utterances insofar as they are part of a communicational exchange. In section 4.2.2, it was demonstrated that the gestures with pragmatic functions found in the episodes analysed are further divided into *performative*, *modal*, and *parsing* gestures. However, those functions are somewhat general in the sense that they can be found in gestures occurring in communicational events of various sorts. Thus, it is the aim of the following sections to discuss the particular roles that such pragmatic gestures play in the explanatory discourse episodes chosen for investigation. In other words, in what comes the concern is with the more context-determined role of pragmatic gestures.

4.3.3.1 The specificity of performative gestures in explanatory discourse episodes

Through the analysis of the episodes I have been able to find that performative gestures, that is, gestures that signal what specific speech act a given stretch of discourse is, are used by the teacher to mark his utterances as being instances of the following speech acts, which have been discussed exhaustively in Kendon (2004):

1) Offer;
2) Warn;
3) Question;
4) Acknowledgement.

Next, I examine instances of gestures with these roles separately.

4.3.3.1.1 Offer

The data analysis has revealed that the teacher resorts to a number of performative gestures in order to mark that which he is saying as something to be taken into consideration, that is, the gesture serves to index the teacher's utterance as an offer, the object of that offer being a comment on something, a new word, or a conclusion to something, among others. Next, an excerpt is analysed that contains a gesture that marks part of the teacher's speech as an offer.

```
Segment 4⁴⁶. (from 2_VE_Brunette_PA1)

06. Laura: (xxxxxxxxx) ah Johnny Depp, for example,
07.         erm I like erm erm you know, dark,
08.         olive-skinned and brunette guys.
09. T:      No, brunette only for girls=
            |~~******|~~~~~~~~~~********|
            [  GP1  ][     GP2       ]
            [                GU1
```

---

[46]Segment 4 was shown for a different purpose in section 4.2.2.1.

```
10. Laura:                                    Ah, for girls!?
                                              -.-.-.-.-.-.-

                                              GU1 (cont.)


11. T:        =yeah.
              -.-.-.|

              GU1   ]

12. Laura:    How do you say? Brown- hair guys?
13. T:        Brown-hair guys. ((nodding))
```

In this segment, Laura is talking about some of the famous people that she admires when she misuses the word 'brunette', employing it in the description of a male character. The lexical item 'brunette' is usually associated with female persons. The teacher promptly corrects the student by saying "No, brunette only for girls" in line 09. The student appears to be surprised at the information given by the teacher. It is to be noted that the teacher's correction is carried out in conjunction with gestural action (GP1 and GP2). As he is saying "No, brunette only", his left hand moves outwards upwards to shoulder level, palm down and fingers extended, as if to get ready for the upcoming stroke of the gesture. Next, palm of left hand is turned outward toward student (GP1) in a gesture of denial. Then, as the teacher is saying "for girls", his left hand rotates outward as forearm is extended, thus performing a motion in the end of which hand is held palm up before the student in a presentation fashion (Figure 16, p. 126):
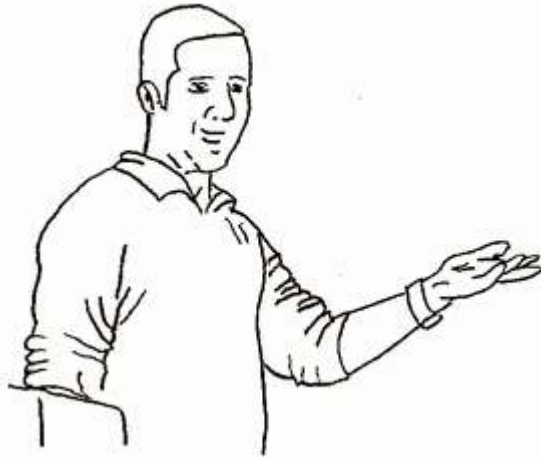
Figure 16. Left palm up open hand to mark the teacher's speech as an offer for his interlocutor's appreciation.

What the palm up open hand is presenting or offering here is obviously not to be found in the hand itself. Rather, it is the speech that one particular part of the teacher's speech that is being held symbolically in an offering fashion to the student in a way that she can take it as the object of her attention and check this new piece of information against her own previous understanding of the usage of the word 'brunette'. As the teacher is putting his arm and hand back to a position of relaxation, the student acknowledges the new piece of information, not without showing some surprise: "Ah for girls!?" (Line 10). Table 7 (Appendix I) offers a list of the episodes in which gestures were used that served to mark the speech component of utterances as offers.

4.3.3.1.2 Warn

A second function identified for performative gestures in the explanatory discourse episodes studied was that of marking the teacher's speech as a warning, or signal that special attention should be granted to what he is saying in speech. Consider Segment 24:

`Segment 24. (from `**`18_GE_Passive Voice I_PA5`**`)`

```
01. T:       Okay, very nice, so here guys I wanna
02.          call your attention to two specific parts
03.          of this text (1.6) particularly (0.6)
04.          right below Julia Robert's picture and
05.          the title (0.6) lines twelve and
06.          thirteen, right? Did you find that? (0.6)
07.          It says for more than a century it was
             |~~~~~~~***|****|**************|~~~***
             [   GP1  ][ GP2][     GP3    ][ GP4
             [                    GU1

08.          thought that a beautiful face was
             |******|~~~~~~******|*******|****
             [ GP5 ][     GP6   ][  GP7 ][ GP8
                          GU1 (cont.)

09.          appealing because it was a collection of
             *********|*******|******|********|******
               GP8  ][ GP9  ][ GP10 ][  GP11 ][ GP12
                          GU1 (cont.)

10.          average features (0.3) right?(0.4) then
             *******|*******************|
              GP12 ][      GP13        ]
                    GU1 (cont.)              ]
```

This segment comes from a larger episode in which the teacher provides the students with a detailed explanation on the passive report structure that takes the pronoun 'it' as the subject of the main clause. This excerpt is the beginning of the episode, in which the teacher is still trying to draw the students' attention to the structure that he wants to discuss. After having managed to direct his students' attention to specific lines on a page of the textbook, the teacher reads a sample sentence out loud from his own book. In lines 07 though 10 he says "It says *for more than a century it was thought that a beautiful face was appealing because it was a collection of average features* (0.3) right?" As the teacher is saying "*it*" in line 07, he raises his left hand in front of his body and at the same time his fingers flex at their joints (GP4). Then, as he says "*was*", by inward forearm flexion, his left hand rises up to the left side of his face at eye level, forefinger held extended upwards and

palm turned outwards. Both the preparation phase and the stroke of this gesture synchronise with the part of the main clause of the passive voice that is going to be explained. It is to be noted that although this gesture phrase (GP4) does not synchronise with the whole of the main clause ("`it was thought`", lines 07 and 08), it marks two focal elements in the passive voice construction that the teacher is about to explain, the anticipatory pronoun 'it' in subject position and the auxiliary verb 'was', as can be seen in the illustration provided in Figure 34:
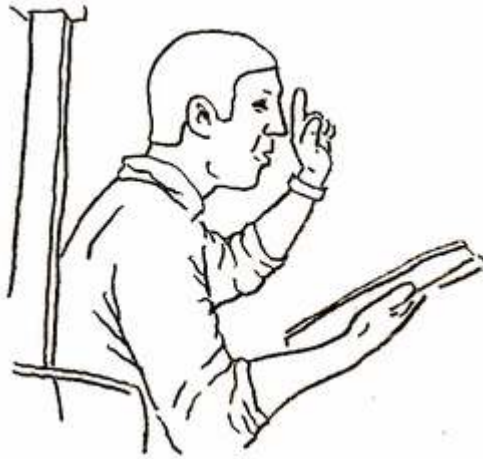
Figure 34. Extended forefinger is raised upwards to draw attention to grammar structure as the teacher says "*it was*".

In order for the exact meaning of this gesture to be understood, attention must be given to the hand configuration and the direction toward which the pointing is performed. The hand is held with palm turned to face and all fingers are flexed at their joints, with the exception of forefinger, which is fully extended upwards. However the pointing is not directed at any object that can be immediately perceived by participants in the interaction. It is pointing of an abstract nature. This has been described as a gesture whereby an attempt is made by the communicator to have the heavens to witness the message that is being conveyed, given the importance attached to it (Calbris, 1990). In the example analysed it is as if the teacher is trying to convey "pay special attention to what I'm saying", that is, "pay special attention to these words because they are crucial to the grammar structure I'm about to

explain to you". Table 7 (Appendix I) provides a list of the episodes in which gestures are used for expressing warn.

4.3.3.1.3 Question

The analysis of the explanatory discourse episodes has revealed the existence of gestures whose function is to characterise a given stretch of speech as a question. An instance of these gestures is analysed in the following segment:

Segment 25. (from **18_GE_Passive Voice I_PA5**)

```
66.           the idea (1.0) Pelé, what could you say
                  |~~**/**|****/*********|-.-.
                  [ GP59 ][    GP60     ]
                  [            GU14

67.           about Pelé? (3.0) What erm is the
68.           general, almost universal idea about
69.           Pelé?
70. Laura:     He's the first erm the major soccer
71.           player (0.6) in the world.
72. T:        (…0.7…) For this reason how do they call
73.           him?
74. Sts:      King.
75. T:        King.
```

After having resorted to a number of strategies, both verbal and gestural, in order to explain one particular form of the passive voice, the teacher tries to engage students in the activity by suggesting that they make sentences using the new grammar structure. As a prompt he suggests that they say something about Pelé, the famous Brazilian soccer player. In lines 66 and 67 he says "Pelé, what could you say about Pelé?" Although, the first occurrence of "Pelé" may be serving the purpose of marking this piece of information as central, given the fact that in the question that follows, it occupies the object slot, in grammatical terminology. However, when we examine the gesture (GP59) that the teacher produces as he utters "Pelé" the first time, we are lead into considering that something different may be taking place. A very short moment before he says "Pelé", the teacher raises his left hand up in front of his body, with wrist flexed and palm

down, fingers loose. This motion functions as the preparation for the stroke action that is about to be performed. Then, left forearm rotates and wrist extends outwards very rapidly so that palm is turned up with fingers extended away from body. Fingers flex inwards immediately as the teacher pronounces the second syllable of "Pelé", forearm moving back somewhat closer to body. This rapid opening of palm up open hand towards an interlocutor is believed to be associated with the asking of a question (Kendon, 2004); the interlocutor is presented with an open hand as if something were being asked of him/her, in the present case, the answer to the upcoming question or a sentence about Pelé that contains the grammar structure being studied, the passive voice that takes the pronoun 'it' as an anticipatory subject. With this gesture the teacher shows readiness to receive the students' contributions (Figure 35).

Figure 35. Teacher directs palm up open left hand at students in order to mark his own speech as a question.

A list is offered in Table 7 (Appendix I) of the episodes that contain gestures that mark the speech component that they synchronize with as a question.

4.3.3.1.4 Acknowledgement

One final use that has been found for performative gestures in the episodes of vocabulary and grammar explanation is to mark one given utterance or part of it as an *acknowledgment* of a contribution that has been made by a student, or to grant that what one student has said is correct or relevant. In what follows an attempt is made to analyse a segment that contains a gesture that is put to such a use.

Segment 26. (from **18_GE_Passive Voice I_PA5**)

```
66.          the idea (1.0) Pelé, what could you say
67.          about Pelé? (3.0) What erm is the
68.          general, almost universal idea about
69.          Pelé?
70.Laura:    He's the first erm the major soccer
71.          player (0.6) in the world.
72.T:        (…0.7…) For this reason how do they call
             |~~~~~~~************|~~
             [           GP62       ]
             [                GU16

73.          him?
74.Sts:      King.
```

In this example, which has already been studied in section 4.3.3.1.3, a student responds to the teacher's request that students take part in the explanation of a grammar structure by making up sentences about Péle that contains the structure in question. In lines 70 and 71, Laura says "He's first erm the major soccer player (0.6) in the world." Although this is not exactly what the teacher seemed to be expecting, for the student's contribution does not use the passive voice, the information that she provides is useful matter to be used in the construction of an utterance in the form that the teacher expects. Therefore, after a seven-tenths-of-a-second pause, in lines 72 and 73 the teacher says "For this reason how do they call him?", thus showing that the information that the student has come up with is relevant and that if a little more thought is given to that matter, even more detailed information can be found about Pelé, information that the teacher is going to use later on in the episode in

order to create a passive voice sentence about Pelé[47]. The fact that the teacher accepts the student's contribution is somehow given emphasis to by means of a gesture (GP62) that he makes to accompany his speech (Figure 36).

Figure 36. Teacher directs open hand at a particular student to acknowledge her contribution.

During a pause prior to the inception of his speech and in preparation for the gesture stroke, the teacher raises his left hand up to chest level in front of his body, palm held down with fingers extended and spread and wrist slightly flexed downwards. Next, as he says "For this" (line 72), by a rapid outward forearm and wrist rotation he turns his hand over so that the palm faces his body, with fingers spread and fully extended away from body towards student. After that, as the teacher starts saying "reason", he holds his hand in the position and shape reached at the end of the stroke. This hand configuration, which has been associated with the idea of giving or showing readiness to receive (Kendon, 2004), has been also found to be used in contexts where one is acknowledging a contribution made by an interlocutor (Kendon, 2004, p. 271; Calbris, 1990). The latter seems to be the case in the example just analysed. The gesture is frozen in a post stroke hold in way that the teacher has time to say "reason", which is a word that

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[47] See full episode in Appendix II.

functions as a summary of Laura's participation in the exchange, and the gesture may be interpreted as the teacher's acknowledgment made visible for the benefit of the student.

In Table 7 (Appendix I), I provide a list of the explanatory discourse episodes in which gestures were used to show acknowledgement. Having discussed the particular uses that the teacher makes of performative gestures, I now turn to an examination of the different roles played by gestures with modal functions in the explanatory discourse episodes.

4.3.3.2 The specificity of modal gestures in explanatory discourse episodes

According to Kendon (2004), modal gestures function to alter "in some way the frame in terms of which what is being said in the utterance is to be interpreted" (p. 159). Modal gestures in the episodes analysed have been found to mark utterances as:

1) an approximation;
2) a categorical denial;
3) an uncertainty;

Gestures playing each of these roles, which have been studied previously in contexts other than the EFL classroom (Kendon, 2004), are examined separately in the following subsections.

4.3.3.2.1 Approximation

The analysis of the explanatory discourse episodes has revealed the existence of gestures that marks what the teacher is saying as being but some sort of approximation, as something that should not be taken as exact. In the segment that follows, an instance of this type of modal gesture is analysed.

Segment 27. (from **13_VE_Hazel_PA3**)

```
15. S:      What's 'hazel'?
16. T:      'Hazel' is the c- when you talk about
17.         hai:r and eye colour, the colour of
```

```
18.             honey (0.8) ((in much lower voice and at
                  |****|~~
                [ GP5][
                   GU1 (cont.)

19.             quicker pace)) you say 'hazel', yeah.
20. S:          'Hazel'? ((teacher still nodding))
21. T:          Uh huh.
```

This exchange takes place as students are engaged in an activity in which they are supposed to work in groups of three in order to find the best answer to a question on a handout that the teacher has given them. Each group has a different question to answer. At the end of the activity they are expected to share their ideas with the whole class in a general group discussion. The questions are about beauty and relationships. At one point, one student mentions that she likes young men with "`honey eyes`" and the teacher corrects her saying that the appropriate word in that situation would be 'hazel'. Then, a student who has been following the exchange asks what the word 'hazel' means. The teacher responds by initiating a definition of the term 'hazel' but, perhaps because that is a rather complex or abstract term to define, he drops his definition and formulates a situation in which the meaning of the new word can be clarified. In lines 16 through 19 he says "`'Hazel' is the c- when you talk about hai:r and eye colour, the colour of honey (0.8) you say 'hazel', yeah.`" however, just as he has finished creating a situation for the explication of the new lexical item and before he confirms that the word 'hazel' can be used, he produces a silent pause of eight tenths of a second, during which he engages in a pattern of gestural action (GP5). During the pause, his left hand, which had been being held away from body from a previous gesture with palm oblique facing somewhat left, through forearm rotation, oscillates twice about a vertical axis as if to suggest the idea of approximation or inexactness, as illustrated in Figure 37 (p. 135):
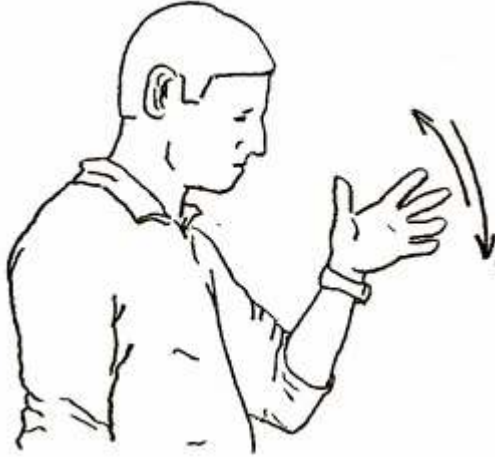
Figure 37. After having said that 'hazel' is the colour of honey, during a silent pause he produces a gesture to show that his definition is but an approximation.

It has been suggested that this gesture has these meanings because the motion performed in its realization reminds one of the motion of scales that are yet to be set (Calbris, 1990). The gesture in GP5, although it is performed during a silent pause, seems to be referring to the previous chunk of speech "`the colour of honey`", thus marking it as something that the speaker is resorting to only for the sake of illustration, the example given ("`honey`") being but one approximation to the exact sense of the word 'hazel', which is the focus of the exchange. Table 7, in Appendix I, shows a list of episodes in which gestures are used to show approximation.

4.3.3.2.2 Categorical denial

In addition to an instance of gesture that serves to signal that what the speaker, the teacher in our case, is saying is only an approximation, something not to be taken at face value, the data analysis has unveiled a number of modal gestures that mark what the speaker is saying, or part of it, as a *categorical denial*. That is the gesture used shows that nothing that may be said contrary to what the teacher has said is going to be accepted or taken into account, given the definite

character of that which the teacher has stated. Consider Segment 28, part of which has already been shown in section 4.3.2.3:

Segment 28. (from **14_VE_Arched_PA4**)

```
12.Tania:    Arched ((correct pronunciation))
13.T:        'High arched', means (0.2) higher (0.3)
14.          naturally higher than most people (0.6)
15.          yeah?
16.Tania:    But the eye, not the- arched
17.T:                              The eyes or the
                                   |~~~****|~~
                                   [  GP13 ][
                                   [     GU3

18.          eyebrows, yeah. Normally
19.          the eyebrows, yeah? Normally.
```

As he is checking the answers to a written exercise with the whole class, the teacher is asked to explain the meaning of the word 'arched', which appears in the exercise. For the sake of illustration, he uses that word to describe eyebrows and by doing so points and directs attention to his own eyebrows. However, at one point, Tania seems not to have fully grasped the usage of the word, probably thinking that it should only be used for describing eyes and not eyebrows. In line 15 she says "But the eye, not the- arched". But she is interrupted by the teacher, who promptly says "The eyes or the eyebrows", overlapping his speech with part of that of the student. What he does here is to show that the term 'arched' may be used to describe both eyes and eyebrows. However, the information that the word 'arched' goes with 'eye' is known to the student and the teacher acknowledges that by echoing Tania's speech: "The eyes" (line 16). Nonetheless, the teacher needs to tell the student that the word also applies for 'eyebrows'. The problem is that he seems to be trying to avoid causing the student to believe that one situation excludes the other. In order to solve this problem, as he says "the eyes" (line 16), he uses a gesture (GP13) that shows his stance on the student's contribution. Just as he is saying "The", his left hand rises up in front of chest, palm turned to body, index finger fully extended pointing upwards towards right and thumb extended. Then, as he says "eyes",

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his left forearm rotates outwards and left hand turns away from body, with palm facing downwards and all fingers and thumb fully extended together towards right (Figure 38).
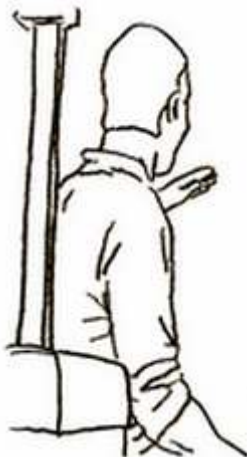
Figure 38. With left hand held palm down, teacher performs a sweeping motion outwards.

The stroke action resembles an actual pattern of action in which something is swept off a surface. Thus, it is as if by using this gesture, the teacher is knocking down anything that might be said that is contrary to the student's contribution and by so doing, emphasises his acknowledgement of Tania's contribution. In Table 7 (Appendix I), information can be found regarding the episode in which this gesture was used by the teacher.

4.3.3.2.3 Uncertainty

During the analysis of the explanatory discourse episodes an instance of gesture was found that seemed to be marking the teacher's speech as something of which he was not sure or as something for which he was not willing to take responsibility. In other words, this gesture revealed his *uncertainty* what he was saying in speech. This gesture was found in the following episode:

Segment 29[48]. (from **18_GE_Passive Voice I_PA5**)

```
41.          general believed that. So, I can put-
42.          instead of saying people believed, I
43.           could say it ((teacher draws rectangle
44.          around example sentence)) it was
45.          believed, "it" ((teacher draws circle
46.          around "it")) means ((teacher draws
47.          curved arrow from circle to embedded
48.          sentence on the right)) this whole idea
49.          here that milk and mango could go-
50.          couldn't go together, but of course (0.9)
51.          having everything here in this place
52.          would be too long, would be complicated,
53.          so (0.5) we put a 'dummy' (0.5) subject
                 |~~~~~~***************************
                 [               GP46
                     GU10 (cont.)


54.          here, yeah? And this represents the whole
             ****/*****|~
                GP46   ][
              GU10 (cont.)
```

After having written some sample sentences on the board in order to facilitate the explanation of one particular form of the passive voice, the teacher directs the students' attention to the main clause of one of the examples, more specifically to the subject of the main clause, which in this case is of crucial importance for the construction of the sentence. Then, he comments on the fact that such a structure takes the pronoun 'it' as a subject in order that a clumsy ordering of words is avoided. In lines 53 and 54, he says "so we put a 'dummy' subject here, yeah?" When making reference to the anticipatory pronoun 'it', the teacher uses the term 'dummy', which is a word whose meaning somehow describes the job done by the pronoun in that structure. However, he seems to be uncertain as regards the use of the word 'dummy' to describe the pronoun in question, and such uncertainty is signalled by a gesture (GP46) that he produces as he is commenting on the pronoun. Preparing for the most important part of the gesture, the stroke, as the teacher says "put" (line 53), his left hand

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[48] This segment has partially been dealt with for a different purpose as Segment 20 in section 4.3.2.1.

rises up to side of face, with index finger extended pointing upward. This upward motion of left hand is closely followed by right hand, which rises up to right side of face, index finger fully extended upwards. Then, as the teacher says "put a 'dummy' subject here, yeah?" he wiggles both index fingers several times in a gesture understood as bracketing what is being said in speech. Then, index finger of right hand continues wiggling as left hand starts moving left away from body, as shown in illustration in Figure 39:

Figure 39. Teacher wiggles both forefingers in front of face to signify "in brackets".

As said before, this gesture serves to bracket the teacher's discourse as something for which he is not ready to take full responsibility. It might be the case that by employing the term 'dummy' he is borrowing it from a grammar book, for instance. It should be clear that what the gesture seems to be marking as uncertain is not the full utterance in which it occurs, but only the term 'dummy'. Table 7, in Appendix I, offers information on the episode in which this gesture occurred.

4.3.3.3 The specificity of parsing gestures in explanatory discourse episodes

According to Kendon (2004), the term 'parsing' is used to refer to those gestures that punctuate spoken discourse or index the different logical components of utterances. Data analysis has revealed that parsing gestures in the explanatory discourse episodes are used to perform the following functions, which have been discussed by Kendon (2004, 2000):

1) Nominating a topic;
2) Highlighting/emphasising;
3) Making a specific point;
4) Marking parts of utterance as topic and comment;
5) Segmenting discourse/enumerating.

I now turn to the analysis of examples of parsing gestures that play each of the roles just listed.

4.3.3.3.1 Nominating a topic

One of the uses of parsing gestures that the analysis of the episodes has unveiled is that of nominating a given stretch of speech as the topic of discourse. An instance of such a use of these gestures is analysed with the help of the following example:

```
Segment 30⁴⁹. (from 7_VE_Cheeckbones_PA2)

01. Isaura:   'Cheekbones'?
02. T:        Well, these are your cheeks, right? So,
              |~~~~~**********************/******|~~~
              [                GP1              ] [
              [                   GU1

03.           the cheekbones are the bones underneath
04.           the skin and the muscles that (….1.6….)
05.           form this- this part.
```

---

[49] Partially addressed in section 4.3.2.4.

When doing an exercise in which she needs to describe two faces given in the textbook, not knowing the meaning of a word, Isaura turns to the teacher for help. She says in line 01 "'Cheekbones'?". Since the word 'cheekbones' is not a very easy one to be explained, or the concept thereof is not very easily definable, given the nature and location of the actual body part called 'cheekbones', instead of trying to elaborate a definition of the term, the teacher chooses to explore known vocabulary and previous knowledge of anatomy in order to get to the point. Thus, in line 02 he says "Well, these are your cheeks, right?" drawing thee student's attention to a part of the face with respect to which the cheekbones are located. Then, he adds "So, the cheekbones are the bones underneath the skin and the muscles that form this- this part." The first part of the teacher's speech is crucial for the students' understanding of the definition that he gives afterwards and to mark the importance of this piece of information, he resorts to a gesture (GP1) that indexes it as a focal element in the utterance. As the teacher says "Well" both of his hands rise in front of his face with fingers formed into loose bunch pointing upwards, in readiness for the impending stroke action. Then, as he says in line 02 "these are your cheeks, right?" his bunched hands touch both cheeks simultaneously, then beat once against cheeks as teacher says "right?", as can be seen in pictorial format in Figure 40:

Figure 40. With both hands formed into a bunch, teacher touches his own cheeks.

Despite the fact that with this gesture the teacher is able to direct the student's attention to a specific body part, if we are to consider the shape assumed by the hand, the fingers drawn together into a bunch, then we may find reason to claim that the gesture is also nominating the speech that it accompanies as a topic for future consideration. In other words, it is only after the students have understood the meaning of "cheeks" and where they are located that the definition the teacher provides may make sense to the student. Strong associations have been made between this gesture in which the fingers are drawn together to form a bunch, also named *grappolo* (Kendon, 2004, p. 228), and contexts in which a topic is being nominated for the sake of specificity or clarification (ibid., p. 230; Calbris, 1990). Table 7 (Appendix I) offers a list of the episodes where gestures can be found that have topic nomination functions.

4.3.3.3.2 Highlighting/emphasising

Instances have been found, during analysis, of parsing gestures whose function is to highlight or give emphasis to something that is said in speech, given its importance as regards the interaction and the exchange wherein it takes place. Consider the following segment (already partially studied as Segment 9, in section 4.1.1.3) for an example of such a gesture:

```
Segment 31. (from 11_VE_Smooth2_PA2)

01. T:      Yeah? That's it? So he- what about
02.         'smooth'? 'Smooth'.
03. S1:     Skin.
04. S2:     Skin.
05. T:      S::kin, yeah. So, 'smooth' means soft to
06.         touch (0.2) without hai:r, yeah? When you
07.         talk about a surface (0.0) you say that
08.         something is 'smooth' when (0.6) the
                     |***********|*
                     [    GP4    ][
                          GU2 (cont.)

09.         surface is really regular. So, also your
10.         hand slides easily along it, yeah? (0.7)
```
During the face description activity described earlier, the teacher

asks students which word from a list provided in the textbook goes with the adjective 'smooth' to which two students respond by saying "Skin" (lines 03 and 04). After acknowledging the students' contribution, the teacher provides a definition of the term 'smooth', which is followed by an example of a different situation in which the word 'smooth' may be applied. In lines 07 and 08, he says "When you talk about a surface (0.9) you say that something is 'smooth'" As he is describing the new situation, the teacher slides his hand across the top of a desk for the sake of illustration. Then, as he says "is smooth" in line 08, he produces a gesture (GP4) that is not related to the propositional content of the utterance. For this gesture, the teacher employs his right hand to perform a beating motion in which the hand rises up a little off the desktop and falls sharply back on it as the teacher says 'smooth'. Consider Figure 41:

Figure 41. As the teacher says "smooth", his left hand falls sharply against desktop.

The hand is held palm flat down throughout. By synchronising this beating gesture with the word 'smooth' the teacher manages to highlight and or give it special emphasis, which is in accordance with the importance the lexical item has, for it is this word that should be used in the situation described just before the teacher pronounces it. Accordingly, beating gestures have been associated with, among others, the marking of emphasis and the introduction of new characters in oral

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narratives (McNeill, 1992). A list is provided in Table 7 (Appendix I) of episodes containing gestures used for highlighting/emphasising.

4.3.3.3.3 Making a specific point

An additional use of parsing gestures identified during data analysis is that in which a gesture is employed to draw attention to a specific portion of discourse and mark it out as being quite precise, information to which special attention should be given. The segment that follows illustrates this use of a modal gesture as has been found in the data collected.

```
Segment 32. (from 19_GE_Passive Voice II_PA5)

13. S:      It is assumed that sometimes unmarried
14.         women.
15. T:      Well, when you speak that informally, it
16.         would be ok. If you think of what would
17.         be the perf- grammatically perfect
18.         sentence, you would have these adverbs
19.         (0.2) right next to the: the th- the
20.         thinking verb, yeah? So it is sometimes
21.         assumed would be the best choice,
                                        |~~
                                        [ GP25
                                        [ GU6

22.         grammatically speaking. Of course even
            ******|-.-.-.|
             GP25 ]
             GU6 (cont.) ]
```

This exchange, which has already been partly addressed as Segment 23 in section 4.3.2.5, takes place as the teacher is checking the students' answers to a written activity on a particular form of the passive voice[50]. A student proposes an answer in which word order is not exactly as expected, especially in what concerns the position of the adverb. In lines 13 and 14, she says "It is assumed that sometimes unmarried women". The teacher explains that this

---

sentence would be accepted in a colloquial context but warns that it is not in accordance with grammatical rules. An acceptable sentence would have the adverb placed right before the verb in the main clause, or the 'thinking verb', as the teacher puts it. Therefore, in lines 20 through 22, the teacher says "So `it is sometimes assumed would be the best choice, grammatically speaking`", thus providing the student with the grammatically correct version of the sentence and commenting upon this different ordering of the words. What is at stake here is that the passive voice that is being taught is rule-governed, that is it conforms to standards of correctness. As the teacher is making the comment on the form of the passive voice under consideration, he makes a gesture (GP25) that seems to be making his point very specific. Just before he starts saying "`grammatically`" (line 22) and before he has finished "`choice`", by upward forearm flexion, his ring-shaped right hand rises up a little in front of body, palm held vertical turned to the left and remaining fingers extended away towards students. Left hand is held palm down away from body. Then, during stroke action, as the teacher says "`grammatically`", his ring-shaped left hand falls sharply hitting wrist against top of right hand, a gesture that is represented visually in Figure 42:

Figure 42. Teacher forms his left hand into a ring and then hits it against back of his right hand.

This gesture in which forefinger and thumb join at their tips

forming a ring has been associated with the action of handling very tiny objects, which otherwise could not be taken hold of (Kendon, 2004; Calbris, 1990). Indirectly it has been associated with the idea that something that is being said in speech is to be taken as very precise information, which seems to be the case in the current example, given the fact that the teacher is trying to teach the grammatically correct form of the passive voice in question. A list of episodes in which gestures are used for making a specific point is provided in Table 7 (Appendix I).

4.3.3.3.4 Marking parts of utterance as topic and comment

At times an utterance may be broken down into its constituent elements, the one being the topic, the other one being the comment, or that which is said of the topic. In the data, parsing gestures have been found that serve to qualify the constituents of utterances as regards their logical or textual function. Consider Segment 33 for an illustration of a modal gesture that is put to that use.

```
Segment 33. (from 15_VE_Gentle features_PA4)

01. T:        So, do you guys erm agree with that? Do
02.           you look for gentle features in the guy?
03. Tania:    (xxxxxxx) what you said?
04. T:        Do you look for ge:ntle fea:tures,
                                 |~~~******/
                                 [   GP2
                                 [   GU1

05.           characteristics?
              *****/****/**|-.|
               GP2 (cont.) ]
                  GU1 (cont.) ]

06. S:        Sometimes.
07. T:        Sometimes.
```

During the correction of a textbook exercise, the teacher asks the students if they agree with the statement that people who are looking for companionship tend to look for gentle features in prospective partners. Since Tania, one of the students participating in the activity, seems not to have understood or not to have heard what the teacher said, he recasts

his question in lines 04 and 05 and by so doing offers a synonym to the word 'feature', which he probably sensed the student had not understood: "`Do you look for gentle features, characteristics?`" As the teacher says "`features`", his left hand rises up in front of forehead, and all fingers are drawn together into a bunch, as can be seen in Figure 43:

Figure 43. Left hand drawn into finger bunch in front of face as the teacher says "features".

Then, as the teacher is saying "`characteristics`", his bunched hand turns to forehead, rotates twice in front of face and fingers spread apart simultaneously. After second hand rotation and just before the teacher finishes pronouncing "`characteristics`", through extension of left forearm, palm of left hand is turned upwards with fingers partially flexed and oriented away from body towards students in a palm presentation movement. Consider Figure 44 (p. 148):
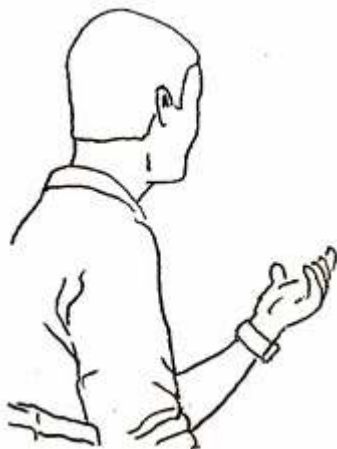
Figure 44. Left hand opens out of bunch shape as the teacher says "characteristics', which is a synonym to "features".

The closing of the hand into a bunch is seen as marking its co-occurring speech as the topic of a comment that is about to be delivered and the opening of the hand with the palm facing upward and directed at audience is signalling that the spoken component this part of the gesture coincides with – characteristics – is the comment being made in relation to "gentle", which in turn, had previously been indexed as topic. In speech, the teacher offers an alternative to a lexical item that he suspects may be causing the student difficulty. By means of a gesture with parsing function, he is able to organize the two pieces of information in logical form, in a way that makes comprehension easier. In fact, the student finally shows to have understood the meaning of the question and gives her own answer to it: "Sometimes" (line 06). Table 7, in Appendix I, presents the explanatory discourse episodes in which gestures were used for marking topic and comment.

4.3.3.3.5 Segmenting discourse/enumerating

As far as we can draw from the data analysed, a number of gestures with parsing functions have been found that serve to segment discourse into its smaller components and provide a visual enumeration of items being ordered verbally as if in a list or, still, to regulate the flow

of speech.. Consider Segment 34, for an example of the first of such uses of a modal gesture.

```
Segment 34. (from 19_GE_Passive Voice II_PA5)

01. Carlos: Unmarried women sometimes is- it is- it
02.         is (1.0) assumed uhh are looking for
03.         husbands.
04. T:      Well, when you have this kind of
05.         impersonal sentence, so normally
06.         you start by this 'it', yeah so it is
                                  |~~~~~~~~***|**|
                                  [   GP2   ][GP3]
                                     GU1 (cont.)

07.         sometimes assumed (0.8) that women (2.4)
            ~~~~***|~~~********|*****************|
              GP4 ][   GP5   ][       GP6      ]
                        GU1 (cont.)
```

In this segment, Carlos is trying to come up with the correct version of a sentence using the newly introduced form of the passive voice. However, he sounds a little hesitant as regards the ordering of the words in the sentence. Then, the teacher intervenes and explains that such sentences as the one Carlos is struggling to construct require the pronoun 'it' as a subject of the main clause, since it is an impersonal sentence, that is, the real subject or actor is not identified. Next, the teacher provides Carlos with the corrected version of the sentence by saying "*it is sometimes assumed* (0.8) *that women* (2.4)" Given the fact that the focus of this exchange is word order, it is important that the teacher makes that salient when he offers the students the grammatically correct version of the sentence. He does exactly that, only he draws attention to the parts of the sentence by way of gesture (GPs 2-6), not by means of verbal metalinguistic comments. As he is modelling the sentence for the student's benefit, the teacher uses several gesture strokes that mark each single component of that sentence. Consider the illustration provided in Figure 45:

Figure 45. Teacher performs several beating motions with open left hand directed at interlocutors in order to segment his own spoken discourse.

With his left hand oriented sagittally, the teacher performs several downward cutting motions each coinciding with one word of the sentence being uttered in a way that each single word is given emphasis to as regards the particular slot it is to occupy in the passive voice structure being practiced. This may be seen as an attempt on the teacher's part to make a metalinguistic comment on the model sentence he is producing. The important thing to note is the fact that the metalinguistic comment is carried out entirely in the gestural mode. Table 7, in Appendix I, provides a list of the episodes containing gestures used for segmenting discourse or enumerating. Figure 46 (p. 151) presents a summary of the uses to which pragmatic gestures are put in the episodes analysed:

Figure 46. *Pragmatic gestures and their uses*

Functions

General	Specific	Local uses/roles
	Performative	→ Offer
		→ Warn
		→ Question
		→ Acknowledgement
Pragmatic	Modal	→ Approximation
		→ Categorical denial
		→ Uncertainty
	Parsing	→ Nominating a topic
		→ Highlighting/emphasising
		→ Making a specific point
		→ Marking parts of utterance as topic and comment
		→ Segmenting discourse/enumerating

4.3.3.4 Summary of section 4.3

Section 4.3 and its subsections have been devoted to a detailed analysis of the part that gestures play in the highly specific context of explanatory discourse episodes. It has been demonstrated that, in addition to the general semantic functions of gesture already described in section 4.3, in the episodes of vocabulary and grammar explanation examined, in diverse ways representational gestures serve as illustrators of that which is being discussed and pointing is likewise resorted to for a host of functions. Moreover, gestures with pragmatic functions have been found to play an important part in signalling what type of speech act a given utterance is and in segmenting discourse into its logical elements as well as drawing attention to particular pieces of information.

Figure 47 (p. 152) shows in schematic form the context-determined roles of gestures that I have been able to identify during data analysis. These roles are listed according to the major functions and types of utterance meaning that they are related to. In general terms, the analysis I have carried out so far has shown that the gestures in the explanatory discourse episodes studied interact with speech in the following ways: they perform referential and pragmatic functions, which

I call their *general* functions; additionally, each of these functions is further broken down into more *specific* ones, which refer to the several ways the gestures studied are used to help create utterance meaning; finally, gestures, as used by the teacher in this study, are put to highly context-determined uses, which I refer to as their *local* uses or roles.

Figure 47. *The functions of gestures in the episodes*

General	Specific	
Referential	Representation (illustration)	Expression parallel to the meaning provided in words
		Gesture as semantic complement
		Gesture as supplement
		Creation of image of topical object
		Create an image of or draw attention to, object of verbal deictic expression
	Pointing	Locating referent of deictic expression
		Displaying/outlining
		Drawing attention to
		Individuating for commenting upon
		Object pointed at is linked to the topic
Pragmatic	Performative	Offer
		Warn
		Question
		Acknowledgement
	Modal	Approximation
		Categorical denial
		Uncertainty
	Parsing	Nominating a topic
		Highlighting/emphasising
		Making a specific point
		Marking parts of utterance as topic and comment
		Segmenting discourse/enumerating

4.4 The relation between gesture type and explanation type

This section aims to answer my fourth research question, *How are the gestures used by the teacher related to the object of his explanatory discourse?* It addresses the ways gestures are related to the content of the explanation wherein they are found. In other words, an attempt is made to demonstrate whether the object of explanation – vocabulary item, as opposed to grammar structure – has an influence on the type of gesture that is used by the teacher as he fashions his utterances in the explanatory discourse that is being shaped. The possibility of this influence came to my attention as I was conducting the analysis reported in sections 4.2 and 4.3, especially as illustrated in Table 4 provided on p. 95 and re-presented here:

Table 4. *Gesture distribution*.

Gesture Type	Context		Total
	Vocabulary	Grammar	
Referential	65	29	94
Pragmatic	16	97	113

Departing from the information summarized in Table 4 and with the aid of a few examples, in what comes, I entertain the idea of an identity relation between gesture type and explanation content and then, having partially dismissed this possibility, I propose that a relationship is to be noticed more clearly between gesture type and the degree of concreteness of the object of the teacher's explanatory discourse.

4.4.1 Gesture type and explanation content: identity?

Initially, the analysis pointed to the possibility that there is a connection between the nature of the topic being dealt with in the explanatory discourse episodes and the types of gestures employed by the teacher. It was noted that when it was the meaning of new vocabulary items that was under discussion, gestures with referential functions were used, both expressive and deictic. In those situations in which the focus of the discourse was on the form and/or meaning of a new grammar structure, the analysis suggests that the teacher makes extensive use of gestures with pragmatic functions. For an illustration of what seems to be a relationship between the use of gesture with referential function and vocabulary explanation, consider the following

example:

```
Segment 35. (from 3_VE_Full lips_PA1)

01.  T:      And- and on behalf of Angelina?
02.  Laura:  Same- the same thing. She's=
03.  T:      ((...........................nods............................))
04.  Laura:  =and she- his- her face is- is:
05.          beautiful (....0.9....)=
06.  T:             Uh huh ((nods))
07.  Laura: =his erm her mouth (0.5) big lips
08.  T:                            Full lips?
                                   |~~~~~****|
                                   [   GP1   ]
                                   [   GU1

09.  Laura:  =yeah=
             -.-.|

             GU1 ]

10.  T:            Hmm.
11.  Laura:  =Full lips (0.5) a:n' I mean, she:
12.          (xxxxxxx) who is: is beautiful when she
13.           wake up, like?
14.  Sts & T: ((laugh))
```

This segment comes from the describing famous people activity, described previously. The student Laura has been talking about what she likes about a famous American artist in terms of appearance when she is interrupted by the teacher, who offers her a phrase that may better suit her needs. In line 07, Laura says "his erm her mouth (0.5) big lips" and just as she finishes saying "big lips" the teacher intervenes in order to provide her with a phrase that expresses in more details what Laura means. The teacher says "Full lips?" (line 08). Here, the teacher is simultaneously offering the student a new expression and clarifying what the new word in that expression means. What is to be noted here is that the explanation of the meaning of the word is carried out gesturally (GP1) and, given the fact that such meaning gives itself easily to depiction, the gesture that the teacher employs is a representational one, that is, a gesture in which a sketchy image is created of that which it purports to describe. Here is a description of the gesture. As the teacher is saying "full" (line 08), his

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left hand goes upwards towards his mouth with fingers slightly flexed in grabbing fashion almost touching mouth, palm oblique facing inwards. Then, as the teacher is saying "lips?" his left hand opens abruptly with a short, rapid, downward movement, fingers fully spread in stiff manner, producing what is considered here the stroke phase of the gesture. Finally, as the student demonstrates understanding ("Yeah", line 09), the teacher's hand relaxes and moves downward to rest at side of body. The motion described in the stroke of the gesture in conjunction with the shapes assumed by the hand, both at the end of preparation and at the end of the stroke, seems to be coherent with the idea of something that is enlarged or exploded, which can be related to the meaning of the word 'full' in the context described, at least in a metaphoric manner. This example may be taken as an illustration of the vocabulary explanation/representational gesture relationship (Figure 48).

Figure 48. Spread fingers to signify "full lips".

Consider now an excerpt that suggests a link between the use of gestures with pragmatic functions and grammar explanation:

Segment 14[51]. (from **19_GE_Passive Voice II_PA5**)

```
01. Carlos: Unmarried women sometimes is- it is- it
02.          is (1.0) assumed uhh are looking for
03.          husbands.
04. T:       Well, when you have this kind of
             |~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~*
             [                   GP1
             [                   GU1

05.          impersonal sentence, so normally
             *******************/************
                         GP1 (cont.)
                         GU1 (cont.)

06.          you start by this 'it', yeah so it is
             *****************/****|~~
                 GP1 (cont.)   ][
                    GU1 (cont.)

07.          sometimes assumed (0.8) that women (2.4)
```

      The above exchange takes place during the correction phase of an exercise on the passive voice. In this exercise students were supposed to rearrange words given in a list in order to make the beginnings of sentences, which they then had to match with endings provided in another list. In lines 05 through 06, Carlos is trying to put together one of those sentences: "`Unmarried women sometimes is- it is- it is (1.0) assumed uhh are looking for husbands.`" Since the ordering of the words that the student comes up with is not the one expected, in lines 05 through 06, the teacher intervenes by recalling the grammatical rule to which the sentence has to conform: "`Well, when you have this kind of impersonal sentence, so normally you start by this 'it', yeah`". Then, in lines 06 and 07, he provides the student with the ideal version of the sentence: "`so it is assumed (0.8) that women (2.4)`". As he is stating the rule, the teacher engages in a complex pattern of gestural action (GP1). During the preparation phase of the gesture, as the teacher says "`Well, when you have this kind of`" (line 04), his left forearm moves

---

upwards towards left and his left hand closes into a finger bunch, palm down. After that, as the teacher says "impersonal", bunched hand moves slowly somewhat upwards and then downwards further to the left towards student. Then, the gesture is frozen in a within-stroke hold[52] in the position and shape assumed as the hand is moved towards the student, represented in Figure 18:

Figure 18. Bunched left hand is directed at students as the teachers says "impersonal sentence".

Next, as the teacher says "so normally you start by this", his left hand opens out of shape and position it had frozen into and moves further up outwards towards student, palm held vertical and fingers extended together forward. Finally, as the teacher says "it", his hand rises up a little and then descends in a short amplitude thrust, palm still vertical and fingers extended, as can be noted in the illustration provided in Figure 19 (p. 158):

---

[52]   See section 4.1.1.4 for a description of this type of hold.

Figure 19. Left hand opens out of bunch as the teacher says "so you normally"

The gesture used by the teacher has pragmatic functions. It serves to mark out the logical parts of the grammatical rule that is being stated and to draw attention to the word 'it', which plays a fundamental role in the structure in question. The closing of the hand into a bunch serves to mark the speech segment "`impersonal sentence`" as the premise to a conclusion that is going to be arrived at, and the opening of the hand with palm held up marks the clause "`so normally you start by this it`" as the conclusion. The downward thrust performed in synchrony with "`it`" highlights that word as being focal for the grammar structure being explained (Figure 20, p. 159).

Figure 20. Left hand still open beats once as the teacher says "*it*".

Unlike Segment 35, analysed previously, in which a representational gesture was used during the presentation of a new word, in the current case a pragmatic gesture is used with the statement of a grammatical rule, which suggests that there is a relationship between the nature of the object under explanation and the type of gesture employed. Moreover, it might be argued that the teacher relates to the two types of explanation in rhetorically different ways, that is, he treats vocabulary explanation in an expository fashion and grammar explanation in an argumentative manner, the former being synonymous with 'presentation' and 'display' and the latter meaning "by way of provision of a series of reasons which are open to debate or not". However, before the existence of such a relationship can be affirmed or more firmly stated, two points must be taken into account so that hasty conclusions are not drawn. First of all, it is to be noted that although the data point to a distinctive use of gesture related to the environment wherein they occur, viz., explanations of vocabulary items versus explanation of grammar structures, so far no effort has been made to distinguish between those gestures that are directly associated with the type of explanation – vocabulary *versus* grammar – and those gestures that synchronize with the discourse around the actual object of the explanatory discourse. In other words, it seems that the focus of attention needs to be shifted from the type of explanation to the particular features of each object of explanatory discourse, be that a new

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lexical item whose meaning needs to be clarified or the grammatically correct ordering of words in a given structure in the foreign language.

Secondly, and perhaps a corollary to the first point just made, it seems necessary to entertain the possibility that, despite the initial – and apparent at that – finding of an identity relation between gesture type and explanation type, what might lead up to the choice of a gesture with one function in opposition to another is rather the extent to which that which is the object of discussion in the explanatory discourse episodes can be said to be concrete. In other words, the objects of explanation, irrespective of their specificity, may be variably concrete, that is, they may vary from more concrete to less concrete or, from more concrete to more abstract. Another way of phrasing this may be that the object of explanatory object may be either more tangible or less tangible. Basically, what is meant here by such terms as 'concrete' and 'tangible' is that the meaning of a lexical item or the form of a given grammar structure, and even its meaning, may give themselves to visual representation by means of gestural action. When this is the case, gestures are used to depict, to enact or to create models of that which is under explanation. Conversely, in situations where the meaning of a new lexical item or grammar structure is too complex for a visual representation of it to be possible or when the focus is not on the meaning of the lexical item or grammar structure but on its usage instead, then the gestures that are used by the teacher appear to have pragmatic functions rather than referential ones. In other words, in such cases, the gestures are not directly related to the object of explanation but to the discourse built around that object. These gestures function to help in the structuring of the speech as discourse and to mark the utterances produced therein in virtue of the speech acts that they enact, acting on the discourse insofar as it is a communicational exchange. Thus, when the focus is moved from the type of explanation to the concreteness of its object, the distinctions raised previously as regards the types of gestures used become blurred. This is the topic of the next section.

4.4.2 Gesture type and degree of concreteness of object explained

In what comes, a number of examples are examined so that an illustration can be offered of the points just raised. First of all, examples are examined of instances of gesture use in the context of explanation of 'concrete' objects, irrespective of whether these are lexical items or

grammar structures. It is claimed that in such cases there is a tendency that gestures are used for representation. Then, examples are analysed of gestures that occur during the explanation of items that are less concrete, and therefore less amenable to visual representation, the claim to be raised being that in this context, if gestures are used, they have pragmatic rather than representational functions.

4.4.2.1 If more concrete, then use referential gestures: vocabulary explanation

Consider the following excerpt (Segment 36) for an illustration of a situation in which a representational gesture is used during the explanation of the meaning of a lexical item which is deemed to be of a concrete nature and, therefore, open to visual representation:

Segment 36. (from **16_VE_Curly_PA4**)

```
01.Laura:   I would love to have curly hair.
02.T:       You would? ((nodding))
03.Laura:   Uh hum.
04.Carlos:  Curly?
05.Laura:   Yeah.
06.T:       ((teacher gestures only))
            |~~~~
            [ GP1
            [ GU1

07.Carlos:  What does
08.T:       ((gesturing))
            ~~~~~~~~~~~~~
              GP1 (cont.)
              GU1 (cont.)

09.T:                   (………1.1………)
                     *******|-.-|
                        GP1   ]
                    GU1 (cont.) ]

10.Carlos:                    Ah curly, okay.
11.Laura:   I don't know, because you can straighten
12.         sometimes (xxxxx).
13.Silvana: Yeah.
```

This exchange takes place as the answers to a written activity are being checked. The students are supposed to read an article on 'beauty' in their textbooks and say whether a number of statements provided in the exercise proposed are true or false in relation to the text. At one point, the student Laura comments on her wish to have curly hair. Carlos, who has been listening attentively, asks "Curly?", in line 04, showing that he is not familiar with that word. Instead of giving a definition of the term or even translating the word into the student's mother tongue, which is the same as the teacher's, the teacher provides the student with the clarification of the meaning of the word solely by means of a representational gesture. Consider the visual representation offered in Figure 49:

Figure 49. Using right forefinger, teacher provides a visual representation of a curl of hair.

During the stroke phase of the gesture, having placed his right hand forefinger extended on top of his head, the teacher draws an outward-downward arc-like trajectory, with forefinger drawing five connected loops in mid-air. The visual image produced by this gesture, although it fades away almost instantaneously, serves to offer an illustration of something, a tuft of hair, which has the quality of being 'curly'. And this, it is my claim, is possible thanks to the concrete nature of the referent of the term 'curly'. It is interesting to note that, in addition to the fact that the teacher produces this gesture in the total

absence of speech, Carlos demonstrates understanding of the explanation being offered by the teacher, as can be seen in line 10, where he says "Ah curly, ok", which might be taken as evidence that the gesture has played a significant role in the communicational event.

4.4.2.2 If more concrete, then use referential gestures: grammar explanation

Having examined an instance of gesture use in the context of explanation of a vocabulary item which is believed to be possessed of concrete qualities, or that can be described in concrete ways, I would now like to draw the reader's attention to an example in which a similar use of gesture is made in the context of explanation of a grammar structure. Consider Segment 37:

Segment 37. (from **19_GE_Passive Voice II_PA5**)

```
10. S:      It is assumed that sometimes unmarried
11.         women.
12. T:      Wha- come again. (0.6)
13. S:      It is assumed that sometimes unmarried
14.         women.
15. T:      Well, when you speak that informally, it
16.         would be ok. If you think of what would
17.         be the perf- grammatically perfect
18.         sentence, you would have these adverbs
                 |~~~*************************|~~
                 [                 GP20            ][
                         GU3 (cont.)

19.         (0.2) right next to the: the th- the
            ~~~~~*********|-.-.-.-|  |~~~~~~~~****
                 GP21      ]           [   GP22
                 GU3 (cont.)      ] [    GU4

20.         thinking verb, yeah? So it is sometimes
            ***/**|-.-.-.|
             GP22 ]
             GU4 (cont.) ]

21.         assumed would be the best choice,
```

During the explanation phase of an exercise on a passive report structure, a student proposes an answer that is not the one expected, in terms of word-order. In lines 10 and 11, she says "*It is assumed that sometimes unmarried women*", placing the frequency adverb 'sometimes' in the wrong position. The teacher intervenes and acknowledges that the sentence that the student has produced is acceptable if uttered in an informal context. However, he explains that in formal contexts, or if the sentence were to be in strict agreement with the grammatical rule, the words would have to be ordered somewhat differently. As he is explaining the correct grammatical order of the words in lines 16 through 20, the teacher produces some gestures (GPs 20-22) that synchronize with his speech. The teacher says "If you think of what would be the perf- grammatically perfect sentence, you would have these adverbs (0.2) right next to the: the th- the thinking verb, yeah?". In the second clause, although we do not have an instance in which the rule is applied, the teacher offers the student a verbal description of the rule, or rather, of a particular aspect of it. Here he is explaining to the student the position that should be ideally occupied by the frequency adverb. And as he is doing so, he uses a few gestures that serve to make more vivid what he is saying in speech, or to provide a visual illustration of the rule being stated. As he is saying "you would have the adverbs" (line 18), by a forceful inward-outward wrist rotation, the teacher alternately oscillates both hands inwards with palms to body at chest level and fingers together (GP20). The dynamics of this gesture is coherent with the idea of anteriority of frequency adverbs, which is on the verge of being stated. Then, as the teacher is saying "right next" his right hand strikes hard against palm of his left hand (GP21) (see Figure 50, p. 165), in a gesture that is associated with the idea of 'exactness' (Calbris, 1990).

Figure 50. Ridge of sagittally held right hand hits against palm of left hand as the teacher says "right next to the".

Next, after some hesitation, the teacher completes the rule-statement by saying what it is that the adverbs of frequency should come before: "the th- the thinking verb, yeah?" (lines 19 and 20). As the teacher says "the thinking", he rapidly touches right temple with fingertips of his right hand and moves hand away in a forward thrust, palm vertical turned to body and fingers extended upwards (GP22). This gesture serves to draw attention to that area of the human body which is said be the 'seat of reason', or the locus of our thinking activity, as is made clear in the visual representation provided in Figure 51 (p. 166):
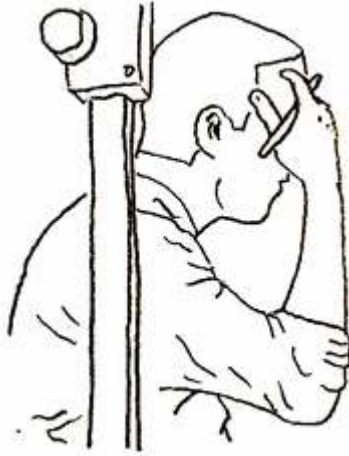
Figure 51. Teacher touches side of head as he says "the thinking".

The analysis of this example has demonstrated that when we take into account the relative degree of concreteness of the object of explanatory discourse, the line that sets vocabulary apart from grammar structure disappears. However, in the case of the example just analysed, although, as was argued, what the teacher said in speech was not exactly an instance of the application of the rule in question, his speech was a comment on the structure, and a descriptive comment at that. Thus, given the linearity constraints imposed on verbal language, both spoken and written, the descriptive speech on the word-order rule discussed by the teacher can easily be accompanied by gestures with referential functions, which serve to illustrate what is being said and draw attention to relevant contextual elements.

4.4.2.3 If less concrete, then use pragmatic gestures: vocabulary explanations

Having examined some instances of gesture use in the context of explanation of 'concrete' objects, I now turn to the analysis of some examples in which gestures are used in situations where the object of explanation is less concrete and thus, not easily amenable to visual representation.

Consider Segment 38, which has been partly studied as Segment

27 in section 4.3.3.2.1, for the analysis of a gesture used during the explanation of a vocabulary item:

Segment 38. (from **13_VE_Hazel_PA3**)

```
15. S:         What's 'hazel'?
16. T:         'Hazel' is the c- when you talk about
17.            hai:r and eye colour, the colour of
                                 |~~~~~*********/
                                 [     GP4
                                   GU1 (cont.)


18.    honey (0.8) ((in much lower voice and at
       ******|****|~~~~~~~~~~~~
      cont.)][ GP5][   GP6
              GU1 (cont.)


19.    quicker pace)) you say 'hazel', yeah.
           ~~~~~~~~~~~~~~~*******|-.-.-.-|
                 GP6 (cont.)    ]
                     GU1 (cont.)        ]

20. S:         'Hazel'? ((teacher still nodding))
21. T:         Uh huh.
```

This exchange takes place as students are engaged in a group activity on a handout provided by the teacher. Each group has a different set of questions that they are supposed to tackle for later discussion with the whole class. At one point, one student asks the teacher what the word 'hazel' means (line 15). The teacher starts giving a definition of the word but then drops it in order to create a situation in which the word 'hazel' could be applied, possibly because the definition would result too abstract or would not contribute to the student in terms of her experiencing the meaning of the term. First the teacher mentions two situations where the word could be used, viz., the description of hair or eye colour. Then, he restricts his comment to the colour of hair or eyes: "the colour of honey" (lines 17 and 18). This is followed by a silent pause of eight tenths of a second. Next, the teacher says "you say 'hazel', yeah." (line 19). The problem that the teacher faces here is that a definition of a colour would have to be either in scientific jargon or in the form of reference to an entity that, by definition, is said to carry that quality. Since scientific discourse would

be of very little use in a second language class, the teacher chooses the second option, saying "the colour of honey". As he is saying this, he produces a gesture in which his left hand closes into a bunch (at "colour of") and then, through an inward-outward wrist rotation, turns open, palm up and fingers spread and extended away from body towards students, as if offering something, as can be seen in Figure 52:
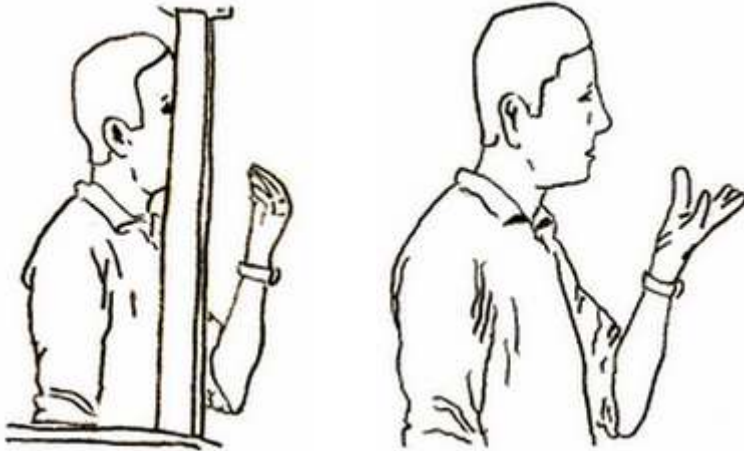
Figure 52. Teacher closes left hand into bunch as he says "colour of" and then opens it palm upwards as he says "honey".

The first part of this gesture (GP4, in the transcript) nominates a general topic for clarification, and the second part marks the co-occurring speech as the comment on the topic just nominated. In other words, the hand closed into a bunch marks the speech segment "colour of" as a general class and the opening of the hand marks the segment "honey" as a modifier of that general class.

After the teacher has drawn the students' attention to a situation in which the word 'hazel' can be used, he makes a pause during which another gesture is produced. In this gesture (GP5), through forearm rotation (Figure 53, p. 169), the teacher's left hand with palm oblique to the left oscillates twice about a somewhat vertical axis, in a pattern of motion that is associated with the idea of approximation (Calbris, 1990, p. 178).

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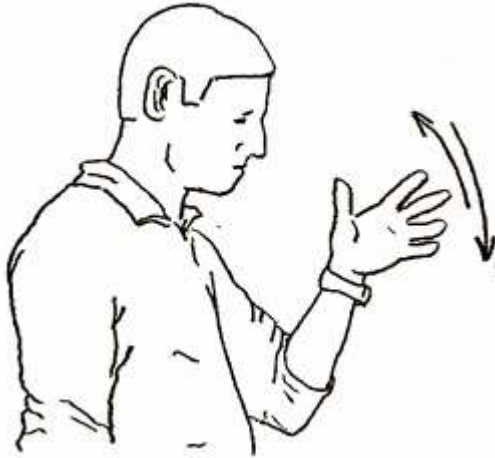
Figure 53. Open left hand is rotated to signify 'approximation'.

This gesture could be said to be a comment on what the teacher has just said in speech. With the gesture, he seems to be showing that the reference to the colour of honey is not to be taken as the best example that may be found. Finally, as the teacher is saying "you say hazel" and after having formed his left hand into a ring shape (GP6), he turns palm to face body and extends forefinger upwards out of ring shape, opening all remaining fingers. For a better illustration of this gesture, consider Figure 54:

Figure 54. As the teacher says "you say hazel", he opens his left hand out of ring shape, with palm held upwards.

Teacher nods at the same time. The opening of the hand out of the ring shape has been related to situations in which "something quite specific is being mentioned in the context of an already established topic" (Kendon, 2004, p. 241). The speech segment that synchronizes with this gesture is the statement that the word 'hazel' is to be used, the context for its use having been laid previously.

4.4.2.4 If less concrete, then use pragmatic gestures: grammar explanation

The analysis of the previous example has sought to demonstrate that, when the meaning of a word is less concrete, or not easily defined, it is equally not open to visual representation and that, when this is the case, if gestures are used, they have pragmatic functions, rather than referential ones. In the following segment, an instance of gesture is analysed that occurs in the context of the explanation of a grammar structure.

Segment 39. (from **19_GE_Passive Voice II_PA5**)

```
13. S:      It is assumed that sometimes unmarried
14.         women.
15. T:      Well, when you speak that informally, it
            |~~~~~********/*****|~~~~~**********|~~*
            [       GP15     ][     GP16     ][
            [                 GU3

16.         would be ok. If you think of what would
            ********************************|~~~~~
                         GP17               ][
                      GU3 (cont.)

17.         be the perf- grammatically perfect
            ~~~~~~~*~**********/***********|*
                         GP18              ][
                      GU3 (cont.)

18.         sentence, you would have these adverbs
19.         (0.2) right next to the: the th- the
20.         thinking verb, yeah? So it is sometimes
21.         assumed would be the best choice,
22.         grammatically speaking. Of course even
```

This segment, partly analysed previously under different headings and for different purposes (sections 4.3.2.5, 4.3.3.3.3 and 4.4.2.2), is part of an exchange that takes place during the correction of an exercise on a passive report structure. A student proposes a sentence whose word-order is not correct in grammatical terms. She has misplaced an adverb of frequency. The teacher corrects her by explaining that the sentence that she has come up with is acceptable in informal situations. However, he adds that if the sentence is to conform to the rule, the adverb must be placed in its canonical position, that is, it must be placed before the auxiliary verb and the reporting verb. As the teacher is elaborating his explanation, he resorts to a number of gestures (GPs 15-18) that are produced in synchrony with specific parts of his speech. Thus, as he says "Well, when you speak" (line 15), the teacher moves his left hand away from chin, where it had been placed during the preparation phase, and rotates it outwards so that in the end palm is held facing obliquely upwards, fingers extended and together directed at students (GP15). The turning up of the palm synchronises with "speak", as can be visualized in Figure 55:

Figure 55. Open hand directed at interlocutors as the teacher says "when you speak" to mark his speech as something to be taken as an offer for consideration.

Then, as the teacher says "informally" (line 15), by outward-downward forearm extension and outward wrist extension, hand turns over so that palm is held obliquely up with fingers fully extended

together and oriented away towards students (GP16, depicted in Figure 56).

Figure 56. Palm presentation is again used as the teacher provides additional information regarding grammar structure being explained.

Next, as the teacher is saying "it would be ok." (Lines 15 and 16), his left forearm rotates inwards so that left hand palm is facing obliquely away from body, fingers extended together in preparation for the upcoming stroke action. Then, the hand falls downward leftward so that wrist is made to rest against back of right hand, which in turn has been resting on right thigh (GP17, depicted in Figure 57, p. 173).

Figure 57. Open left hand held obliquely is placed against left arm as if to show that something is out of the question.

By saying "`Well, when you say that informally, it would be ok`" (Lines 15 and 16) the teacher is establishing the conditions under which the word-order proposed by the student would be acceptable. And the gestures that he synchronizes with his speech seem to operate on his discourse in two ways. First, the stroke action of GP15 and GP16 mark the speech segment that they synchronize with as information that is being offered for the student's appreciation, that is, information is being offered that, if taken into account, will be useful for the comprehension of the structure being discussed. Second, the stroke action of GP17 seems to be marking the speech with which it co-occurs as something definite, that is, if the sentence "*It is assumed that sometimes unmarried women*" is produced under the circumstances stated by the teacher, namely, informal situations, then it is acceptable and nothing can be said to the contrary.

After that, as the teacher says "`perf- grammatically perfect`", he draws the tips of his thumb and forefinger together so as to form his hand into a ring. By so doing, the teacher manages to show that what he is saying in relation to the passive voice sentence under discussion is to be taken as something very precise, the ring-shaped hand being also interpreted as a symbol of 'perfection' and 'exactness' (Kendon, 2004; Calbris, 1990). This can be better visualized in Figure 43 (already shown in Section 4.3.3.3.3):

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Figure 43. Teacher forms his left hand into a ring and then hits it against back of his right hand.

In this example, the object of explanation is a grammar structure, more specifically the ordering of words in a form of the passive voice used for information reporting. However, the discourse in the segment highlighted is not directly related to the actual word-order expected. It is a comment on the usage of that structure, or of the variation of it that the student has produced. Word-order *per se* may be qualified as having a certain degree of concreteness, given the linearization constraints mentioned previously, but usage is far more abstract than word-order. Thus, the gestures that the teacher uses together with his speech in the current example are gestures that have pragmatic functions, that is, gestures that are related to the situation of production of the utterances and to the utterances as components of a discourse, rather than to the content of explanation in terms of representation.

4.4.3 Summary of section 4.4

This section has attempted to demonstrate how it is that when the focus of investigation is moved away from the distinction between the two types of explanation, viz., explanation of vocabulary item and grammar structure, and the gestures that accompany them to the degree

of concreteness of the objects of explanation, whether vocabulary or grammar, an apparent relation between explanation type and gesture type collapses. It seems that, when the object of explanation is more tangible, it gives itself more easily to mimetic description, irrespective of whether it is a lexical item or a new grammar structure. Conversely, when what is being explained is of a less tangible nature, there is an apparent tendency that more needs to be said in its respect and the gestures that happen to be used are related to the discourse around the topic under discussion rather than to that object itself. Possibly, what was said previously (section 4.4.1) as regards the use of distinct rhetorical modes may still hold. The only difference now is that what leads to the use of one mode instead of the other is the level of tangibility of the object under explanation, as opposed to whether it is a lexical item or a grammar structure. It is important to note here that, in the examples analysed throughout this chapter, the gestures used by the teacher in his explanatory discourse have played a facilitating role in helping him to establish communication with his students. In other words, they have played a mediating role whereby communication and comprehension problems were solved in ways that the pedagogical activities that happened to be going on were not disturbed and communication was prevented from going astray. Gestures, both when used in isolation and when used in conjunction with speech, were fundamental in helping teacher and students to establish intersubjectivity, that is, to reach reasonable degrees of mutual understanding.

4.5 Summary of Chapter 4

Chapter 4 has been devoted to the analysis of the data selected for the study. The analysis was carried out with different purposes. First, by testing the applicability of the gesture theory of Kendon (2004, 2000, 1995, 1994, 1990, 1988, 1982, 1980), it aimed to unveil the kinesic structure of the gestures used by the teacher in the explanatory discourse episodes chosen for the study and to reveal the general types of functions performed by gestures as regards the construction of utterance meaning. Then, a deeper analysis was carried out with a view to unveiling the particular contributions brought by gestures in the specific contexts where they were found, namely the teacher's dialogically constructed explanatory discourse. Next, an attempt was made to demonstrate that what might play a major part in the choice of gesture

type is the degree of concreteness of the actual object of explanation, rather than the type of explanation. In other words, for example, it is not the fact that a given piece of explanatory discourse is built around a vocabulary item rather than a grammar structure that will determine that a gesture with referential function be used. On the contrary, the analysis has demonstrated that what does seem to play a role in such a choice is the degree of concreteness of the object being explained, regardless of whether it is a new vocabulary item or a new grammar structure.

I the next chapter I offer a summary of the dissertation, provide a discussion of the findings of the analysis chapter, and point to future directions of research, in addition to laying out the limitations to the current study.

5

Concluding Remarks

> For a truly inclusive view of human language, gesture must be taken into account. Once we do so we may come to see that language cannot be properly understood if it is regarded only as a system of abstract symbols governed by quasi-mathematical rules of operation that are *sui generis* and remote from practical action. Language must be seen, rather, as embedded within, and as a part of, the action systems by which the environment and objects within it are manipulated, modified, organized and created. Despite the complexity of elaboration and despite the apparent detachment from practical action of spoken language, gesture's intimate tie with it teaches us that, after all, when humans put forth their thoughts in utterances this is, at bottom, but an aspect of *fabrication*, which is so fundamental a characteristic of our species. (Kendon, 2004, p. 361, italics in original)

Introduction

This dissertation had two main concerns, theoretical and empirical, the empirical one having unfolded into four specific objectives. The theoretical concern was related to the identification of a theory of gesture that would prove adequate for the needs of the empirical investigation proposed. It was also necessary to examine gesture in the light of mediation, a concept from sociocultural theory, which I adopt for its capacity to explain interpsychological processes, without disregarding intermental processes that may be involved in or that may result from interaction. As far as the empirical objectives are concerned, the study has sought to investigate the nature and the role of one EFL teacher's gestures during situations in which he provides students with vocabulary and grammar explanations, here generally referred to as 'explanatory discourse episodes'.

The current chapter is organized in the following way: section 5.1 summarizes the considerations on the choice of the theoretical apparatus to study gesture and on the possibility of considering gesture a semiotic tool; section 5.2 re-presents the objectives and research questions and summarizes the findings of the research; section 5.3 discusses some pedagogical implications of the study; and section 5.4

presents the limitations of the study and points to possibilities as regards future research on gesture in the EFL classroom.

5.1 Theoretical considerations

As stated before, for this piece of research to be carried out, an adequate theoretical apparatus was necessary. However the choice of one could not be hasty. Given the fact that the empirical objective of the study was to examine the gestures produced by one teacher as he interacted with students in situations where the meaning, form or use of vocabulary items and grammar structures needed explaining, a theoretical stance on gesture was needed that would provide the tools for viewing and analysing gesture as action produced publicly and not only for the benefit of the gesturer but also, and in the present case, especially for the benefit of interactants. As discussed previously (Chapter 2), several studies have been carried out that examine gesture in the context of L2 teaching and learning. Most of these have looked at the gestures produced by the learners of a L2 and have adopted a psychological point of view, which seems to be appropriate, since the main concern in such cases is with learning. However, those studies that have attempted to focus on gestures produced by the teacher (e.g., Lazaraton, 2004; Rodrigues, 2005) seem to have departed from the same theoretical standpoint. This choice in itself would not pose any problem if the studies had been concerned with the relationship between the gestures produced by teachers and their thinking processes. Nonetheless, if the focus of a study is to be placed on the teacher's gesture as something that is fashioned for public display, then a different theoretical tool is required to examine such a phenomenon.

Two gesture theories were discussed and compared (section 2.5, Chapter 2) so that one of them could be chosen to inform the current study. The first one was that developed by McNeill and collaborators (McNeill, 1992; McNeill, Levy & Pedelty, 1990; McNeill & Levy, 1982) and the second one was the theory proposed by Kendon (2000; 2004; 1995). The discussion of the theories, which was accompanied by the examination of some examples from the data, revealed that, given the gesture typology proposed and the goals stated, the first theory has clear – and acknowledged – intrapsychological concerns, that is, it seeks to establish the links between gesture and thinking. The second theory was shown to have interpsychological concerns, since it has more interaction-oriented objectives, proposing a typology of functions rather

than of gestures and allowing for the study of gestures with pragmatic functions, in addition to those having referential functions, which were the ones given priority to in McNeill's theory.

Given the fact that the current study was concerned with any kind of gestural action on the part of the teacher as it is produced in the context of interaction with students, Kendon's theory was chosen to inform the empirical investigation that I proposed. Of course, this choice is only methodological, since, as discussed before, the theoretical perspectives examined are complementary rather than mutually exclusive.

The second theoretical issue that I needed to consider was to verify whether gestural action could qualify as one type of semiotic tool and whether as such it could be positively used in processes of mediation. As stated previously (chapters 1 and 2), in order to carry out the present study, in addition to drawing on theories that are fully devoted to the phenomenon of gesture, given the specificity of the data that I selected for analysis, I also relied on sociocultural theory so as to have the tools that I deemed adequate and necessary for explaining gesture as these are used in the EFL classroom context. This choice was based on my belief that, at least in such institutionalised educational settings as schools and universities, there is a close connexion between the activities and interactions wherein knowledge is produced and the cognitive changes that individuals participating in such interactions experience. Accordingly, one of the main tenets of sociocultural theory is that learning is first interpsychological and then intrapsychological, that is, it is first social and then individual. Furthermore, learning is always mediated and mediation is effected by means of semiotic tools, the most important of which is language. Therefore, it was necessary to look at some examples in order that the role of gesture as a semiotic tool and its effectiveness in facilitating mediation could be verified.

By looking at some examples I could find evidence that gesture may have been drawn upon by the teacher as a semiotic tool. This evidence includes the fact that, upon fashioning his utterances during his explanatory discourse, *the teacher often made use of both speech and gesture* and that, when this was the case*, the absence of gesture would possibly have caused communication to go astray*. Additionally, instances were found of gestures being used in the complete absence of speech, thus *acting as utterances on their own*, which was made evident in the communicative effects they had. Interestingly, the mediation carried out by gesture has been both *implicit* and *explicit*, which seems to give gesture an advantage over speech, since the mediation effected

through speech is posited to be chiefly implicit (Wertsch, 2007). Moreover, the very fact that after a gesture was produced, especially if in isolation, interlocutors signalled that they had understood what the teacher meant, suggested that gestural action had been successful in *helping interactants reach intersubjectivity*, which is believed to be one of the most important purposes of a semiotic tool. In sum, gesture, along with language, seems to have been drawn upon by the teacher as a symbolic tool in *mediating* the construction of new knowledge, that is, knowledge of new words and grammar structures.

5.2 Summary of findings

Generally speaking, the current study may be said to have achieved the following: it has shown that the input offered to students in the EFL classroom investigated is not only verbal but also gestural; it has tested the applicability of one particular gesture theory (Kendon's) to investigate the teacher's gestures in the context of explanatory discourse; it has shown that gestures are variously used by the teacher in order to meet immediate communicative needs; and it has demonstrated that the types of gestures used are not a function of the type of explanation wherein they occur, but of the degree of concreteness of the object of the explanatory discourse.

In what follows I re-present the specific objectives of this research, along with their corresponding research question, and provide a summary of the findings. The study was guided by four empirical research questions that had both structural and functional concerns. Each objective and research question is dealt with in a separate subsection.

5.2.1 Objective and Research Question 1

The first objective of the present study, which was concerned with structural aspects of gesture, was to identify the different parts that make up the gestures produced by the teacher. In other words, the objective was to identify and analyse the different kinesic components of the gestures found in the episodes selected for the study. The research question to be answered in order that this objective could be attained was *What types of speech and gesture configuration, that is, variations in gesture performance, can be found in the discourse analysed?*

The data analysis has shown that the gestures used by the teacher vary in their kinesic features and in the way they relate to speech. Gestures were found to occur in major units of action, labelled gesture units. These gesture units included: the onset of gesture, called the *preparation* phase, that is, the moment the hand or arm leaves a position of rest; a *stroke* phase, which is the action of the hand or arm that is deemed to have expressiveness and is perceived by co-participants in an interaction as being meaningful; and, finally, a *recovery* phase, which is the retraction of the hand or arm to a rest position. Of these phases, the preparation and the stroke, together, constitute a *gesture phrase*, although the only obligatory phase is the stroke, since it is the expressive part of the gesture.

However, the analysis also revealed that gesture units may contain holds during which the hand and arm were kept still. Holds were identified as being of three types: *pre-stroke*, *within-stroke hold*, and *post-stroke hold*. In the data analysed, holds were found to occur when the teacher's hand had reached the position for the execution of the stroke in advance of the speech segment that the gesture was to interact with. Holds also occurred when the teacher interrupted his own speech with the objective of allowing himself time to elaborate on his line of thought. Additionally, holds were made when the teacher wanted to keep the image produced in the gesture as a visual display to be carefully examined by the students.

The data analysis also showed gesture units to contain from one to several gesture phrases, always in accordance with the needs of the communicational event. What is more, in those cases where a gesture unit contained more than one gesture phrase, these were made up of a combination of preparation and stroke or of a stroke only.

5.2.2 Objective and Research Question 2

This study has taken the utterance as a minimal unit of communication in face to face encounters and has taken into account that gesture has an important role in the construction of utterances in such a context (Kendon, 2004). Thus, the second objective of the research has been to unveil in which ways the teacher's gestural action contributes to the creation of utterance meaning. With a view to achieving this objective, research question 2 was proposed: *What are the general functions of the gestures used by the teacher as he explains vocabulary or grammar structure? Do the findings provide a firm*

ground on which to base the claim that gesture use varies in relation to the specificity of the explanatory discourse, that is, vocabulary explanation, as opposed to grammar explanation?

The data analysis has revealed that the gestures used by the teacher have both *referential* and *pragmatic* functions. Gestures that have referential functions are those that contribute to the propositional meaning of an utterance whereas gestures with pragmatic functions contribute meaning other than propositional, or more specifically, they bring into the utterance meaning that is related to the structure of the 'message'[53] or to the intention of the communicator as regards the effects s/he wants his/her 'message' to have upon interlocutors.

Among the gestures analysed in this study, those with referential functions were found to contribute to the creation of utterance meaning in two ways. First, the teacher was seen to use gestures that seemed to provide a *visual representation* of the entity referred to in speech, either in its entirety or in terms of some relevant aspect of it. The second way in which gesture was used to create propositional meaning was through *pointing*, or *deixis*, whereby the hand or a digit was directed at some concrete entity present in the interaction setting. However, instances were also found of abstract pointing, that is, pointing gestures directed, for instance, either to the speaker himself in order to convey the idea of "self" or to the place behind the speaker to express the idea of "past".

As far as *pragmatic* gestures are regarded, the analysis has revealed that the teacher resorted to three different types: performative, modal, and parsing. The teacher used *performative* gestures in order to mark visually what kind of speech act a given utterance or part of it was. In some episodes, the teacher produced *modal* gestures that marked the content of his locution in terms of the manner in which he expected it to be interpreted by the students. Additionally, the data analysis has shown that the teacher used gestures with *parsing* functions in order to draw students' attention to the structure of his speech. Furthermore, although counts suggested that more gestures with referential functions were used in vocabulary explanations and more pragmatic gestures were used in grammar explanations, the very fact that these counts were not absolute showed that the relationship between gesture type and explanation type deserved to be considered more cautiously. This issue was taken up again in section 4.4 and the findings related to it are summarized in

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[53]Although I use the term 'message' here, I do not subscribe to a tradition in linguistics – discussed in Reddy (1979) – that views language in terms of a conduit whereby thoughts are passed from a speaker to a hearer.

section 5.2.4 below.

In section 4.2, I raised the point that the identification of the aforementioned functions for the gestures produced by the teacher during episodes of explanation might not be sufficient to provide a realistic picture of what goes on in the EFL classroom studied as regards the teacher's gestural action, given the general character of those functions and their consequent ubiquity. Gestures with both referential and pragmatic functions, in their different forms, were found in studies of interviews and of informal talks among friends over a variety of topics, among others (Kendon, 2004). Therefore, a more detailed analysis of the role of gesture in the episodes selected for the study was deemed necessary. This is the topic of the next section.

5.2.3 Objective and Research Question 3

The third objective of the present study was to find out the role of the gestures used by the teacher vis-à-vis the specificity of their context of use, namely, episodes of vocabulary and grammar explanation. In other words, my interest was in uncovering the ways in which gesture really made a difference to the context in which it was used, both the linguistic and the situational context. In order to achieve this goal, I formulated my third research question, which reads *What are the specific contributions that gestures bring to the explanatory discourse that they help construct?* The findings related to Research Question 2, summarized in the previous section, have pointed to the fact that gestures act as illustrators of the content of speech, as identifiers of entities relevant for the interaction, and as markers of pragmatic features of utterances. In what follows, I provide a summary of the findings as regards the specific ways the teacher's gestures contributed to the communicative events wherein they were used.

As mentioned before, gestures with referential functions were of two types: *representational* and *deictic*. Representational gestures were found mainly to provide visual *illustrations* of the meaning, or aspects thereof, of a newly introduced lexical item. The data analysis has shown illustration to be achieved in five different ways. First of all, the teacher produced gestures that seemed to be *creating an expression that was parallel to the meaning provided in his speech*. In other words, the teacher seemed to resort to gestures with the objective of providing students with visual examples of the content of the object of explanations, especially in the case of vocabulary explanations. Second,

some of the gestures found in the data were used to provide a *semantic complement* to what was being said in speech in a way that the meaning of the speech counterpart of the gestures was made clearer to the students. Third, gestures were also used that functioned as *supplements* to what the teacher was saying in speech. These gestures added meaning to the utterances that was not present in the words spoken by the teacher. Fourth, the data analysis revealed that the teacher made use of gestures that were intended to provide interlocutors with a visual display of the object that happened to be under discussion, that is, he produced gestures that *created an image of the object which was the topic of the discussion*. Finally, in some episodes in which the teacher made use of such verbal deictic expressions as "this", "that", "here" or "there", he resorted to gesture in order to *create an image that functioned as the object of the deictic expression*.

As regards the second type of gesture with referential function found in the data, namely pointing or deictic gestures – these typically indicate the location of an entity, concrete or abstract, present in the interactional setting or, in the case of an abstract entity or of some absent object, assign it a place in a virtual space in the setting – the analysis has shown that the teacher produced them in order to achieve a variety of purposes. First, pointing was seen to be used for *locating the referent of verbal deictic expressions such as "this" and "that"*. Second, in addition to indicating the location of an entity referred to in speech, the analysis has shown that pointing was also carried out in such a way that, thanks to the shape taken on by the hand or to the pattern of motion realized in the gesture, additional information regarding the object of the pointing was conveyed in the gesture. In this case, the pointing gesture was used *to expose an object by outlining some of its physical features*. Third, the teacher was seen to use pointing gestures with the objective *drawing his interlocutors' attention to an object* that is the topic of the discourse. Fourth, pointing gestures used by the teacher also served *to individuate something for a comment* that he was about to make. Finally, through pointing, *objects were singled out in virtue of their relationship to the topic of the conversation*. In these cases, the object singled out had a relevant link with the topic of the discourse, but was not directly referred to in speech.

In addition to the particular functions the data analysis has shown referential gestures to have in the teacher's explanatory discourse in the EFL classroom studied, gestures with pragmatic functions have also been observed to have various specific roles in this context. As shown in the findings of Research Question 2, summarized in section 5.2.2, the

gestures with pragmatic functions found in the data were of three types: performative, modal and parsing. A more detailed investigation has shown each of these types of gestures to have been used by the teacher for several different purposes, all contextually bound. Performative gestures, which show what speech act a given stretch of discourse is, have been found to mark utterances as an *offer*, a *warn*, a *question* and an *acknowledgement*. Modal gestures, in their turn, have been observed to show the teacher's positioning as regards what he was saying in speech as well as the manner in which he wished what he was saying to be interpreted. These gestures marked his utterances as an *approximation*, a *categorical denial* and as something he could not take responsibility for, that is, something *uncertain*. Finally, parsing gestures have been used by the teacher in order *to nominate something as the topic of the discourse*, *to highlight or emphasise some particular information*, to show that a very *specific point was being made, to mark parts of utterances as topic and comment*, and *to segment discourse* and/or *to enumerate* items in a list made orally.

5.2.4 Objective and Research Question 4

The fourth objective of the present study was to find out to what an extent the gestures analysed were related to the object of the explanation, that is, the study aimed to verify whether the type of gesture used, or the functions they performed, varied depending on whether the teacher was explaining vocabulary or grammar. With a view to achieving this objective, I formulated the following research question: *How are the gestures used by the teacher related to the object of his explanatory discourse?* The findings pointed to a complex relationship between gesture and the object of explanation.

Initially, the data analysis had suggested the existence of an *identity relationship* between gesture type – or type of gesture function – and the type of object being explained. It seemed that gestures with referential functions were more used when the meaning of a vocabulary item was being explained whereas gestures with pragmatic functions were more used when the form or meaning of grammar structure was being explained. However, the analysis revealed that, although an identity might be found between gesture type and object of explanation, what seemed more plausible was that the *functions of the gestures produced by the teacher varied in accordance with the degree of concreteness of the object being explained*. Thus, a more in-depth

scrutiny of the episodes revealed the following patterns of gesture use: *gestures with referential functions were used with more concrete objects* and *gestures with pragmatic functions were used with less concrete objects*.

It is important to note that these patterns were found when the teacher was explaining both lexical items – whether form, usage or meaning – and grammar structures. In other words, when the object of explanation, lexical item or grammar structure, was amenable to visual description, gestures were used that provided a representation of it; on the other hand, when the object of explanation did not easily lend itself to visual description, gestures with pragmatic functions were used instead. It was proposed that when the first was the case, the teacher seemed to resort to gestures that related directly to the topic of his discourse whereas, when the second was the case, the gestures that he used played a role in shaping his very discourse. This is not to deny, however, that the reverse could occur, since, despite the concreteness of the object of the explanation, an accompanying gesture might be used that has a pragmatic function rather than a referential one, especially if the objective of the discourse is to clarify the correct usage of a lexical item, for instance.

The findings summarized so far have suggested that the teacher made strategic use of both speech and gesture in varied ways in order to meet the specific communicative needs of each situation where explaining was deemed necessary. This points to the possibility that gesture could be counted among the semiotic tools that he had at his disposable.

5.3 Pedagogical implications

The study presented in this dissertation was concerned more with a semiotic and pragmatic analysis of gesture and its relations with speech and contexts of use than with the pedagogical effects or benefits that it might bring to learners. Nonetheless, thanks to the evidence that has been found that both speech and gesture have been used efficiently by the teacher and that the reliance on gesture seems to be a pervasive phenomenon, the findings might contribute to EFL teachers in terms of awareness of their own classroom behaviour and lesson management. Being conscious of the fact that in their classroom practice, teachers communicate with their students not only by means of language, be it the participants' L1 or the foreign language being studied, but also

through meaningful gestural action, they might have at their disposal a rich semiotic tool that they can draw upon in strategic ways in order to meet the communicative needs of the classroom as these emerge, perhaps somewhat in the way pictures, board drawings and realia have long been in use in L2 classrooms.

5.4 Limitations of the study and suggestions for further research

Given the non-experimental nature of this study and the fact that the gestures of only one teacher in one single class were investigated, it can and should not lead to generalizations as regards the role of gesture in the EFL classroom. Although generalization is not expected in studies of this kind, one remains curious as to whether the findings might be true of other teachers in other classrooms. This is something that can only be solved through further investigations of the phenomenon in a wider variety of contexts. An additional difficulty I met with when carrying out the study, especially when annotating and categorizing the gestures, was that since gestures tend to be multifunctional and their meaning is most often a result of their interaction with speech, a certain degree of subjectivity seemed to crop up in the analysis of the examples. Furthermore, one criticism that could be levelled at this piece of research is that it seems to fall victim exactly to that which it implicitly seems to raise its voice against, namely, the pervasiveness of language, that is, of verbal language in communication. Or rather, the historical bias in favour of verbal language. The study reported here, although it tries to demonstrate the presence of components other than speech in communicational events, transforms what was originally a combination of sounds and imagery produced by hands and arms or the whole body of the teacher, into words laid out in a linear fashion along pages coupled with still pictures, first on a computer screen, and then on paper.

These criticisms notwithstanding, I believe that further research could be carried out to examine gesture in different classrooms and in contexts other than that of explanatory discourse episodes so that it could be seen to what an extent gesturing might be a matter of teaching or personal style and whether and how gesture use varies in relation to the different contexts where it is employed. Additionally, future studies could focus on particular 'gesture families' (Kendon, 2004) such as the 'palm-up open hand' and the 'R-family' (Ibid.), occurring in a variety of classroom contexts in order for their functions to be unveiled. Such studies might show how teachers use gestures in organizing their

discourse in terms of rhetoric, among others. Moreover, important information on the effect of teachers' gesturing upon interlocutors and the interaction between them may be gathered if more than one camcorder is used so that both teachers and students are filmed and additional information is obtained through questionnaires and interviews, as well as stimulated recall.

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Appendices

Appendix I: Tables

Table 1. *Kendon's continuum* (based on McNeill, 1992)

Gesticulation	Emblems	Pantomime	Sign language
Motion that has a meaning related to what is being said	Conventionalised forms (e.g., the thumbs up gesture for 'OK')	Mime of actual patterns of action (in the absence of speech)	Similar to verbal language but encoded in a different medium

Table 2. *Kendon's continuum extended* (from McNeill, 2000)

Continuum 1	Gesticulation	Emblem	Pantomime	Sign Language
Relationship to speech	Obligatory presence of speech	Optional presence of speech	Obligatory absence of speech	Ditto
Continuum 2	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Relationship to linguistic properties	Linguistic properties absent	Ditto	Some linguistic properties	Linguistic properties present
Continuum 3	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Relationship to conventions	Not conventionalized	Ditto	Partly conventionalized	Fully conventionalized
Continuum 4	**Gesticulation**	**Pantomime**	**Emblem**	**Sign Language**
Character of the semiosis	Global and synthetic	Global and analytic	Segmented and synthetic	Segmented and analytic

Table 3[54]. *Comprehensive list of gesture types and episodes*[55]

Gesture Type/ Function		Episode	GU/GP	Gestures per Episode	Partial Count
Referential	Representational	3_VE_Full lips_PA1	1/1	1	48
		4_VE_Sparkling eyes_PA1	1/1	1	
		5_VE_Jaw_PA2	1/1, 1/2, 1/3	3	
		7_VE_Cheeckbones_PA2	1/6	1	
		8_VE_Smooth_PA2	1/1	1	
		9_VE_Sparkling_PA2	1/1	1	
		10_VE_Jaws_PA2	2/2, 2/5, 2/7	3	
		11_VE_Smooth2_PA2	1/2, 2/3, 2/5, 2/6, 2/7, 3/9	6	
		12_VE_Perfect bone structure_PA2	2/3, 2/5	2	
		14_VE_Arched_PA4	1/2, 1/3, 1/6, 1/7, 1/8, 1/9, 2/10, 2/11, 2/12, 4/15	10	
		15_VE_Gentle features_PA4	1/1	1	
		16_VE_Curly_PA4	1/1	1	
		17_VE_By and large_PA4	1/1	1	
		18_GE_Passive Voice I_PA5	4/23, 5/26, 5/28, 7/35, 11/54, 13/57, 15/61, 18/71, 18/74	9	
		19_GE_Passive Voice II_PA5	3/15, 3/18, 3/20, 3/21, 7/27, 7/28	6	
	Deictic/Pointing	1_VE_Dark-skinned_PA1	1/1, 1/2, 2/3	3	44
		5_VE_Jaw_PA2	1/1, 1/2, 1/3	3	
		6_VE_Dimples_PA2	1/1, 1/2 , 2/3, 2/4	4	
		7_VE_Cheeckbones_PA2	1/1, 1/2, 1/3, 1/4, 1/5, 1/6, 1/7	7	
		10_VE_Jaws_PA2	1/1, 2/2, 2/3, 2/4, 2/6	5	
		11_VE_Smooth2_PA2	1/1	1	

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[54] Table 3 provides a comprehensive list of gesture types and the episodes where they have been found. Additionally, gesture units and gesture phrases are identified. Moreover, for the sake of illustration, a count is offered of the occurrences of each type of gesture.

[55] The episodes are identified according to their order of occurrence, the object of the explanation, and the pedagogic activity where they occurred. For example, in '3_VE_Full lips_PA1', '3' identifies the episode as the third one, 'VE' means 'Vocabulary Explanation', 'Full lips' is the expression explained in the episode, and 'PA1' means that the episode occurred in Pedagogic Activity 1 (described in chapter 3). Furthermore, the numbers in the fourth column of the table identify gesture units and gesture phrases. For example, '1/2' means gesture unit 1 and gesture phrase 2. This sort of identification is necessary because more than one gesture unit may be found in one single episode of explanatory discourse, and a gesture unit may contain one or several gesture phrases.

		12_VE_Perfect bone structure_PA2	2/4	1	
		13_VE_Hazel_PA3	1/2, 1/3	2	
		14_VE_Arched_PA4	1/1, 1/4, 1/5, 3/14	4	
		18_GE_Passive Voice I_PA5	9/41, 10/42, 10/47, 10/48, 10/49, 11/54, 12/56, 13/57, 17/65, 18/73, 18/75, 19/78	12	
		19_GE_Passive Voice II_PA5	4/22, 7/29	2	
Pragmatic	Performative	2_VE_Brunette_PA1	1/1	1	
		4_VE_Sparkling eyes_PA1	1/1	1	
		11_VE_Smooth2_PA2	3/10	1	
		12_VE_Perfect bone structure_PA2	1/1, 2/2	2	50
		13_VE_Hazel_PA3	¼	1	
		15_VE_Gentle features_PA4	½	1	
		18_GE_Passive Voice I_PA5	1/4, 2/14, 2/15, 4/24, 6/29, 7/30, 7/31, 7/32, 7/33, 7/34, 7/37, 8/39, 8/40, 9/41, 10/43, 10/44, 10/45, 10/48, 11/53, 11/55, 13/58, 14/59, 14/60, 16/62, 16/63, 16/64, 17/65, 17/66, 17/67, 17/68, 17/69, 17/70, 18/72, 18/74, 18/76	35	
		19_GE_Passive Voice II_PA5	2/14, 3/15, 3/16, 4/22, 5/23, 7/26, 7/27, 7/30	8	
	Modal	13_VE_Hazel_PA3	1/5	1	
		14_VE_Arched_PA4	3/13	1	9
		18_GE_Passive Voice I_PA5	7/36, 10/46, 18/75, 18/77	4	
		19_GE_Passive Voice II_PA5	3/17, 3/19, 6/25	3	
	Parsing	7_VE_Cheeckbones_PA2	1/1	1	
		11_VE_Smooth2_PA2	2/4, 3/8	2	
		13_VE_Hazel_PA3	1/1, 1/4, 1/6	3	
		15_VE_Gentle features_PA4	½	1	
		18_GE_Passive Voice I_PA5	1/1, 1/2, 1/3, 1/5, 1/6, 1/7, 1/8, 1/9,	30	

			1/10, 1/11, 1/12, 1/13, 3/16, 3/17, 3/18, 3/19, 3/20, 3/21, 4/22, 4/25, 5/27, 5/28, 7/38, 11/50, 11/51, 11/52, 16/64, 17/67, 18/72, 19/79		54
		19_GE_Passive Voice II_PA5	1/1, 1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9, 1/10, 1/11, 1/12, 1/13, 6/24, 6/25, 7/31, 7/32	17	
Total					205

Table 4. *Gesture distribution*

Gesture Type	**Context**		**Total**
	Vocabulary	Grammar	
Referential	65	29	92
Pragmatic	16	97	113

Table 5. *The uses of representational gestures in illustration*

Functions	Episode	Gesture Unit/Gesture Phrase
Expression parallel to the meaning provided in words	4_VE_Sparkling eyes_PA1	1/1
	7_VE_Cheeckbones_PA2	1/7, 1/8
	9_VE_Sparkling_PA2	1/1
	11_VE_Smooth2_PA2	1/2 , 1/3, 1/7
	14_VE_Arched_PA4	1/3, 1/6, 1/7, 1/8, 2/10, 2/11, 2/12
	15_VE_Gentle features_PA4	1/1
	16_VE_Curly_PA4	1/1
	17_VE_By and large_PA4	1/1
	18_GE_Passive Voice I_PA5	4/23, 5/26, 5/28, 7/35, 11/54, 13/57, 15/61, 18/71
	19_GE_Passive Voice II_PA5	3/18, 7/27, 7/28
Gesture as semantic complement	3_VE_Full lips_PA1	1/1
	11_VE_Smooth2_PA2	1/2, 1/6
	14_VE_Arched_PA4	1/6, 1/7, 1/8
	18_GE_Passive Voice I_PA5	18/74
	19_GE_Passive Voice II_PA5	3/20
Gesture as supplement	5_VE_Jaw_PA2	1/2, 1/3
	11_VE_Smooth2_PA2	1/1, 1/3, 1/5, 1/9
	14_VE_Arched_PA4	1/9, 2/15
Creation of image of topical object	8_VE_Smooth_PA2	1/1
	10_VE_Jaws_PA2	1/7
	6_VE_Dimples_PA2	1/2, 1/3, 1/4
	7_VE_Cheeckbones_PA2	1/4
	12_VE_Perfect bone structure_PA2	2/5
	14_VE_Arched_PA4	1/2 , 1/5, 1/9
	19_GE_Passive Voice II_PA5	3/15, 3/21
Create image of or draw attention to	10_VE_Jaws_PA2	1/7
	14_VE_Arched_PA4	1/2

Table 6. *The uses of deictic gestures*

Functions	Episode	Gesture Unit/Gesture Phrase
Locating the referent of verbal deictic expression	5_VE_Jaw_PA2	1/1, 1/2, 1/3
	7_VE_Cheeckbones_PA2	1/1, 1/8
	11_VE_Smooth2_PA2	1/1
	18_GE_Passive Voice I_PA5	10/42, 10/49
Displaying object by outlining some of its features	1_VE_Dark-skinned_PA1	1/1, 1/2, 2/3
	5_VE_Jaw_PA2	1/2 , 1/3
	6_VE_Dimples_PA2	1/1, 1/2 , 2/3
	10_VE_Jaws_PA2	1/1, 1/2, 1/3, 1/4
	13_VE_Hazel_PA3	1/2, 1/3
	14_VE_Arched_PA4	1/1
Drawing attention to an object	6_VE_Dimples_PA2	1/2, 1/3, 1/4, 2/4
	7_VE_Cheeckbones_PA2	1/2, 1/3, 1/5
	10_VE_Jaws_PA2	1/6
	12_VE_Perfect bone structure_PA2	2/4
	14_VE_Arched_PA4	3/14
Individuating something for commenting upon	7_VE_Cheeckbones_PA2	1/2 , 1/3, 1/6
	10_VE_Jaws_PA2	1/6
	12_VE_Perfect bone structure_PA2	1/4
	14_VE_Arched_PA4	1/5
	18_GE_Passive Voice I_PA5	9/41, 11/54, 12/56, 13/57, 18/73, 18/75, 19/78
Singling out object for its relationship to the topic of discourse	19_GE_Passive Voice II_PA5	4/22, 7/29

Table 7. *The uses of gestures with pragmatic functions*

Function	Use	Episode	Gesture Unit/ Gesture Phrase
Performative	Offer	2_VE_Brunette_PA1	1/1
		4_VE_Sparkling eyes_PA1	1/1
		11_VE_Smooth2_PA2	3/10
		12_VE_Perfect bone structure_PA2	1/1, 1/2
		15_VE_Gentle features_PA4	1/2
		18_GE_Passive Voice I_PA5	2/14, 2/15, 5/28, 6/29, 7/30, 7/31, 7/32, 7/33, 7/34, 7/37, 8/39, 8/40, 9/41, 10/43, 10/44, 10/45, 10/48, 11/53, 11/55, 13/58, 17/65, 17/66, 17/68, 17/69, 17/70, 18/72, 18/74, 18/76
		19_GE_Passive Voice II_PA5	5/23, 7/26, 7/27
	Warn	18_GE_Passive Voice I_PA5	1/4, 3/16, 3/17, 4/24
	Question	18_GE_Passive Voice I_PA5	14/59, 14/60, 16/63
	Acknowledgement	18_GE_Passive Voice I_PA5	16/62, 16/64
		19_GE_Passive Voice II_PA5	3/15, 3/16, 7/30
Modal	Approximation	13_VE_Hazel_PA3	1/5
	Categorical denial	14_VE_Arched_PA4	3/13
		18_GE_Passive Voice I_PA5	7/36, 18/75, 18/77
		19_GE_Passive Voice II_PA5	3/17, 3/19, 6/25
	Uncertainty	18_GE_Passive Voice I_PA5	10/46
Parsing	Nominating a topic	7_VE_Cheeckbones_PA2	1/1
		18_GE_Passive Voice I_PA5	4/22
	Highlighting/ emphasizing	11_VE_Smooth2_PA2	2/4
		18_GE_Passive Voice I_PA5	1/1, 1/2, 1/3, 1/5, 5/27, 17/67
		19_GE_Passive Voice II_PA5	1/1
	Making a specific	11_VE_Smooth2_PA2	3/8

	point	13_VE_Hazel_PA3	1/6
		18_GE_Passive Voice I_PA5	4/25, 16/64, 18/72, 19/79
		19_GE_Passive Voice II_PA5	6/24, 6/25, 7/31
	Marking topic and comment	13_VE_Hazel_PA3	1/1, 1/4
		15_VE_Gentle features_PA4	1/2
		19_GE_Passive Voice II_PA5	1/1, 7/32
	Segmenting discourse/ enumerating	18_GE_Passive Voice I_PA5	1/6, 1/7, 1/8, 1/9, 1/10, 1/11, 1/12, 1/13, 3/18, 3/19, 3/20, 3/21, 7/38, 11/50, 11/51, 11/52

1_VE_Dark-skinned_PA1

```
01. Laura: Yes? She's the fourth one is:: a
02.        Brazilian actress (1.1) a:nd he:'s erm
03.        how can I say this (.) 'moreno'? (xxxx)
04. S:                                  Brunette.
05. T:                               He's uh
                                     |~~~~/~~
                                     [  GP1
                                     [  GU1


06.        dark-skinned o:r has dark complexion.
           ************|~~~~~~~~********|-.-.-.|
                GP1    ][     GP2       ]
                   GU1 (cont.)              ]
```

GP1: Referential (Deictic)
Preparation: *LH rises up to stomach level, palm down, fingers close together, but lax. Left arm is in a horizontal position and parallel to front of body ("He's"). Then RH rises up, palm down, fingers close together and extended, and is placed on top of LH ("uh").*
Stroke: *RH slides back and forth in striking fashion on top of LH twice.*
Post-stroke hold: *Both hands held in position reached at the end of first phase of the stroke ("ski**nned**").*

GP2: Referential (Deictic)
Preparation: *Interrupting post-stroke hold of GP1, RH slides back on top of LH, reaching wrist.*
Stroke: *RH slides forth and outwards on top of LH.*
Recovery: *Fingers of both hands relax. Both hands go down. RH hand is placed on desktop and LH is placed on waist.*

```
07. Laura: Yeah, he's dark-skinned but not- she's
08.        not erm so dark, I mean, she's like me
09.        or a little bit more.
```

```
10. T:      Uh hum ((nodding)) olive-ski:nned.
                       |~~~~~~********|-.-.-|
                       [     GP3    ]
                       [          GU2        ]
```

GP3: Referential (Deictic)
Preparation: *LH rises to stomach level, palm turned down and fingers in a loose bunch. Left arm is held in a horizontal position parallel to front of body. Next, RH rises, palm down and fingers close together and extended, and is placed on the back of LH.*
Stroke: *RH hand slides back and forth in stroking fashion on the back of LH four times.*
Recovery: *Fingers of both hands relax. RH hand is placed on desktop and LH is placed on waist.*

```
11. Laura:                             Yeah (0.4)
12.         yeah a::nd she died in the- in the soap
13.         opera in this- last week (0.9) and I
14.         think she is very beautiful   yeah.
15. S:                             Juliana Paes.
16. T:      Uh huh. (….0.9…...) There she is. (0.6)
17. Sts:                             ((laugh))
18. Laura:                             Yes.
```

2_VE_Brunette_PA1

```
01. T:      Laura kind of gave us some of clues,
02.         right? You mentioned 'different' (0.4)
03.         How exactly different? What exactly in
04.         Johnny Depp or Angelina Jolie do you
05.         appreciate?
06. Laura:  (xxxxxxxxx) ah Johnny Depp, for example,
07.         erm I like erm erm you know, dark,
08.         olive-skinned and brunette guys.
09. T:      No, brunette only for girls=
            |~~*******|~~~~~~~********|
            [ GP1   ][     GP2     ]
            [          GU1
```

GP1: Pragmatic: Performative → Denial
Preparation: *LH hand moves outwards upwards.*

Stroke: *As it reaches shoulder level, palm is turned towards student, fingers extended upwards.*

GP2: Pragmatic: Performative → Offer: making a comment on something just said/offering the contents of speech for the interlocutor's appreciation: explaining usage
Preparation: *Out of previous stroke, LH rotates outwards once.*
Stroke: *Palm is turned up in an outward rotation of the wrist and a simultaneous extension of forearm, thus performing a palm-presentation movement.*
Recovery: *Fingers relax and LH recedes in to rest position to the side of the body.*

```
10. Laura:                              Ah, for girls!?
                                          -.-.-.-.-.-.-

                                          GU1 (cont.)


11. T:        =yeah.
              -.-.-.|

              GU1   ]


12. Laura:    How do you say? Brown- hair guys?
13. T:        Brown-hair guys. ((nodding))
14. Laura:    Brown-hair guys (0.7) an:d that's why I-
15.           I mean, Brad Pitt is very beautiful but
16.           (0.3) between Brad Pitt and Johnny Depp,
17.           Johnny Depp (xxxxxxxx).
18. T:        Okay:
```

3_VE_Full lips_PA1

```
01. T:        And- and on behalf of Angelina?
02. Laura:    Same- the same thing. She's=
03. T:        ((……………………nods…………………))
04. Laura:    =and she- his- her face is- is:
05.           beautiful (….0.9....)=
06. T:                  Uh huh ((nods))
07. Laura:    =his erm her mouth (0.5) big lips
```

```
08. T:                                          Full lips?
                                                |~~~~~****|
                                                [   GP1   ]
                                                [   GU1
```

**GP1:   Referential   (Representational   [Depiction:
metaphoric])**
Preparation: *LH goes upwards towards mouth with
fingers slightly flexed in grabbing fashion almost
touching mouth, palm oblique facing inwards.*
Stroke: *LH opens abruptly with a short, rapid,
downward movement, fingers fully spread in stiff
manner.*
Recovery: *LH returns to initial rest position.*

```
09. Laura:   =yeah=
             -.-.|

             GU1 ]

10. T:        Hmm.
11. Laura:   =Full lips (0.5) a:n' I mean, she:
12.          (xxxxxxx) who is: is beautiful when she
13.           wake up, like?
14. Sts & T: ((laugh))
```

4_VE_Sparkling eyes_PA1

```
01. T:       What about the rest of you? Do you have
02.          any idea? Have you ever thought about why
03.          you consider these people you mentioned
04.          attractive?
05. Helena:  Erm (xxxxxxx) because erm both ha:ve
06.          (0.8) talents?
07. T:       Talents, yeah ((nodding)).
08. Helena:  Talents erm (1.3) energy ((teacher nods))
09.          (0.5) (xxxxxxx)
10. S:       And strong personality.
11. Helena:  Strong personality, yes. Erm for example
12.          erm Ivete
13.          Sangalo an::d
14. S:       Claudia Raia.
15. Helena:  Claudia Raia erm both have (0.6) energy
```

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```
16.        and beautiful appearance=
17.T:     Uh hum.
18.Helena: =but (0.4) more erm their eyes is BIG and=
19.T:     For themselves.
20.Helena: =(xxxx) I don't know exactly how to (xxx)
21.T:     A:::h       they have sparkling eyes.
                     |~~~~~~~~~*********/**|-.|
                     [         GP1         ]
                     [            GU1        ]
```

GP1: Referential (Representational [Metaphorical depiction]) + Pragmatic (Performative → Offer: providing a word the student does not seem to know or to be able to find)
Preparation: *Both hands are held up into bunch facing each other in front of face.*
Stroke: *Hands move away from face and, in the meantime, open so that palms face obliquely upwards and fingers are fully extended at around shoulder level. In the same train of action, both hands are lowered to chest line, away from body towards students, in palm presentation movement. This example is interesting because it is the gesture that seems to be functioning as the explanation of the meaning of the newly introduced lexical item.*
Recovery: *Fingers relax and arms resume previous rest position.*

```
22.Helena: ((giggles)).
23.T:     Uh huh ((nodding)).
```

5_VE_Jaw_PA2

```
01.Laura:  What is 'jaw'?
02.T:      (.…0.9.…) Here (0.6)
           |~~~~~~~~~****/****|
           [         GP1      ]
           [         GU1
```

GP1: Referential (Deictic + Representation [Depiction: outlining length/shape])

Preparation: *Both hands rise up together with index fingers extended and other fingers flexed, palms turned inwards.*
Stroke: *Index fingers touch both corners of mouth and slide down along chin meeting at mid-line, then slide back up simultaneously.*


```
03. Laura:    Hmm. (……..3.9…….) ((teacher smiles))
              ****|********|-.-|
              [GP2][ GP3   ]
                 GU1 (cont.)   ]
```

GP2:   Referential   (Representational   [Depiction: displaying volume] + Deictic)
Stroke: *All remaining fingers are extended to hold both jaws, while the latter move up and down in chewing fashion.*

GP3:   Referential   (Representational   [Depiction: outlining length] + Deictic)
Stroke: *Jaws are once again outlined with index fingers moving up and down five times as teacher slowly turns left to face other students.*
Recovery: *Fingers relax and hands descend a little, clasping together in front of chest.*

6_VE_Dimples_PA2

```
01. Laura:  'Dimples'?
02. T:      (……1.9……) When you smile (..0.7..) you
            |~~*******************|*************
            [            GP1           ][    GP2
            [                     GU1
```

GP1: Referential (Deictic)
Preparation: *Both hands rise up with index fingers extended, all other fingers being flexed and palms turned inwards. Simultaneously, teacher pretends to be smiling so that dimples are visible.*
Stroke: *Index fingers touch mid-line of dimples on both sides of face and move down and up again several times along lower part of dimples. Teacher turns left*

to face other students, index fingers still sliding
up and down along dimples.*

GP2: Referential (Deictic: displaying/outlining])
Stroke: *Then, after teacher says "When you smile",
motion of fingers becomes slower and larger in
amplitude, in order to highlight cavity around
corners of mouth.*
Recovery: *Finally, all fingers relax into a loose
bunch and both hands fall down to sides of body.*

```
03.          have this=
             *********
             GP2 (cont.)
             GU1 (cont.)


04.Laura:    Hmm
05.T:        =kind of cavity {here}, yeah?
             *********************|-.-.-|
                  GP2 (cont.)    ]
                     GU1 (cont.)       ]


06.Laura:                            Uh huh, uh huh.
07.Helena:   What?
08.T:        ((teacher gestures only))
             |~~~*******************
             [           GP3
             [           GU2
```

**GP3: Referential (Pointing + Representational
[Depiction: display/outlining])**
Preparation: *Both hands rise up with index fingers
extended, all other fingers being flexed and palms
turned inwards. Simultaneously, teacher pretends to
be smiling so that dimples are visible.*
Stroke: *Index fingers touch mid-line of dimples on
both sides of face and move down and up again several
times along lower part of dimples.*

```
09.Helena:   This- but, how (…1.8…) how is in English?
10.T:        ((……teacher gestures only……))
             *************|*******|-.-.-|
               GP3 (cont.)][  GP4  ]
                     GU2 (cont.)        ]
```

GP4: Referential (Pointing + Representational

[Depiction: display/outlining])
Stroke: *Index fingers simultaneously touch mid-line of dimples on both sides of face several times.*
Recovery: *All fingers relax and hands go down to sides of body.*

11. **T:**   'Dimples'.

7_VE_Cheekbones_PA2

01. **Isaura:**   'Cheekbones'?
02. **T:**   Well, these are your cheeks, right? So,
                  |~~~~~***********************/******|~~~
                  [GP1   ][
                  [GU1

GP1: Referential (Pointing: Locating) + Pragmatic (Parsing: Hand closed to *grappolo* [Nominating a topic for consideration (to clarify or make specific) {Kendon, p. 230}
Preparation: *Both hands rise in front of face with fingers formed into loose bunch pointing upwards.*
Stroke: *Finger bunches touch both cheeks simultaneously, then beat once against cheeks as teacher says "right?" This gesture does not simply point at a body part, it also shows the area it occupies.*

03.   the cheekbones are the bones underneath
             *****************|********|***|~*****
                  GP2   ][GP3][GP4][GP5
                        GU1 (cont.)

GP2: Referential (Deictic: individuating in order to say something about object…)
Preparation: *Both hands still close to cheeks, fingers spread.*
Stroke: *Palms turned towards sides of face, index fingers are pressed against both cheeks several times so as to locate cheekbones. The pressing of the fingertips against the skin is consistent with the idea of showing or pointing to, something which is under the skin, the bones.*

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GP3: Referential (Deictic: individuating in order to say something about object → the fact that the palms are turned away from the cheeks suggests the interiority of the bones, or their being covered by a skin coat)
Stroke: *As teacher says "the bones", hands rise up and away a little, palms are turned towards front of face, and index fingers again press against cheeks. Besides singling out body part, this gesture also seems to be an attempt to establish its exact location.*

GP4: Referential (Deictic: not to locate, but to explain meaning of 'underneath')
Stroke: *Hands leave position reached at the end of previous stroke and simultaneously and in mirror movement point down with fingers together and slightly bent.*

GP5: Referential (Deictic)
Preparation: *Palms of RH and LH turn back towards face, forming into loose bunches.*
Stroke: *Both hands in bunch shape are once again pressed against cheeks.*

```
04.         the skin and the muscles that (….1.6….)
            *******|*******************/********|
             (cont.)][          GP6              ]
                       GU1 (cont.)
```

GP6: Referential (Deictic + Representational: outlining)
Stroke: *Both hands slide down a little out of bunch shape, with fingers extended and still close together, beat against cheeks as teachers says "and the muscles that" and then perform short amplitude circular movements around them during pause that follows.*

```
05.         form this- this part.
            **********|-.-.|
            [   GP7   ]
               GU1 (cont.) ]
```

GP7: Referential (Deictic: Locating + displaying

spatial character of object pointed at)
Stroke: *Palms facing cheeks, fingers fully extended and close together, beat lightly and quickly against cheeks three times.*
Recovery: *Fingers relax and hands go down and clasp together at stomach level.*

8_VE_Smooth_PA2

```
01. Isaura:  'Smooth'?
02. T:       (………1.6………) erm it means either no hair
             |~~~~~~~******************************
             [                  GP1
             [                  GU1
```

GP1: Referential (Representational [Depiction: outline/display → "no hair"])
Preparation: *Both hands rise up to stomach level, LH with fingers together fully extended and palm down. RH is placed on top of left forearm.*
Stroke: *RH slides up and down on left forearm three times and then is held still during pause, only to start moving up and down again as teacher resumes speaking. This pattern of action is maintained for a while after teacher has stopped speaking.*
Recovery: *Arms are lowered and crossed over stomach.*

```
03.          (0.6) or soft to touch (………1.8………).
             ****/***********************|-.|
             ‾‾‾‾
                     GP1 (cont.)         ]
                       GU1 (cont.)            ]
```

9_VE_Sparkling_PA2

```
01. Isaura:  'Sparkling'?
02. T:       Shining.
03. Isaura:  Shining? (0.6)
04. T:                    Yeah, emitting light of some
             |~~~~*********************|-.-.|
             [                GP1          ]
             [                GU1               ]
```

GP1: Referential (Representational [Modelling + Enactment)
Preparation: *LH rises up in front of face, palm neutral turned away from body, fingers spread and partially extended.*
Stroke: *LH closes into fist and opens again very quickly, as if mimicking some object emitting light. At the same time teacher turns slowly to the right so as to make gesture visible to all students. The hand stands for light-emitting object, while the fingers moving in and out stand for the rays of light emitted.*
Recovery: *Fingers relax and hand descends to rest at side of body.*

```
05.            kind.
```

10_VE_Jaws_PA2

```
01. S:      'Jaws'?
02. T:      (………………………………3.2………………………………)
            |~~(0.7)~~***(1.3)***/***|-.-|
            [           GP1         ]
            [              GU1           ]
```

GP1: Referential (Deictic: Locating/outline/display)
Preparation: *LH rises up cupped to front of chin.*
Stroke: *LH is made to hold chin between fingers on right side and thumb on left side. Then, the jaw is made to move up and down several times, while LH is retrieved and, palm turned inwards and fingers extended together, fingertips are laid on chin. Teacher smiles when student says "Ah".*
Recovery: *LH relaxes and goes down in front of body.*

```
03. S:                    Ah. (8.1) ((sts. on task))
04. T:      Remember the movie abo- the movie series
05.         by Steven Spielberg about the shark?
```

```
06.          Terrible shark. So, {it was} called
                            |~~~~~~~~~~~~~~~~~~~~
                            [           GP2
                            [           GU2

07.          'jaws' (..0.6..) in honour to this part
             *****|~~~*******|~~~~~****************|
               GP2 ][  GP3     ][       GP4        ]
                            GU2 (cont.)
```

GP2:   **Referential**   **(Deictic:**
Locating/individuating/outlining + Representational:
Depiction → RH mimics jaws or open mouth)
Preparation: *RH rises up to right side of face and*
close to chin, palm turned inwards and fingers
slightly bent at their joints in grabbing fashion.
Stroke: *In the same shape reached at the end of*
preparation phase, RH touches right jaw with back of
index, middle and ring fingers.

GP3: Referential (Deictic: Locating + highlighting
volume)
Preparation: *RH is placed in front of chin, palm*
turned inwards and fingers drawn into loose bunch.
Stroke: *Finger bunch beats against chin several*
times. Besides pointing to body part, the gesture
seems to show the area it occupies.

GP4: Referential (Deictic: Locating + highlighting
area)
Preparation: *Out of previous stroke on chin, RH opens*
with fingers extended and palm vertical inwards,
touching chin with fingertips.
Stroke: *Index, middle and ring fingers beat against*
chin several times. Gesture for singling out has a
different configuration now probably because a
comment is being made on the body part highlighted.

```
08.          here (0.5) {that's moving this bite
             ~~~~~*****|**********|~~~*******|-.
               GP5   ][  GP6    ][   GP7   ]
                            GU2 (cont.)
```

GP5: Referential (Enactment: powerful bite to display
jaw + Modelling: hand for mouth)
Preparation: *Out of preceding stroke against chin, RH*

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turns outwards away from body through wrist and forearm rotation, fingers spread and slightly bent pointing up, as if in readiness for gripping action. Simultaneously, teacher opens his mouth, as if in preparation for powerful bite.
Stroke: *Teacher closes mouth in powerful bite and RH is held as before throughout.*

GP6: Referential (Deictic: drawing attention to for upcoming comment)
Stroke: *RH relaxes and, with fingers together, is moved inwards under jaws, touching them with its back.*
GP7: Referential (Enactment + Modelling: hand for mouth and motion for bite)
Preparation: *Out of previous stroke, RH goes away from under jaws towards right side of face, palm turned outwards towards students, fingers spread and slightly bent turned upwards.*
Stroke: *Fingers join together in a loose fist as hand descends a little through wrist flexion, mimicking biting action, probably in reference to previous joint enactment of hand and mouth.*
Recovery: *Fingers relax and hand descends to rest on desktop to right side of body.*

```
09.          here}, yeah?
              -.-.-.-.-.-|

              GU2 (cont.)]
```

11_VE_Smooth2_PA2

```
01. T:       Yeah? That's it? So he- what about
02.          'smooth'? 'Smooth'.
03. S1:      Skin.
04. S2:      Skin.
05. T:       S::kin, yeah. So, 'smooth' means soft to
             |~~**********|~~~~~**********************
             [    GP1    ][          GP2
             [                       GU1
```

GP1: Referential (Deictic: display/outline skin)
Preparation: *Both hands holding book in front of body at stomach level. RH lets go of book and moves to left with palm down and fingers extended and close together. Left forearm is moved inwards against body, palm down, still holding book.*
Stroke: *RH hand strokes outside surface of left forearm up and down slowly.*

```
06.         touch (0.2) without hai:r, yeah? When you
            ******************************|-.|
                          GP2 (cont.)     ]
                           GU1 (cont.)           ]
```

GP2: Referential (Representational [Indirect Depiction: to display])
Preparation: *Teacher moves one step back so arms are again away from body, RH still placed on left forearm.*
Stroke: *RH resumes stroking action up and down upon the whole length of left forearm.*
Post-stroke hold: *RH is held still upon anterior part of left forearm, which is still extended outwards, palm-up LH still holding book.*
Recovery: *RH leaves forearm surface and moves downwards to the right.*

```
07.         talk about a surface (0,9) you say that
            |~~~~~~~****************************
            [                GP3
            [                GU2 (cont.)
```

GP3: Referential (Representational [Indirect Depiction: Display)
Preparation: *LH lets go of book and descends towards top of a desk, palm down and fingers extended and close together. At the same time, teacher leans forward towards desk.*
Stroke: *Flat hand slides slowly back and forth along desktop.*

```
08.         something is 'smooth' when (0.6) the
            ********|***********|****|~~~~~~~~~
             (cont.)][    GP4   ][ GP5][ GP6
                            GU2 (cont.)
```

GP4: Pragmatic (Parsing: beating gesture for highlighting)
Stroke: *In a beating movement, hand rises up a little and falls back on desktop as the teacher says smooth.*

GP5: Referential (Representational [Indirect Depiction: Display)
Stroke: *Hand slides forth along desk once again.*

```
09.          surface is really regular. So, also your
             ~~~*********************|~~~~~~~~~~~~~
                    GP6 (cont.)     ][     GP7
                        GU2 (cont.)
```

GP6: Referential (Representational: Depiction → this gesture also restricts/clarifies the meaning of 'regular', which stands for 'smooth')
Preparation: *Both hands start rising up simultaneously. Left forearm flexes and LH is held close to chin, with palm down and fingers extended and close together pointing to right. RH, which is still holding book, continues rising up until book is put flat under palm of LH.*
Stroke: *LH slides slowly forward across surface of book and rises up a little in the end.*

```
10.          hand slides easily along it, yeah? (0.7)
             ~~~~~*************/*********/*****|-.-.|
                      GP7 (cont.)           ]
                      GU2 (cont.)           ]
```

GP7: Referential (Representational: Enactment)
Preparation: *Out of previous stroke, with palm down and fingers extended pointing towards right, LH goes down and rests against top of desk.*
Pre-stroke hold: *LH is held in position reached at end of preparation phase.*
Stroke: *Hand slides slowly forward along surface of desktop, comes back to initial position, slides slowly forward one more time, and then performs a final quick sliding motion.*
Recovery: *Hand leaves desk and moves to left side of body towards a position of rest.*

```
11.          okay. So, not only for skin (…….0.7…....)
             |~~~~~~~~~~~~***/*****|~~~~*******|
             [         GP8     ][   GP9    ]
             [                GU3
```

GP8: Pragmatic (Parsing: something quite specific is being mentioned in the context of an already established topic)
Preparation: *LH rises to chest level in front of body, palm down and fingers spread and pointing outwards.*
Stroke: *Hand closes into bunch, palm oblique towards centre space as teacher tilts head to the left. Then, hand opens quickly, with fingers spread and palm down at the same time as teacher tilts head to the right.*

GP9: Referential (Representational [Depiction: "surface"])
Preparation: *LH rises up from previous position, palm down and fingers relaxed, but close together.*
Stroke: *Hand descends again to chest level in front of body, palm down, and fingers together and extended away from body, as if being laid onto some surface.*

```
12.          You can use 'smooth' for some other
             ***********|-.-.-.|
             [   GP10   ]
             GU3 (cont.)   ]
```

GP10: Pragmatic (Performative → Offer: giving a conclusion for something just said)
Stroke: *Out of position reached at the end of previous stroke, through wrist rotation and short forward motion of forearm, LH with fingers extended performs inward-outward circular motion, ending with palm up.*
Recovery: *In the same sequence of action of stroke, hand goes down to rest on left side of body.*

```
13.       things, too.
```

12_VE_Perfect bone structure_PA2

```
01. T:      'Perfect'?
02. S:      Teeth.
03. T:      Tee:th, uh huh. What else, per- one more,
04.         'perfect?
05. S:      Smile (xxxx).
06. T:      'Smile', 'perfect' (0.4)
07. S                         Eyes?
08. T:      Yeah, you could f- fill in into a lot of
09.         them, right? 'Cause this is a (0.4) erm
10.         hmm subjective thing. 'Perfect- also they
                        |~~~~~~~~~****|-.-.
                        [    GP1    ]
                        [      GU1
```

GP1: Pragmatic (Performative → Offer: offering the upcoming comment on the use of the word 'perfect' → "bone structure")
Preparation: *Out of previous post-stroke hold, LH draws in towards chest, palm to body, thumb and fingers relaxed.*
Stroke: *Hand rises up a little, then in an arc-like path, turns open with palm up and fingers partially extended towards students.*
Recovery: *Hand is lifted up to forehead to perform an adaptor (scratching eyebrow).*

```
11.         say 'perfect bone structure' (0.3) It's a
                -.-| |~~~~~~~************|~~~~~~~~~****
                   [        GP2        ][    GP3
             GU1 ] [                 GU2
```

GP2: Pragmatic (Performative → Offer: offering the comment on the use of the word 'perfect')
Preparation: *LH leaves forehead in a downward vertical trajectory to neck level away from body, forearm slightly lifted upwards, palm down and fingers spread and relaxed.*
Stroke: *Through wrist rotation and forward extension of forearm, LH turns open with palm up and fingers spread and extended away from body, forearm parallel to left side of body.*

GP3: Referential (Representational [Metaphorical

Depiction: "common"])
Preparation: *LH leaves previous stroke position and shape and is brought up to chest level on a vertical forearm, palm turned downwards, index and middle finger extended outwards parallel to each other, remaining fingers being flexed with thumb.*
Stroke: *Both fingers move up and down several times, alternating their trajectories.*

```
12.         very common expression, 'perfect bone
            ***********|*********|~~~*******/*****
            GP3 (cont.)][  GP4   ][    GP5
                            GU2 (cont.)
```

GP4: Referential (Representational [Deictic])
Stroke: *In the same train of action of previous stroke, hand rotates to right, palm still down and fingers flexed, at the same time as index and middle fingers are fully extended and together, pointing somewhat downwards to book, where one can find the expression.*

GP5: Referential (Representational [Depiction: outlining/display])
Preparation: *LH turns inwards towards chest, palm vertical and fingers extended together towards right. At the same time, teacher takes a step back and projects chest outwards.*
Stroke: *LH performs a rapid beating gesture and then touches left part of chest with fingertips. Next, still touching chest, thumb goes down along left side of body towards lower part of abdomen, all fingers being spread and extended.*
Recovery: *Fingers relax and hand rests to side of body.*

```
13.         structure', yeah?
            **********|-.-.-|
         GP5 (cont.)]
              GU2 (cont.) ]
```

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13_VE_Hazel_PA3

```
01. Laura:    I like the person with thick eyebrow
02.           (0.3) not a monocelha but
03. Sts & T:                        ((laugh))
04. T:        Okay.
05. Laura:    Stro:ng eyebrows.
06. T:                       Uh hum.
07. Laura:    And eyelids, long eyelids a:nd like
08.           honey eyes
09. T:        'Hazel' they say (xxxxxx) 'hazel'.
10. S1:       (xxxxx) how do you say?
11. T:        'Almond'.
12. S1:        Ah yeah.
13. Laura:     Almond eyes?
14. T:         ((nods))
15. S:         What's 'hazel'?
16. T:         'Hazel' is the c- when you talk about
               |~~~~~~~~~*****/****************|***
               [              GP1             ][
               [                  GU1
```

GP1: Pragmatic (Parsing: topic nomination + comment)
Preparation: *LH rises up in front of body at chest level.*
Stroke: *Hand continues rising up to shoulder level in front of body and closes into a bunch, palm turned away towards right. Then, forearm in a vertical position rises up a little and finger bunch opens with fingers spread and partially extended, palm obliquely oriented downwards to right.*

```
17.           hai:r and eye colour, the colour of
              *****|~~~~**********|~~~~*********/
               GP2][    GP3      ][    GP4
                         GU1 (cont.)
```

GP2: Referential (Deictic: locate/display in virtue of spatial extent)
Stroke: *Departing from the position reached at the end of previous stroke, LH rises up and touches left side of head with fingertips. Then, all other fingers bend at their joints while index finger slides down along temple, head tilted to the left.*

GP3: Referential (Deictic: drawing attention to/displaying)
Preparation: *Leaving previous stroke final position, LH moves to right in front of face.*
Stroke: *Index finger touches under corner of right eye, with palm down and all other fingers partially flexed.*
Post-stroke hold: *Hand is held in position reached at the end of stroke.*

GP4: Pragmatic (Parsing: nominating a general class/modifier of the general class + Performative: offering the just given clarification comment)
Preparation: *LH leaves previous post-stroke hold position and is held on a vertical forearm in front of face, palm vertical towards right of body and fingers partially bent.*
Stroke: *During the first phase of stroke action, LH hand closes into a bunch. In the next phase of stroke, through an inward-outward rotation of the wrist hand turns open, palm up and fingers spread and extended away from body towards students, as if offering something.*

```
18.          honey (0.8) ((in much lower voice and at
             ******|****|~~~~~~~~~~~~
          cont.)][ GP5][   GP6
                  GU1 (cont.)
```

GP5: Pragmatic (Modal: Narrow gloss for approximation, imperfect adjustment or lack of clarity: this gesture operates on previous discourse chunk "the colour of honey" [Calbris, 1990, p. 178])
Stroke: *Through forearm rotation, LH with palm oblique to the left oscillates twice about a somewhat vertical axis.*

```
19.          quicker pace)) you say 'hazel', yeah.
             ~~~~~~~~~~~~~~~~*******|-.-.-.-|
                  GP6 (cont.)      ]
                      GU1 (cont.)          ]
```

GP6: Pragmatic (Parsing: something quite specific is being mentioned in the context of an already established topic)

Preparation: *From position reached at the end of previous stroke, all fingers are flexed at their joints, index finger and thumb touch at their tips, forming into a ring shape while palm of hand is turned inwards towards body.*
Stroke: *Palm turns to face body and index finger extends upwards out of ring shape, followed by all remaining fingers. Teacher nods at the same time.*
Recovery: *Fingers relax and hand descends to rest against left side of body.*

```
20. S:       'Hazel'? ((teacher still nodding))
21. T:        Uh huh.
```

14_VE_Arched_PA4

```
01. Tania:   Teacher, what 'arched' ((mispronounces))
02.          means?
03. T:       'Arched' means with this shape here (0.8)
             |~~~~~~~~**********|*******************|
             [      GP1      ][       GP2        ]
             [                      GU1
```

GP1: Referential (Representational [Deictic: drawing attention to exaggerated eyebrow]
Preparation: *LH is lifted up, forefinger extended and remaining fingers slightly flexed. Forefinger is placed on outer end of eyebrow. At the same time, teacher frowns and forefinger pulls up eyebrow.*

GP2: Referential (Representational [Depiction: outlining/display → shape of eyebrow]
Stroke: *Forefinger is placed at inner end of eyebrow and then is made to slide to left along curved eyebrow.*
Post-stroke hold: *LH is held in the position reached at the end of stroke.*

```
04.          So, high- arched (0.6) natura- I'm doing
             ****************/**********|****|~~~~~~
             [               GP3        ][GP4 ][
                          GU1 (cont.)
```

GP3: Referential (Representational [Depiction: outlining shape of eyebrow])
Stroke: *Forefinger performs outward sliding motion along eyebrow twice.*

GP4: Referential (Deictic → "self")
Stroke: *With fingers spread and slightly flexed, LH leaves eyebrow, descends in front of chest, and touches it lightly with all fingertips, as if marking out the idea of 'self'.*

```
05.          it on purpose, yeah, but naturally higher
             ~~~**********|~~~~~~~~~~~***************/
                  GP5    ][          GP6
                              GU1 (cont.)
```

GP5: Referential (Deictic: directing attention to in order to display eyebrow)
Preparation: *LH leaves chest and rises up to outer end of left eyebrow, touching it with fingertips.*
Stroke: *With LH in the position reached at the end of the preparation phase, the teacher frowns rapidly once in an exaggerated manner so that eyebrows take on an arched shape.*

GP6: Referential (Representational [Depiction: outlining eyebrows])
Preparation: *LH is placed in front of forehead with palm down and fingers extended, index finger placed onto left eyebrow and thumb held against left temple.*
Stroke: *Teacher frowns so eyebrows take on an arched shape, then slides forefinger in outward motion along left eyebrow. This pattern of motion is repeated three times.*

```
06.          eyebrows here (0.4) yeah, this is the
             **************/*********|~~~~~~*******
                     GP6 (cont.)   ][   GP7
                              GU1 (cont.)
```

GP7: Referential (Representational [Depiction: outline/display → shape of eyebrow])
Preparation: *LH leaves position reached at the end of previous stroke and moves to the right in front of*

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face, palm turned inwards and fingers partially flexed. Tip of forefinger is laid onto inner end of right eyebrow.
Stroke: *Tip of forefinger slides outwards along eyebrow in an arc-like path as teacher frowns.*

```
07.          idea (0.4) Not plain like mine, but (%%)
             ***|~~~~~~~~*********/*********|~~~~~****|
                ][            GP8         ][ GP9  ]
                              GU1 (cont.)
```

GP8: Referential (Representational [Depiction: outlining eyebrow to show length and shape])
Preparation: *Leaving position reached at the end of previous stroke, LH moves somewhat to the left in front of forehead. At the same time forefinger extends on a horizontal axis parallel to left eyebrow and remaining fingers flex at their joints.*
Stroke: *Left forefinger is laid in its full extent onto left eyebrow and then is made to slide along it twice.*

GP9: Referential (Representational [Depiction: outlining/showing perfection])
Preparation: *Leaving previous stroke position, forefinger and thumb of LH touch at their tips forming into ring shape in front of eyebrow as remaining fingers flex, palm facing downwards.*
Stroke: *With their tips, forefinger and thumb touch inner end of left eyebrow and pull it upwards. Then, as teacher makes whistling sound and raises head slightly, ring-shape hand performs an arc-like outward sliding motion along eyebrow.*
Recovery: *Fingers relax and LH hand descends to rest on top of RH in front of body.*

```
08.          nicer.
             -.-.-|

              GU1 ]
```

```
09. Tania:   'Arched' ((mispronounces)) eyebrows?
10. T:            Arched                      yeah.
11. Tania:   Arched ((correct pronunciation))
```

12.**T:**   'High arched', means (0.2) higher (0.3)

```
        |~~~~~~~~~~~~~~~~~~~~~********************|
        [                 GP10                  ]
        [                 GU2
```

GP10: Referential (Representational [Depiction: outline/display → shape of eyebrows])
Preparation: *LH rises up in front of face, palm down and index finger extended while thumb and remaining fingers are flexed.*
Stroke: *Index finger touches middle of left eyebrow and pulls it upwards.*
Post-stroke hold: *Hand is held in the same position reached at the end of stroke.*

13.   naturally higher than most people (0.6)

```
        ~~~~~~~~~*********************************|~~**|
        [                 GP11              ][GP12]
                          GU2 (cont.)
```

GP11: Referential (Representational [Depiction: outline/display → shape of eyebrows])
Preparation: *Left eyebrow is lowered and index finger again touches it.*
Stroke: *Eyebrow is pulled upwards with index finger and then released. All other fingers remain flexed and palm facing downwards.*
Post-stroke hold: *Hand is held in the same position reached at the end of stroke.*

GP12: Referential (Representational [Depiction: outline/display → shape of eyebrows])
Preparation: *Left eyebrow is lowered and index finger again touches it.*
Stroke: *Eyebrow is pulled upwards with index finger and then released. All other fingers remain flexed and palm facing downwards.*
Recovery: *Fingers relax and LH goes down to rest on top of RH.*

14.   yeah?

```
        -.-.-

        GU2 (cont.)
```

```
15. Tania:   But the eye, not the- arched
             -.-.-.-.-.-.-.-.|

             GU2 (cont.)  ]

16. T:                              The eyes or the
                                    |~~~****|~~~***
                                    [  GP13 ][ GP14
                                    [     GU3
```

GP13: Pragmatic (Modal: Narrow Gloss for "and other things" or "not only the eyes")
Preparation: *LH rises up in front of chest, palm turned to body, index finger fully extended pointing upwards towards right and thumb extended.*
Stroke: *Left forearm rotates outwards and LH turns away from body, with palm facing downwards and all fingers and thumb fully extended together towards right.*

GP14: Referential (Deictic: Locating eyebrow)
Preparation: *While index finger remains extended, remaining fingers bend at their joints, palm turns to body, and hand rises up towards left eyebrow.*
Stroke: *Index finger touches left eyebrow.*
Recovery: *Finger relax and hand descends towards lap.*

```
17.         eyebrows, yeah. Normally
            *******|-.-.-.| |~~~~~~~~
            (cont.)]         [  GP15
             GU3 (cont.) ] [  GU4

18.         the eyebrows, yeah? Normally.
            *****************|-.-.-.-.-|
                GP15 (cont.)  ]
                    GU4 (cont.)        ]
```

GP15: Referential (Representational [Depiction: outlining shape and length of eyebrow])
Preparation: *In cup shape, LH rises up towards left eyebrow, palm downwards towards right. Then, index finger extends while all other fingers and thumb remain flexed.*
Stroke: *Side of index finger touches eyebrow and*

slides outwards.
Post-stroke hold: *Hand is held still in the position reached at the end of the stroke.* Recovery: *Fingers relax out of shape taken on during stroke and hand descends to rest on top of RH.*

15_VE_Gentle features_PA4

```
01. T:       So, do you guys erm agree with that? Do
02.          you look for gentle features in the guy?
03. Tania:   (xxxxxxx) what you said?
04. T:       Do you look for ge:ntle fea:tures,
             |~~~~~~~~~~~~~~~~******|~~~******/
             [          GP1       ][   GP2
             [              GU1
```

GP1: Referential (Representational [Depiction: outline → semantic specifier: well-delineated eyebrows as example of "gentle features"])
Preparation: *LH rises up towards face in an arc-like trajectory, palm facing obliquely downwards and fingers partially flexed together oriented towards right.*
Stroke: *LH in the same shape as in the end of preparation touches eyebrows with side of index finger and slides till it reaches left temple.*

GP2: Pragmatic (Parsing: Topic nomination/Comment + Performative: Offer)
Preparation: *Head turns somewhat left. At the same time, LH leaves temple, descends a little.*
Stroke: *Then hand rises up again in front of forehead, all fingers being drawn together into a bunch. Finger bunch turns to forehead, hand rotates twice in front of face and fingers spread apart simultaneously. After second hand rotation, through extension of left forearm, palm of LH is turned upwards with fingers partially flexed and oriented away from body towards students.*

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```
Recovery: Fingers relax as hand turns over and
descends to rest on lap.

05.          characteristics?
             *****/****/**|-.|
              GP2 (cont.) ]
                 GU1 (cont.) ]

06. S:       Sometimes.
07. T:       Sometimes.
```

16_VE_Curly_PA4

```
01. Laura:  I would love to have curly hair.
02. T:      You would? ((nodding))
03. Laura:  Uh hum.
04. Carlos: Curly?
05. Laura:  Yeah.
06. T:      ((teacher gestures only))
            |~~~~
            [ GP1
            [ GU1

07. Carlos: What does
08. T:      ((gesturing))
            ~~~~~~~~~~~~~
              GP1 (cont.)
              GU1 (cont.)

09. T:                  (………1.1………)
                        *******|-.-|
                           GP1 ]
                     GU1 (cont.) ]
```

**GP1: Referential (Representational [Depiction:
outlining → "curly"])**

Preparation: *RH hand rises up with palm down in arc-
like trajectory and index finger extended is placed
on top of head. At the same time as hand rises up,
the head tilts somewhat forward and turns left
towards student.*
Stroke: *Drawing an outward-downward arc-like
trajectory, index finger descends drawing five
connected loops in mid-air.*
Recovery: *Index finger relaxes and RH is laid on palm*

of LH in front of body.

10. **Carlos:**   Ah curly, okay.
11. **Laura:**   I don't know, because you can straighten
12.   sometimes (xxxxxx).
13. **Silvana:** Yeah.

17_VE_By and large_PA4

01. **Laura:**   What is this 'by and- by and large'?
02. **T:**   'By and large' means 'in general terms'.
                            |~~~***********|-.|
                            [GP1   ]
                            [GU1   ]

GP1:   Referential   (Representational   [Depiction:
metaphoric → "opening" for "in general terms"]) {in a
different context this gesture would probably take on
a modal function}
Preparation: *Both hands rise up in front of body to*
stomach level, fingers loosely spread and palms
facing downwards.
Stroke: *By outward rotation of forearms and wrists,*
both hands are turned with palms facing upwards, LH
fingers extended together and RH fingers spread and
slightly bent and oriented towards student.
Recovery: *Both hands enter into sequence of actual*
action of pulling up sleeves.

03. **Laura:**   Hmm.
04. **T:**   Yeah.

18_GE_Passive Voice I_PA5

01. **T:**   Okay, very nice, so here guys I wanna
02.   call your attention to two specific parts
03.   of this text (1.6) particularly (0.6)

```
04.        right below Julia Robert's picture and
05.        the title (0.6) lines twelve and
06.        thirteen, right? Did you find that? (0.6)
07.        It says for more than a century it was
           |~~~~~~~***|****|**************|~~~***
           [    GP1  ][ GP2][     GP3    ][ GP4
           [                        GU1
```

**GP1, 2, 3: Pragmatic (Parsing: Forefinger
extended/Palm down [segmenting discourse {downward
beating} so that each part of it can be given special
attention {forefinger extended away}])**
Preparation: *LH leaves chin and moves away from body
towards book held in RH at stomach level. As the hand
is moving away, index finger extends fully and
remaining fingers, along with thumb, hang loosely
downwards. Palm is facing downwards.*
Stroke: *With index finger held away on a horizontal
plane, the teacher performs three beating motions,
coinciding with "for", "more" and "than a century",
respectively.*

**GP4: Pragmatic (Performative: Forefinger extended on
vertical forearm [Warn: "Pay special attention to
what I'm going to say"])**
Preparation: *Fingers flex at their joints.*
Stroke: *By inward forearm flexion, LH rises up to
left side of face at eye level, index finger held
extended upwards and palm turned outwards.*

```
08.        thought that a beautiful face was
           |******|~~~~~~~******|*******|****
           [ GP5 ][     GP6    ][ GP7 ][ GP8
                        GU1 (cont.)
```

**GP5: Pragmatic (Parsing: marking out word – it's a
past participle, a verb form of crucial importance to
the formation of the passive voice – for its
relevance as regards its context of occurrence)**
Stroke: *Hand moves sharply downwards and away from
body at chest level, index finger extended pointing
away from body and palm facing downwards.*
Post-stroke hold: *Hand is held in the position
reached at the end of stroke.*

GP6, 7, 8, 9, 10, 11: Pragmatic (Parsing: segmenting

the discourse and marking out the words)
Preparation: *LH rises up in front of face with palm turned away. As hand is rising up, index finger extends, pointing upwards and remaining fingers flex slightly, middle finger and thumb coming into contact at their tips in a ring shape.*
Stroke: *By a rapid downward wrist flexion, hand moves away from body so that palm is facing downwards and index finger is extended pointing outwards. This beating motion coincides with the first two syllables of "beautiful". Then, by upward-downward wrist flexion, hand performs several beating motions, each downward thrust of the hand synchronising with the stressed syllable of the co-occurring word.*

```
09.        appealing because it was a collection of
           ********|*******|******|********|******
           GP8  ][ GP9  ][ GP10 ][  GP11 ][ GP12
                     GU1 (cont.)

10.        average features (0.3) right?(0.4) then
           *******|*******************|
            GP12 ][        GP13        ]
                GU1 (cont.)            ]
```

GP12, 13: Pragmatic (Parsing: segmenting discourse + and marking out the words)
Stroke: *LH index finger and thumb twice join at their tips and then come apart as the hand is thrust downwards in beating motions. The downward thrusts of the hand synchronise with the stressed syllable of "of every" and "features", respectively.*
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*

```
11.        another part (0.3) on the last column
12.        (0.8) the last parag- 06. erm (0.6) yeah
13.        the last paragraph, it says (0.7) {for-}
14.        the second one, the- the second sentence,
15.        for instance, in some cultures, did you
           |~~~~********|~~~~~~~~********|-.-.-.-.-
           [   GP14    ][   GP15      ]
           [                    GU2
```

GP14: Pragmatic (Performative: Offer [upcoming information])

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Preparation: *From position reached at the end of previous stroke, fingers spread loosely and wrist rotates inwards so that palm of RH is held vertical turned to body.*
Stroke: *Wrist rotates further and extends outwards away from body so that palm is turned upwards, fingers fully extended together.*
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*

GP15: Pragmatic (Performative: Offer [information in spoken discourse/providing the conditions for understanding something])
Preparation: *Fingers bend slightly inwards and by wrist flexion RH rises up somewhat, palm turned to body.*
Stroke: *Wrist flexes back outwards so that palm is held up. At the same time, index finger extends fully away from body.*
Recovery: *Fingers relax and hand rises up to rest against chin.*

16.   find that? (1.6) After line eighty-five,
           .-.-.-.-.|

           GU2 (cont.)**]**

17.   line eighty-six (1.7) eighty-five eighty
18.   six etc, *for instance, in some cultures*
             |~************|~~~~************|
             [GP16   ][GP17   ]
             [GU3

GP16, 17: Pragmatic (Performative: Forefinger extended upwards [Warn: "Look here"])
Preparation: *Right forearm rises up a little and wrist flexes upwards with palm facing downwards so that index finger is pointing away from body.*
Stroke: *Wrist flexes downwards so that index finger is pointing straight down, and then descends towards thigh, falling hard against it with tip of forefinger. Then, hand rises up a little and falls hard with forefinger tip against thigh again.*

```
19.          (0.3) lip disks, scars and tattoos are
             ~~~~~********|~~*****|~~~********|~~
             [     GP18   ][ GP19 ][  GP20   ][
                           GU3 (cont.)
```

GP18: Pragmatic (Parsing: Enumerating/segmenting information)
Preparation: *RH opens and rises up a little above thigh, palm down. Then, all fingers flex save for index finger, which remains extended pointing away.*
Stroke: *Wrist flexes downwards a little, index finger turns down and strikes sharply against thigh with fingertip.*
Post-stroke hold: *Index finger is held extended with tip against thigh.*

GP19: Pragmatic (Parsing: Enumerating/segmenting information)
Preparation: *RH with index finger extended downwards leaves thigh and rises up a very short distance.*
Stroke: *Hand falls down sharply again so that tip of extended index finger strikes thigh one more time.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

GP20: Pragmatic (Parsing: Enumerating/segmenting information)
Preparation: *RH with index finger extended downwards leaves thigh and rises up a very short distance.*
Stroke: *Hand falls down sharply again so that tip of extended index finger strikes thigh one more time.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

```
20.          considered to be attractive (0.9) So see,
             ********|-.-.-.-.-.-.-|
               GP21   ]
                   GU3 (cont.)         ]
```

GP21: Pragmatic (Parsing: Enumerating/segmenting information)
Preparation: *As in the preparation phase of the previous gestures, RH with wrist somewhat flexed downwards and with extended index finger resting its*

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tip against thigh rises up, but now a larger distance than before. One possible explanation for this is that each downward thrust of the hand, or more specifically, each strike of the fingertip against the thigh, is made to synchronise with the stressed syllable of the co-occurring word and, since the word in question now is longer, more room is needed for the striking to coincide with the stressed syllable, for there is more intervening phonological matter.

Stroke: *The extended index finger is made to strike against thigh with its tip once again, the only difference being that now the downward motion is a little slower than in the previous strokes. This seems to confirm the comment made on the preparation phase above.*

Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

Recovery: *RH hand rises up again as if in preparation for another stroke. But then, teacher looks page of book and interrupts gesture. RH joins LH in holding book.*

```
21.        here you have (1.0) two (..1.2..) s-
                |~~****|~~~~*******|
                [ GP22 ][   GP23   ]
                [         GU4
```

GP22: Pragmatic (Parsing: nominating a topic for consideration [to clarify or make more specific]) ==> gesture is interrupted
Preparation: *RH forearm flexes upwards and is held on a horizontal plane parallel to side of body, palm vertical with fingers relaxed.*
Stroke: *Forearm rises a little further up and at the same time all fingers draw together into a bunch on an inward-flexed wrist with palm to body. Fingers are oriented towards the left.*

GP23: Referential (Representational [Narrow Gloss → "similar", "balance"])
Preparation: *Out of position reached at the end of previous stroke, fingers of RH relax and hand turns to face downwards and rises up towards left in front of face. Index and middle fingers are now extended.*
Stroke: *Index and middle fingers wiggle several times. At the same time, the teacher takes a step*

forward.

```
22.          similar but oh at the same time slightly
             ~~*****|~~~~~~~**************************|
             [ GP24 ][          GP25              ]
                       GU4 (cont.)
```

**GP24: Pragmatic (Performative: introducing a remark →
"Mark my words" [Calbris, 1990, p. 126])**
Preparation: *Out of previous position, RH rises
somewhat up to the right side of face with palm
vertical facing inwards and index finger extended and
pointing away towards students.*
Stroke: *Teacher moves a little forward and wrist
flexes so that index finger is made to point somewhat
downwards.*

**GP25: Pragmatic (Parsing: bring a topic to the fore
and emphasize that it is this that is of immediate
pertinence in the discussion [Kendon, 2004])**
Preparation: *Out of position reached at the end of
previous stroke, wrist rotates so that palm faces
downwards. At the same time, index finger flexes
thumb join at their tips, forming a ring oriented
downwards.*
Stroke: *By outward wrist rotation the palm is made to
face upwards so that the ring formed by index finger
and thumb is made visible.*
Post-stroke hold: *Hand is held in the position
reached at the end of the stroke.*
Recovery: *Fingers relax and RH grabs marker, which
had just been picked up by LH.*

```
23.          different structures, do you understand
             -.-.-.-.-|            |~~~**************
                                   [      GP26
             GU4 (cont.)]          [       GU5
```

**GP26: Referential (Representational [Depiction:
Metaphoric → "understand", "can you work out…?"])**
Preparation: *Teacher turns right to face students. At
the same time, left forearm flexes upwards so
parallel to front of body so that LH is held at
stomach level, palm vertical facing body and fingers
relaxed. RH is held on a horizontal forearm parallel*

to side of body.
Stroke: *LH moves away from body and then both hands rotate around each other once. RH relaxes.*

24.   the meaning that you have here? What
             |************************|~~~~
                ][‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾][
                        GP27
                    GU5 (cont.)

GP27: Pragmatic (Parsing: Delimiting/highlighting [meaning in opposition to word-order]]
Stroke: *Following the end of the rotation movement, LH with palm vertical facing body and fingers extended together performs a cutting motion forward.*
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*

25.   they're trying to express? When they say,
             **************/*********|-.-.-.-.-.|
                   GP28   ]
                     GU5 (cont.)   **]**

GP28: Referential (Representational [Depiction: Metaphoric → "trying"]) + Pragmatic (Parsing: Offer → explanation/rephrasing/elaboration])
Preparation: *Leaving position reached at the end of previous stroke, LH rises somewhat up towards chest, palm facing body and fingers partially flexed and together.*
Stroke: *By forearm extension and wrist rotation, hand performs a cutting motion forward. Next forearm descends a little and wrist rotates outwards so that the palm of LH is made to face upwards, all fingers extended together and oriented towards students.*
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*
Recovery: *Fingers relax and hand descends to desktop.*

26.   for example, *for more than a century it*
27.   *was thought that a beautiful fa-* this is
                  |~~~~~~***********|-.|
                  [GP29   ]
                  [GU6   ]

GP29: Pragmatic (Performative: Offer → new information)
Preparation: *LH rises up in front of body to stomach level, palm turned inwards and fingers relaxed.*
Stroke: *By outward rotation of forearm and wrist hand is turned over so that palm is facing upwards, fingers partially extended and spread, oriented towards students.*
Recovery: *Wrist rotates inwards and hand grabs marker from RH.*

```
28.        equivalent to saying (2.1) people thought
29.        (1.1) yeah? You could say for more than a
30.        century people thought, society thought
              |~~~~~~*******|~~~~~~*********|
              [    GP30   ][      GP31     ]
              [                GU7
```

GP30: Pragmatic (Performative: Offer → examples)
Preparation: *LH rises up in front of chest, wrist flexed inwards and palm turned to body, fingers relaxed.*
Stroke: *By outward extension of forearm and wrist, hand is moved towards left and is turned over in the process so that palm is facing up, fingers oriented towards students.*

GP31: Pragmatic (Performative: Offer → examples)
Preparation: *Wrist of LH rotates so palm faces downwards, then forearm flexes inwards and hand is brought close to chest, next going upwards to face level. As forearm is moving inwards, wrist rotates so that palm faces body. Next, teacher bens somewhat over, looking down at page of book, and at the same time forearm rotates and flexes outward, palm now turned to face.*
Stroke: *As the teacher says "thought", by forearm extension LH moves downwards and is presented open with palm facing up and fingers extended together towards students. The whole gesture unit is an inward-upward-outward rotation of the forearm. However, the presenting action, or the gesture that stands for a presenting action, comprehends only the final phase of motion.*

```
31.          that a beautiful fa- but sometimes we
          ~~~~~~~~**************|~~~~~~~~~~~~~~~~***
          [        GP32      ][       GP33
                          GU7 (cont.)
```

GP32: Pragmatic (Performative: Offer → examples)
Preparation: *Left forearm and wrist flex inwards so that LH is held close to chest, palm turned to body and fingers relaxed.*
Stroke: *By outward forearm and wrist extension, hand is presented open with palm facing upwards and fingers extended towards students.*

```
32.          don't wanna say like people thought, we
          ***********/****|~~~~**************|~~~~
            GP33 (cont.) ][      GP34      ][
                          GU7 (cont.)
```

GP33: Pragmatic (Performative: Offer → the speaker 'presents' the object — sentences on the board — to the interlocutor as something to be looked at or inspected for some quality to which the speaker wishes to draw attention [Kendon, 2004])
Preparation: *Out of position reached at the end of previous stroke, left forearm flexes upwards and wrist flexes inwards so that hand is moved close to chest, palm to body and fingers partially extended together towards right. Teacher turns left to face board and hand rises up with palm turned to body and fingers pointing upwards.*
Stroke: *Hand performs two beating motions in the direction of sentence written on the board.*

GP34: Pragmatic (Performative: Offer → example)
Preparation: *Leaving position reached at the end of previous stroke, teacher turns right and left forearm flexes inwards on a horizontal plane so that palm is held facing downwards at shoulder level in front of body, fingers partially flexed inwards towards right.*
Stroke: *By forearm and wrist outward rotation, LH is turned over so that palm is presented facing up with fingers fully extended and partially spread oriented away from body.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

```
33.             wanna put it more impersonally (0.4)
         ~~~~~~***|~~~*******|***********|~~
           GP35 ][   GP36   ][   GP37   ][
                      GU7 (cont.)
```

GP35: Referential (Representational [Enactment → "put"])
Preparation: *Out of previous end-of-stroke position, left forearm rises up a little and wrist rotates so that palm is facing down, fingers fully extended and spread apart. At the same time, RH rises up towards LH, palm facing down, still holding marker.*
Stroke: *After it has been turned over, LH performs a beating motion as the teacher says "put".*

GP36: Pragmatic (Modal: to the exclusion of all other alternatives/superlative/definite])
Preparation: *Following previous stroke, both LH and RH continue moving closer facing each other, forearms flexed inwards and held on a horizontal plane. Both hands are held with palm down, fingers of LH fully extended.*
Stroke: *By forearm extension both hands move outwards away from body along a horizontal plane, as if sliding along a flat surface.*

GP37: Pragmatic (Performative: offer → "impersonally")
Stroke: *Next, by outward rotation of forearms and wrists, both hands are turned over so that palms are facing upwards with fingers fully extended together towards students.*
Post-stroke hold: *Hands are held in the position reached at the end of the stroke.*

```
34.         so, it was thought that (0.2) right?
         ~~~***/***/*******/***|-.-|
                   GP38           ]
                   GU7 (cont.)       ]
```

GP38: Pragmatic (Parsing: segmenting discourse {Calbris, 1990, p. 62-63}]) + visual representation of sentence (linear aspect)
Preparation: *LH leaves previous end-of-stroke position and rises up in front of face, wrist flexed*

*so that palm faces downwards, fingers extended
together oriented to the right.*
Stroke: *LH performs several cutting motions towards
left, each time farther from body and lower. As the
last cutting movement, coinciding with "that", is
performed, the hand is held with palm turned upwards
and fingers extended, as if in an offer. This gesture
may be seen as simultaneously segmenting the spoken
component of the utterance and establishing a cause
and consequence contrast or relation.*
Recovery: *Hand moves inwards to rest against body.*

```
35.        Another example for you erm (2.7)
36.        ((starts writing on board)) until thirty
37.        ears ago let's say, (3.0) it was believed
38.        (0.9) that (1.5) milk and mango (3.3)
39.        well (1.5) milk and mango couldn't go
40.        together (4.3) which means people in
                                |~~~~~~~***
                                [   GP39
                                [   GU8

41.        general believed that. So, I can put-
           *******|~~~*********|-|
            GP39 ][   GP40    ]
                 GU8 (cont.)   ]
```

**GP39: Pragmatic (Performative: Offer → explaining the
meaning of a term or a phrase [Kendon, 2004])**
Preparation: *Teacher turns right to face students and
as he does so both hands rise up toward each other in
front of body at chest level, fingers relaxed and
palms turned inwards.*
Stroke: *As the teacher says "in general", forearms
rotate outwards and wrists extend so that both hands
are turned over with palms facing up and fingers
extended together towards students.*

**GP40: Pragmatic (Performative: Offer → explaining the
meaning of a term or a phrase)**
Preparation: *Wrists flex inwards so that palms are
turned to body with fingers partially bent in cup
shape. At the same time, forearms rise up a little.*
Stroke: *Forearms rotate outwards to the sides and
wrists extend so that both hands are turned over with*

palms facing up and fingers extended together away from body. This gesture seems to be showing the speaker's inability to intervene in a situation (Kendon, 2004, p. 275). On the other hand, the gesture might also be giving an account of the reason for the state-of-affairs presented in the invented sentence offered as an example.
Recovery: *Fingers relax and hands move toward each other in front of body.*

```
42.          instead of saying people believed, I
             |~~~~~~~~~~~~~~~~~******|-.-.-.-.|
             [          GP41        ]
             [                GU9              ]
```

GP41: Referential (Deictic: directing attention to for commenting upon) + Pragmatic (Performative: Offer: an alternative phrasing to what is being said in speech [thus adding another layer of meaning to the utterance → this should be related to the teacher's actions in Lines 20-22])
Preparation: *RH open with palm vertical and fingers extended together moves up towards board directed at beginning of sentence the teacher had written as an example.*
Stroke: *As the teacher says "people", he moves RH towards right in front of example sentence written on the board.*
Recovery: *Hand moves downwards to grab marker from left hand.*

```
43.           could say it ((teacher draws rectangle
44.          around example sentence)) it was
45.          believed, "it" ((teacher draws circle
46.          around "it")) means ((teacher draws
47.          curved arrow from circle to embedded
48.          sentence on the right)) this whole idea
49.          here that milk and mango could go-
50.          couldn't go together, but of course (0.9)
                                  |~~~~~~~~~~~~~~~~~~
                                  [        GP42
                                  [      GU10
```

```
51.          having everything here in this place
             ***/******************/************|
                    GP42 (cont.)              ]
                        GU10 (cont.)
```

GP42: Referential (Deictic: locating)
Preparation: *Teacher is standing with left side of body perpendicular to board. LH open with palm down and fingers extended rises up towards left part of board.*
Stroke: *Palm down hand pointed at second part of sentence beats once as teacher pronounces first syllable of "having". Then, hand moves towards left and beats again over circle drawn around "it" as the teacher says "here". After that, hand moves a little upwards in another beating motion, still over "it".*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

```
52.          would be too long, would be complicated,
             ~~~~~~~~**********|******************|
             [      GP43     ][       GP44       ]
                        GU10 (cont.)
```

GP43, 44: Pragmatic (Performative: Offer → making a comment on something just said/showing consequences of a particular course of action [Kendon, 2004])
Preparation: *Both hands move toward each other in front of body at chest level with palms turned to body and fingers spread.*
Stroke: *As the teacher says "too long", he extends both forearms outwards and rotates wrists so that palms of both hands are made to face up. Then, in the same train of action, both hands rotate in front of each other, being held with palms up in the end. However, LH starts rotating before RH does so that their motions are not synchronised. After that, teacher turns face towards board and directs open palm up left hand to the word "it" written on the board.*

```
53.          so (0.5) we put a 'dummy' (0.5) subject
             *****|~~~~~~***************************
             [GP45][           GP46
                        GU10 (cont.)
```

GP45: Pragmatic (Performative: Offer → object presented as something to be looked at or inspected for some quality to which the speaker wishes to draw attention [Kendon, 2004])
Stroke: *LH open with palm up and fingers extended moves out of previous end-stroke position and upwards to point at "It", written on the board.*

GP46: Pragmatic (Modal: Narrow Gloss for inverted commas [showing how a particular piece of information is to be understood → "so-called"])
Preparation: *LH leaves previous stroke position and rises up to side of face, with index finger extended pointing upward. This upward motion of LH is closely followed by RH, which rises up to right side of face, index finger fully extended upwards.*
Stroke: *As the teacher says "put a 'dummy' subject here", he wiggles both index fingers several times in a gesture understood as bracketing what is being said in speech. Then, index finger of RH continues wiggling as LH starts moving left away from body.*

```
54.         here, yeah? And this represents the whole
            ****/*****|~*****************|********
                GP46   ][       GP47      ][  GP48
                         GU10 (cont.)
```

GP47: Referential (Deictic: locating)
Preparation: *Coming out of previous stroke position, LH moves close to board, index finger extended and palm down.*
Stroke: *As the teacher says "And this represents", draws an imaginary circle around word "It" that begins the sentence written on the board.*

GP48: Pragmatic (Performative: Offer → comment on something just said [Ibid.]) + Deictic element → forefinger extended towards second part of sentence on board: "that milk and mango…"
Stroke: *After the ends of the abstract circle meet, the teacher turns LH over so that palm is facing up, index finger still extended.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

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```
55.          idea that comes. And the other example
             ************|~~~~~~~~~~~~~~~~~~~~~~~~~
             GP48 (cont.)][         GP49
                              GU10 (cont.)

56.          here erm eighty-five etc. Lip disks,
             ****|-.-|                  |*******|**
             GP49]                      [ GP50 ][
               GU10  ]                   [   GU11
```

GP49: Referential (Deictic: locating)
Preparation: *Teacher takes a step forward, turns hand over so that palm of LH faces downwards with index finger extended and directed to page of book on desk.*
Stroke: *As the teacher says "here", he touches page of book with tip of index finger.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*
Recovery: *Fingers relax and hand starts turning page of book.*

GP50, 51, 52: Pragmatic (Parsing: Enumerating/segmenting)
Stroke: *Index finger of LH strikes against page of book three times.*

```
57.          scars and tattoos ARE consɪdered to be
             *********|*******|******************|
                 GP51  ][ GP52 ][      GP53        ]
                               GU11 (cont.)
```

GP53: Pragmatic (Performative: Offer → making a comment on something just said)
Stroke: *Then, by forearm and wrist rotation, LH is turned over with palm up and fingers extended together towards book.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

```
58.          attractive is a variation of that. I
             ~~******/******|*****|-.|
             [     GP54    ][ GP55]
                     GU11 (cont.)    ]
```

GP54: Referential (Representational [Depiction:

Narrow Gloss → "variation"] + Deictic: locating for commenting upon)
Preparation: *During previous post-stroke hold, teacher turns slowly towards left to face board. Then, LH turns palm down and moves a little to the left.*
Stroke: *Left forearm extends somewhat outwards and hand rises towards board with palm vertical and fingers spread and extended loosely. Then, wrist oscillates.*

GP55: Pragmatic (Performative: Offer → making a comment on something just said)
Stroke: *Wrist rotates outwards so that palm is turned up with fingers loosely spread, this last part synchronising with the first three syllables of the word 'variation'. "That" refers to the sentence written on the board.*
Recovery: *Fingers relax and hand moves down to grab object from RH.*

```
59.        could say, for example ((writes on the
60.        board)) (2.5) mang- milk (4.7) mink-
61.        milk and mango (2.5) were (2.3) believed,
62.         were thought etc (2.7) to be improper
63.       (1.6) to go together 3.0) right? So,
                                    |~~~~
                                    [ GP56
                                    [ GU12


64.        similar, so, okay of- of course you have
           *******|-.-|  |~~~~~~~~~~~~~~~~~~~~~~~~~~~
             GP56 ]      [            GP57
           GU12 (cont.)] [            GU13
```

GP56: Referential (Deictic: locating for commenting upon)
Preparation: *Palm down LH moves a little up towards board.*
Stroke: *In a rapid downward-upward motion, hand rapidly moves towards body as if sweeping something. As it is moving closer to body, hand turns down with fingers relaxed.*
Recovery: *Hand moves across over chest towards right*

arm.

```
65.            to adapt a little bit, yeah, but this is
               ~~~*****************|~~~~~~****|-.-.-.-.
                   GP57 (cont.) ][   GP58   ]
                      GU13 (cont.)
```

GP57: Referential (Pointing + Representational [Depiction: Narrow Gloss → "adapt", "approximate"])
Preparation: *LH leaves right arm and moves to the far left towards board on a fully extended forearm, palm held down with fingers pointing to board.*
Stroke: *As the teacher says "adapt a little bit", hand oscillates several times.*

GP58: Pragmatic (Performative: Offer → something is offered for inspection [sentence written on the board])
Preparation: *Palm down LH leaves previous end-of-stroke position and moves left towards beginning of sentence written on the board.*
Stroke: *As hand approaches left side of board, wrist rotates so that palm is up with fingers relaxed.*
Recovery: *Left forearm extends fully and hand moves downwards in front of body.*

```
66.            the idea (1.0) Pelé, what could you say
               -.-|          |~~**/**|****/*********|-.-.
                              [ GP59 ][    GP60    ]
                 ]            [          GU14
```

GP59: Pragmatic (Performative: Question → something specific is indicated that the speaker desires to obtain from the interlocutor. This is the 'question' context of use of this gesture [Kendon, 2004, p. 273])
Preparation: *LH rises up in front of body, wrist flexed, palm down and fingers loose.*
Stroke: *Left forearm rotates and wrist extends outwards very rapidly so that palm is turned up with fingers extended away from body. Fingers flex inwards immediately as the teacher pronounces the second syllable of "Pelé", forearm moving back somewhat closer to body.*

GP60: Pragmatic (Performative: Invitation → something is indicated that the speaker desires to obtain from the interlocutor. This is the 'question' context of use of this gesture [Ibid.])
Stroke: *Out of the position reached at the end of the previous stroke, LH rapidly opens again with palm up and fingers extended as the teacher says "what", closing again as it turns to face downwards.*
Recovery: *Fingers relax and hand descends to rest against side of body.*

```
67.         about Pelé? (3.0) What erm is the
            -.-.|                |~~~~~~~|
                                 [Aborted]
                ]


68.         general, almost universal idea about
            |~~~~~~~~******/********|-.-.-.-.-.|
            [          GP61         ]
            [                  GU15              ]
```

GP61: Referential (Representational [Depiction: Narrow Gloss → "general" {Calbris, 1990}])
Preparation: *LH leaves head and moves outwards in front of face with palm vertical and fingers spread facing students.*
Stroke: *Hand oscillates rapidly twice, fingers closing into a loose fist as the teacher pronounces the last syllable of 'universal'.*
Recovery: *Hand descends to rest against side of body.*

```
69.         Pelé?
70. Laura:  He's the first erm the major soccer
71.         player (0.6) in the world.
72. T:      (…0.7…) For this reason how do they call
            |~~~~~~~*************_____|~~~~~~~~~*********
            [         GP62       ][       GP63
            [                  GU16
```

GP62: Pragmatic (Performative: Acknowledge → indicates that what another has said is correct [Kendon, 2004, p. 271])
Preparation: *LH rises up to chest level in front of body, palm held down with fingers extended and spread and wrist slightly flexed downwards.*

Stroke: *By rapid outward forearm and wrist rotation hand turns over so that palm faces body with fingers spread and fully extended away from body towards student.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

GP63: Pragmatic (Performative: Question → something is indicated that the speaker desires to obtain from the interlocutor. This is the 'question' context of use of this gesture [Kendon, 2004, p. 273]) => Display question, teacher knows the answer!
Preparation: *Out of position reached at the end of previous stroke, left forearm flexes inwards and palm of LH is made to turn down at chest level, fingers relaxed.*
Stroke: *Forearm and wrist rotate upwards outwards so that palm is turned up with fingers fully extended together.*
Post-stroke hold: *Hand is held in position reached at the end of stroke.*

```
73.        him?
           ****
           ‾‾‾‾
           (cont.)
           GU16

74.Sts:     King.
           ***|~~
           ‾‾‾
           GP63][
           GU16

75.T:      (.) The kin::g, exactly, so you would say
           ~~~*********|-.|
                GP64    ]
             GP16 (cont.) ]
```

GP64: Pragmatic (Parsing: Marking as precise → "exactly" [commenting on students' contribution] + Performative: Acknowledge → indicates that what another has said is correct [Kendon, 2004, p. 271])
Preparation: *Out of position reached at the end of previous stroke, left forearm flexes inwards upwards and palm of LH is made to turn away from body held vertical. As palm is being turned outwards, index*

finger and thumb join at their tips forming into a ring.
Stroke: *Ring-shaped hand moves forward and downwards and forearm rotates so that palm is held turned up, remaining fingers spread and extended towards students.*
Recovery: *LH forms out of ring shape and grabs object from RH.*

```
76.          Pelé (0.9) is considered (2.1) to be
77.          (1.7) the king (1.5) of soccer, the
78.          eternal (2.6) king of soccer, yes? O:r
79.          you could say (1.3) it is thought (2.6)
80.          that Pelé (1.6) is the eternal etc, yeah
81.          so these are (1.0) structures that are
             |~~~~~~~~***/*****/***************/***
             [                   GP65
             [                   GU17
```

GP65: Referential (Pointing: Locating for commenting upon) + Pragmatic (Performative: Offer → information)
Preparation: *LH rises up leftwards towards board, fingers relaxed and palm down. At the same time, RH moves somewhat away from stomach and wrist flexes inwards, palm to body and fingers relaxed.*
Stroke: *Back of LH is directed towards sentences written on the board as the teacher says "are". Then, during a pause in speech, left forearm flexes inwards so that LH is held very close to chest, palm to body and fingers together partially flexed. As left forearm is flexing, right forearm rises up a little and wrist extends outwards so that palm of RH is held up with fingers partially extended. Both hands are still for six tenths of a second. Next, palm of RH turns down and by inward wrist flexion, hand moves in, palm to body; at the same time, by leftward-upward extension of left forearm, LH rises up towards board with palm vertical and fingers extended together pointing at sentences written on the board, this motion synchronising with "structures that". After that, left forearm again flexes inwards bringing LH close to chest, palm to body and, as it does so, by right forearm extension and outward wrist rotation, RH turns over, palm up and fingers spread away from body.*

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```
82.            possible when you wanna make it more
               ********|~~~~~~~~~~~~~~~********|~~~~
          GP65  ][        GP66          ][
                          GU17 (cont.)
```

GP66: Pragmatic (Performative: Offer → expounding the premises or conditions for understanding something [Kendon, 2004, p. 266])
Preparation: *Out of previous end-of-stroke position, LH wrist extends outwards so that palm is somewhat more distant from chest, still turned to body and with fingers flexed loosely. At the same time, RH wrist rotates somewhat downwards.*
Stroke: *Wrist of LH extends further so that palm is turned up with all fingers fully extended and spread apart. At the same time, RH wrist rotates further so that palm is held down, fingers spread and extended.*

```
83.            impersonal, instead of saying 'people',
               *******|~~~~~~~~~~~~~~****************|
          GP67 ][            GP68              ]
                          GU17 (cont.)
```

GP67: Pragmatic (Performative: Offer → expounding the premises or conditions for understanding something + Parsing: Beating to mark word as focal [Kendon, 2004])
Preparation: *Leaving position reached at the end of previous stroke, both hands turn palms inwards towards body with fingers bent, initiating rotation.*
Stroke: *Both hands are turned over palm up with fingers extended, back of RH striking against palm of LH.*

GP68: Pragmatic (Performative: Offer → for inspection [sentence on the board as opposed to "people", in speech])
Preparation: *Out of previous end-of-stroke position, RH falls down to side of body and LH moves leftwards away from body, palm down and fingers relaxed.*
Stroke: *Hand rises up and points at sentence written on the board. As the teacher says "people", left forearm flexes inwards and LH is brought closer to body in front of chest, palm down and fingers extended.*

```
84.            'society', the public in general, yeah?
               ******|~~~~~~~******|-.-.-.-.-|
               [GP69 ][   GP70    ]
                          GU17 (cont.)        ]
```

GP69: Pragmatic (Performative: Offer → information)
Stroke: *Then, as he says "society", forearm rotates and extends forward so that hand is turned palm up with fingers partially extended.*
GP70: Pragmatic (Performative: Offer → information)
Preparation: *Left forearm flexes inwards so that LH is held palm down very close to chin, fingers relaxed.*
Stroke: *As the teacher says "public", by extension of forearm and wrist LH is turned palm up away from body with fingers extended together towards students.*
Recovery: *Fingers relax and hand rises up towards face initiating an adaptor.*

```
85.       (0.5) It's more common in written erm for
               |~~******|******/**********|~~~~~~~
               [  GP71 ][     GP72     ][ GP73
               [               GU18
```

GP71: Referential (Representational: Narrow Gloss → "more")
Preparation: *LH moves a little away from chin and, by forearm and slight wrist rotation, palm turns down, fingers spread and oriented to the right.*
Stroke: *As the teacher says "more", forearm extends somewhat away from body and wrist rotates and extends so that palm turns up, fingers starting to flex.*

GP72: Pragmatic (Parsing: something quite specific is being said/topic seizing + Performative: Offer → information)
Stroke: *Then, as the teacher says "common", fingers form into a bunch and hand rises up in front of chin, palm facing downwards. After that, as he says "in written", fingers of RH relax a little and hand rotates downwards so that palm is turned up and hands are extended away towards students.*

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```
86.          obvious reasons, it looks more formal etc
             ~~~~~~~~********|~~~~~~~~~********/****|
                 GP73      ][         GP74       ]
                             GU18 (cont.)
```

GP73: Referential (Deictic: locating for commenting upon)

Preparation: *Out of position reached at the end of previous stroke, palm of LH turns down with fingers fully extended together, and forearm extends fully to the left, bringing hand close to board. As forearm is extending wrist extend upwards so that palm is turned to board and fingers are pointing up.*
Stroke: *As the teacher says "obvious", in an effortful manner he slides LH open palm to board along a horizontal plane towards right. The portion of the board singled out by this gesture contains the clause "it is thought".*

GP74: Pragmatic (Performative: Offer → comment on something just said + Referential (Representational [Depiction: metaphoric → "restricted"])

Preparation: *Left forearm flexes inwards out of previous end-of-stroke position and towards body, palm held down at chest level with fingers spread and fully extended.*
Stroke: *Forearm rotates and wrist extends outwards so that palm is turned up oriented away from body, fingers bending partially at their joints in a forceful grip. Then, wrist rotates rapidly so that palm faces downwards with fingers spread apart and fully extended away from body.*

```
87.          (.) but it's more common in written
             ~~~*****/*******|~~~~~~~~~~********
             [      GP75    ][      GP76
                             GU18 (cont.)
```

GP75: Referential (Deictic: Locating for commenting upon) + Pragmatic (Modal: Reference to circumstances that render the execution of some action or project impossible [Kendon, 2004, p. 256])

Preparation: *Leaving position reached at the end of previous stroke, LH moves leftwards towards board.*
Stroke: *Wrist flexes inwards so that palm is directed*

*to sentences written on the board as the teacher says
"but". Then, as he says "it's more", palm turns down
and hand performs a rapid short amplitude downward
beating motion.*

**GP76: Pragmatic (Performative: Offer → comment on
something just said [Ibid., p. 270])**
Preparation: *Left forearm flexes inwards bringing
palm-down LH under chin.*
Stroke: *Forearm moves outwards somewhat away from
body and wrist rotates so that palm of hand is turned
vertical with fingers extended towards student.*

```
88.        language than in spoken language, yeah?
           ******|~~********|-.|
           GP76 ][  GP77   ]
                  GU18 (cont.)   ]
```

**GP77: Pragmatic (Modal: Denial → knocking something
down/withdrawing from action)**
Preparation: *Left forearm rotates rapidly downwards
and wrist extends upwards so that palm is held
vertical away turned away from body.*

```
89.        (0.8) he- in spoken language you might
           |~~~~*****************************
           [                    GP78
           [                    GU19
```

**GP78: Referential (Deictic: Locating for commenting
upon)**
Preparation: *LH leaves face and moves leftwards
towards board, palm down and index finger extended.*
Stroke: *Hand twice performs circling motion around
words written on the board. Then, as the teacher says
"this", he runs index finger to the right over
portion of board containing first clause of example
sentence ("It is thought that…").*

```
90.     even choose this one, but  still would be
        **********/*****|~~~~~~~~~~*****|-.-|
           GP78 (cont.) ][    GP79        ]
                      GU19 (cont.)          ]
```

GP79: Pragmatic (Parsing: something quite specific is

being said [Ibid., p. 241])
Preparation: *Left forearm flexes inwards towards chest and at the same time LH closes into a finger bunch, palm vertical turned to body over chest.*
Stroke: *Bunched hand opens up in a forward thrust in front of face, fingers spread.*
Recovery: *In the same train of action, fingers relax hand rises up to top of head.*

91.   a bit formal.

19_GE_Passive Voice II_PA5

01. **Carlos:** *Unmarried women sometimes is- it is- it*
02.   *is* (1.0) *assumed* uhh *are looking for*
03.   *husbands.*
04. **T:**   Well, when you have this kind of
              |~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~*
              [GP1
              [GU1

05.   impersonal sentence, so normally
              *******************/*************
                           GP1 (cont.)
                           GU1 (cont.)
GP1: Pragmatic (Parsing: topic nomination/premise + comment/consequence + Beats [highlighting words that are important for the structure being studied])
Preparation: *Left forearm moves upwards towards left and LH palm down closes into a finger bunch.*
Stroke: *As the teacher says "impersonal", bunched hand moves slowly somewhat upwards and then downwards further to the left towards student.*
Within-stroke hold: *Hand is held in the position reached at the end of the stroke.*
Preparation: *LH opens out of shape and position reached at the end of previous stroke and moves further up outwards towards student, palm held vertical and fingers extended together forward. Hand rises up a little and then descends in a short amplitude thrust, palm still vertical and fingers extended. The downward thrusts synchronises with "it".*

```
06.          you start by this 'it', yeah so it is
             ****************/****|~~~~~~~~~***|**|
                    GP1 (cont.)  ][   GP2   ][GP3]
                          GU1 (cont.)
```

GP2: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH hand still open with palm vertical moves somewhat inwards by forearm flexion and the rises up a little, fingers extended together oriented away from body.*
Stroke: *The teacher performs a downward cutting motion coinciding with "it".*
GP3: Pragmatic (Parsing: segmenting spoken discourse)
Stroke: *As the teacher says "is", he performs another cutting motion with LH vertical, but now towards left, this second motion being linked to the first one.*

```
07.          sometimes assumed (0.8) that women (2.4)
             ~~~~***|~~~********|*****************|
                GP4 ][   GP5  ][       GP6      ]
                       GU1 (cont.)
```

GP4: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH rises up a little again.*
Stroke: *Hand makes another cutting motion to the left so that the downward thrust synchronises with the stressed syllable of "sometimes".*

GP5: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH moves somewhat up towards right.*
Stroke: *Hand descends a short distance in a cutting motion coinciding with the stressed syllable of "assumed".*
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*
GP6: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH rises up a little.*
Stroke: *As the teacher says "women", he moves LH slowly somewhat downwards to the left.*
Post-stroke hold: *Teacher holds hand in the position reached at the end of the stroke for eight tenths of a second.*

```
08.              that UNmarried women, sorry, so it is
                 ~~~~**|~*****************|~~~~*****|
                 [ GP7 ][      GP8        ][  GP9  ]
                              GU1 (cont.)
```

GP7: Pragmatic (Parsing: segmenting word into smaller units so as to highlight prefix)
Preparation: *LH still with palm vertical and fingers extended rises up a little.*
Stroke: *Hand performs very rapid and small amplitude cutting motion towards right.*

GP8: Pragmatic (Parsing: segmenting word into smaller units so as to highlight prefix)
Preparation: *LH pulses upwards.*
Stroke: *Hand performs another rapid downward cutting motion towards right.*
Post-stroke hold: *Hand is held in the position reached at the end of the stroke.*

GP9: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *Out of previous end-of-stroke position, LH rises up somewhat, palm vertical and fingers extended towards students.*
Stroke: *As teacher says "it is", he moves hand downwards towards right in a cutting motion.*

```
09.              sometimes assumed that unmarried women?
                 ~~~~*****|~~*****|~~~~~**|~~~~********
                 [ GP10 ][ GP11 ][ GP12 ][  GP13
                              GU1 (cont.)
```

GP10: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH rises up a very short distance, palm still vertical and extended fingers directed away.*
Stroke: *Teacher performs a leftward-downward cutting motion coinciding with the stressed syllable of "sometimes".*

GP11: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH pulses upwards.*
Stroke: *Teacher performs another downward cutting movement further to the left, this second motion being linked to the previous stroke and synchronising*

with the stressed syllable of "assumed".

GP12: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *Out of previous end-of-stroke position, LH still with palm vertical and fingers extended rises up a little.*
Stroke: *Hand performs very rapid and small amplitude cutting motion towards right, synchronising with the stressed syllable of "unmarried".*

GP13: Pragmatic (Parsing: segmenting spoken discourse)
Preparation: *LH, palm vertical and fingers extended, rises up a little.*
Stroke: *Hand descends slowly further to the right as the teacher pronounces the first syllable of "women".*
Post-stroke hold: *Hand is held still with palm vertical and fingers extended towards students as one student offers her solution to the problem.*
Recovery: *Hand turns palm down and descends to rest against left thigh.*

```
10. S:       It is assumed that sometimes unmarried
             ****************************|-.-.-.-.-
                      GP13 (cont.)       ]
                         GU1 (cont.)
11.          women.
             -.-.-|

              GU1 ]
12. T:       Wha- come again. (0.6)
             |~~~~**********|-.-.-|
             [     GP14     ]
             [            GU2         ]
```

GP14: Pragmatic: Performative → "I didn't hear what you said", "Repeat"
Preparation: *Teacher raises LH in front of body, palm up and fingers relaxed.*
Stroke: *As hand is at chest level, teacher extends index finger and moves it upwards to side of head and touches left ear.*
Recovery: *Fingers relax and hand falls down to rest against thigh.*

```
13. S:      It is assumed that sometimes unmarried
14.         women.
15. T:      Well, when you speak that informally, it
            |~~~~~********/*****|~~~~~***********|~~*
            [          GP15    ][      GP16     ][
            [                    GU3
```

GP15: Referential (Representational [Depiction: metaphoric → "speak"]) + Pragmatic (Performative: Acknowledge → the speaker is acknowledging another as a source of something said or is indicating that what another has said is correct [Kendon, 2004, p. 271])

Preparation: *LH is moved up under chin, palm down and fingers spread turned to body.*

Stroke: *Teacher moves hand away from chin and rotates it outwards so that in the end palm is held facing obliquely upwards, fingers extended and together directed at students. The turning up of the palm synchronises with "speak".*

GP16: Pragmatic (Performative: Acknowledge → the speaker is acknowledging another as a source of something said or is indicating that what another has said is correct [Kendon, 2004, p. 271])

Preparation: *LH turns palm down and left forearm flexes inwards upwards so that hand is again brought under chin with fingers turned to body.*

Stroke: *As the teacher says "informally", by outward-downward forearm extension and outward wrist extension, hand turns over so that palm is held obliquely up with fingers fully extended together and oriented away towards students.*

```
16.         would be ok. If you think of what would
            ***********************************|~~~~~
                            GP17              ][
                            GU3 (cont.)
```

GP17: Pragmatic (Modal: Implicit denial → given the very specific circumstances, nothing can be said to the contrary)

Preparation: *Departing from previous end-of-stroke position, left forearm rotates inwards so that LH palm is facing obliquely away from body, fingers extended together.*

Stroke: *Hand falls downwards leftwards so that wrist*

is made to rest against back of RH, which in turn has been resting on right thigh.
Post-stroke hold: *Hand is held in the position reached at the end of stroke.*

17.   be the perf- grammatically perfect
             ~~~~~~~*~**********/***********|*
                          GP18   ][
                          GU3 (cont.)

GP18: Referential (Representational [Depiction: Narrow gloss → "perfect"])
Preparation: *LH rises up to side of face with palm vertical turned away towards students and index finger and thumb touching at their tips, forming a ring shape.*
Stroke: *Hand starts moving forward very slowly, stops, and then moves rapidly forward and downward as the teacher pronounces the first two syllables of "grammatically". Ring-shaped LH rises up to side of face with palm facing away and fingers pointing somewhat backwards. As teacher says "perfect", ring-shaped hand falls sharply downwards leftwards so that wrist is made to rest palm down against back of RH, which in turn has been resting on right thigh.*

18.   sentence, you would have these adverbs
             ******|~~~************************|~~
             GP19][GP20   ][
                          GU3 (cont.)

GP19: Pragmatic (Modal: Implicit negative → blocking further action or anything that can be said to the contrary)
Stroke: *As soon as wrist strikes against RH, LH opens out of ring-shape, palm down and fingers spread and fully extended away.*

GP20: Referential (Representational [Depiction: showing anteriority → position of adverbs])
Preparation: *Both hands rise up to chest level in front of face, palms facing obliquely up inwards and fingers fully extended.*
Stroke: *By forceful inward-outward wrist rotation, alternately oscillate inwards with palms to body and*

fingers together.

```
19.         (0.2) right next to the: the th- the
            ~~~~~*********|-.-.-.-|  |~~~~~~~****
                 GP21     ]           [   GP22
                  GU3 (cont.)       ] [     GU4
```

GP21: Referential (Representational [Depiction: metaphoric → "right", in the sense of "exactly"])
Preparation: *Both hands move somewhat forward out of previous end-of-stroke position with palm up outwards, and then rise up towards face. LH is held in front of chin with palm obliquely up towards the right and RH is held higher with palm vertical turned to temple so that it is at a 90 degree angle with palm of LH. Teacher is looking down at palm of LH.*
Stroke: *As the teacher says "right", RH strikes hard against palm of LH.*
Post-stroke hold: *Hands are held in the position reached at the end of stroke.*
Recovery: *Both hands fall sharply against right thigh, palm of RH on top of LH.*

GP22: Referential (Pointing: Locating) + Pragmatic (Performative: Offer → information)
Preparation: *RH rises up outwards and forearm starts rotating so that palm can be turned up. However, the teacher hesitates a little and interrupts what can be seen as the beginning of a stroke. Right forearm then flexes inwards and upwards and hand turns palm to body and moves towards head.*
Stroke: *RH rapidly touches right temple with fingertips and moves away in a forward thrust, palm vertical turned to body and fingers extended upwards.*
Recovery: *Hand descends to rest on top of LH, which is still lying on right thigh (teacher is seated throughout).*

```
20.         thinking verb, yeah? So it is sometimes
            ***/**|-.-.-.|               |~~~****|-.
             GP22 ]                      [  GP23 ]
             GU4 (cont.) ]               [    GU5
```

GP23: Pragmatic (Performative: Offer → information [showing position of adverb 'sometimes'])

Preparation: *RH rises up a very short distance over LH, wrist flexed inwards and palm to body with fingers lax.*
Stroke: *Wrist rotates rapidly so that palm of RH is turned up in a forward thrust.*
Recovery: *RH again descends to rest on top of LH.*

```
21.          assumed would be the best choice,
             -.|        |~~~~~~~~~~****/****|~~
                        [        GP24       ][
               ]        [              GU6
```

GP24: Pragmatic (Parsing: teacher is giving a specific piece of information on which he is insistent and which is counterposed to what has been presupposed [Kendon, 2004, p. 245])
Preparation: *RH cupped rises up, index finger and thumb forming into ring in front of chest, wrist slightly flexed inwards and palm obliquely down.*
Stroke: *Wrist rotates outwards very abruptly so that ring-shaped hand is turned palm away towards students with remaining fingers fully extended upwards. In the same sequence of action of previous stroke, ring-shaped RH thrusts downwards, almost touching back of LH.*

```
22.          grammatically speaking. Of course even
             ******|-.-.-.|              |~~~~~~****
              GP25 ]                      [   GP26
              GU6 (cont.) ]               [   GU7
```

GP25: Pragmatic (Parsing: specific information + conclusion + Modal: denial of any opposing opinion)
Preparation: *By upward forearm flexion, ring-shaped RH rises up a little, palm held vertical turned to the left and remaining fingers extended away towards students.*
Stroke: *Ring-shaped RH falls sharply hitting wrist against top of LH.*
Recovery: *Fingers of RH relax and are laid on back of LH.*

```
23.          native speakers sometimes they deviate
             ******/********|~~~~~~~~~~~~~~~~~***/***
              GP26 (cont.) ][      GP27
                           GU7 (cont.)
```

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GP26: Pragmatic (Performative: Offer → making a comment on something just said [Kendon, 2004, p. 271])

Preparation: *RH rises up a little, palm down and fingers relaxed. Then LH rises up from under RH and by forearm flexion moves in over chest, palm turned to body and fingers relaxed.*

Stroke: *By inward-outward forearm rotation LH and RH alternately oscillate outwards so that palms are turned up open with fingers extended together towards student. The turning-up of LH synchronises with "native" and that of RH synchronises with "speakers".*

GP27: Referential (Representational [RH+LH Enactment: metaphoric, both in gesture and in speech → "deviate"]) + Pragmatic (Performative: Expounding the premises or conditions for understanding something [Kendon, 2004, p. 266])

Preparation: *Moving out of position reached at the end of previous stroke, RH descends a little, palm up and fingers extended and, as it does so, LH turns over rising up somewhat so that palm faces down above RH.*

Stroke: *Left forearm rotates outwards and wrist extends outwards to the left so that, in a thrust, LH turns palm obliquely up towards left, with fingers extended together. At the same time, right forearm flexes inwards and upwards to the left following left forearm closely. RH turns over so that palm faces palm of LH, forearms being held parallel to each other. Then in the second phase of stroke action, RH moves to the right and palm turns up with fingers extended towards student and left forearm descends somewhat. As left forearm is lowered, LH wrist flexes sharply outwards so that palm is kept with the same orientation as in previous stroke phase, that is, obliquely turned away from body and with fingers extended together.*

Post-stroke hold: *Hands are held in the position reached at the end of the stroke.*

```
24.          from rules, so they change things,
             ***********|~~~~~~~~******/******|
             GP27 (cont.)][     GP28        ]
                          GU7 (cont.)
```

GP28: Referential (Representational [Enactment: Metaphoric → "deviate" for "change"])
Preparation: *Right forearm moves a little to the right with palm held up and fingers extended away. At the same time, left forearm flexes inwards and upwards over chest following right forearm closely. LH wrist flexes inwards so that palm faces down.*
Stroke: *By inward-outward forearm rotation LH and RH almost simultaneously oscillate outwards twice. At the end of oscillations, both hands are held palm to palm with fingers extended away towards student.*

```
25.          it sounded ok still (0.5) grammatically
             ~~~*****|~~**/****|~~~~~~~~~**************
             [ GP29 ][ GP30  ][      GP31          ]
                            GU7 (cont.)
```

GP29: Referential (Pointing)
Preparation: *LH rises up towards face with palm vertical turned inwards.*
Stroke: *Teacher turns head to the right and by rotating forearm outwards touches left ear with fingertips. RH remains in the position reached at the end of previous stroke.*

GP30: Pragmatic (Performative: Offer → indicates that what another has said is correct [student's contribution in Line 8])
Preparation: *LH moves away from left ear and by outward forearm extension descends to stomach level with palm vertical and fingers extended. Forearms are held parallel to each other.*
Stroke: *By outward wrist rotation both hands are turned so that palms face up with fingers extended away towards student. Then, as teacher says "still", palm up open hands move somewhat downwards.*
GP31: Pragmatic (Parsing: specific information is being given on which the speaker is insistent [Kendon, 2004, p. 245])
Preparation: *Left forearm rises up bringing LH to side of face. As hand approaches face, index finger and thumb join at their tips forming a ring and wrist flexes so that palm is held obliquely up turned away from body. RH is kept palm up and away on an extended forearm.*

Stroke: *Forearm rotates and moves forwards rapidly so that ring-shaped hand is turned palm up directed at student.*

```
26.          speaking (%) it is sometimes assumed,
             ~~~~~~~~****|-.-.-|
             [  GP32    ]
                GU7 (cont.)   ]
```

GP32: Pragmatic (Parsing: Conclusion [Ibid., p. 245])
Preparation: *Ring-shaped LH is moved back up to side of face again, palm obliquely up and away.*
Stroke: *As the teacher makes clicking sound with mouth, hand falls sharply forward and then forms out of ring after the clicking sound, all fingers spreading wide apart and palm vertical.*
Recovery: *Both hands descend rapidly to rest against right thigh, RH lying on top of LH.*

```
27.          yeah? (0.4) So, you didn't notice the
28.          unmarried thing, yeah (xxxx) it makes
29.          more sense, yeah, unmarried women?
30. S:       are looking for husbands?
31. T:       are looking for husbands, yea::h.
```