Apéndice para la mención de *Doctor Europeus*

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DEVELOPMENT OF PRAGMATIC COMPETENCE: AN APPROACH TO THE STUDY OF PRAGMATIC LANGUAGE PROCESSING

SUMMARY AND CONCLUSIONS

Pragmatic competence, which is one of the components of communicative competence (Canale and Swain, 1980; Bachman, 1990; Celce-Murcia *et al.,* 1995; Cenoz and Valencia, 1996, etc.), plays an essential role in intercultural communication and in foreign language acquisition (Bouton, 1996; Kasper, 2001; Gómez Morón *et al*., 2009; Aquino, 2011). Research on this competence has mostly been carried out within the field of applied linguistics (especially in relation to the teaching/learning of foreign languages), with the purpose of setting goals and designing methodologies and assessment tests. However, the lack of theoretical reflection on the concept of pragmatic competence has led to its use as a catchall term including skills that might not even fall within the boundaries of so-called "organizational competences" (Bachman, 1990).

In the study of language acquisition, the pragmatic approach has contributed significantly by considering certain aspects of contextualization and linguistic functionality that are not addressed in previous theoretical models —or, when so, not very successfully—. To become competent speakers, it is not enough to know a set of grammatical rules, but it is also necessary to understand the principles related to people's inner and intentional world and to have the ability to draw inferences. Consequently, the development of the pragmatic component, understood as obtaining the knowledge required for an appropriate and effective use of language in communicative interactions (Ninio and Snow, 1996), is crucial to language acquisition.

In the view of these circumstances, the main goal of this doctoral dissertation is to delve into the nature of the concept of *pragmatic competence* and its applications, as well as into its development as part of the language acquisition process. To do so, we have conducted an experimental study on the evolution of pragmatic processing in preschool and school-aged children (aged 3 to 9), using Sperber and Wilson's relevance theory (1986/1995) as a supporting framework.

The first chapter sets out the theoretical framework. Thus, we have chosen to begin with the concept of *pragmatics* itself to explain pragmatic competence. We believe that vagueness —due to disagreement among authors— as regards pragmatics' disciplinary scope is partly responsible for the difficulty in defining the notion of pragmatic competence. In fact, the lack of accuracy as regards the scope of the concept hinders attempts to delimit the components of pragmatic competence and its relationship with other competences such as sociolinguistic, cultural and, undoubtedly, grammatical competence.

Unlike other opinions and approaches that have emerged around pragmatics in the realm of theory, the approach of this study is aimed at coherently harmonizing the basic ideas related to the concept of pragmatics and its field of study. It is well known that pragmatics addresses language in use so that, while not central to linguistics, it does fall within the communication linguistics paradigm. Additionally, we believe that pragmatics should be clearly distinguished from grammar, although they should be complementary in terms of the general study of language, since there is evidence of a grammar-pragmatics interface that allows for the explanation of series of grammatical aspects and mechanisms related to the use of language in communication.

The link between pragmatics and rhetoric in terms of the efficient use of language in communicative interactions is also one of the main ideas defended in this study. Indeed, in line with Gutiérrez Ordóñez (2002), we observe that both seek successful communication —rather than identify the grammaticality of utterances—, and that persuasion, understood as rhetoric's ultimate goal, is directly linked to perlocutionary acts, which are within the domain of pragmatics.

Pragmatics addresses the use of language in communication, considering both the linguistic and extra-linguistic aspects involved in the production and interpretation of specific utterances in different communicative situations. With this purpose, it studies the cognitive, social and cultural perspectives of linguistic phenomena, as well as the speaker-language relationship, paying attention to the choices made by the former and their effects on the listener in language exchange.

With regard to its object of study, we have observed that, as expected, the scope of pragmatics is not well-defined. In fact, the problem is that this discipline cannot be associated with any specific analysis unit that might be isolated and systematized.

Against this background, this study briefly reviews pragmatic phenomena, focusing on those that are most controversial, such as presuppositions, deixis or aspects related to conversation analysis. Although pragmatics acts at all levels of language, there is a series of prototypically pragmatic phenomena (only addressed by pragmatics) and others that are peripherally pragmatic (explained as interdisciplinary, since they are part of a pragmatic-structural interface). The former include speech acts, implicatures, politeness, irony, rhetoric phenomena, etc.; and the latter include presuppositions, deixis and definiteness, among others.

Likewise, we believe that paralinguistic, kinetic and proxemics phenomena, as well as those related to conversation analysis, are not among pragmatics' priority objects of study. The former correspond to non-verbal communication, while the latter belong to a different line of study, since they describe and explain linguistic and social behaviour patterns. Thus, their main goal, rather than the study of language, is the study of how human relationships and social organization are reflected in language usage.

Finally, there is a set of principles that is also part of the study of pragmatics, such as the cooperative principle, relevance theory, speech act theory, the politeness principle, etc., which are essential tools for linguists to describe and explain regularities that take place in language use and communication.

In light of the above, it is understandable that, since pragmatics is focused on language in use in communication, its studies are devoted to language in context. When we communicate, the meaning of our utterances is conditioned by the circumstances in which they are issued. Consequently, given its relevance to verbal communication, we believe it is convenient to devote a few lines to the concept of *context*.

As might be expected, the notion of context may vary depending on the different theoretical approaches (linguistic, psychological or sociolinguistic) that make use of it. Current pragmatics differentiates three main types of context: linguistic (or co-text), situational and sociocultural, although certain authors do not include the latter. In this study, by contrast, we advocate the importance of the sociocultural context, since it is responsible for generating expectations and presuppositions that are shared by individuals of a specific language community, therefore facilitating the

interpretation of utterances. There are often sets of interiorized conceptualizations related to certain recurrent situations in the social context, which triggers a series of expectations and elements linked to such situations. Over the years, several theories have delimited this sociocultural context, referring to it with terms such as *background* (Searle, 1979), *common ground* (Clark, 1996), *recursive situations* (Barwise and Perry, 1983), *mutual cognitive environment* (Sperber and Wilson, 1995), *information plots* (Escandell Vidal, 1996), etc.

Similarly, we believe that the sociocultural context is decisive in determining so-called frames or scripts. As noted, both frames (data structures stored in our minds based on stereotyped situations), and scripts (sequences of actions that are carried out by default in familiar situations) become activated in language exchanges, allowing us to predict the structure of events and actions, which we complete through inferences. Unfortunately, no theory has managed to explain the process through which activated knowledge is limited to a framework, so that it may be relevant in each utterance and communicative event. This has raised the question about how the appropriate context for the interpretation of a specific utterance is chosen. According to Sperber and Wilson (1995), successful communication does not require interlocutors to share full understanding, but that it is enough for each of them to build a correct assumption of the other's pragmatic knowledge and information. From among all the contexts available for interpreting an utterance, the listener must choose the contextual indicators that are relevant to that utterance and event and combine them with the necessary linguistic information to grasp the meaning intended by the speaker.

In this study, we have opted for a cognitive approach to the notion of *context*. Consequently, we define it as the body of knowledge, assumptions and beliefs that allow for language processing. These elements, which are stored in our memory, in prior discourse, or might be a result of the physical or sociocultural setting (shared through experience in a certain language community), are constantly elaborated on and updated in each specific utterance.

Finally, this first chapter presents the mechanisms and principles of relevance theory, first proposed by Sperber and Wilson (1986), which has been used throughout this dissertation as a theoretical basis and analysis tool. This theory has been chosen as a framework of reference for two main reasons. First, its accuracy and convenience

has already proved useful in other studies related to the development of pragmatic skills and the difficulties it entails (Happé, 1993; Foster-Cohen, 1994; Dipper *et al*., 1997; Leinonen and Kerbel, 1999; Leinonen *et al*., 2003; Loukusa *et al*., 2007). In fact, we believe that relevance theory lends itself to empirical research of the processes involved in language comprehension (many studies have confirmed its hypotheses in practice). Furthermore, since this theory allows for the explanation of pragmatic difficulties, including those affecting the quality of interactions, it is highly useful to design clinical interventions in patients with pragmatic language impairments.

The second reason, of a more theoretical nature, is its cognitive approach to the processes involved in communicative interaction. In other words, it explains how the listener is able to infer or deduce the speaker's communicative intention and choose the correct interpretation, according to the context, among all those that might be possible. Therefore, the fact that the coding and decoding process is not enough to analyse the complexity of the mechanisms involved in human communication, leads to the necessity of applying the ostension and inference mechanism. Although they are both essentially independent mechanisms, they are usually combined to reinforce successful communication. Actually, linguistic messages may not directly encode the content the speaker intends to convey, but act as ostensive stimuli to attract listeners' attention to the true communicative intention.

Accordingly, to successfully process the information underlying an utterance, it is necessary to recognize the intention behind the ostension. In fact, the inferential mechanism is based on the building of a presupposition from another one through deductive reasoning. However, as already observed, the strength of presuppositions may vary depending on how they have been reached. Obviously, a presupposition transmitted by other people or deduced on the basis of certain premises will not be as strong as those obtained from the speaker's own experience.

One of the simplest but at the same time most interesting ideas of Sperber and Wilson's (1995) theory is that human beings process information efficiently, meaning that there is a tendency to balance profit and effort. According to this, the relevance of an utterance would depend on the relationship between the conceptual effects and the processing effort. When we interpret an utterance, we expect it to be relevant, which is why we choose a context (out of the total set of possible presuppositions) that can

justify such expectation or, in other words, one that maximizes relevance. This idea is included in the First Principle of Relevance. Likewise, all ostensive communication acts create a presumption of relevance that is accurate enough to guide the listener to the intended interpretation, an idea included in turn in the Second Principle of Relevance.

The application of these theoretical assumptions to the study of language communication allows Sperber and Wilson to identify a series of inferential tasks such as disambiguation, reference assignment and enrichment. In each of these processes the listener must choose the most accessible interpretation —based on contextual factors— according to the principle of relevance. The propositions yielded by these three inferential mechanisms are what in relevance theory and, consequently in this study, is known as explicatures.

For their part, when interpreting implicatures listeners combine the information received with the presuppositions stored in the memory, obtaining a series of contextual effects (which are nothing but the contextual presuppositions or implicatures that speakers intended to convey without explicitly stating them). In the case of implicatures, there are two types: implied premises and implied conclusions. The former are created by the listener through the development of presupposition stored in memory, while the latter are deduced as a logical result from the explicatures and implied premises of utterance and context.

Nevertheless, although in this study we have chosen relevance theory as a framework of reference because of its detailed explanation of the cognitive mechanisms involved in the interpretation of ostensive language stimuli, we are also aware of its weakness and limitations when it comes to the description and explanation of production mechanisms. However, since our research is focused on studying the processes involved in the pragmatic understanding of language, this has not represented a problem.

The second chapter of the study is devoted to the definition of pragmatic competence and its possible applications. With this in mind, we have started by considering a more general concept: *communicative competence*. This encompasses a complex network of subcompetences, among which is pragmatic competence (also known as actional or illocutionary). This competence is sometimes defined

independently and sometimes in relation to other subcompetences (such as discursive, sociolinguistic or cultural subcompetences).

We have noted that efforts in the field of theoretical linguistics are mainly focused on the applications of the concept of communicative competence, rather than on the notion itself. After revising specialized manuals where we expected to find a definition of the disciplinary dimension and objects of study, we have observed a lack of in-depth consideration of the scope of communicative competence in general, and of pragmatics in particular. This is surprising, because one of the goals of linguistics is to describe and explain the body of knowledge that allows speakers of a language to communicate and create a comprehensive inventory of language functions, this body itself being communicative competence.

According to this approach, we have revised the development of the concept of communicative competence from its origins (Chomsky, 1965; Lyons, 1970; Campbell and Wales, 1970; Hymes, 1972; Gumperz, 1972) to the most recent proposals (Cots *et al.*, 1995; Cenoz and Valencia, 1996; Escandell Vidal, 2004a), observing how it has evolved, both in extension and qualitatively. Authors such as Cenoz (1996) understand it as a dynamic and social concept —since it belongs to the negotiation of meaning between interlocutors—, relative —since speakers might have varying degrees of competence— and speech-related —since it includes the capacity of knowing what to tell whom, how and when—.

We also consider that it is necessary to stress the difference between *communicative competence* and *communicative performance*, which tend to be confused. We understand that communicative competence includes both knowledge and the ability to use it and that communicative action consists of the practical implementation of competence in real situations of use. Likewise, when we speak of knowledge we refer to a speaker's conscious or unconscious knowledge of language and the aspects concerning its use, while ability is a type of procedural understanding that refers to the skill with which such knowledge is managed in language exchanges.

In short, in this study, communicative competence is defined as a set of abilities and skills supported by knowledge (explicit and implicit) of the linguistic code, the sociocultural contexts (that allow us to produce suitable utterances), conversational rules, text organization, the cultural norms of the linguistic community, speech acts

based on communicative goals, etc. We have also identified two types of knowledge: referred to "knowing that" (declarative knowledge) and "knowing how" (procedural knowledge).

Thus, we have gradually built the basis for a sound theory of communicative competence. The key questions then are what "knowing" a language involves and which knowledge and skills are needed. However, since no linguistic discipline alone can describe them, it is necessary to bring several together in a collaborative task. Consequently, recent decades have witnessed the emergence of different models picturing the distribution of the different components or subcompetences that integrate communicative competence. Thus, we have presented and analysed the model of Canale and Swain (1980), revised and modified by Canale (1983), the model of Bachman (1990), the model of Celce-Murcia, Dörnyei and Thurrell (1995), and that of Gutiérrez Ordóñez (2002). It is worth noting that most of the models consulted (with the exception of Gutiérrez Ordóñez's) derive directly from the area of language teaching, which proves the already mentioned fact that the concept of communicative competence is not paid due attention in the field of theoretical linguistics.

These models share certain similarities in terms of general features of classification and the inclusion of certain competences such as the linguistic, sociolinguistic, discursive or pragmatic competences, which are present in nearly all of them. Meanwhile, there are differences at several levels. On the one hand, there are terminological differences reflected in the terms *grammatical competence* and *linguistic competence* (which refer to the same type of knowledge, although the latter clearly includes, in addition to grammar, lexicon and phonology) or *pragmatic, actional* or *illocutionary competence* (which are different terms that frequently express very similar notions). Other differences are hierarchical and lie in certain models' perception of pragmatic competence as a macrocompetence that includes the sociolinguistic, discursive and strategic competences, or in the situation of the linguistic and discursive competences in central position in relation to the rest. There are also disagreements as to the knowledge and skills included in each of the components (the boundaries between pragmatic knowledge and skills, and discursive knowledge and skills are frequently unclear, so that they are often confused and interchanged). Finally, there are differences of opinion regarding strategic competence.

Certain authors believe it is a marginal competence, while for others it is comparable to general communicative competence, because of its identification with the ability to solve problems, as well as to increase the efficacy of other competences.

In addition, most of the models presented are limited by the fact that they only refer to language. With the exception of Gutiérrez Ordóñez (2002), all other authors disregard, to a greater or lesser extent, factors such as individuals' personality, mental patterns and cultural knowledge. Likewise, classifications often pay attention only to knowledge rather than to the skills to use it and the underlying processes. As a result, we present our own proposal of a theoretical model of communicative competence that argues, firstly, for the integration and interrelation of all subcompetences. According to our model, none of them is situated in central position, since we consider that they complement each other and are all necessary to achieve language proficiency. That said, we believe they can be distributed into three groups: primary competences (cultural and psycholinguistic), competences that revolve around the development and organization of speech (grammatical and discursive), and competences related to language usage (pragmatic and sociolinguistic). Finally, outside these groups is strategic competence, which includes understanding mechanisms for the compensation of faults and deficiencies in the rest of them.

With all this, our purpose is to suggest a reasoned theoretical proposal for the definition of pragmatic competence. Thus, according to our model, pragmatic competence refers to the production of utterances based on a combination of knowledge and skills in the use of linguistic and contextual information. This includes the capacity to infer from both explicit and implicit content, and to understand the possible correspondences between forms and functions. The purpose of this is to ensure that our messages are at the same time appropriate, adequate and effective.

However, such pragmatic knowledge is not to be understood as a set of rules (stored knowledge, objectified through descriptions and reflected in theoretical models typical of grammatical competence). The conditions of appropriateness and success of an infinite number of utterances cannot be defined based on a series of rules linking such utterances to their context and possible interpretations. This is why they should be viewed instead as a series of principles that guide our communicative exchanges.

Subsequently, this chapter gathers the contributions found in theoretical handbooks of pragmatics, research on teaching/learning of second languages, and studies on the didactics of the mother tongue, where the notion of pragmatic competence is addressed or applied.

First, as already mentioned at the beginning of this study, it is significant that most of the traditional handbooks of pragmatics consulted (Levinson, 1983; Leech, 1983; Reyes, 1990; Verschueren, 1999; among others) do not mention the concept of pragmatic competence. Among those that do discuss it are the works of Gutiérrez Ordóñez (2002), Portolés (2004) and Escandell Vidal (2006). However, Portolés (2004) identifies pragmatic competence with communicative competence, although the same author recognizes that this conception could lead to many problems of difficult resolution. On the other hand, Escandell Vidal (2006) considers that the inferential phenomenon is not part of pragmatic competence, being a processing ability that is common to all individuals, so that there is no specific body of knowledge to support it. Our stance, however, is that such knowledge is part of the "knowing how" body of knowledge, which is in itself the core of pragmatic competence.

In the foreign language teaching area, both the CEFR (2002) and its adaptation to the teaching of Spanish through the *Curriculum Plan of the Instituto Cervantes* (2006) contribute their own conception of pragmatic competence. Under pragmatic competence, the CEFR includes knowledge and skills that go beyond the field of pragmatics, such as cohesion and coherence (a subject of study of text linguistics) or interaction schema and turn-taking organization (typical of conversational analysis). This is also the case with the *Curriculum Plan*, since it gives the blending of pragmatic and discursive competence for granted. However, attention should be drawn to the appropriateness of the insistence on including the ability to achieve efficacy in communication as a part of pragmatic competence.

In addition to these works of reference, we have examined the publications of the proceeding of the National and International ASELE Conferences, since we believe they are a clear example of the type of research that is being conducted in the field of teaching Spanish as a foreign language. We have focused on the proceedings of the XV Conference, entitled "Pragmatic competence and the teaching of Spanish as a foreign language". Significantly, most of the articles work on the different aspects of

pragmatic competence, but very few are concerned with defining its scope. Furthermore, their focus is neither homogeneous nor well defined. Those that discuss the concept resort to the definitions provided by authors of models of competence (Canale and Swain, 1980; Bachman, 1990; Celce-Murcia, Dörnyei and Thurrell, 1995) or by the CEFR (2002), they identify it with communicative competence, or they provide indirect definitions explaining its instances of success or failure. This lack of theoretical discussion on the notion of pragmatic competence results in teachers of second languages not knowing how to define specific activities for the development of pragmatic competence and its assessment.

The *Vademécum para la formación de profesores. Enseñar español como segunda lengua (Teacher training manual. Teaching Spanish as a second language)* acknowledges the importance of pragmatics in second language teacher training, highlighting speech acts, politeness, relevance and the interpretation of implicit messages as issues of particular interest in foreign language teaching tasks. Pragmatics is very much involved in intercultural communication, since poor pragmatic competence might lead to misunderstandings or to speakers coming across as impolite or uncooperative (Liddicoat and Crozet, 2001; Gómez Morón, 2004), which is usually worse than incorrectness as a result of grammatical mistakes.

However, in spite of the increasing importance pragmatics is acquiring in communication guidance and task-based learning methods, the overall picture shows the need for further study on pragmatic competence in the field of Spanish as a foreign language. Therefore, this study argues for the creation of teaching materials focused on pragmatic competence, which involves the need for wider dissemination of descriptive pragmatics of Spanish and a deeper theoretical understanding of pragmatic principles.

One of the first issues leading to the inclusion of pragmatic competence in the area of second languages is the possibility of explicitly or implicitly teaching such competence. Several studies mention pragmatic universals, but there are also specific principles that depend on the cultural patterns of each language community and are worthy of attention, since they can give rise to negative transfer. This has led to the recent development of intercultural pragmatics, which serves as a helping tool and conceptual basis for second language teachers (Fernández Silva, 2002).

Against those who defend that competences are not taught because they are skills and abilities, so that the most teachers can do is facilitate their acquisition and development, the studies analysed provide evidence of the benefits of teaching how to use and develop pragmatic competence. Without guidance, many aspects of pragmatic competence cannot develop properly. In addition, there is also proof that the explicit method is more effective than the implicit and that pragmatic routines, some inferences and certain speech acts can be even taught when there is still a lack of sound grammatical knowledge. Nevertheless, there are aspects of pragmatics —such as certain types of implicatures— that do not improve through instruction, as shown in the studies of Kasper (1997).

After assuming the need for education in pragmatic competence, we have focused on how to approach the issue, comparing current practice in SL lessons with proposals related to pragmatic aspects that may be developed through classroom activities. First, we believe in the convenience of small groups and interactive student-centred activities, so that learners might exchange the roles of speaker and listener in the different communicative events and in real communicative situations (Vellenga, 2004; LoCastro, 2006). Additionally, the approach to pragmatics in the classroom could focus on aspects such as the study of implicit meaning, which is often context-dependent, generalized and reaches a certain consistency; speech acts, which are often linked to recognizable and repeatable formulas; politeness and intercultural pragmatics, since teachers must draw students' attention to the continuous process of inferential adjustment in communication and to the differences between their mother tongue and the SL, etc. Lastly, it would also be advisable for handbooks to deal with pragmatic principles that are usually implicitly learnt through direct observation (Gutiérrez Ordóñez, 2005).

Finally, after an analysis of the area of second language assessment, we have concluded that measuring pragmatic competence is extremely complex, which is why it is mostly left out of evaluation processes. We pose that it is not possible to analyse all competences directly, but that in some cases it must be done through action (Rea, 1985), and that suitable tests can only be developed on the basis of comprehensive and accurate definitions of the competences to be analysed (Bachman, 1990). The pragmatic competence test models presented are based on questions with multiple-

choice answers with pragmatic deviations, grammatical deviations or both, where only one answer is grammatically and functionally correct. In addition, although based on the Spanish *Threshold level* functions, they are lacking in some aspects: there are frequent instances where intelligence or certain cognitive skills are measured, rather than the real pragmatic capacity of the students who have performed the test.

Another research area that addresses pragmatic competence is didactics of language and literature for native speakers. This field also includes the development of communicative approaches aiming to go beyond purely grammatical teaching to focus on aspects related to language usage in real communicative situations. The purposes of language didactics curricula are, to a greater or lesser extent, a reflection of those of foreign language teaching: that students are capable of using the relevant language adequately and efficiently in real communicative situations to achieve their communicative purposes. However, there is evidence of a wide gap in the field of language didactics between theory and practice in terms of communication (Lomas and Osoro, 1996a). While in foreign language teaching communicative aims can be used in classroom activities, when it comes to mother tongue lessons, there has been a tendency to only teach grammar and perhaps certain writing skills, whereas language has hardly ever been regarded as a useful element for real communication (Cassany, Luna and Sanz, 2002). Moreover, when attempts are made, rather than communicative, they consist of taxonomic approaches based on text identification and classification. For this reason, many didactics experts claim the need for teachers' materials and work to take on a communicative approach, so that students can face real language use situations.

The main goal of the different Spanish language and literature curricula of recent years (Ministry of Education and Science, 1989, 1991a, 1991b, 1992, 2007, 2011, 2012) is to provide students with the knowledge and skills that make up communicative competence. The problem is that such curricula are open, therefore providing general blocks of aims, contents and assessment criteria, leaving planning to teachers, who are also to decide upon pedagogical methods, selection criteria, teaching materials and assessment methods. Nevertheless, such curricula apparently already include pragmatic and discursive adaptations, so that language teaching is not limited to sentence structure, but also pays attention to the pragmatic aspects of how linguistic

elements relate to their production and interpretation contexts. Likewise, there is also evidence of the relationship between the different aims of language education and the different subcompetences that make up communicative competence. Thus, it falls to didactics to establish the competences that students are to develop depending on their level and to ensure they do so as effectively as possible. We also believe that the contents to be taught in language lessons should be chosen based on the most common communicative uses in our societies, which are the ones students will encounter in adult life. In short, the goal is to provide students with the necessary tools to consolidate their communicative competence, which is achieved through learning the necessary norms, skills and strategies.

The third chapter of the study addresses pragmatic competence within the context of language acquisition. In the 20th century, research on language acquisition mainly focused on aspects related to the development of phonological, lexical, morphological and syntactic skills. Fortunately, recent trends towards more communicative approaches have also found their way into the field of acquisition. Thus, there is evidence that the learning of the mother tongue involves the acquisition of certain communicative competences that go beyond knowledge of a set of phonological, grammatical, semantic, etc. rules. Children must learn to be competent in their language, using the right structures, appropriate to the context and situation and in line with their communicative intentions.

Likewise, pragmatics has been acknowledged as essential to language acquisition, since the most striking changes from the cognitive point of view take place in the area of pragmatics (Halliday, 1975; Hulit and Howard, 2002). As children grow up, they learn to interpret the illocutionary force of their interlocutors' utterances, acquiring the capacity of knowing what to say and to whom to achieve their goals.

Nevertheless, one of the problems involved in addressing the acquisition of pragmatic competence is, once again, the lack of a clear demarcation (O'Neill, 1996; Bara, Bosco and Bucciarelli, 1999; Galeote Moreno, 2002). The fact that there are no theories that systematically cover and complete pragmatic capacities has resulted in the proliferation of studies that deal with the different elements of pragmatics separately (McTaer and Consti-Ramsden, 1992; Ninio and Snow, 1996). Thus, within this heterogeneous area of study, speech acts are one of the most researched

phenomena. Indeed, many researchers have attempted to identify the speech acts produced by children, the ages at which they appear and the order they follow. However, the actual problem lies in the lack of a homogeneous classification of such speech acts because of disagreements in the theoretical conception of what constitutes the communicative usage of speech.

In the literature, the most widely analysed speech acts are requests, since they are the most frequent in interactions involving children. Promises are also of special interest (more complex because of the moral and personal obligation they demand). In addition, studies prove that the nature of requests and the interlocutor's status influence the type of requests made by children: it has been observed that requests for information are usually made directly and those for action indirectly, or that conventional requests are used to ask for favours, while non-conventional ones are used to demand rights (Serra *et al.*, 2000).

Subsequently, we have noted the importance of certain elements that we believe are the basis for the development of the pragmatic component. Above all, we have referred to the importance of context, which plays an essential role in the initial stages of language development (Peralta, 2000). In fact, children begin by using language in their personal and immediate context, so that their first utterances are linked to "here" and "now". Over the years, there is a gradual development of sensitivity to context in language use. Consequently, children learn to use decontextualized language based on the knowledge and assessment of the perspective they share with their interlocutor, so that their context management becomes more flexible and complex (Lloyd *et al.*, 1995; Ryder and Leinonen, 2003).

Next, we introduce a set of factors that are closely linked to the first group of primary subcompetences that make up our communicative competence model (presented in chapter two). Such factors, according to Luokusa (2007), make communication possible and, therefore, the development of pragmatic competence. Among them are the development of sensory and motor functions, memory, attention skills, knowledge of the world and of one's own beliefs, mind-reading skills and linguistic competence. These capacities are included in our model under the heading of psycholinguistics, except for linguistic skills, which, according to our terminology, represent grammatical competence. However, in our opinion, social and cultural

knowledge should be added to the list of factors proposed by Loukusa (2007), so we have included it under our concept of cultural competence.

Thus, we briefly introduce these basic factors that affect pragmatic skills. In the first place, sensory and motor functions are known to be at the basis of children's perceptive and cognitive development as a prerequisite for communication. For their part, language and grammatical skills are also necessary, since to understand utterances it is essential to have command of linguistic units and structures, which means the understanding of language usage involved in the development of morphology, syntax, phonology and semantics. As regards the development of morphosyntax, the description of the different stages varies depending on the authors. Tomasello and Brooks (1999) establish four age-dependent stages for the grammar acquisition process; other authors such as Brown (1973) or Blake *et al.* (1993) believe that morphosyntactic evolution must be measured depending of the mean length of children's utterances (MLU). What is clear is that the development of morphosyntactic competence is gradual and some of its aspects evolve jointly while others do so conditionally, meaning that they depend on previously acquired elements. Similarly, according to authors such as Owens (2003), many morphosyntactic changes are a reflection of the development of children's underlying phonological system at pre-school age, so that their ability to develop the morphological component will depend on their ability to identify and produce phonological units. Concerning lexical development, authors agree that children between 18 and 24 months of age evidence a sudden increase in the rate of acquisition of new words, which is known as "vocabulary spurt" (Mervis and Bertrand, 1995).

In the third place, the development of memory is another of the factors that facilitate pragmatic competence, since, to derive implicit meaning, for instance, it is necessary to develop short-term memory. According to Nelson (1986), children between the ages of 2 and 6 have the ability to remember representations of events through the development of frames within which they remember specific situations such as eating at a restaurant. In any case, childhood and preadolescence are the stages at which the capacity to store information increases (Meyers and Meyers, 2000; Roselli *et al.*, 2001), together with the ability to develop strategies for the retention and recall of stored information (Siegel, 1994).

Fourthly, we have introduced attention skills (Ruiz-Contreras and Cansino, 2005), also linked to the development of memory. Although attention is clearly developed at a very early age, there is evidence that the development of auditory and visual attention takes place especially between the ages of 5 and 8 (Korkman *et al*., 2001). Likewise, the fifth influential factor is children's understanding of the world through their personal experience. Since they are born, children gradually build a system of ideas about the world that grows, changes and becomes updated as they live new experiences (Milosky, 1992).

Sixthly, authors point out mind-reading abilities (also called *theory of mind*) as one of the factors that are most closely related to pragmatic skills. Theory of mind is understood as the capacity to differentiate one's own mental states from those of others. An example of this capacity is, for example, intentional deception. Thus, in the literature there are two outstanding false-belief tests (of first- and second-order) to assess theory of mind (Baron-Cohen *et al*., 1986; Sullivan *et al*., 1994). First-order false-belief is based on understanding that the mental representation of a character can be different from reality and different from one's own. On the other hand, second-order false-belief requires the ability to represent not only characters' mental state, but also the idea characters have of the mental states of other characters in the story. Authors such as Wellman *et al*. (2001) state that theory of mind develops when children are between the ages of 3 and 5, which coincides with the age of the essential development of pragmatic processing (Buccarelli *et al*., 2003) and sensitivity towards moral rules and self-assessment emotions —such as shame or guilt— (Abe and Izard, 1999).

Finally, social and cultural knowledge are related to the concept of sociocultural context stated in chapter one. Children grow up as members of a specific language community and the development of their skills is focused on adapting to it, meaning that they must be aware of the sociocultural context that surrounds them. To this end, they will have to learn the social and cultural conditionings on verbal behaviour and its adaptation to different circumstances. They will also acquire a body of knowledge and a set of presuppositions shared by their language community, which in turn will allow them to choose the relevant context for each situation in order to achieve communicative success.

This chapter also deals briefly with the different stages of children's development, emphasizing its four evolutionary areas: physical, cognitive, social-emotional and communicative (Owens, 2003). We believe that knowing what happens at each stage will allow for the establishment of patterns of change regarding pragmatic processing. Owens (2003) distinguishes the following phases: the newborn (from birth to the first month of age), the observer (1 to 6 months old), the experimenter (7 to 12 months old), the explorer (12 to 24 months old), the exhibitor (3 to 5 years old) and the expert (6 to 12 years old). We are especially interested in the last two stages, since they include the age range chosen for our experimental study (ages 3 to 9). At the age of 3 there is a significant development of imagination, as well as a major increase in productive vocabulary (around 1000 words). Likewise, at 4 Owens (2003) stresses the evolution of memory strategies together with the building of sentences with more elaborate syntactic structures. The development of cause and effect explanations, together with emotion and a certain sense of humour, takes place at the age of 5. And finally, the stage that Owens (2003) calls the "expert stage" is characterized by the evolution of inference skills, selective attention, memory skills, etc. that allow children to process information more effectively, learning to manipulate and influence others through language.

As mentioned at the beginning of this study, within the context of the different pragmatic theories, we have adapted to the framework of relevance theory because of its successful approach to the cognitive level. However, according to Fodor's classical model (1983) there are two cognitive processes or systems: input models (such as grammatical skills, which operate on a precise type of stimuli and whose processing follows a specific pattern) and central systems (such as pragmatic interpretation, whose processing depends on global factors). Wilson (2003) argues that what should prevail in this classification is not whether the processes are global or local, but whether they are carried out through general-purpose mechanisms or through specific-purpose mechanisms. Based on this perspective, theory of mind would be a modular system, since it has a specific inferential mechanism. In fact, there are differences between mind-reading skills and general reasoning skills (proof of which are Williams syndrome patients, whose theory of mind is adequate but whose reasoning skills are poor). However, the opposite phenomenon can be observed with inferential

communication, which in this case is considered a variety of theory of mind. Studies on communicative competence and theory of mind show a close link between them (Baron-Cohen, 1995; Bloom, 2000; Davier and Coltheart, 2002). Thus, in his study with typically developing as opposed to autistic children, Happé (1993) finds a clear relationship between the understanding of metaphors and first-order mind-reading skills, and between the interpretation of irony and second-order mind-reading skills.

Based on these evidences, Wilson (2003) views pragmatic skills as a submodule of the mind-reading modular system. Nevertheless, as stated by Igoa *et al*. (2011), this modular interpretation of inferential processes cannot yet explain how a cognitive system that is specialized in the induction of mental states can be both encapsulated, and at the same time gain access to different sources in order to complete the inferential process.

Sperber (1994) shows the relationship between pragmatic skills and theory of mind through 3 strategies used to interpret utterances: naïve optimism, cautious optimism and sophisticated understanding. In naïve optimism, the listener assumes that the speaker is benevolent and competent; in cautious optimism the speaker is understood to be benevolent but not necessarily competent; and in sophisticated understanding there is a realisation that speakers can be deceitful. Thus, these strategies are reflected in the natural evolution of children's inferential understanding, since they go from naïve optimism to cautious optimism, coinciding with the acquisition of first-order mind-reading skills, and subsequently to sophisticated understanding, linked to the emergence of second-order mind-reading skills. In fact, our findings show evidence of naïve optimism in children between the ages of 3 and 4 when, for example, they provide irrelevant or fanciful answers believing that what first comes to their mind is what listeners expect to hear. The answers of children between the ages of 4 and 5 reflect cautious optimism since, instead of settling for the first interpretation that comes to their mind, they use reasoning to provide an answer that is consistent with the contextual information received. Finally, children between the ages of 8 and 9 show evidence of sophisticated understanding in the interpretation of irony by being able to recognize speakers' intentions to implicitly communicate the opposite of what they state.

Finally, in this chapter we argue that the global task of inferring speaker meaning can be broken down into a series of pragmatic sub-tasks, which, according to Ryder and Leinonen (2003), can be categorized in terms of contextual complexity depending on the effort required to process them. Thus, we distinguish the following tasks: reference assignment, pragmatic enrichment process, implicature processing, interpretation of routines, identification of others' feelings and interpretation of irony. These tasks have been used to design the test of our experimental study. This leads to the need to describe them from a theoretical point of view, as well as to introduce some of the already existing studies on their development. Firstly, reference assignment involves reference to the phenomenon of deixis. As mentioned in chapter one, deixis is the clearest representation of the relationship between language and context in language structure. Thus, to adequately interpret the linguistic messages that contain deictic elements it is necessary to take into account extra-linguistic factors such as knowledge of the identity of speaker and listener, of place and time circumstances, etc. Therefore, we understand the identification of referents as inherent to the communicative usage of language, so that it is one of the most basic tasks within the process of pragmatic understanding. Pragmatic enrichment is also viewed as a simple process that frequently takes place when we automatically and unconsciously resort to context, our encyclopaedic knowledge, etc. to add information that is not specified in the utterances.

In the case of implicatures, they require extra processing efforts. Listeners must combine received information with the presuppositions stored in their memory to deduce the speakers' intended meaning through an inferential process. However, according to Wilson (2000), implicatures' strength can vary depending on the familiarity of the utterance, so that we can distinguish between implicature and routine comprehension. In the case of routines, the effort required to interpret them is smaller. Indeed, in the context of familiar communicative situations, the inferential load of utterances becomes lower, since it is possible to use settled routines (Guillam and Bedore, 2000).

The task of identifying others' feelings requires contextual processing and the recovery of information from different sources (Luokusa, 2007). Thus, in recent decades increasing interest has been shown towards the development of the ability to

identify feelings, related to understanding of the mental world and, therefore, to theory of mind (Flavell and Miller, 1998).

Finally, we have introduced the interpretation of irony, first because of its close relationship with theory of mind (Happé, 1993; Cahmpagne-Lavau and Joanette, 2009) and second because it is one of the most interesting pragmatic tasks from the linguistic and metacognitive points of view. According to Bara, Bosco and Bucciarelli (1999), there are two stages in the capacity to interpret ironic utterances: the first involves command of ironic expressions of the type "one thing is said and the opposite implied", and the second requires command of more subtle inferences demanding metarepresentational skills.

Many of the revised studies on pragmatic acquisition stem from the need to establish typical development parameters for comparing cases of children who are suspected to have pragmatic language deficits. Thus, chapter four is devoted to the study of pragmatic language disorders and pragmatic failure, emphasizing the importance of pragmatics in the description and analysis of deficits in communicative skills. This implies that the scope of applied linguistics encompasses far more than second language teaching.

Thanks to progress in research we now know that there are communication disorders where there is a clear language impairment brought about by pragmatic failures, even when grammatical skills are not damaged, or at least not significantly so. Thus, children with Williams syndrome, for example, present pragmatic language impairments (overreliance on context, difficulties in interpreting the figurative meaning of jokes and irony, etc.), while formal language acquisition seems to follow the right order. The opposite may also happen: the pragmatic component might be undamaged while there are serious grammatical deficits, as in certain cases of aphasia.

Consequently, the emergence of clinical pragmatics in the nineties allowed for the identification of right-hemisphere damage as a cause for pragmatic impairment in tasks such as the interpretation of indirect speech acts, inference of implicatures, interpretation of irony, metaphors, non-literal meanings, etc. (Barroso and Nieto, 1996). This suggests that both hemispheres are equally relevant in language processing (Obler and Gjerlow, 2000).

Nevertheless, in spite of the huge progress represented by the inclusion of the pragmatic component in the research of language pathologies, in practice there are certain methodological problems because of the difficulties involved in its evaluation (Mendoza Lara, 2001). Even so, in recent years, authors have engaged in experimental studies focused on the different pragmatic categories and their potential for further research (Noveck and Sperber, 2007).

Consequently, this chapter reviews the main communication disorders involving symptoms of a pragmatic nature. Firstly, we refer to aphasia. Against the widespread belief that aphasia is solely related to grammatical deficiencies, the literature also refers to the presence of certain pragmatic effects and the existence of 'pragmatic aphasia' (Joanette and Ansaldo, 1999). Nevertheless, the study conducted by Moreno Campos (2011) leads to the conclusion that aphasia is not associated to any specific pragmatic deficit, since the pragmatic categories that may be altered are peripheral and grammatically based.

Williams syndrome and right-hemisphere damage are among the conditions that are distinctly marked by pragmatic disorders. Among other symptoms, its sufferers evidence overreliance on context and major problems to understand the meaning of metaphor and irony, together with clear deficits in the interpretation of generalized implicatures (Gallardo Paúls, 2007). In the case of patients with right-hemisphere damage, they find difficulties in going beyond literal meaning, problems in the interpretation of indirect speech acts, tendency towards conversations including a considerable amount of irrelevant information, etc. (Blake, 2009).

Moreover, pervasive developmental disorders are characterized by pragmatic alterations that are reflected in difficulties in social interaction and understanding. The most representative of these disorders are Asperger syndrome and autism spectrum disorders. As regards autism, there are no clearly defined symptoms, since there are different types. Researchers agree on the fact that pragmatic difficulties are one of its general features. According to Martos (2001), the universal characteristic of autism spectrum disorders is difficulty in expressing and understanding communicative intentions, which is why it is often associated with deficits in understanding mental states, meaning a lack of theory of mind (Happé, 1993).

On the other hand, Asperger is characterized by pragmatic difficulties that are reflected in the literal interpretation of utterances, the inability to understand irony, metaphors, etc. (Martín-Borreguero, 2005), and in difficulties in interpreting language in context, meaning situations involving social communication (Landa, 2000). Nevertheless, as opposed to autistic patients, the intelligence of those suffering from Asperger is above average and they are more skilled at language usage. Moreover, they often overcome false-belief tasks although, according to authors such as Frith (1991), this does not mean they have developed theory of mind, but rather that they replace it with logical deductions based on their prior experience and knowledge of the world. However, there is also a type of autism, high-functioning autism, whose diagnosis is closer to Asperger syndrome (Attwood, 2009), although it shares certain features with classical autism such as lack of interest in social interaction. The relationship between these disorders has attracted the interest of many researchers, leading to many studies that analyse the abilities of these groups to make contextual inferences and go beyond literal meaning (Dennis *et al*., 2001; Rapin and Dunn, 2003; Bogdashina, 2005). Thus, the study of Luokusa (2007) shows that difficulties in pragmatic understanding stand out in both children and adolescents with Asperger syndrome and high-functioning autism, even when all other language skills have developed normally.

Finally, attention is drawn to pragmatic language impairment, which is difficult to catalogue because its definition is still heterogeneous (Mendoza, 2001). According to Bishop (2000), this disorder is characterized by the alteration of language structure and a lack of social awareness, with fewer problems related to social interests.

With regard to clinical assessment, ordinary tests are generally useless to identify and analyse pragmatic disorders (Conti-Ramsden *et al*., 1997). The challenge lies in pragmatics' subjective nature, already referred to when presenting the problems involved in pragmatic assessment in second language teaching. These disorders do not lend themselves easily to quantitative and regulatory (or prescriptive) judgements because of the unpredictability of answers –due to the simultaneous use of explicit and implicit meaning-, context dependency, etc., which is why qualitative methods are mainly chosen for their analysis, with the disadvantage that they require more time and resources.

The main problem with pragmatic assessment tests is that they lack reliability and validity criteria. Thus, even though there have been several attempts to systematize it (Shulman, 1985; Phelps-Terasaky and Phelps-Gunn, 1992; Prutting and Kirchner, 1983; Puyuelo *et al.*, 1997), there are still certain unsolved weaknesses.

Likewise, there is also another form of assessment based on surveys built from prototypical behaviours and lists of pragmatic skills to be answered by people from the children's environment (Hilton, 1990; Dewart and Summers, 1990; Bishop, 1998), and other types of tests focused on the observation of interaction in natural contexts (Ninio *et al.*, 1994; Adams *et al.*, 2002). The pragmatic assessment method chosen is often based on criteria such as children's age or whether they are children with typical development or if they suffer from already diagnosed language impairments. Theories argue for pragmatic analysis in natural situations, but in practice there is evidence that establishing communicative contexts beforehand allows for the observation of a higher number of speech acts and pragmatic tasks.

Relevance theory has also been used as a theoretical framework for analysis in many studies about pragmatic language impairments (Happé, 1993; Leinonen and Kerbel, 1999; Dipper *et al.*, 1997; Luokusa, 2007). Researchers such as Leinonen and Ryder (2008) argue that this theory facilitates prediction of the degree of communicative competence based on whether the participants have theory of mind or not and of which order. Moreover, attention has been drawn again to the relation between the ability to understand figurative language and the capacity to attribute mental states to others (Happé, 1993).

The last chapter includes our experimental study on the development of the pragmatic understanding of language, based on a sample of 140 Spanish children aged 3 to 9. The main purpose of the study is the analysis of the children's answers and interpretation of 6 different types of questions demanding different levels of pragmatic competence (reference, enrichment, routine, implicature, feelings and irony), within the framework of relevance theory (Sperber and Wilson, 1986/1995). Our research is an adaptation of the study carried out by Loukusa, Leinonen and Ryder (2007) and Loukusa, Ryder and Leinonen (2008) based on a sample of Finnish children, which is included in Loukusa's doctoral dissertation (2007). The material consists of short questions about different stories set in familiar contexts, some of them visually

supported by pictures and others only verbal. In their answers to the questions (42 in total), children are expected to relate their knowledge of the world to the relevant contextual information to reach the expected conclusion. Likewise, when children provide valid answers they are asked to reason them. Thus, both answers and explanations that are considered inappropriate are classified into different categories (following the classification of Luokusa, 2007) that reflect how the child failed in using the relevant contextual information for the question concerned.

The specific goals addressed in this study are to determine whether the variables age, gender and type of context (visual/non-visual) influence the number of valid answers and explanations provided by children, analysing the contents of the incorrect answers and explanations, to finally compare our results with those of previous studies (Loukusa, Leinonen and Ryder, 2007; Loukusa, 2007; Loukusa, Ryder and Leinonen, 2008). This allows us to check whether there are repeated patterns of behaviour in the development of pragmatic understanding in Finnish and Spanish children.

The results of the statistical analysis of the data obtained prove, as expected, that age is a clearly influential factor in children's pragmatic understanding. In the first analysis carried out, participants were classified according to age, but since we detected the formation of groups with similar behaviours we considered it appropriate to also carry out an analysis grouping children according to education cycles. Thus, the data show, for example, that both in questions involving irony and in those involving enrichment, age has a significant impact on the number of valid answers and explanations, and we have been able to classify participants into four groups: 3-year-old, 4- and 5-year-old, 6- and 7-year-old and 8- and 9-year-old children. This suggests that as children pass from one group to the next, their capacity to succeed in completing these inferential tasks increases. Children of 3 form a separate group, since they are not yet completely involved in the educational system that guides development, so that there is a series of minimum competences that the child must acquire. In fact, we believe that the differences found between the children in their first school year and the rest could be due to their different family and social backgrounds.

Likewise, in reference assignment questions, age is also a relevant factor, although the differences are not observed in consecutive age groups, but with those

that follow. This process proves that age certainly has a significant impact, but in age groups that are far from each other.

Consequently, one of the novelties compared to other studies is based on the classification of children according to the school cycle they are enrolled in. This leads to the formation of three groups: early childhood education, first cycle of primary education and second cycle of primary education, according to the Spanish education system established by the Ministry of Education, Culture and Sports. The statistical analysis yielded that educational cycle has an impact on the number of valid answers and explanations given by the children. The exception to this are questions related to feelings, where there were no statistical differences in the valid answers and explanations given by children in the first and in second cycles of primary education. This result is not surprising, since these questions are easy for them to master, which is why the behaviour of these two groups is very similar. There is also evidence that educational cycle has a higher impact than age, since the data indicate that children in the same school year, but not necessarily of the same age, display the most similar behaviours. Because of the differences between calendar and academic year, there are cases where, for example, in the second year of primary education there may be children of 7 and others that are already 8. That said, the results obtained for 8-year-old children in their second year of primary education are closer to those of their 7-year-old classmates than to those of 8-year-old children in their third year of primary education. This was expected because of the influence of the specific academic goals and curricula for each school year.

Subsequently, we analysed the distribution of the valid answers and explanations within the different age groups to check whether there were differences among children of one same group or whether the average of valid answers and explanations was similar for the different pragmatic tasks. Firstly, for reference and enrichment questions, the distribution is generally homogeneous, although there is greater dispersion in the number of valid answers in the groups of 3- and 4-year-old children. This was also to be expected since, as anticipated, younger children are adapting to the education system and still have reminiscences of the education provided at home, whose influence contributes to their individual differences.

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With regard to questions involving implicatures and routines, valid explanations follow a similar symmetric distribution pattern that shows how evolution takes place as age increases. Nevertheless, valid answers to routine questions yield different behaviours, especially at the ages of 5 and 6. On the contrary, the answers to implicature questions follow the expected pattern with greater dispersion in earlier ages and, curiously, at the age of 6. In these cases, it would be interesting to conduct an in-depth study with a larger sample of children of these ages.

Behaviours towards feelings questions are different, since in valid answers dispersion goes from the totality of values in the 3-year-old children to be inexistent in ages 5 and above. This is because beyond this age all the children answer accurately, so that the mean is the total score. On the other hand, as regards the distribution of valid explanations to these questions, there is greater dispersion at earlier ages, following which there is a natural evolution until the age of 9.

Lastly, irony questions show great dispersion in the distribution of the number of valid answers, but especially in explanations, which is where the totality of values is reached. These data are explained by the complexity involved in the processing of this type of questions. In fact, there are children who are able to identify the phenomenon of irony, answering all the questions perfectly, and those who cannot understand it and fail all attempts. As observed by Wilson and Sperber (1995), recognizing irony involves a type of metarepresentational skills that go beyond the mere recognition of the proposition expressed in an utterance, literal or metaphoric. The inclusion of this category of questions stems from our interest in this pragmatic phenomenon and is an innovation with regard to the previous studies carried out with Finnish children. Nevertheless, since the sample is made up of children between the ages of 3 and 9, we have designed simple ironic utterances of the type "someone says p with the intention of saying $no\text{-}p$". Therefore, our findings cannot be compared to those of more complex studies involving older children such as, for example, that of Crespo *et al*. (2007), which analyses the understanding of verbal irony in children between the ages of 5 and 13. Nevertheless, our data match the results obtained by Nakassis and Snedeker (2002), who prove that at ages 5 and 6 children are able to process simple forms of irony, while the understanding of more subtle types of irony does not take place until the age of 10. Our research shows that the development of irony identification skills

acquires visibility between the ages of 5 and 7 and that at age 9 and above, these utterances are processed without great difficulty, although children are not always able to reason their answers. In fact, according to the metalinguistic development stages established by Gombert (1992), the metapragmatic stage begins around the age of 6 and is closely related to the increase in operative memory capacity. Likewise, Bara, Bosco and Bucciarelli (1999) conclude that the ability to produce ironic utterances develops in two stages. At the first stage children gain command of simple irony (*p* to say *no-p*), while at the second stage they begin to use more subtle inferences until they reach the most complex levels of indirect irony. Nevertheless, these authors believe that we could only speak of the development of metarepresentational skills at the second stage.

In line with the data obtained from other studies with Finnish children (which prove that there is a rapid increase in the number of valid answers between the ages of 3 and 4, and that it extends to the age of 5 in questions related to feelings), in our study we observed that the age where development is greater in terms of routine and enrichment questions was also between 3 and 4, while for questions related to feelings and implicatures it is between 4 and 5. As presented in chapter three, Owens (2003) calls the 3 to 5 age range, characterized by children's development of their autonomy, the "exhibitor period". Specifically, according to this author, at the age of 5 it can be said that children possess a certain sense of humour and can discuss emotions, a datum that is also confirmed in this study in the transition from 4 to 5 years of age.

In addition, these stages in the development of the understanding of contextual meaning could be a result from the evolution at those ages of other cognitive functions such as the development of memory (Oakhill, 1984; Gathercole and Baddeley, 1993), attention (Buckley, 2003) and theory of mind (Wellman, Cross and Watson, 2001), which, as stated in chapter three, constitute the basis of pragmatic skills. Specifically, between the ages of 3 and 4, children gather experience and their knowledge of the world that surrounds them increases, which directly affects their ability to draw meaning from context (Milosky, 1992). Differences in the level of their experiences could justify the variations observed among these groups. In addition, even if children study at the same schools, their family, cultural and linguistic backgrounds are not identical (Donaldson, 1992; Robinson, 1994). In any case, variations within groups

decrease with age, so that standard deviation in groups of 8 and 9-year-old children is around 0.5. In fact, variation at 9 is hardly noticeable, since almost all the answers provided are correct. Nevertheless, we should remember that the development of pragmatic understanding continues in adolescence (Vieiro and García-Madruga, 1997), and that the fact that they have provided adequate answers to the questions in this study with pre-set contexts does not mean that they are equally competent in natural speech.

Following the description of the statistics obtained in this study, and taking into account the means and medians of the valid answers provided by each group, we have been able to establish an order ranging from lower to higher pragmatic complexity in question type in terms of contextual demand. Thus, questions about feelings, reference, enrichment and routine have produced higher percentages of successful answers. On the other hand, implicatures and, above all, irony questions have yielded the lowest averages of success. These results are consistent with our initial hypotheses, except in the case of questions related to feelings, which (in some age groups) have come out above those of reference assignment, which we expected to yield a higher number of successful answers. Likewise, with regard to questions about routines and implicatures, at the onset of the study we believed they were closely related, although we believed that routines would be easier to process because of their relation to everyday topics. In this case, the data have indeed confirmed the hypothesis, but only until the age of 7, when implicatures no longer involve greater difficulties and results become even.

As regards the gender variable, in line with the studies conducted with Finnish children, we have found no statistically significant differences between boys and girls. The only exception is found in the 7-years-old group, and only in the case of reference and routine questions. Nevertheless these data may be considered casual, since p-value is very close to 0.05. On the other hand, there are certain studies in the field of neuropsychology that have yielded significant differences between sexes in language development. In their studies, Huttenlocher *et al.* (1991) and Morriset *et al.* (1995) have observed differences between boys and girls at early ages, in favour of the later, in tasks related to verbal productivity and vocabulary, while later studies involving participants aged 5 to 16 have found that boys are better than girls at discourse

comprehension tasks (Rosselli *et al*., 2004; Inozemtseva *et al.*, 2010). However, we cannot draw general conclusions, since studies along this line of research are scarce and of varying nature. Therefore, it would be necessary to conduct further research into the differences between boys and girls based on a broad age range and on different types of communicative tasks, both at the expressive and at the receptive levels.

Likewise, although there is a traditional belief that the appearance and development of language takes place earlier in girls than in boys, research in the field of clinical linguistics shows that speech disorders affect less girls than boys, although the degree of affectation tends to be higher in the former (Garayzábal, 2006). Here, it would also be interesting to conduct thorough research with patients suffering from different communication disorders to be able to support these conclusions.

With regard to the type of context variable (visual/non-visual), the data obtained suggest that the lack of visual support only influences questions related to implicature (until the age of 6), reference (until the age of 7) and irony (only in the group of 4-year-old children), but not the others. Thus, the data resulting from previous studies with Finnish children (Luokusa, 2007) agree in the fact that this variable is decisive in reference questions (until the age of 6) and implicature questions (at ages 4 and 6). However, contrary to our results, Finnish children until the age of 5 were also influenced by context type in enrichment questions.

Nonetheless, the fact that children answer correctly does not always mean that they have understood the question or can reason their answer. This is why we have also analysed the data obtained from the analysis of children's explanations. Here, as expected, the percentage of success is lower than that obtained for valid answers. Reasoned explanations of an answer require metacognitive skills. Thus, there are cases where certain children aged 3 and 4 are able to reason some of their answers, which would imply that they are beginning to develop their metapragmatic conscience (Gombert, 1992; Verschueren, 2000). Moreover, this would support the theory posed in previous studies (O'Neill, 1996; Ryder and Leinonen, 2003) suggesting that younger children can already use contextual information correctly, provided that the context is familiar and the question easy.

Our graphical comparison of the evolution of valid questions and answers for each category has proved that both in questions involving feelings and in those of irony and routine there is an upward progression as age increases. However, in implicature questions there is a point of intersection at the age of 6, when the number of valid answers matches that of valid explanations. Moreover, surprisingly, at the age of 6 the number of valid answers is a little lower that for children aged 5. This datum is probably casual, but it would be interesting to devote a more comprehensive study to the analysis of this type of questions in that age range.

Our second goal is the analysis of the contents of inappropriate answers and explanations. From the onset of this study, we have considered mistaken answers and explanations to be highly useful to determine the types on non-relevant information used by the children and the conversational strategy they have followed. As already mentioned, our research is based on the classification of incorrect answers of the study of Loukusa (2007) into the following categories: *incorrect focus, knowledge of the world, given information, don't know, irrelevant, tautological, turn-taking, no answer*, and *others*. We believe the first three are the subtlest, since they are the closest to valid answers. In them, children have not accurately identified the focus of the question, have overgeneralized their knowledge of the world and personal experiences, or, on the contrary, have attached excessive importance to the additional information provided by the question's context. As regards the categories *irrelevant, tautological* or *turn-taking*, they are more simple and typical of younger children. Children are aware that an answer is required, so that they say what first comes to their mind, they repeat the question or part of it, or they use adjacency pairs such as *how/like that* to answer. Finally, as regards *don't know* and *no answer*, children might either be sincere because they really cannot answer, or prefer to remain silent rather than providing a wrong answer.

In our study, the most frequent category of incorrect answer provided by children aged 3 to 6 was *don't know*, followed by *knowledge of the world* in ages 4 to 8. Meanwhile, in the age groups of 7 and 8 the *incorrect focus* was the most frequent, which, as mentioned, is the closest to a valid answer. Most of these results agree with those yielded by the studies with Finnish children; however, in their case the *don't know* answer was provided with surprising frequency in the 7-years-old age group.

This might be due to cultural reasons, as suggested by Letts and Leinonen (2001), who had obtained similar results for this age in previous studies with Finnish children. It seems that Finnish children around the age of 7 prefer to say they do not know the answer when they are not completely sure. Nevertheless, in the case of Spanish children, at the age of 6 the *don't know* answer is also the most frequent with 31%, so that we could relate the causes based on age proximity.

Concerning the content of incorrect explanations, they mainly follow the pattern found for incorrect answers. At earlier ages children frequently provide simpler answers (*tautological, irrelevant, turn-taking*), which is hardly ever the case with older children, where the most common are the categorized as *incorrect focus*, *knowledge of the world* and *given information*. With regard to the study with Finnish children, it should be highlighted that the *turn-taking* answer is not only common among children aged 3 and 4 (as is the case with our sample of Spanish children), but it is also frequent in the rest of age groups. Furthermore, as regards the ability to reason their answers, it is curious that the results yielded by Spanish children match those for Finnish children in that the questions they find easier to answer are those related to feelings, over those related to routine. The reason for this could be that they might be part of their daily life, so that they are quite familiar with the expression or identification of feelings in others, as observed by Loukusa (2007).

Finally, our last goal has been to compare, as far as possible, our data with those provided by previous studies with Finnish children (Luokusa, Leinonen and Ryder, 2007; Luokusa, 2007; Loukusa, Ryder and Leinonen, 2008). All this leads to the conclusion that the results are mostly matching, except for minor exceptions that we have included in the different sections. For this reason, we pose that the pattern followed in the development of pragmatic understanding does not depend on an individual's mother tongue. In addition, we have observed a gradual increase with age in children's ability to access relevant information to accomplish the comprehension process. Thus, we agree with pioneering research in that pragmatic understanding skills can be defined as the ability to use relevant contextual information.

As mentioned in chapter four in relation to pragmatic language impairments, in clinical research it is important to have a typical evolutionary pattern to be able to detect whether a child's development is within the parameters established for typical

development, or whether there are deviations or impairments. As observed by Bara, Bosco and Bucciarelli (1999), there are no theories that systematically cover the development of pragmatic skills, nor is there a protocol to assess the normal stages at which children are expected to produce or interpret different speech acts. Thus, without comparable data regarding typical development, it is impossible to systematically study pragmatic impairment. In the light of the above, the convenience and relevance of research on children's development of skills such as pragmatic comprehension seems clearly relevant.

With regard to the assessment method chosen for this study, restriction to a specific task limits the validity of quantitative tests of a categorical nature, such as the one used. We also know that the interview structure of our study could influence participants' utterances. As reckoned by Gallardo Paúls (2002), it would be advisable to assess pragmatics through a more flexible turn system, or through the natural observation of spontaneous conversations. However, this method also poses difficulties such as the time involved in its implementation and follow-up and the difficulty to control all the variables that might influence linguistic behaviour (Ervin-Tripp, 2000). Similarly, assessment in natural contexts provides fewer opportunities to observe certain speech acts, since the fact that children do not produce them while being watched does not mean they are not part of their repertoire (Iacono *et al.*, 1996; Prutting and Kirchner, 1987). Therefore, the most appropriate form of pragmatic assessment would be a combination of natural observation with predesigned conversational tasks and scheduled interaction (Bishop and Adams, 1989).

We also believe that one of this study's strengths is the use of pre-established situations, whose contexts children find familiar, accessible and convincing. Even though they do not reflect the exact degree of difficulty involved in natural interaction, they come close to the communicative situations faced by children on a daily basis. Furthermore, they facilitate the categorization and analysis of the answers by showing whether children have overgeneralized their world knowledge, based their replies on presuppositions that are irrelevant to the context or on pre-existing information, etc.

The second strength of this study is the theoretical framework that supports it, namely, relevance theory. This theory combines theoretical reflection and the possibility of empirical verification, in line with the experimental studies of cognitive

psychology. As observed by Leinonen and Kerbel (1999), relevance theory explains why, for example, a specific utterance is problematic in a particular context, or the reason for certain failures in the process of pragmatic comprehension (poor knowledge of the world, difficulties to access relevant information, difficulties in the cognitive process of inference, difficulties to identify what others' know, etc.).

For Sperber and Wilson (1995), inferential communication is an unclear process, since it is based on the listeners' building of suppositions from a series of contextual evidences. Children are often unable to assess the available information to build relevant premises or to access relevant information, so that they choose inappropriate interpretations. This means that children may have problems assessing speakers' cognitive skills, which can also be identified with a lack of development of theory of mind, as suggested by many experimental studies (Shields *et al*., 1996). It must be recalled that relevance theory is a cognitive communication theory, since it attaches great importance to the allocation of mental states between interlocutors, to inferential capacity and to the ability to create metarepresentations. In fact, metacognitive knowledge (understanding of one's own mental processes) is crucial to children's language acquisition and to their ability to use it successfully in communicative exchanges, which can be observed from the analysis of the explanations gathered from the participants in our experimental study.

In this work, we have defended the importance of the pragmatic perspective in the study of verbal exchange in children's speech, although, as observed by Fernández Pérez (2006), research has not yet analysed the features of communicative efficiency in children as thoroughly as would be desirable. This calls for further study of language acquisition focused on the strategies and resources they use to communicate.

In the language acquisition process, children must develop a series of cognitive mechanisms that are essential for communication: a language apparatus for encoding and decoding messages, pragmatic skills to infer or deduce speakers' communicative goals and choose the correct interpretation, and theory of mind to act as a bridge between the linguistic and pragmatic apparatuses by providing the necessary tools to draw relevant information from the discursive context (Camacho Toboada, 2005). Thus, to be effective communicators children must be able to allocate mental states and representations to other interlocutors (Bara, Bosco and Buciarelli, 1999) and

assess facts by applying their own knowledge and experience of reality and the world around them.

Suggestions for future research could be to design new qualitative tests, including pragmatic tasks of comprehension as well as of production, and conducting studies focused on children's explanations of their first answers. It would also be advisable to develop tests for a larger sample of children, with different mother tongues and cultures, to obtain more input on the process of acquisition and development of pragmatic competence.

Finally, the fact that there are many studies that state the existence of a link between mind-reading abilities and pragmatic skills (Happé, 1993; Baron-Cohen, 1995; Surian *et al.*, 1996; Happé and Loth, 2002), paves the way for further lines of research to explore the relationship among cognitive, pragmatic and social language functions, especially in connection with irony.