

Blind People's Pragmatic Abilities

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INTRODUCTION

From time immemorial, comprehension has aroused the surprise and interest of a large number of scholars. In many concepts, models, approaches and theories, philosophers, logicians, linguists, psychologists and anthropologists (among others), attempted to explain the intricacies of the human ability to understand language. The relation between language and comprehension inspired, fascinated and astonished the great minds, and in equal measure it inspires, fascinates and astonishes new generations of scholars who do not persist in their efforts to study and elaborate on the nature of the two interwoven concepts.

The informal definition of comprehension proposed by Fauconnier (2005: 658-659):

“Language is only the tip of a spectacular cognitive iceberg, and when we engage in any language activity, we draw unconsciously on vast cognitive and cultural resources, call up innumerable models and frames, set up multiple connections, coordinate large arrays of information, and engage in creative mappings, transfers, and elaborations (...). Crucially, we have no awareness of this amazing chain of cognitive events that take place as we talk or listen, except for the external manifestation of language (sounds, words, sentences) and the internal manifestation of meaning, experienced consciously with lightning speed. This is very similar to perception, which is also instantaneous and immediate, with no awareness of the extraordinary complex intervening neural events.”

adroitly presents the complexity of the process and its dependence on a great diversity of information stored and acquired by each individual. As the author underlines, a great majority of the operations determining the human understanding of language are cognitively inaccessible. On the one hand this guarantees fast and effective communication, but on the other, it makes it extremely difficult (if not impossible) for the operations to be thoroughly analysed.

Furthermore, in order to visualise and support his stance, Fauconnier makes references to human perception, which just like comprehension, involves so many aspects and proceeds so insistently that it is impossible to be followed. However, perception and comprehension have much more in common than the quotation can account for, and the relation between

them is not limited in the way the two can be characterised. Many scholars, presenting even more similar features, argue that the two entities are interdependent and cannot exist separately. Indeed, the role of the senses in comprehension is not to be overestimated and, although perception involves all of the senses, vision is arguably the most important sense for humans, providing them with imminent stimuli rich in contextual information. The logical consequence of the strong link between perception and comprehension is an equally strong correlation between context and comprehension, which is the subject matter of this book.

Despite incessant discussions and numerous attempts of delimitation, context remains one of the most imprecise, confusing and unexplained linguistic terms. As inherently pragmatic, context is assumed to be the key notion which differentiates pragmatics from other linguistic disciplines, in particular semantics. However, many other disciplines find it not only interesting, but also necessary to study different aspects of human communicative behaviour, with reference to the arbitrarily-understood context. Innumerable scientific publications propose different definitions of the term and enumerate a great variety of its features which, unfortunately, do not appropriately specify the nature of the context. The reason for this, according to Malinowski (1923:306), is that:

“(…) the conception of context must be substantially widened, if it is to furnish us with its full utility. In fact it must burst the bonds of mere linguistics and be carried over into the analysis of the general conditions under which a language is spoken.”

The study of context and comprehension seems futile without crossing the borders established by various disciplines, and looking at the two concepts from a much broader perspective than individual models, approaches and theories do. This perspective is successfully employed in pragmatics, which, as described by Nerlich and Clarke (1996:4),

“(…) can be seen as keeping open the gates of enlightenment against narrow-minded dogmatism of all kinds. When the dogmatic linguist sets rigid limits to what language is, the pragmatist can invite him or her to look over the fence at other aspects of language, especially at how language is used in society”.

Among pragmatic (i.e. context-dependent) theories of communication, Relevance Theory is the one which offers an interesting program based on the achievements of pragmatic theories and cognitive science, with due acknowledgement of other disciplines' contributions. Both comprehension

and context comprise a scientific focus of the theory, which provides an eclectic insight into the two main issues discussed in this work. As a flexible model based on a well-evidenced cognitive mechanism, Relevance Theory (on the assumptions of which the discussion presented in the chapters of the book will rest) reliably explains various aspects of human communication and is open to new challenges, not yielding to problematic issues. Thus the aim of this book, is to apply relevance theory (and assumptions put forward by its creators Dan Sperber and Deirdre Wilson) to an empirical situation.

Although it is generally accepted that context plays a key role in comprehension, it is not yet known exactly how a hearer's interpretation depends on the contextual information which he or she is provided with. It is not clear which cues or which sources are contextually richer, and absolutely necessary for comprehension, and which are just assistive in the process. Finally, it is a mystery what effect a lack (or insufficiency) of certain contextual information has on interpretation and mutual communication between people, and to what extent failure in a communication process depends on an inability to compensate for missing information. Contemplating the questions and searching for satisfactory answers, it is imperative to examine how the comprehension of individual people (provided with different amounts of contextual information), changes in natural communicative situations. As the available literature suggests (e.g. Gibson 1986, Hampson and Morris 1996, Bruce et al. 2003), among all the senses, vision is assumed to provide humans with the richest and most accurate information. Hence the accessibility of visual cues, turns out to be of utmost importance for comprehension in communication. By the same token, it is well-justified to assume that visually impaired people, deprived of visual information, are likely to be less successful in comprehension processes, than sighted people.

In spite of extensive research and the growing interest of scholars in examining still new aspects of communication and comprehension, very little attention is paid to the investigation of blind people's comprehension of utterances in communicative situations. It can be easily observed that much greater concern is given to the analysis of mental disabilities and disorders such as autism, aphasia, or schizophrenia, which appear to have straightforward consequences on the comprehension of people suffering from these conditions. Since the effect which visual impairment may have on comprehension is not so evident, and the nature of the condition in both children and adults is very complex in itself, the problem seems to be overlooked or totally ignored in literature.

The main concern of this work is then to identify common ground between the pragmatic analysis of comprehension and visual impairment, as well as to show how the study of pragmatics can be enriched by the study of visual impairment. The following work consists of three chapters in which the first two chapters are intended to lay the theoretical foundations for the last chapter, which will present and discuss an empirical study investigating totally blind people on their ability to interpret situations on the basis of available contextual information. This final chapter is aimed at verifying the prediction that blind people might be less effective in comprehension than sighted people, or those who have greater access to contextual information in communication.

In chapter one of the work we intend to present arguments that the interdisciplinary approach of pragmatics, drawing from the achievements of various disciplines, gives an in-depth insight into human communication which other disciplines cannot offer separately. Comprehension is a cognitively complex process which embraces a great multitude of mechanisms, operations and aspects. Just as the functioning of our organism entails numerous complicated neural, physiological, and psychological processes which, despite enormous progress and research in medicine, psychology and other disciplines, has not been fully understood, comprehension entails a series of linguistic and non-linguistic processes, some of which are still mysterious. Consequently, the only way to present a comprehensible and possibly complete picture of human understanding in communication, is to look at it from the angle of not only linguistics, but also psychology, sociology, philosophy and other non-linguistic disciplines.

Next, we will present the leading models of communication. The relevance-theoretic model will be accepted as operational throughout the entire discussion presented in the book. The chapter will be also devoted to the analysis of different attempts of defining and delimitating the concept of context, contrasted with an original perspective taken by Relevance Theory. Concentrating on the definition proposed by Dan Sperber and Deirdre Wilson (1986/1995), we will discuss three main sources of contextual cues: perception, general knowledge and linguistic content. Firstly, we will concentrate on the role of senses in comprehension, paying special attention to the two main senses of sight and hearing, and show that they provide participants of the communication process with crucial contextual cues. As we will observe in the discussion, our understanding to a great extent relies on the visual stimuli to which we are exposed. These are not only objects or situations which are made manifest to us at a particular moment of communication, but also past

representations formed in our memory for future reference. Subsequently, we will show that our general knowledge (which comprises innumerable past experiences, appropriately organised and stored in the mind), provides contextual information for the interpretation of utterances.

In discussing the linguistic content, we aim to demonstrate the presence of context at every stage of comprehension, thus following the relevance-theoretic heuristic of comprehension. In order to introduce the concepts and phenomena discussed in the subsequent chapters, the relevance-theoretic analysis of implicit and explicit utterances (as well as figurative language, which in the theory constitutes a separate category), will be presented. Since any theory of communication can be regarded as reliable only if it is able to account for both success and failures in the comprehension process, in the chapter we will present the analysis of potential problems in comprehension; those which lead to false interpretations or none at all.

Chapter two is aimed at reviewing the observations and findings concerning the comprehension of blind and sighted people. After introducing proper nomenclature related to visual impairment, the focus will be shifted to contrasting the pragmatic development of blind and sighted children, from early infancy to school years. The intention will be to identify potential problems and impediments in blind children's pragmatic abilities, which might have an effect on their comprehension of utterances in adult years. We will also aim to show how congenital blindness may influence the understanding of different concepts, and affect blind children's comprehension and communication. The second part of chapter two will look at the findings obtained from the studies comparing blind and sighted adults' comprehension. Analysing the data we will aim to identify the areas which failed to be overcome as blind children grew older, and which have serious consequences for blind adults' comprehension. We also intend to check if there are any differences between blind and sighted adults, which are similar to those found in blind and sighted children. Finally, throughout the chapter we will expose the areas which we believe call for particular attention and extensive research.

The last chapter presents an empirical study performed on blind and sighted adults with the use of research tools, and a procedure elaborated and tailored for this particular purpose. We hope that in the future this tool can be used as a standardised test, and possibly utilised to examine the comprehension of people suffering from other disabilities than visual impairment only. The intention of the experiment was to answer the question: will the lack of access to certain contextual information (as in the

case of the blind), result in a distorted or inadequate understanding of utterances, or, in extreme cases, in an inability to arrive at any interpretation at all? Since the comprehension process embraces so many aspects, there is no other way to analyse it but by looking at its outcome, not its process per se. In other words, partitioning comprehension into individual mechanisms and operations is always doomed to failure, since as we have already mentioned many aspects of human comprehension are still unknown. If we want to learn of how people understand what is communicated, we need to analyse the final product of the comprehension process, i.e. interpretation. The study, as a starting point for further and more detailed research, was mainly to identify if blind adults, due to their impairment, are less successful in understanding utterances containing various pragmatic sub-tasks, than sighted adults, and if the interpretations in the two groups differed considerably. The findings, it is hoped, will shed some light on the way blind people understand utterances and dispel still present misconceptions concerning their abilities and disabilities.

CHAPTER ONE

CONTEXT AND COMPREHENSION: THEORETICAL CONSIDERATIONS

Introduction

Despite years of research and extensive investigation, communication between people remains a controversial domain. With the intention of making the process more intelligible, formal studies of language have gone to considerable lengths to reduce it to specific rules, principles and constraints; claiming that communication, just as mathematics or logic, should be analysed with similarly rigorous and rule-based methods. Although this approach could, at least theoretically, have guaranteed the feeling of greater empirical control over the process, it had one serious disadvantage: no matter how hard scholars tried to define the rules governing communication, each time there were unexplained aspects, thus making the proposals incomplete and adding only a small element to a complex jigsaw puzzle. The reason for this was straightforward: if one wants to understand communication, it is insufficient to perceive it solely from a linguistic perspective. It is also necessary to consider “invisible backstage cognition” (Fauconnier 2005:674), which is basically what pragmatics as a linguistic discipline encompasses.

Although the studies of language, discourse and interpersonal communication are age-old traditions, pragmatics is a relatively new discipline. For many years, in the realm of linguistics, pragmatics was regarded as the less important, uglier step-sister of semantics and syntax, merely a discipline which was not taken seriously and seldom welcomed into discussions about language due to its allegedly doubtful scientific credibility. Pragmatics, among other things, refers to human cognition, this automatically sparks controversy between metaphysicality and its questionable verifiability. These days the explanatory and descriptive power of pragmatics is consequently questioned. Also because of that, there have been many attempts to merge semantics and pragmatics into

one discipline (semantics). This new discipline would be involved in explaining the relation between meanings of words and their use.

Despite its history, since it was separated from syntax and semantics in Morris' model of semiotics (Morris 1938/1970:6), a steady growth in this branch of linguistics can be observed. Nearly fifty years after Morris had coined the term 'pragmatics', Dan Sperber and Deirdre Wilson in 1986 published a book which can to this day be regarded as a breakthrough in the development of the discipline. The book, *Relevance: Communication and Cognition*, presented a theory which married previous achievements of pragmatics with philosophy, logic, sociology and many other scientific disciplines. Their work provides answers to fundamental questions, and lays theoretical foundations for empirical analyses presented in this book.

As stressed by linguists, the critical concept which distinguishes pragmatics from semantics and other disciplines, is context. As explained by Davis (1995, p.128):

“(...) the distinction between semantics and pragmatics is, roughly, the distinction between (1) the significance conventionally or literally attached to words, and thence to whole sentences, and (2) the further significance that can be worked out, by more general principles, using contextual information”.

In great simplification, context as understood in pragmatics is what determines the comprehension of utterances in a communicative situation. Yet defining the 'what' is not an easy thing at all. Highly imprecise, abstract and confusing definitions of context proposed in literature make it “one of those linguistic terms which is constantly used in all kinds of context but never explained” (Asher 1994, p.731), despite numerous attempts and intense debates. Just as pragmatics can be defined in various ways, in literature we can find numerous definitions of context which embrace various aspects, these play a role in the interpretation of utterances and in turn reflect different approaches to the nature of the context. Consequently, the fundamental task is to specify what the context really is before one tries to analyse its role and effect in communication, this will be our main concern in chapter one.

No matter if direct or indirect, verbal or non-verbal, spoken or written, implicit or explicit, every act of communication abounds in relevant contextual information. Nevertheless, communication is a dynamic process in which the topics under discussion, circumstances, attitudes, and not to mention utterances themselves change rapidly. As a result, the context appears to be allusive, intangible, and consequently indefinable. All the characteristic features of the context definitely make it an exciting

phenomenon to study, as is evident in a large amount of available literature. However, hardly anything can be presumed when it comes to context. This undoubtedly daunting feature contributed to a lack of systematization in its study. In 1977 van Dijk wrote:

“(...) we do not yet know how the representation of the context (and that of the text) is actually constructed during interaction[,] [w]e do not know how exactly information from perception is combined with all kinds of inferences, the actualization of frames, or how all kinds of input information is organized, stored, combined with existing knowledge, or with wishes, emotions, attitudes, intentions or purposes[,] [a]nd finally, we do not know yet how all this ‘external’ and ‘internal’ information is mapped onto representations of the social context categories and structures” (van Dijk 1977:229).”

For the present, the words seem to be up to date, since many of the questions still remain unanswered and call for exploration. Many attempts to give definite answers in the field are more based on guesswork than well-grounded findings. The following chapter is intended to demonstrate the influence of contextual information on the process of comprehension and provide a core of pragmatic findings about context and understanding, acknowledging contribution of other linguistic and non-linguistic disciplines.

The chapter is divided into four sections which have been arranged to facilitate systematization of the growing body of literature. The first section is an introduction to the scope of pragmatics as the discipline researching comprehension of utterances in the context. As pragmatics is interested in analysing communication; in section two the leading models of communication will be presented and discussed. Owing to the fact that the present work rests on the tenets of Relevance Theory, the ostensive-inferential model put forward by Dan Sperber and Deirdre Wilson will be given the greatest attention and will be accepted as operational in verbal exchanges analysed in the work. Section three is aimed at discussing linguistic and extra-linguistic elements which determine successful communication and which are heavily relied upon in interpretation recovery. As this book will endeavour to demonstrate, the perception and general knowledge of an individual, both exert a profound influence on the comprehension and interpretation of utterances, as well as decide how successful we are in the process. In the section attention will be also given to the content (linguistic input) of utterances during the interpretation process. Following the relevance-theoretic framework, the content provides the hearer with contextual cues, but since it does not fully

determine a speaker's intention, only with the assistance of additional information derived from other sources can we truly comprehend and properly understand utterances. It should also be highlighted that communication is a complex process in which success cannot be warranted. There are various factors which have been known to affect the process, leading to miscommunication or misinterpretation. This will be our main concern in section four of the chapter.

Since communication embodies innumerable (direct and indirect) aspects, conditions and mechanisms, discussing all of them would hardly be possible and would definitely exceed the capacity of the work. Hence, this book will focus on the most important aspects which we regard as crucial for the further parts of the work. These will concern the presumable differences between blind and sighted adults in understanding utterances and the role of the context in the inferential processes discussed in chapter two and three.

Pragmatics – the study of language understanding and context

It is not easy to determine when pragmatics became a discipline and who was the first to find it worth researching. Although it is said to have grown out of the philosophical theories of Locke, Kant, Humboldt and other thinkers of the Enlightenment, the tradition of analysing speech, dates back to ancient times and can be found in the works of Plato, Aristotle, Protagoras and other Graeko-Roman philosophers (see Nerlich and Clarke 1996). Despite the age-long tradition and everlasting interest in language, pragmatics was not recognised as a scientific discipline per se until quite late, but the concepts which are now regarded as components within its scope, were studied in other disciplines popular at the times, like rhetoric, philosophy and logic.

Officially, the term 'pragmatics' was first introduced by Charles Morris who, undoubtedly inspired by Locke's semiotics, Peirce's philosophy of pragmatism (Recanati 2005, Levinson 1983) and logical positivism of the Vienna Circle (Nerlich and Clarke 1996), divided linguistic disciplines according to the relations of signs (words, expressions) to other signs, objects and persons into syntax, semantics, and pragmatics respectively. Pragmatics, or using Morris' definition, "the relation of signs to their interpreters", was understood as embracing "the biotic aspects of semiosis, that is, [...] all the psychological, biological, and sociological phenomena which occur in the functioning of signs" (Morris 1938:30).

Consequently, from the very beginning pragmatics was ascribed a challenging role. Not only was it to integrate the approaches of the other disciplines, but also with the aid of the approaches it was expected to explain many controversial and confusing phenomena. Additionally, taking into consideration the philosophical roots of pragmatics, it is apparent that the discipline goes far beyond linguistics and has an interdisciplinary character. Figure one shows that pragmatics is to be viewed as a melting pot drawing from numerous disciplines and effectively utilising multiple aspects, in an effort to describe and explain what communication and language really are.

Since the scope of pragmatics is extremely broad, it is well-justified to assume that it will be able to successfully explain the phenomena which other disciplines disregarded, found beyond their scope of interest or were unable to explain. There is no wonder that many scientific disciplines refer to pragmatics and draw from its achievements. Bearing in mind the mutual co-operation and effective contribution, it should not be of any surprise that in this work we will not restrain from referring to other disciplines when they may help us to better understand the peculiarities of human comprehension.

For decades, pragmatics was shaped by trends, tendencies, thoughts and theories of philosophers, logicians, anthropologists, psychologists and linguists. Among these great thinkers, there were prominent and influential figures such as Wittgenstein, Searle, Austin and Grice who contributed to studying language in real life situations. Natural and informal utterances, which arouse general interest nowadays, took the place of artificial (formal) texts which had been the object of research many years before (see Frege, Russell, Carnap, Tarski). The change opened up new possibilities of understanding and studying language, and communication which is not restrained, reserved, premeditated or flawless, but which is unpredictable, underdetermined, full of inaccuracies and challenging. *Ipsa facto*, social and cognitive aspects, conditioning human communication and mutual understanding, came to be discerned and described as underlying pragmatic analyses; which integrated the aspects with a discussion of authentic language meaning.

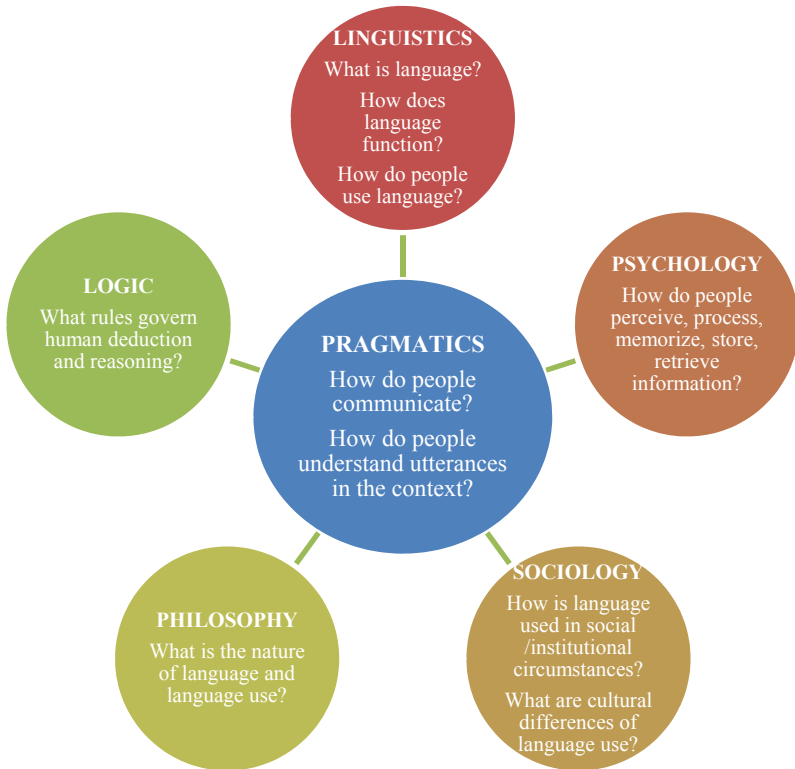


Fig. 1-1 The interdisciplinary character of pragmatics

Be that as it may, the tolerant approach of pragmatics, welcoming and engaging other disciplines to join and co-operate in forming an integrated and complete picture of communication, has been criticised by some scientists who claim that pragmatics has no clear focus and like ‘a garbage can’ (Leech 1983) accepts and includes within its scope of interest, all the problematic aspects that other disciplines cannot or refuse to account for. Others maintain that it is an underdeveloped and unreliable discipline, claiming that “as a serious empirical discipline pragmatics is still in its infancy, clumsily attempting to grasp for its own meaning” (Givón 1989:1). But the bitter criticism has not prevented pragmatics from developing. On the contrary, as it will be demonstrated in the chapter, it

has been the driving force behind its flourishing. The sign of its growing popularity is the immense interest displayed in the works of new generations of pragmatists, examining still new aspects of communication and aiming to prove that it is an adequately reliable discipline and has the potential to both describe and explain the way people use language to communicate.

In literature there are numerous definitions of pragmatics which vary across models, theories and approaches. In its broken down form, pragmatics, as described by Stalnaker (1996:79), “is the study of linguistic acts and the context in which they are performed”. Hence, pragmatics, being interested in communication and language use, “concentrates on those aspects of meaning that cannot be predicted by linguistic knowledge alone and takes into account knowledge about the physical and social world” (Peccei 1999:2). Just as Peccei distinguishes between linguistic knowledge and knowledge of the world, Grice (1975) stresses the difference between ‘sentence meaning’ (i.e. literal/linguistic meaning) and ‘speaker’s meaning’ as crucial for the understanding of the very essence of pragmatics. The same stance seems to be taken by Kempson (2002:396) who explains that:

“[t]he starting point for studies in pragmatics is the mismatch, often a big one, between what words ‘mean,’ which is encoded in rules of language, and what speakers ‘mean’ by using them, which may be much richer.”

The division between word, expression or sentence meaning, extracted from a situation and its context, and their meanings in the context; draw lines between semantics and pragmatics. Despite numerous attempts of separation and delimitation of the two disciplines, the issue still arouses many controversies, since in many areas they tend to either overlap or complement each other (Recantati 2005). What is more, many definitions of pragmatics emphasise contrasts with semantics in attempts to single out possible differences between the two similar disciplines. Gazdar (1979:2), for instance, explains that:

“Pragmatics has as its topic those aspects of the meaning of utterances which cannot be accounted for by straightforward reference to the truth conditions of the sentences uttered. Put crudely: PRAGMATICS = MEANING – TRUTH CONDITIONS.”

Similarly, Kaplan (1989: 573-4) elaborates that:

“The fact that a word or phrase has a certain meaning clearly belongs to semantics. On the other hand, a claim about the basis for ascribing a

certain meaning to a word or phrase does not belong to semantics ... Perhaps, because it relates to how the language is used, it should be categorized as part of ... pragmatics ..., or perhaps, because it is a fact about semantics, as part of ... *Metasemantics*."

Consequently, it is not clear if it is incumbent upon semantics or pragmatics to account for certain aspects of communication. In literature there are a lot of inaccuracies and it is possible to find many discussions touching on the problem (see Levinson 1983:1-34).

Referring to the first definition of pragmatics proposed by Morris and the interdisciplinary character of the discipline presented above, it should not be a revelation that pragmatics has the potential to explain the phenomena crossing the boundaries of linguistic and non-linguistic disciplines and takes on the challenge. We must also honestly admit that the in-depth account of linguistic phenomena is achievable only if we accept that the disciplines overlap and must co-operate to some extent. As described by Roberts (2005:197),

"Semantics assumes that words do have basic meanings, and that a given syntactic structure corresponds with a determinate way of composing the meanings of its subparts. Pragmatics, on the other hand, studies utterances of expressions like \emptyset attempting to explain what someone meant by saying \emptyset on a particular occasion."

Thus, comprehension of language demands accounting for the interplay among all the branches of linguistics. As claimed by Guenther and Schmidt (1979:vii) "we cannot hope to achieve an adequate and integrated syntax and semantics without paying heed to the pragmatic aspects of the constructions involved". Isolating pragmatics from other disciplines and the other disciplines from pragmatics, and claiming they are able to explain various phenomena on their own, we deprive ourselves of the possibility to thoroughly understand language and to make progress in this area. As argued in many works, pragmatics accompanied by syntax (e.g. Kempson 1975, Gazdar 1979, Huang 1994, Yus 1997, Carston 1998, Chierchia 2004, Wedgwood 2005), semantics (e.g. Moore and Davidge 1989, Manor 2001, Wierzbicka 2003, Ifantidou 2005, Attardo 2008) and phonology (e.g. Marek 1987, Akamatsu 1987, Clark and Lindsey 1990, Curl et al. 2006, Van Valin 2008, Barth-Weingarten et al. 2009) has the potential of shedding light on the linguistic aspects which have failed to be explained so far.

Parallel to the development of pragmatics, one can observe the unprecedented growth of such sub-disciplines as developmental pragmatics, lexical pragmatics, inter-language pragmatics, socio-pragmatics and clinical

pragmatics, which draw from numerous non-linguistic disciplines and aim to explain still new phenomena. As the work will endeavour to show, pragmatics is the scientific discipline which with precision and an interdisciplinary approach is able to both describe and explain human comprehension and the role the context plays in the process.

Communication and comprehension

Etymologically, communication (from Latin *communico* – ‘to share’) is often defined in literature as an act of sharing information between people in order to reach mutual understanding. Traditionally, communication is also associated with verbal exchange and non-verbal behaviour which people perform for a purpose in social situations. A more precise and elaborate definition of communication was proposed by Puppel (2001:57) who, perfectly grasping the complexity of the process, wrote:

“Communication by means of language may be defined as the summative effect of language and motor expression of language, with the added requisite of a receiver who shares with the source the knowledge of language rules in the narrow sense of phonology, syntax, and semantics, the knowledge of social world and of rules for using language in that world so that the speech is appropriate as well as grammatical, and the knowledge of the motor aspects of language expression.”

Accordingly, language (understood as verbal expressions and gestural representations of people’s intentions) is a tool of communication which can be used to trigger an effect, in response to a speaker’s utterance. This is conveyed by the speaker (source) and experienced by the hearer (receiver), who both share linguistic, social and general knowledge. The effect of the tool in a social context is of general interest in literature and has been widely debated by innumerable disciplines. The key findings, assumptions, statements and principles specifying relationships among different aspects of communicative behaviour are referred to using the blanket term ‘theory of communication’. Although not explicitly specified in literature and frequently overused, the theory is aimed at providing an integrated and unified model of how people communicate and what determines an effective flow of information.

Communication is a two-way process involving both the comprehension and production of utterances exchanged between people in the mutual act. Any model of communication must therefore account for how utterances are produced and how these are received and understood by the hearer. Additionally, as Turnbull aptly observed (2003:26) “(...) all models of talk

must account for inter-subjectivity and subjectivity; that is, they must account both for shared understanding and for breakdowns in shared understanding”. In other words, it is insufficient to try to describe and predict when communication is successful. Models of communication, apart from considering ideal circumstances, should be able to explain what has gone wrong when the communication does not lead to the expected outcome and the communicative goal is not achieved. The final challenge given to pragmatic models of communication is that they should allow “the integration of linguistic and non-linguistic forms of interpretation at all stages of the interpretation process” (Kempson 2002:396). Only then can an account of the process of comprehension be regarded as complete.

In accordance, pragmatics, attempting to meet the requirements expected of models of communication, aims at “providing a set of principles which dictate how knowledge of language and general reasoning interact in the process of language understanding, to give rise to the various kinds of effects which can be achieved in communication” (Kempson *ibid.*). It is also aspiring “to explain how the hearer of an utterance constructs a hypothesis about the speaker’s meaning” (Wilson and Sperber 2005:615) on the basis of evidence provided, and speculates what effect the evidence has on the ultimate interpretation.

In the consecutive sections, we will present the Code Model and the Inferential Model - two leading models of communication which have been adapted from the study of psychology to the field of pragmatics and which present different perspectives of how communication works and what communication consists of. The final section will discuss the ostensive-inferential model put forward by Relevance Theory, which, in order to effectively describe communication, draws from the models previously discussed, claiming that elements of both of these models are involved in the process of comprehension.

The Code Model

The Code Model of communication was based on the assumption that communication involves the exchange of messages between participants, which can be likened to sending a telegraph or message using the Morse alphabet. Although the Code Model (or the Message Model) appeared in the 20th century, similar assumptions can be found from as early as the 17th century in Locke’s philosophy of language. In his mechanistic approach, Locke, and later Hobbs and Bacon, believed that communication was based on “the conveyance of ideas from the mind of one individual to that of another” (Harris and Taylor 1997:129). A similar notion was demonstrated

by Saussure (1916/1974:16) who claimed that “[l]anguage is a system of signs that express ideas, and is therefore comparable to a system of writing, the alphabet of deaf-mutes, symbolic rites, polite formulas, military signs etc.” In the 1930s the same idea was included in a model of communication proposed by Shannon and Weaver (1949), two engineers who had been looking for a model applicable to any kind of communication (also non-human; see von Frish 1967). They put forward the General Communication Model which gave rise to the Code Model, now recognisable in psychology and linguistics (chiefly pragmatics).

In the model, communication proceeds according to the simplified paths presented in the diagram below (Fig.1-2):

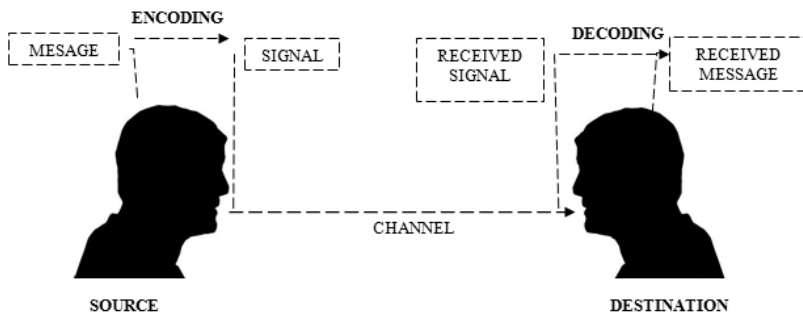


Fig.1-2 Shannon and Weaver's communication model

According to the model, the speaker (or 'source' using the terminology used by Shannon and Weaver) has a message to communicate. The message is encoded into a format which enables it to be sent, and after transforming it into the signal it is transmitted via the channel. The hearer ('destination') receives the signal and decodes the message. Consequently, the understanding of an utterance (message, signal) involves the reception of a signal sent by the source and a decoding of thoughts encrypted in the words of the speaker.

Despite great simplicity and superficial clarity, the model is not without major flaws. The main objection is that the communication process described by the model seems to be always successful in its attempts, and only noise causes disturbances and prevents communication. The model disregards situations where certain problems occur due to other reasons, such as the speaker's or hearer's incompetence. Ambiguous, underdetermined or incoherent utterances are not taken into account either.

Since the message sent by the source and received by the destination inevitably differ, the model, failing to mention it, does not take into consideration how complex the process of understanding really is (for discussion of the major problems in the model see Akmajian et al. 2001).

What is more, the model assumes that there is a binary relation between words and their encoded meanings, and between thoughts and words, whereas this is something the inferential model and other models of communication later refuted. As observed by Bach (2005:470):

“Communication aims at a meeting of the minds not in the sense that the audience is to think what the speaker thinks but only in the sense that a certain attitude toward a certain proposition is to be recognized as being put forward for consideration. “

Hence, the relationship between a word and its meaning is not only one-to-one but one-to-many as the word can have different meanings, even many-to-many if we assume that words can build on different structures and have different meanings in the structures. There are innumerable ways of expressing thoughts through words. Out of a myriad of potential meanings, speakers must choose only the ones which meet their communicational needs and expectations, and hearers must choose to interpret those which are contextually sound.

Another objection to the Code Model is that, focusing entirely on how people understand each other, it disregards breakdowns in understanding which do occur, and more frequently than we often realise. Besides, the method of understanding utterances in the model has been abstracted from the context and social environment. This does not happen in real life situations and because of this the model cannot serve as pragmatically reliable or fully explanatory. On the other hand, as Sperber and Wilson (1986:8) claim “the code model is still the only available explanation of how communication is possible at all”, and hence should be treated as a basic layout or formula for potential communication, on which more complex phenomena, mechanisms and processes can be built.

The Inferential Model

The Inferential Model, put forward by Grice, differs considerably from the Code Model described in the previous section. In *Logic and Conversation* (1975) Grice assumed that in communication people make use of commonsensical reasoning and make inferences to work out what their interlocutors intend to communicate. He observed that in the process of communication there is a distinction between the natural (sentence)

meaning and non-natural (speaker's) meaning of an utterance. The speaker, according to Grice, communicates an utterance with an intention which cannot be rightly determined from the linguistic content alone. An understanding of any utterance requires a hearer's recognition of the speaker's intentions in order to produce an effect in the hearer. As Grice (1975:220) explains,

“[S] meant something by x is roughly equivalent to [S] intended the utterance of x to produce some effect in an audience by means of the recognition of this intention.”

Schematically, the communication process in Grice's model proceeds in the way presented in Fig.1-3 below:

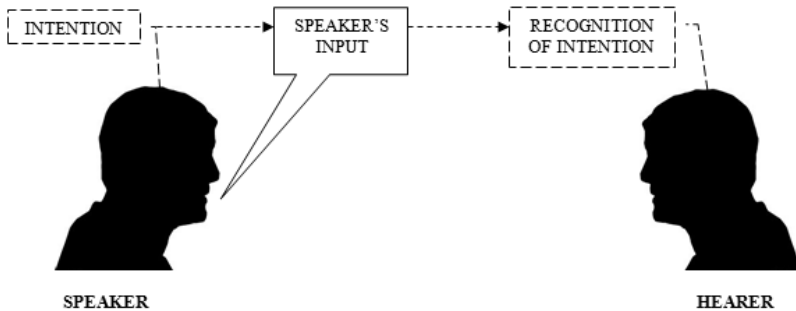


Fig.1-3 Grice's model of communication

In Grice's model, communication is a matter of co-operation between the speaker and hearer. As Grice (*ibid.* 274) describes,

“[o]ur talk exchanges ... are characteristically, to some degree at least, cooperative efforts; and each participant recognizes in them, to some extent, a common purpose or set of purposes, or at least a mutually accepted direction.”

It means that both of the participants engage in acts of communication because both of them anticipate some benefits. The speaker strives to communicate something and inform the hearer of his or her intention, which should in turn trigger an appropriate response or reaction. The hearer, on the other hand, wants to identify the speaker's communicative intentions and comprehend. Therefore, they both have similar immediate aims (as well as independent aims which at times may conflict) and their

contributions to the conversation are mutually dependent (ibid. 277). The common and main purpose of any verbal exchange is mutual understanding between the participants, which can only be attained if the speaker's communicative intention is adequately recognised by the hearer. It is possible only if both the speaker and hearer follow the Co-operative Principle, which states that they should both "make [their] conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which [they] are engaged" (ibid. 275).

The principle was elaborated on and developed into a list of conversational maxims¹, which, if followed, facilitate mutual understanding of the speaker and hearer in communication and, consequently, show the direction in which conversation should proceed in order to be effective. As stated by Bach (2005:471) the role of the maxims (or 'presumptions') is to "frame how the hearer is to figure out what the speaker is trying to convey, given the sentence he is uttering and what he is saying in uttering it". Maxims of quality, quantity, relation and manner were divided into sub-maxims which enumerated the 'dos and don'ts' of communication (see Table 1-1). In order to explain them, Grice introduced a few analogies of everyday activities (also included in the table), which as well as illustrating the maxims, presented the correlation between participants' expectations and contributions in a conversational situation. Satisfying the expectation, as further underlined in Relevance Theory, leads to the recovery of intentions and therefore, successful communication. Furthermore, the maxims do not let the balance of responsibility for the outcome of communication shift to the speaker. This is because it is not only he or she who should make his or her utterances adequately informative, brief, relevant and true. The hearer should also make sure that his or her contributions comply with the

¹ Grice in *Logic and Conversation* (1975) admitted that the maxims were derived from Kant's works. Yet also in Locke's philosophy of language we can find so called 'remedies' for language imperfections. As paraphrased by Taylor (1990:15-16), the 'remedies', which also bear resemblance to the Gricean maxims, say: "(1) Use no word without knowing what idea you want to make it stand for. (2) Make sure your ideas are clear, distinct and determinate; and if they are ideas of substance, they should be conformable to real things. (3) Where possible, follow common usage, especially that of those writers whose discourses appear to have the clearest notion. (4) Where possible, declare the meanings of your words (in particular, define them). (5) Do not vary the meanings you give to words." Further commenting on the philosophy, he says: "from the individualist and voluntarist perspective adopted by Locke, language is subject to the control of the individual will. It is therefore improvable, and it is each individual speaking agent who is responsible for that improvement" (Taylor 1990:16).

communication principle; so as to facilitate maximally effective communication flow.

Table 1-1 Grice's maxims and their violations in common language

MAXIMS	GRICE'S EXPLANATION (1975:276-7)	EXAMPLES OF VIOLATIONS OF THE MAXIMS
1 <i>Maxims of quantity</i>	<ul style="list-style-type: none"> ✓ "Make your contribution as informative as is required. ✓ Do not make your contribution more informative than is required". 	<p>"I expect your contribution to be neither more or less than is required; if (...) I need four screws [to mend a car], I expect you to hand me four rather than two or six."</p> <p>Kids are kids.</p>
2 <i>Maxims of quality</i>	<ul style="list-style-type: none"> ✓ "Do not say what you believe to be false. ✓ Do not say that for which you lack adequate evidence". 	<p>"I expect your contribution to be genuine and not spurious. If I need sugar as an ingredient in the cake you are assisting me to make, I do not expect you to hand me salt (...)."</p> <p>A: This year we are planning to visit New Orleans. B: New Orleans is my city!</p>
3 <i>Maxim of relation</i>	<ul style="list-style-type: none"> ✓ "Be relevant". 	<p>"I expect a partner's contribution to be appropriate to immediate needs at each stage of the transaction; if I am mixing ingredients for a cake, I do not expect to be handed a good book, or even an oven cloth (though this might be an appropriate contribution at a later stage.)"</p> <p>A: How is your work on the book? B: I wish I could be an artist.</p>

4	<i>Maxims of manner</i>	Supermaxim: ✓ “Be perspicuous”. Submaxims: ✓ “Avoid obscurity of expression. ✓ Avoid ambiguity. ✓ Be brief (avoid unnecessary prolixity). ✓ Be orderly.”	“I expect a partner to make it clear what contribution he is making and to execute his performance with reasonable dispatch.”	A: Let’s get the kids something. B: Okay, but I veto I-C-E C-R-E-A-M-S. ²
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Unfortunately, hardly ever do participants of communication comply with the maxims. However, they could still be successful in the process, if only they are willing to cooperate. This brings one to the conclusion that while the maxims can be violated, the Cooperative Principle (CP) must be obeyed if the speaker and hearer are to communicate successfully. The following examples (1-4), presented in the table and repeated for convenience, present ordinary utterances in which the maxims are disregarded and only the CP is observed by the speakers:

- (1) *Kids are kids.*
- (2) A: *This year we are planning to visit New Orleans.*
B: *New Orleans is my city!*
- (3) A: *Have you finished your new book?*
B: *I wish I could be an artist.*
- (4) A: *Let’s get the kids something.*
B: *OK, but I veto I-C-E C-R-E-A-M-S.*

Analysing the utterance (1), it seems evident that the maxim of quantity, which says that the speaker should be neither more nor less informative than needed, is violated. Grice’s theory rejected tautology as presented in (1), since according to the maxim, it is not sufficiently informative. It is self-evident that kids are kids, not for instance: sandwiches. From the perspective of truth-conditional theories of language, the utterance is meaningless and has no informative value, which is not necessarily true. Depending on the context, the utterance may

² the example taken from Levinson (1983:104)

be intended to produce reactions in the mind of the hearer and additionally to express the speaker's attitude which could not be otherwise achieved. For instance, in this situation the speaker may be attempting to excuse children's behaviour and criticise their childishness, as illustrated by (1a):

- (1a) Father: *Tom and Sally have been fighting all day.*
 Mother: *Kids are kids.*

The utterance in (2) violates the second maxim which stresses that we should not say what we do not believe is true. In the philosophy of language, false sentences were regarded as meaningless and empty. Hence, if the speaker in (2) says that New Orleans belongs to him and does not believe in it, we are faced with a self-contradictory statement called the Moors' paradox. Insofar as the speaker's proposition cannot be true and false at the same time, it seems obvious that his intentions are a far cry from the meanings of his words. The speaker in this case intends to say that he knows New Orleans very well, as if trying to engage the hearer in further interaction or hoping that the hearer will invite him to join them on the trip to New Orleans.

The next example (3) presents a further violation of Grice's maxims. This time the maxim of relation is disregarded by the speaker who does not give a proper or relevant answer to the question asked by speaker A. The answer that we would expect to get in this case would be 'yes' or 'no' instead of the one offered i.e.:

- (3) *I wish I could be an artist.*

As in the previously discussed examples, speaker B has a chance to communicate some extra information which would not have been conveyed if he had provided a simple negative answer. In this case the speaker wants to inform the hearer that he has not finished his book yet and he is fed up with writing. In this situation, the hearer would probably make some additional assumptions e.g. that the speaker has always dreamt of being an artist, or that he finds the profession more pleasant and relaxing than being a writer.

Finally, example (4) illustrates the utterance in which the speaker violates the maxim of manner, which puts an unnecessary strain on cognition. Instead of using the whole lexeme, the speaker spells out the individual letters separately. The intention of the speaker is to avoid using the word 'ice creams' in the children's presence in the fear that they would demand ice cream, which, for reasons unknown, they should not get. This

and the other examples briefly discussed above, demonstrate that the restrictions enforced by the maxims would be impossible and unnecessary to engage in, which is one of the main objections to Grice's program. However, as pointed out by Warren (2006:109), Grice's maxims should not be treated as absolute mandates of success or failure in communication, but rather guidelines which, if disobeyed, may hamper or prevent mutual understanding and communication. For instance, the maxim of quantity, as Grice (*ibid.*) explains, informs that we should avoid over-informativeness because not only it is a waste of time, but may also lead to hearer's confusion and ultimately a lack of understanding.

At one time, the maxims came into severe criticism by some of Grice's successors, who claimed that the list was inadequate and should perhaps be further extended, while others believed that it should be reduced (Levinson 1983, Horn 2005). Still others maintained that the maxims were too vague and it was debatable whether they had any application within communication at all (see for instance Kempson 1975, Blakemore 1992, Grundy 2000, Sperber and Wilson 1986, McCarthy 1991). The maxims were also regarded as too idealistic and contrary to real life circumstances. Due to the fact that "much discourse is "telegraphic" in nature [;] [v]erb phrases are not specifically mentioned, entire clauses are left out, pronouns abound, 'you know' is everywhere" (Fromkin et al. 2007:156), during everyday conversations the maxims are rarely observed by speakers who seldom express precisely what they intend to communicate. However, contrary to the above objections, Grice seemed to be well aware of this fact. In his model, he introduced the terms 'implicature' and 'implicatum' which became foundations for modern pragmatic theories and which will be discussed in detail further on in the chapter. As explained by Bach (2005:471), "[Grice's] account of implicature explains how ostensible violations of [the maxims] can still lead to communicative success". In other words, the violations (or using Grice's nomenclature 'flouts') of the maxims trigger implicatures which force the hearer to engage in inferential processes to properly comprehend their meaning.

Despite criticism of the limitations introduced by maxims and other aspects of his theory, Grice's inferential model of communication gave rise to many theories and is undoubtedly one of the most recognisable and influential among classical pragmatists. His ideas became an inspiration or even a foundation for more modern theories, Relevance Theory is one of them. His works are eagerly discussed not only in linguistics, but in cognitive psychology, philosophy, sociolinguistics and many other disciplines.