



UNIVERSIDAD DE JAÉN
Centro de Estudios de Postgrado

Master's Dissertation/
Trabajo Fin de Máster

RELEVANCE THEORY AND HUMOUR

Student: Pichaco Marchante, Carlos

Tutor: Dr. Xavier Díaz Pérez
Dpt.: English Philology

November, 2022

Table of Contents

ABSTRACT	2
RESUMEN	2
1. INTRODUCTION	3
2. METHODOLOGY	4
2.1. Research Design.....	4
2.2. Samples.....	4
2.3. Instruments	4
3. THEORETICAL FRAMEWORK	5
3.1. Introduction to communication	5
3.1.1. The code model	5
3.1.2. The inferential model	6
3.1.3. Conclusion regarding code and inferential model.....	7
3.2. Relevance theory	8
3.2.1. Assumptions, cognitive environment and mutual manifestness.....	9
3.2.2. Relevance, the ostensive-inferential communication and stimuli	11
3.2.3 Positive cognitive effects	13
3.2.4. Degrees of relevance, processing effort and cognitive effect derivation ..	14
3.2.5. Lexical broadening: Narrowing, broadening and Ad hoc concepts	15
4. ANALYSIS OF HUMOR IN TBBT FROM THE PERSPECTIVE OF RT	17
4.1. Language-based jokes	18
4.1.1. Jokes in ostension-inference	18
4.1.2. Language jokes and puns.....	26
4.2. Culture-bound jokes	35
4.2.1. Gestures and kinesics	36
4.2.2. Famous characters and events.....	37
4.2.3. Symbolism	37
4.2.4. Customs and traditions.....	39
5. CONCLUSION.....	41
BIBLIOGRAPHICAL REFERENCES	42

ABSTRACT

Relevance theory (RT) has proven how in social interaction and communication the individual directs his attention to the information that is most relevant to his interest. To achieve this, the encoder seeks the attention of the addressee through different cognitive processes that achieve, through a minimum processing effort, a maximum cognizable effect. Humour is interrelated with language by two means; by playing with language, altering its principal elements – phonology, morphology, semantics and syntax – and by the cultural values of the generation we live in. The purpose of this dissertation is to analyse how assumptions proposed by RT, as initially expressed by Sperber and Wilson (1986) and supported by more recent linguistic studies, give place to the creation of humour. We have selected the first season of the American sitcom *The Big Bang Theory* for analysis in order to prove that RT through the use of several features of ostensive-inferential communication is useful on the creation of the humorous effect.

Keywords: Relevance Theory, pragmatics, assumption, ostensive-inferential communication, humour, sitcom.

RESUMEN

La *teoría de la relevancia* ha demostrado cómo en la interacción social y la comunicación el individuo dirige su atención a la información que resulta de mayor relevancia para su interés. Para conseguirlo, el codificador procura la atención del destinatario a través de diferentes procesos cognitivos que consigan, a través de un mínimo esfuerzo de procesamiento, un máximo efecto cognoscente. El humor está interrelacionado con el lenguaje de dos maneras; jugando con el lenguaje, alterando sus elementos principales – fonología, morfología, semántica y sintaxis – y por los valores culturales de la generación en la que vivimos. El objetivo de esta disertación es analizar cómo los supuestos propuestos por la *teoría de la relevancia*, expresados inicialmente por Sperber y Wilson (1986) y apoyados por estudios lingüísticos más recientes, prestan ayuda en la creación del humor. Hemos seleccionado la primera temporada de la serie de situación americana *The Big Bang Theory* para demostrar que la *teoría de la relevancia* a través del uso de características de la comunicación ostensiva-inferencial, es útil en la creación del efecto humorístico.

Palabras claves: Teoría de la Relevancia, pragmática, supuesto, comunicación ostensiva-inferencial, humor, sitcom.

1. INTRODUCTION

This dissertation consists on a study and analysis of how pragmatics and more specifically *RT*¹ supports the creation of humour.

Communication has been considered since the ancient Greeks the most primary and essential skill of mankind. The first studies and theories for the mastery of this human aptitude were carried out in Aristotle's era, as rhetoric and oratory were regarded as the 'art of speaking' more than twenty-four centuries ago and have been object of study ever since. Linguistics, or the scientific and precise study of human language, has analysed the different phenomena and social factors that influence *communication*, like context or effectiveness, appropriateness and acceptability of the communicative act so that the overall exchange of information can be treated as a success or a failure.

In order for the communicative act to take place, two different roles must be understood and executed by at least two entities: first the addresser or sender, who conveys and sends the message and second the addressee or recipient, who decodes the message being sent. In this exchange, Sperber & Wilson (1986) note that two layers of intentionality, referred as *ostension-inference*, rule the understanding of communication.

But, how does *ostension-inference* affect overall communication? Different studies on Pragmatics demonstrate that *ostensive-inferential communication* plays a fundamental role in verbal communication. The accurate understanding within two or more participants occurs through deduction when the encoding-decoding pair is under way. The *principle of relevance* takes place when the communicator produces ostensive stimuli, verbal or not, into an audience in order to assure that the message is being paid attention to and not to go unnoticed.

In order to create humour, we need to understand the intricacy of the features of *RT*. In this way, knowing how these features work will be extremely useful, not only to learn, but also to comprehend how relevant assumptions, in the forms of explicatures and implicatures, give place to the creation of humour.

Our fundamental aim in this dissertation is to study, analyse and to determine to what degree these assumptions of *RT* are useful for creating humour, focusing on to what degree the assumptions communicated are useful to American sitcoms in order to make generalisation from them.

¹ Sperber and Wilson (1986) employ *RT* as initials for *relevance theory*. In our dissertation, we will use both *RT* and *relevance theory* to refer to the same concept.

2. METHODOLOGY

2.1. Research Design

The first step to take is to delimitate the object of study of the dissertation, discerning between the *code model* and *inferential model* of communication. The second step to take is, following Sperber & Wilson (1986) *RT*, to comprehend and develop the different features and characteristics of *RT* which result crucial in ostensive-inferential communication, as assumptions, cognitive environments, implicatures and explicatures, positive cognitive effects, processing effort and cognitive effect derivation and lexical broadening and *ad hoc* concepts, so that the theoretical framework of the dissertation is provided successfully. This theoretical framework is supported with more recent studies on the subject matter. Third, the practical framework, which should be considered the most relevant part of our dissertation is held to achieve the main objective of the dissertation, proving that relevance plays a fundamental role in both the informative and communicative intention of the addresser and subsequently humour through the use of language and puns along with sociocultural features present in daily-life conversation. I will back up my findings with other supporting disciplines related to *pragmatics*, discussing how humour is created through relevance, or not, in assumptions.

2.2. Samples

The corpus-based data considered for the practical framework of the dissertation is the first season of the American sitcom *The Big Bang Theory*. *TBBT*'s first season comprises 17 episodes, in which the most semantically and pragmatically charged utterances take place as the plot results more elaborated, emphasizing character development and humour creation. In other words, the choice of analysing the exact first season has not been arbitrary, but selected thoughtfully, so that it can be easily observed how *RT* features apply on humour.

2.3. Instruments

As for the instruments employed in my research, audiovisual recordings of the 17 episodes of the first season, available with subtitles through Amazon Prime Video, as well as transcripts extracted from <https://bigbangtrans.wordpress.com/> have been employed. Both subtitling and transcription have been examined for comparison, so that we possess two truthful and viable options for our practical framework analysis of *RT* concerning humour. Furthermore, through screenshots of the actual TV series, it may be provided further understanding into some scenes

in which the visual component results of vital importance. Regarding data analysis, we have used qualitative data collected by observation of transcripts and audiovisual content, leaving apart statistical results, proper of quantitative analysis.

3. THEORETICAL FRAMEWORK

3.1. Introduction to communication

The term *communication* is understood, succinctly, as a *content* packaged in the form of words that is sent to a recipient for unpacking upon receipt. This process, however, is much more far-fetched than this initial assertion, since communication implies the existence of at least two individuals who process a content or information through cognitive processes that occur between the source of information providing the message and the addressee receiving and projecting this message, existing, therefore, an exchange of ideas between them.

3.1.1. The code model

From Aristotle's model proposed in his *De Interpretatione* twenty-four centuries ago, to the modern semiotics first proposed by Saussure (1916) in his *Cours de linguistique générale*, which studied signs in a sociolinguistic context, the *code* has traditionally been understood as a system that matches the concepts of *message*, mental representation that is established between individuals, and *signal*, modification of the external environment which must be produced by the sender and understood and interpreted by the receiver, so that two individuals can communicate satisfactorily.

Semioticians tried to compile a theory of communication, defined as *code model*, which would support that every system of signs shared to a point structural properties. Through empirical work several attempts were made by linguists like Hjelmslev (1928), Vygotsky (1962) or Leech (1983) to create a generative grammar.

Saussure (1974:16) observed that "Language is a system of signs that express ideas, and is therefore comparable to a system of writing, the alphabet of deaf-mutes...", Several attempts from other branches, like anthropologists, psycholinguists or sociologists like Levi-Strauss (1958) were made into this matter and while some recurrent patterns were drawn and similarity was shared to some degree, they never reached an underlying code as Saussure proposes.

In a pragmatic approach to the *code model* and communication, a distinction between *sentences* and *utterances* is issued, as *sentences* and their semantic representation only focus on linguistic properties, this is to say, related with semantics and meaning. On the other hand,

utterances concern both linguistic and non-linguistic properties, for example, where or when the utterance is transmitted, identity or intentions of the speaker and so forth. This means that depending on *context*, a very same sentence may vary in his interpretation.

The use of utterances is not restricted, however, to expressing thoughts, but they usually give out information regarding the role of participants, indicate propositional attitude, produce illocutionary force or suggest other utterances in an implicit manner, in other words, the utterance serves a certain purpose.

The *code model* was perceived as the only coherent and plausible explanation of why the communicative process was possible until an *inferential model* was developed in the view of philosophers of language that studied the relationship between language, thoughts and pragmatics. For instance, there are situations in which inferential *αναγνώριση* (recognition) of the *intentionality* of the message from one participant to another makes unnecessary the content of the utterance itself, as Grice's approach to *the inferential model* proposes.

3.1.2. The inferential model

The *inferential model* defends that communication is achieved through a given *context*, or set of premises, obtained by inferences that provide evidences. *Context* is defined by Goofman (1974:5) as "a frame that surrounds the event and provides resources for its appropriate interpretation". Hymes (1964) defines *context* as a sociopsychological construct that regards the assumptions of how the addressee conceives the world, in other words, context can be defined as the social and psychological circumstances that affect the behaviour and understanding of an entity, due to cultural, family, biological and situational factors.

Context should, however, not only be perceived as a mere social and psychological frame that affects a sole individual, but also that deeply influence a conversation within two or more participants, sometimes even compromising the understanding and interchange of messages. A few other punctual circumstances like location, time and number of participants of the conversation, social status of the participants and linguistic register employed or the purpose, also regarded as end-goal, of the conversation itself - to communicate, entertain, persuade or to instruct – will affect the encoding-decoding of messages, known as *code model*.

The *code model*, while supported by the vast majority of pragmatists, philosophers of language and psycholinguists, is not the only model that has been the object of study in these last decades, as Sperber and Wilson (1986), Grice (1961) and Lewis (1983) among other linguists have defended and ultimately demonstrated that an *inferential model* indeed coexists

with the *code model*. To put it differently, the decompression of messages in verbal communication contains concomitantly both decoding and inferential procedures.

The *inferential model*, through the likes of non-demonstrative inferences, logical forms, factual assumptions and deductions, strongly suggests that the nature of communication requires inferential procedures for the thorough comprehension of the encoding - decoding system in the communicative process.

Paul Grice (1957) was the starting point of an approach to *meaning* which resulted controversial. Nevertheless, it shed some light into the *inferential theory* of communication and ultimately into *RT*, which is the principal objective of our dissertation. Strawson (1964) redeveloped this approach to ‘meaning’ and communication pointing out that sometimes the listener’s recognition of the speaker’s intention may lead to its communicative fulfilment.

Providing direct evidence of our intention to transmit that information is considered a form of communication, defined as “ostensive-inferential communication” by Sperber & Wilson (1986:23), as the listener infers the speaker’s intention with precision. In addition, Sperber & Wilson (1986) conclude to replace the term *utterance*, not in the strict sense of linguistic utterances, but of any modification of the physical environment for *stimulus*, as they contemplate that an *utterance* is a case of a *stimulus*.

To conclude with the analysis of the *inferential model*, through Grice’s (1975) *co-operative principle*, in which the speaker should satisfy certain standards for communication to be considered appropriate and successful, it can be understood why an utterance which provides a range of thoughts expresses nonetheless an exact, unambiguous thought for both parties, as Blackburn (1975) and Katz (1972) also support. This is the consequence that, of the several mental representations of the sentence uttered, the listener only takes one of them as valid regarding the four maxims of conversation – of quantity, quality, relation and manner – proposed by Grice (1975).

3.1.3. Conclusion regarding code and inferential model

It is to be concluded then that succinctly addressing both the *code model* and the *inferential model* in our dissertation is necessary to comprehend these first approaches to communication. Our dissertation attempts to go beyond the plain study of the whole range of possibilities that thoughts are made of, but of the recognition and actual relevance degree that utterances conveyed from a speaker causes to a listener. To define *RT*, the devices and the significant aspects affecting communication in general will be identified, developed and exemplified. Thereby in the third part of our dissertation different fragments of the American

sitcom, *The Big Bang Theory*, will be further analysed, where these mechanisms emerge and create the desired effect on the viewer, in short, the humorous effect.

3.2. Relevance theory

We concluded the approach to the *inferential model* theory expressing that in spite of the fact that a communicator may provide a range of thoughts or mental representations in a single utterance, the listener will only accept as valid one of these multiple and possible options. The rationality of this choosing occurs due to several psycholinguistic features which reside under the same umbrella of another aspect that govern human communication: **relevance**. The main aim of our dissertation is to analyse and study Sperber & Wilson's (1986) *RT* that will make special emphasis on the psycholinguistic components of communication.

RT attempts to clarify that every input, it means linguistic or not, that a percipient receives from a diffuser is likely to become relevant. This relevant information, which may be transmitted for instance in a visual or oral manner, is part of the receiver's *cognitive environment*, as it will be further discussed in 3.2.1., so that the information has been previously stored by the percipient and it is considered meaningful to him.

Sperber & Wilson (1986) also support the fact that human cognitive system intends to get the maximum input and relevance with the least possible amount of effort, also known as *processing effort*. Carston (2012: 164) adds that human cognitive systems attempt "that the cost to their energy resources is kept as low as reasonably possible" regarding the processing effort of information.

The Gricean model expressed in the *inferential model* does not issue the *principle of relevance*, or maximizing the effort-effect relationship in communication. Grice and Wilson (1986) developed a new model of human communication, the *ostensive-inferential communication*, which defends that direct evidence of our communicative purpose is performed through a stimulus by the sender directed towards a receiver, as the listener infers the speaker's intention with precision.

The *principle of relevance* simultaneously gathers another key principle to successfully understand ostensive-inferential communication: the *communicative principle*. The communicative principle is adopted from one of the four conversational maxims seen in Grice's (1975) co-operative principle: the maxim of relation. Sperber and Wilson (1986:50) believe that "ostensive behaviour provides evidence of one's thoughts. It succeeds in doing so because it implies a guarantee of relevance. It implies such a guarantee because humans automatically turn their attention to what seems most relevant to them."

For further comprehension of the *principle of relevance* and the *communicative principle*, the definitions of both principles initially proposed by Sperber & Wilson (1986) are delineated in (1) and (2) respectively:

“(1) Human cognition tends to be geared to the maximisation of relevance.

(2) Every act of ostensive communication communicates a presumption of its own optimal relevance.” Sperber & Wilson (1986:268)

Furthermore, more recent studies like Pons (2004) uphold that in RT only those in which there is intentionality on the part of the speaker are considered communicative acts.

Once the two principles of RT have been diagnosed, we can interpret that the relevance of a certain piece of information is the result of the balance between the cognitive effort required to process the new information provided and the positive cognitive effects that the percipient will experience.

3.2.1. Assumptions, cognitive environment and mutual manifestness

For the analysis of RT, we must first bear in mind the definition of *assumption* provided by Wilson and Sperber (1986). These two linguists separate the concept of *thoughts* from *assumptions*. The first contemplates “conceptual representations” (1986:2) of an object or idea, while *assumptions*, the one which truly concerns us is defined as “thoughts treated by the individual as representations of the actual world” (ibid). The definition of *assumptions* may be extended and delimited, however.

First, individual cognitive abilities – i.e., effectiveness or construction of representations – are other determinants in the construction of assumptions regarding the perceptual, inferential abilities and memory skills that differentiate the distinct personal experiences that humans undergo throughout their lives.

To provide with an example, two individuals who have witnessed the same event, however clear, manifest and memorable it may be, such as an explosion or a car accident, may not be only different in interpretation, but how events happened during the event. In other words, the mental representation of an exact event in a very precise spatiotemporal framework can be experienced differently by these two individuals, because, as we will further develop in the dissertation, a series of *stimuli* cause us to perceive occurrence in a disparate way, as further studies on the matter like Loftus (1979) and Neisser (1982) have supported.

Second, while several sociopsychological features like familiar, cultural or biological bounds may set apart two individuals and their conception of the world and their ideas, these two individuals may also share a same set of assumptions or information about the world that surrounds them.

Sperber & Wilson (1986) believe that even if the individuals shared the same sociopsychological features, what they propose as their *cognitive environment* would still diverge. Sperber and Wilson (1986:39) suggest that “a *cognitive environment* of an individual is a set of facts that are *manifest* [...] representing it mentally and accepting its representation as true or probably true”.

We could, therefore, understand that for a fact to be manifest an individual should perceive it or infer it. The whole set of facts that are manifest for an individual conforms his total cognitive environment or complete knowledge of the individual, consequence of the cognitive abilities and sociopsychological features discussed above. The complete knowledge of the individual further helps with the perception and inference of facts, this is to say, the facts that he is aware of or capable of recognizing it.

We need to stress here one point, any assumption may be manifest for an individual regardless of being true or false, as any individual may mentally construct and accept as true any assumption which provides enough evidences, thus becoming a manifest fact for her.

While assumptions may be different in a dialogue with people with different cognitive environments, people within the same background share what is defined as *mutual knowledge*, which makes assumptions manifest for the participants in the same dialogue.

Although sharing similar knowledge would be studied at first in the ‘mutual-knowledge’ hypothesis, defended by Lewis (1969), Schiffer (1972) and Joshi, Webber & Sag (1981), a pragmatic approach to communication which supports that sharing the exact information about the world and its surroundings is beneficial for overall communication, Sperber and Wilson (1986) theorize that the definition of term *mutual knowledge* initially proposed is vague, as it does not provide any information about assumptions, manifestness or cognitive environments.

Sperber and Wilson (1986:42) call *mutual cognitive environment* to any manifest assumption shared between at least two participants in which “the fact that it is manifest to the people who share this environment is itself manifest”. This means that, a certain idea is obvious to both parties and, at the same, it is indeed obvious that both parties know and share the same mental representation of it. These manifest assumptions are what RT designates as being *mutually manifest*.

3.2.2. *Relevance, the ostensive-inferential communication and stimuli*

As previously seen before in our dissertation, the cognitive environment an individual possesses is equivalent to the set of manifest assumptions that are both true and obvious to him. Our dissertation is an attempt to prove that one feature – relevance – conditions human communication. We begin from the basis that human communication is relevance-oriented. As processing units of information that human beings are, we tend to steadily catch the most relevant and useful information to process and build new assumptions from new information in communication.

Reaching a goal with the least effort or the most efficiency is the main aim of, not just communication but every discipline known: sports, competitive videogames, sewing, business, teaching and the list goes on. In communicative exchanges, for instance, we intend to communicate the most, saying the least, we try to make our contribution worth: relevant. We will detail more about *efficiency* and *processing effort* effects in 3.2.4. of our dissertation.

Human cognition is definitely relevance-oriented and that means that knowing another individual's cognitive environment will infer which assumptions he will more like pay attention to, as well as build new assumptions from his mental representations as a consequence.

However, human cognition is not just relevance-oriented, but also *ostensive*, this means a message is sometimes not just meant to be communicated, but communicated with a purpose or intention. Paul Grice's (1957) first approach to *meaning* defended that a participant through an utterance does not just intend to convey the utterance but attempts for the other party to recognize his intention or purpose through the use of linguistic and non-linguistic features.

Strawson (1964) redeveloped this approach to *meaning* and communication pointing out that communication was conditioned by intentionality and provided three different purposes in an utterance.

- a) To produce a desirable response r by a listener L through an utterance x conveyed by the speaker S .
- b) That L recognizes S 's actual intention i .
- c) That L 's recognition of S 's actual intention i alters L 's response r into the desirable one.

Please consider the following utterance where a student tries to inform her teacher that she could not assist an exam because she was throwing up:

(3) I couldn't attend the exam because I felt sick.

We can observe that the utterance (3), following Strawson's (1964) approach to *intentionality* attempts: a) to produce in the teacher the desirable response (believing that she felt sick), b) so that the teacher recognizes her actual intention and c) as the recognition of her intention alters the teacher's response.

While communicative fulfilment of (3) depends on teacher considering that the student is being sincere and that the student's intention to inform is enough evidence for her, Sperber and Wilson (1986:50) argue that ostension in an utterance underlies "two levels of information". On the one hand, the information that has been *implicitly* conveyed and on the other hand, the information that has been intentionally, *explicitly* meant.

Regarding implicit and explicit meaning, Sperber & Wilson (1986:182) offer a definition for *implicature*, based on the model of Grice (1975), and on an analogous manner, of *explicature*, term coined by these two linguists. *Implicature* is defined as "any assumption communicated, but not explicitly so, is implicitly communicated" (1986:182), all together, an *explicature* is "an explicitly communicated assumption [...] explicit to a greater or lesser degree." (ibid).

Providing direct evidence of our intention to transmit that information is considered "a form of communication" by Sperber & Wilson (1986:23). This is defined as "*ostensive-inferential communication*" (1986:23), as the listener may infer the speaker's intention with precision.

Recognizing the purpose which ostension underlies is needed for an efficient processing of the utterance conveyed and its information. Needless to say, failing to discern the second layer of information, in other words, the intentionality of the explicature of the utterance conveyed, may suppose losing relevant and sometimes even crucial information.

But how do we, as processing efficient machines, recognize the actual purpose that ostensive-inferential communication is supplying us? How is communication achieved? The answer for Sperber & Wilson (1986) is simple: through the production of a *stimulus*.

Ostensive-inferential communication provides two different layers of information, implicit and explicit meaning, which coincide with Sperber and Wilson's (1986) duality of the *intentionality* of communication. Communicative events have an *informative intention* which "makes manifest or more manifest to the audience a set of assumptions" (1986:58) and a *communicative intention* which "makes it mutually manifest to audience and communicator that the communicator has this informative intention." (1986:61). In other words, *informative*

intention pretends to pervade an assumption and *communicative intention* to make an assumption *mutually manifest* for both entities.

To fulfil these two intentionalities of discourse and according to Sperber & Wilson's (1986) definition of the ostensive-inferential communication, the addresser will produce *stimuli* to make *mutually manifest* her² attempts to make a set of assumptions manifest to the addressee.

Stimulus is understood as "any modification of the physical environment designed to be perceived" (1986:29). In other words, any audiovisual input happening in a conversation, linguistic or not, that provokes the arising of *assumptions*. An utterance may produce a stimulus, as well as phonetics, kinesics, proxemics, phonetics or any other input involving the communicative event may produce *ostensive stimuli*, like mimicry, an ordinary bodily movement, a noise, pitch or volume range or any other coded signal which is attempting to reveal us an intention: a relevant information.

These *stimuli* trigger our cognitive processing apparatus which, through automatic decoding, focuses on the most relevant *stimuli* of the conversation, discerning thus between relevant and non-relevant information.

3.2.3 Positive cognitive effects

The notion of *positive cognitive effects*³ is essential for a description of the process of understanding. As a speech progresses, the listener recovers or builds and then processes a series of assumptions. These assumptions form a gradually changing background against which new information is processed.

Now, *positive cognitive effects* as seen in Sperber & Wilson (2004) in any cognitive systems, in other words, to an individual, are particular beliefs in the form of assumptions that change due to the new information provided. *Positive cognitive effects* fulfil or help fulfilling the communicate event through processing of only relevant information. As seen in the first model proposed by Bloom & Krathwohl (1956) regarding cognitive objectives, better known nowadays as *Bloom's taxonomy* of cognitive objectives, human beings are not keen on context effects, they are only interested in *positive cognitive effects*, which contribute to his cognitive objectives, or increase of his individual knowledge.

² Sperber and Wilson (1986) refer to the addresser as a female communicator, while the addressee is considered a male recipient of the information. We will follow the same pattern female addresser – male addressee for the whole theoretical part of our dissertation.

³ Sperber & Wilson (1986) which is the main departure point for our dissertation, refer to *positive cognitive effects* as *contextual effects*. We have opted to employ, therefore the *positive cognitive effect* term used since Sperber & Wilson's (2004) re-edition of *relevance theory* as the newest studies on the topic consider this label more accurate.

A *positive cognitive effect* is, therefore, the junction from old and new assumptions, both taken as premises, results in either the strengthen or weakening of the old assumption.

This reinforcement or abandonment of a previous assumption conditions the relevance of an interaction, in other words, the more significant the positive cognitive effect equals more relevance. Please, take a look at examples (3) and (4) and the synthetic implication in (5):

(4) If Pedro comes, Carlos will leave the room. ✓

(5) Pedro has just entered the room ✓

(6) =Carlos is leaving the room

The old information assumed in premise (4), after the new information provided in example (5) entails that (6) will occur as a conclusion. Should assumption (6) occur, it will strengthen the old assumption (4). Nonetheless, if assumption (6) is not happening then weakening or abandonment of assumption (4) will likely happen and a new assumption, for instance “If Pedro comes, Carlos will stay in the room” will arise.

Sperber & Wilson (1986:122) observe that “an assumption is relevant in a context if and only if it has some positive cognitive effects in that context”, otherwise it will not be considered relevant.

3.2.4. *Degrees of relevance, processing effort and cognitive effect derivation*

Concerning degrees of relevance and positive cognitive effects of assumptions, in a precise context in which the listener must choose between two assumptions, the assumption that will remain in the listener’s mind is the one which possesses a higher degree of relevance on a scale created by his own convictions (true > strong > weak > very weak). That is, the one with higher positive cognitive effect on the previous knowledge possessed, therefore being removed from the memory of the deductive mechanism the assumption with lesser degree.

Both *degrees of relevance* and *positive cognitive effects* share a ‘cost-benefit’ mindset that conditions the extent to which the concept of relevance works in an assumption. An assumption containing a positive cognitive effect, however small it may be, it must be considered, to some extent relevant. Productivity of the assumption should be considered compared to another assumption whose positive cognitive effect is much higher with the same *processing effort*.

Exactly as in a business company, it is prioritized to achieve a determined result through the lowest possible productivity. The lower the cost of production, the higher the productivity.

In other words, the higher the processing effort of a *stimulus*, the lower the relevance and efficiency of the assumption.

For an ostensive stimulus to reach its optimal processing status, the assumption must be simultaneously manifest and relevant to the addressee. It is usually done by pre-empting the information that it is to be perceived as relevant by the other party. On an additional note, we should have in mind that the more a representation is processed, the more accessible and relevant it becomes to the listener.

Relevance is, thus, a comparative concept that could be defined in terms of *extent conditions*, or easiness to be relevant and significant to the conversation. Two projections of the extent conditions of *relevance* can be extracted.

First, that an assumption is as relevant as the number of positive cognitive effects of this assumption are in a precise context. The bigger the number of positive cognitive effects, the more relevant the assumption will be.

Second, that an assumption is as relevant as the number of positive cognitive effects of this assumption are in a precise context. The smaller the cognitive effort, the more relevant the assumption will be.

In other words, the vital idea to be extracted is that the more *positive cognitive effects* may be derived from a stimulus or utterance, the greater the relevance and less the processing effort will be. On the other hand, the less *positive cognitive effects* – or none – may be derived from a stimulus or utterance, the greater the processing effort will be and consequently the less the relevance.

3.2.5. Lexical broadening: Narrowing, broadening and Ad hoc concepts

Lexical broadening of words generally applies in conversation through the concepts of *narrowing*, *broadening* and *ad hoc concepts*, which dramatically change the conception of positive cognitive effects and of utterances overall.

These three concepts have to do with pure pragmatics. Human beings possess two kinds of relevant knowledge in our mind: logical knowledge and encyclopaedic knowledge. The first, derived by our culture-bound individual properties and the second by assimilation with its concept or definition. the process involves accessing a relevant subset of the information. By using both logical and encyclopaedic knowledge, we can deal with extension or shortening of a lexical concept, thus reaching two polarizing opposites: *narrowing*, or an intended, precise meaning of a word – for instance, a polysemic or loose word – and *broadening*, or extension of

the properties, characteristics or features of a concept into another entity or concept due to assimilation, extension which is to be recognized and, therefore, relevant to the audience.

Narrowing more specifically deals with Grice's (1975) co-operative principle. Through the completion of its four maxims - quantity, quality, relation and manner – it can be understood why an utterance which provides a range of thoughts – therefore, supposed to be ambiguous in the hearer's mind – expresses nonetheless an exact, unambiguous thought for both parties, as Blackburn (1975) and Katz (1972) support. Thus, from the several mental representations of the sentence uttered, the listener takes only one of them as valid.

(7) My head of department tires me.

While two polysemic words, 'head' and 'tires', appear in utterance (7) which could result in ambiguity, there is only one valid, *relevant* interpretation of this utterance, with the assumption that the communicator is respecting the four conversational maxims provided by Grice (1975).

Another pragmatic feature is *broadening*, which is also concerned with verbal comprehension and relevance. While *narrowing* comprised understanding a precise, explicit meaning in an utterance, *broadening* attempts to reach the whole opposite, it intends to derive an implicit meaning in an utterance.

(8) Mary is a machine!

In example (8) Mary is indeed not a machine in an encyclopaedic, literal knowledge. However, in a logical, metaphorical manner 'Mary' is being attributed a series of properties, characteristics or features of a machine. The implicature of the utterance provided in (8) could be interpreted as 'Mary is not human / Mary is as perfect in her operations as it can possibly be' etc. In other words, the encyclopaedic knowledge that an individual possesses of a 'machine' and 'Mary' are brought together.

Ad hoc concepts, in fact have been matter of study in the last decades by several branches of linguistics like pragmatics or cognitive psychologists. We could define *ad hoc concept* as any newly-formed mental representation that depend on a vast manner of context whose aim is to make valid linguistic *stimuli* which in other situations would result of zero relevance. *Ad hoc concepts* are concepts made and conveyed on the spot in an unplanned manner. This means that the concept usually refers to a sudden innovation of language through the use of creativity which may be of high value if the *stimuli* produced by the addresser results

in strong enough *positive cognitive effects* to the addressee, so that it makes the *ad hoc concept*, the utterance and its intention relevant and therefore communication is successfully achieved.

It must be taken into consideration that the comprising of all other features of RT discussed until this point, like *assumptions, mutual knowledge and manifestness* and *efficiency* and *processing effort* of the information provided will also be crucial in the understanding and relevance of the *ad hoc concept*, and thus into the creation of the humorous effect, the main goal of the sitcom: making the audience laugh.

4. ANALYSIS OF HUMOUR IN TBBT FROM THE PERSPECTIVE OF RT

The practical framework of our dissertation will be focused on the American sitcom *The Big Bang Theory*.

The main objective is, based on Sperber & Wilson's (1986) RT and supported by more recent linguistic studies on the topic, to draw a comparison between these studies and nowadays' sitcoms, focusing on how humour is created through features of RT that support and gives place to the creation of the humorous effect.

The corpus-based data considered for the practical framework of the dissertation will be the first season of *The Big Bang Theory*. This American sitcom's first season comprises 17 episodes where RT regarding humour will be analysed.

The choice of analysing RT in a first season has not been arbitrary. The reason why the first season was chosen is that, in order to get the audience addicted, those are the episodes where the plot is more elaborated and there is a special emphasis on creating humour and developing the characters. In the other words, more semantically and pragmatically charged utterances take place and an overall better analysis of the features of RT that create the humorous effect can be focalised.

As observed in the theoretical framework of the dissertation, *relevance* of assumptions creates *stimuli* and *positive cognitive effects* in communication. This assertion goes hand in hand with Yus (2012, 2016) studies on this subject matter, considering that pragmatics is the most determinant scenario which creates humour, nevertheless semantic and cultural scenarios do also help supporting the humorous effect. Thus, RT features will be gathered in two large subgroups for our analysis: language-based jokes and culture-bound jokes. Both of them have to do with *relevance* and *ostensive-inferential communication* being fulfilled or not.

4.1. Language-based jokes

For the analysis of language-based jokes we will departure from the most basic aspects and precepts regarding the concept of *relevance* to the most particular features of it. We will provide examples on each subtopic addressed with a brief situational context, so that it can be understood how and when the humorous effect is created in a more precise manner.

4.1.1. Jokes in ostension-inference

Throughout this dissertation we have stated that communication is fulfilled due to the processing of ostension-inference in utterances. In these two layers of information – informative - communicative intention –, we find out that the addresser intends, first, to make manifest the information conveyed in the utterance and second to instruct the addressee of the purpose of the utterance, whereas such an addressee is in charge of inferring the addresser's ostension. In other words, implicit and explicit meaning of the assumption should be *mutually manifest*, otherwise it would result in loss of crucial information.

Our first instance is extracted from the very first scene of the pilot episode of *The Big Bang Theory* (TBBT). It illustrates how, as a result of the inaccuracy of the addressee's inference about the addresser's ostension, a non-expected utterance both for the addressee of the conversation and the viewer is conveyed in response.

(1) Scene: (A corridor at a sperm bank.)

- Sheldon: So, if a photon is directed through a plane with two slits in it and either slit is observed it will not go through both slits. If it's unobserved it will, however, if it's observed after it's left the plane but before it hits its target, it will not have gone through both slits.
- Leonard: Agreed, what's your point?
- Sheldon: There's no point, I just think it's a good idea for a T-shirt.



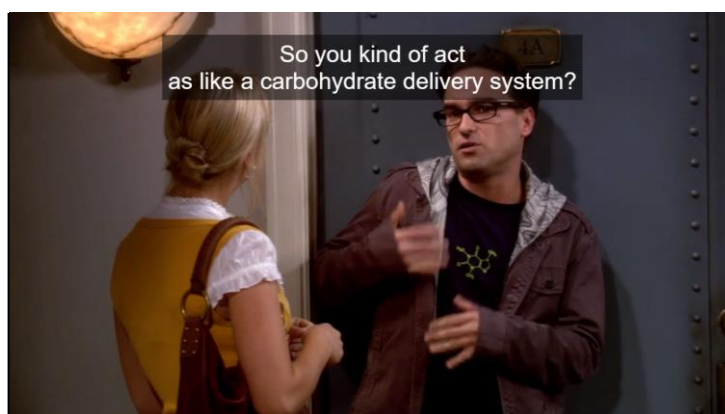
(TBBT, Episode 1.)

In this piece of conversation, Sheldon Cooper provides a long utterance talking about the characteristics of a photon who is directed into a plane. His friend, Leonard, being both physicists, infers that Sheldon is approximating himself into a new theory regarding these two objects. He asks ‘*What’s your point?*’ to make Sheldon specify in more detail his approach. However, miscalculation of Sheldon’s actual ostension, being a good idea for a T-shirt ‘*there’s no point*’, instead of Leonard’s deduction, informing about a new theory, this is to say, disparity between inference and ostension, creates the humorous effect.

While in our first instance of language-based jokes concerning ostensive-inferential communication, there is failure in the second layer of information – communicative intention – the humorous effect can also be created due to the first layer of information – informative intention – going wrong due to multiple reasons. In *TBBT*, there are many occasions on which Penny, a pretty waitress with no university studies, mingles with Sheldon, Leonard, Howard and Raj, four geeks with PhDs and illustrious careers. As we can assume, Penny’s *cognitive environment* diverges from the four geeks’ *cognitive environments*, so that not in few occasions Penny does not understand the informative intention of any of the four geeks, but sometimes it is vice versa.

(2) *Scene: (Penny knocks on Leonard’s door and he steps into hallway.)*

- Leonard: So, you’re coming home from work. That’s great. How was work.?
- Penny: Well, you know, it’s the Cheesecake Factory. People order cheesecake, and I bring it to them.
- Leonard: So, you kind of act as like a carbohydrate delivery system.
- Penny: Yeah, call it whatever you want, I get minimum wage.



(TBBT, Episode 2.)

We can observe that Leonard is attempting to reformulate, in a euphemistic manner, Penny’s job so that it seems more appealing. Nevertheless, the informative (waitress of

cheesecakes → carbohydrate delivery) nor the communicative intention (praising her duties) are not fulfilled as the *assumption* that cheesecakes are loaded with carbohydrates and that a waitress is some sort of delivery system who satisfies customers' needs are not *manifest* to Penny and the *positive cognitive effects* Leonard is attempting are not worth her processing effort. In short, the contextual relevance for Penny is not the name of her job nor her duties, but the outcome of her job, in other words, her salary. Leonard's addition to the conversation is not relevant to Penny, as she considers the name-change does not add nor improves her quality life, therefore it is not relevant to her, she will still get minimum wage.

As Sperber & Wilson (1986) support, *positive cognitive effects* and *stimuli* created by the *context* of the conversation may severely affect the nature of conversation. Generally, the junction from old and new assumptions in conversations, both taken as premises, results in either the strengthening or weakening of the old assumption. The addressee may expect, after the uttering of the new assumption conveyed by the addresser to strength or debilitate his previous assumption. This belief is, though, erroneous and thus, the humorous effect is created due to erroneous inference of the actual meaning of the assumption.

(3) Scene: (*Penny's apartment, penny is sleeping, Sheldon is cleaning. Leonard enters.*)

- Leonard: Sheldon, we have to get out of here. (Penny snores)
- Sheldon: You might want to speak in a lower register.
- Leonard: What?
- Sheldon: Evolution has made women sensitive to high pitched noises while they sleep, so that they'll be roused by a crying baby. If you want to avoid waking her, speak in a lower register.
- Leonard: That's ridiculous. (*Penny snores again.*)
- Sheldon: No, (*lowering his voice dramatically*) that's ridiculous.
- Leonard (*doing likewise*): Fine. I accept your premise, now please let's go.

(TBBT, Episode 2.)

In this scene, Leonard wants Sheldon to immediately leave Penny's vicinity as there is no justified reason, according to him, to be inside his house, at night, while she sleeps. While Leonard is telling Sheldon, Sheldon considers relevant to advise Leonard to lower his volume register, as high pitch wakes women up. In order to get the desired effect, Sheldon attempts to produce *positive cognitive effects* through *stimuli* to make his assumption *mutually manifest* to Leonard. Leonard's assumption of suddenly waking up has to do with lower or higher tone volume, not with pitch, therefore, he abandons that new assumption and he continues his speech as usual, expecting his previous assumption to be strengthened as a result. When Leonard

continues, Penny snores again, which makes him realize, along with a new intervention by Sheldon about Leonard's old assumption 'that's ridiculous', that the new assumption may probably have weight, weakening his old assumption to give rise to a new assumption that contradicts the old thought he had. This erroneous weakening-strengthening of assumptions, in other words, the erroneous reinforcement or abandonment of a previous assumption which conditions the relevance of an interaction, as at first Leonard's assumption becomes irrelevant, but then yields more significant positive cognitive effects – which equals more relevance –, creates the humorous effect in this scene.

To this point, we have dealt with examples concerning relevance in the informative and communicative intention. However, *implicatures* and *explicatures* have not been yet issued. Human beings usually understand implicatures, or intentionality underlying an utterance, much better than explicatures, or explicit, direct ostension in an utterance as human beings are used to transmit intention in an indirect manner, rather than with direct language. This is caused due to ostensive-inferential communication which has been proved worth regarding accurately inferring the speaker's intention, so that human beings do not have to face direct, and somehow compromising, transmission of our actual intention. Comparing scenes 4 and 5, in the former an implicature is exhibited, whereas in the latter an explicature occurs.

(4) *(Scene: Howard is in a telephone call with Leonard. Howard is in his mother's house. Leonard is leaving the apartment where Sheldon is ill.)*

-Leonard: You call Koothrappali, we need to find a place to lay low for the next eighteen to twenty four hours.

-Howard: Stand by. Ma, can my friends come over?

-Howard's Mother: I just had the carpets steamed.

-Howard: That's a negatory.

(TBBT, Episode 11.)

(5) *Scene: (Leonard's bedroom. Penny is looking through his closet.)*

- Penny: Okay, well, let's just see what else you have. Okay, here, take this, and this, and this, and these.

- Leonard: Is this all stuff you want me to try on?

- Penny: No, this is stuff I want you to throw out. Seriously, don't even give it to charity, you won't be helping anyone.



(TBBT, Episode 9.)

After looking at scene 4 and 5 we may realize that a clear implicature is exhibited in scene 4, while an explicature is uttered in scene 5.

Firstly, in scene 4, it can be shown as Howard's mother responds to Howard's request of bringing his friends home with 'I just had the carpets steamed'. Howard's cognitive apparatus infers her ostension: her carpets are clean, probably just as her house is, so she does not want anybody at home to ensure the carpets do not get dirty again. In other words, she is indirectly rejecting Howard's proposal without explicitly uttering so.

Secondly, in scene 5, we may observe Penny selecting a bunch of clothes of Leonard's closet and giving it to him. Leonard feels that the articles selected, along with being probably too much, are his best clothing, so he asks Penny if that is the clothes to try on, expecting a 'yes' on her side. Penny however explicitly refuses indicating that 'No, it is stuff to throw out', so that her ostension is clear. In other words, she is explicitly rejecting Leonard's proposal through informative intention of the assumption instead of through communicative intention, characteristic of implicatures.

In *TBBT* and sitcoms in general, the uttering of a second not desirable option usually creates the humorous effect, as Levinson (1983) remembers: the notion of markedness (preferred-dispreferred responses) is a linguistic concept that applies to the psychological status of the individual. In humour, it usually comes with a *check-clarification* conversational pair. The real intention of the first party is an understanding check, or confirming the addresser assumption. Nevertheless, the content expressed in Penny's explicature does not fulfil

Leonard's expectations. The non-expectancy of Penny's answer, this is to say, the surprise element structure, creates humour once again.

In ostension-inference communication the visual aspect may also result relevant for the parties participating in the conversation as well as for the viewer, as we can observe in Díaz-Pérez (2014) regarding seeking optimal relevance in series and films by aids of the visual component. Through the use of the visual component, the addressee may infer *relevant* information, thus indicating *ostensive stimuli* through *positive cognitive effects*, having in mind that the *assumption* of the gesture is *mutually manifest* to both of them. This stimulus, while helpful, does not require of language to provide relevance to the conversation. This is the case of example of gestures and kinesics⁴, like putting a finger to your lips to indicate silence or nodding your head for approval. Moreover, gestures and kinesics' communicative intention may be even more relevant than the informative intention conveyed in the utterance.

(6) Scene: (The apartment living room)

-Sheldon: Wo de zhing shi Sheldon.

-Howard: No, it's Wo de ming zi shi Sheldon. (Makes a hand movement with every syllable.)

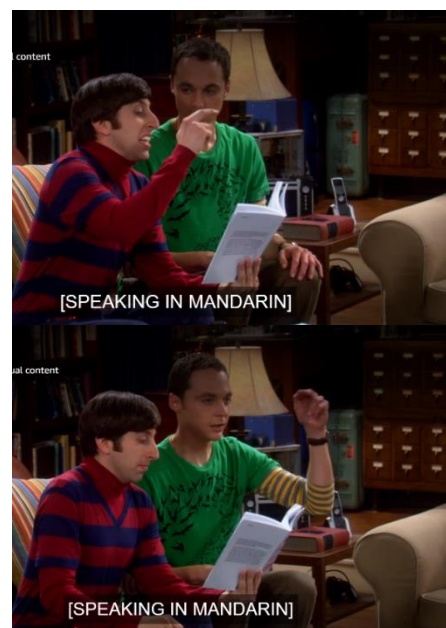
-Sheldon: Wo de ming zi shi Sheldon. (Copies hand movements.)

-Howard: What's this? (Repeats hand movements.)

-Sheldon: That's what you did. I assumed as in a number of languages that the gesture was part of the phrase.

-Howard: Well it's not.

(TBBT, Episode 16.)



In this conversation, Howard is trying to teach Sheldon Chinese by means of repetition. Howard attempts to make the grammatical structures uttered become *mutually manifest* to both of them. Sheldon's utterance is not grammatically correct, so that Howard repeats his sentence syllable by syllable and makes a hand movement with every distinct syllable uttered. Sheldon erroneously infers that his mistake is not only grammatical, but also not repeating Howard's hand gestures. Kinesics becomes relevant to Sheldon even to a greater degree than language. This is caused because kinesics creates a series of *stimuli* and *positive cognitive effects* in

⁴ Moreover, kinesics and gestures in culture-bound jokes will be further detailed in 4.2.1.

Sheldon's mind that result stronger and more suggestive than the *informative intention* uttered by Howard's words, as Chinese words are not part of Sheldon's *cognitive environment*, so that the grammatical structure is not *manifest* to him. Furthermore, Sheldon's *cognitive environment* supports him building new assumptions – Chinese is a language that employs hand gestures – from previous assumptions – some languages employ hand gestures –.

Nevertheless, there is one Discourse Analysis feature that stands out while creating the humorous effect, *turn-constructual units* (TCU) or every unit in an A-B-A-B construction in a conversation as Sacks, Schegloff and Jefferson (1974) state. Generally, the roles speaker/listener may be switched smoothly at the exact moment of the completion of the speaker's TCU, nonetheless, there is existence of *overlaps*, or moments where two speakers talk at the same time to compete for their turn. Overlaps will either occur as inadvertent overlaps or as violative interruptions. Violative interruptions, due to the process of ostension-inference in communication, create the humorous effect, as we can observe in the following extract:

(7) Scene: (Penny and Leonard are talking in the hallway.)

- Penny: Yeah, anyways, I was wondering if you could help me out with something, I wa-//

- Leonard: //YES!

(TBBT, Episode 2.)

Leonard, who is in love with Penny, is having a conversation with her. While Penny is still conveying her utterance, Leonard suddenly interrupts her, when obviously it is not his turn yet. This happens due to Leonard already interpreting that her intention is to ask him for a favour. He infers her *intentionality*, which in the end gets optimal relevance and doesn't need to know more about her informative intention, as the communicative intention is already fulfilled to him. This violative interruption is considered not expected by the viewer, it is funny for the audience because it is seen as a ridiculous action to selflessly lend his help without knowing anything about her informative intention.

Silences are another feature of Discourse Analysis which support the creation of jokes in ostension-reference. While overlaps, intended or not, are still a verbal feature which compromises the communicative event, silences many times convey meaning without a single uttering of a word. At the same time, the meaning underlying the addresser's silence is relevant and may be inferred by the addressee.

(8) Scene: *(Penny comes out of her apartment and sees Leonard and Sheldon moving something upstairs that quite does not fit into the stairs. The lift is broken):*

-Penny: What are you doing?

-Leonard: Oh, just, you know, moving... something upstairs.

-Penny: What is it?

-Leonard: It's... you know, time machine.

-Penny: Yeah, okay, neat, but I really got to get to work, so....

-Leonard: Uh, just give us a few minutes.

-Penny: I don't have a few minutes, I'm running really late.

-Sheldon: Then I have a simple solution, go up to the roof, hop over to the next building, there's a small gap, don't look down if you're subject to vertigo, and use their stairwell.

-Penny: You're joking, right?

-Sheldon: Oh, I never joke when it comes to vertigo.

-Penny: Damn, okay, I'll just take the roof.

-Leonard: Hey, if you wait for us to set up the time machine, I can drop you off at work yesterday.

(Penny's face drops and does not utter a word) Time travel joke, it's not... never mind.



(TBBT, Episode 14.)

Penny is late for work and Sheldon, Leonard, Raj and Howard are moving the time machine upstairs in a manual manner, leaving no room for anyone to go downstairs or vice versa. Penny's communicative intention is to let her pass. Sheldon, however, non-ironically 'suggests' her in an ostensive, explicit⁵ manner to go to the roof and hop over the next building as the only possible solution. Penny erroneously infers that Sheldon's informative and communicative purpose just cannot be literal. After that, Leonard proposes another solution: if she waits for the

⁵ As detailed in examples 4 and 5 of the practical framework concerning *implicatures and explicatures*.

time machine to be set up, she may come back yesterday so she is not late anymore. Penny expresses her discomfort and shock through the use of *silence*. Silence is in a high degree relevant to Leonard as in the ostensive-inference process she expresses anger in her absence of words. Leonard quickly infers her ostension and intends to switch into another topic as his informative intention of time travelling has been rejected through the use of silence. We may then prove that silence is relevant in communicative events and offers dramatic yet humorous effects in sitcoms.

4.1.2. Language jokes and puns

Once we have provided enough evidence on how the fulfilment of the processing of ostension-inference in utterances is reached, or not, through several features of *RT*, we must not forget that *relevance* may be achieved through language employment in a non-canonical manner which will, as a matter of fact, create the humorous effect.

Language-based jokes may be created as a result of *lexical broadening* or a word becoming broader and with a more inclusive semantic content than its original encyclopaedic meaning. We may encounter in this pragmatic category literality, metaphors and the triad *narrowing – broadening – ad hoc concepts*.

We need to come back to Sperber & Wilson's (1986:243) approach to *relevance* for the analysis of literality and metaphors, as they consider that the line between metaphor and literality in utterances is thinner than many think due to metaphors being between the "propositional form of an utterance and the speaker's thought". On certain occasions, there is employment of inaccurate facts or data for easier understanding. In *TBBT*, the four geeks, especially Sheldon usually states data and facts in a literal, unequivocal manner with no margin to error.

(9) Scene: (*Sheldon has just been fired. Penny tries to comfort him*)

- Penny: Well, maybe it's all for the best, you know I always say, when one door closes, another one opens.

- Sheldon: No it doesn't. Not unless the two doors are connected by relays, or there are motion sensors involved.

- Penny: No, no, I meant...

- Sheldon: Or the first door closing causes a change of air pressure that acts upon the second door.

(*TBBT*, Episode 6.)

As it may be observed, literality in both Sheldon's inferring and assumptions creates the humorous effect. Penny conveys the utterance 'when one door closes, another one opens' employing *lexical broadening* for the word 'door', to comfort Sheldon through a closing-opening doors metaphor which is related with the search for new opportunities and leaving the past sealed in order to move forward. Sheldon, nonetheless, does not perceive Penny is metaphorically speaking to express ostension. Sheldon's relevance of her assumption yields in the literal meaning – when one door closes another one does not open because they are not interconnected in any ways –. Therefore, he considers relevant to respond with the assumption that is manifest to him, stating with scientific proof and evidence that her assumption is erroneous.

While narrowing, or the intended meaning of a word from a range of different representations in an utterance, may cause the humorous effect, it is *broadening* that which is applied best for joking, as it intends to derive an implicit meaning in a word through *lexical broadening*.

(10) Scene: (Sheldon and Penny standing outside Leonard's bedroom door. Leonard is inside having sexual affairs.)

Sheldon: So you're saying Leonard has a girl in there.

Penny: Well, either that or he's lost his tie rack and gotten really into Bryan Adams.

Lesley (voice off): Oh Leonard, you magnificent beast.

(TBBT, Episode 5.)

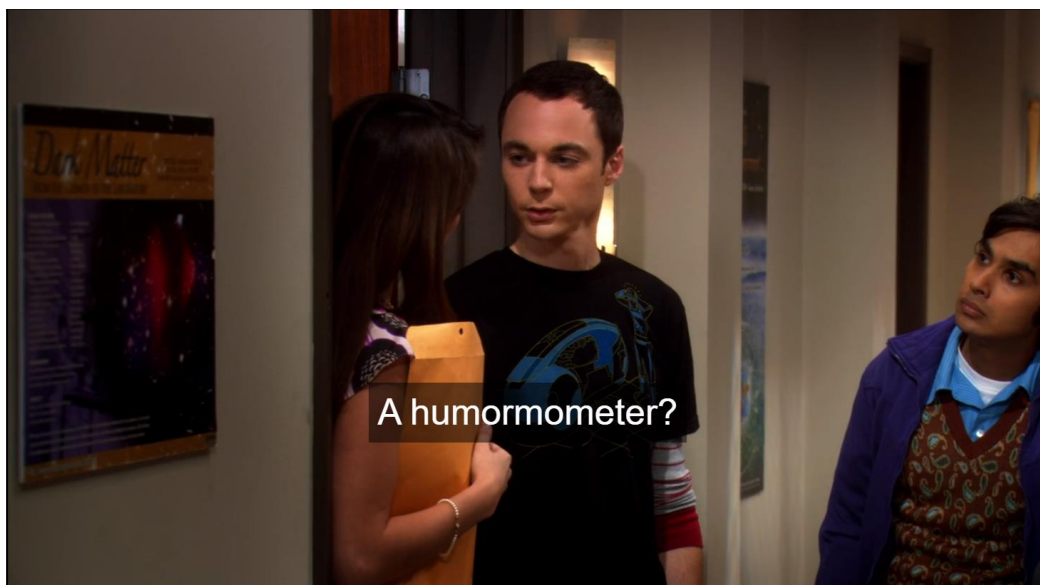
We may assume that Leonard is not a beast in the encyclopaedic, literal meaning of the word. Nevertheless, in a logical, metaphorical manner Leonard is being attributed a series of features proper of a beast. The utterance implies, thus, that Leonard is as aggressive and dangerous as a beast in bed or that he has the physical resilience of such an animal while having sexual affairs. This is to say that the encyclopaedic meaning of a 'beast' and Leonard are brought together, through *lexical broadening* of the concept of *beast*.

Ad hoc concepts are other forms of *lexical broadening*. These are sudden creations of words conveyed in *impromptu* in an utterance. These newly-formed mental representations, which depend on context, may result of high relevance provided that *positive cognitive effects* are produced by *stimuli*, so that the intention of these loose words is relevant and communication is fulfilled.

(11) Scene: (A corridor at the University. The four geeks gather with Sheldon's sister, Missy)

- Leonard: So, how do you two know each other.
- Missy: Oh, he once spent nine months with my legs wrapped around his head.
- Leonard: Excuse me?
- Sheldon: She's my twin sister, she thinks she's funny but frankly I've never been able to see it.
- Missy: It's because you have no measurable sense of humour, Shelly.

- Sheldon: How exactly would one measure a sense of humour? A *humormometer*?



(TBBT, Episode 15.)

Martínez-Sierra (2008) defends that should processing effort increase, it would go in detriment of the derivation of humorous effects. Nevertheless, the ad hoc concept, *humormometer*, created on the spot, is relevant to the viewers, as it requires little *processing effort* while ensuring *efficiency* in understanding the ostension behind the newly-formed word. Sheldon invents the *humormometer* as a *lexical broadening* of the word humour + meter, so that humour may be now measured. The concept nor the word really exist at all, but Sheldon's ostension is still relevant for the viewer, therefore it makes the audience laugh.

Another feature of language usually exhibited in jokes is sarcasm or employment of opposite words of your actual intentionality to mock someone or something in particular. Employment of sarcasm violates one of the four Grice's (1975) co-operative principle maxims, the maxim of quality, as the information provided is not as truthful if interpreted in a literal

way. The unique feature of sarcasm regarding *RT* and the subsequent the humorous effect created is that sarcasm may be *mutually manifest* to both communicators in a conversation, or it may not. In this sense, the sarcastic comment may be relevant to the addresser, but not otherwise. In turn, the communicative intention is defective.

(12) (*Scene: Sheldon and Leonard's living room, morning. Sheldon enters, singing to himself.*)

-Sheldon: Morning.

-Leonard: Morning.

-Sheldon: I have to say, I slept splendidly. Granted, not long, but just deeply and well.

-Leonard: I'm not surprised. A well known folk cure for insomnia is to break into your neighbour's apartment and clean.

-Sheldon: Sarcasm?

-Leonard: You think?

(*TBBT*, Episode 2.)

Sheldon becomes obsessed and suffers from insomnia because Penny's room is a complete chaos. Then Sheldon wakes up Leonard midnight and forces him to break into Penny's apartment to do some cleaning. In the morning, Sheldon assesses that he has “slept splendidly” due to the good deed of ordering someone's apartment. Sheldon however does not realize in his assessment that breaking into someone's apartment at night without her consent while she is asleep is not at all a good deed. Leonard utters a sarcastic comment, as breaking into your neighbour's apartment should not give you the ability to sleep in a calm manner, but the whole opposite, it should make you feel nervous about committing a possible crime. Retorts, in this case in the form of sarcasm, as Norrick (1984) provides, are a form of ridiculing someone's assumption. Moreover, according to Holmes (2006), these replicas are produced with a view to amusing the hearer. Sheldon does not get the sarcastic remark, therefore he misses essential information and needs to check if the information provided is sarcasm or not, to which Leonard responds with another sarcastic utterance. This is caused due to Sheldon considering cleaning a mess of a house, as he is a too neat person, obsessed with cleanliness, more important and relevant than breaking into someone else's house, so that the *assumption* uttered by Leonard is *not manifest* to him and therefore, not relevant.

The ostension of a sarcasm is to express the opposite information which has been uttered, as mentioned above. Sheldon, however as an obtuse gifted person does not usually comprehends non-literal language and assumptions. That is the reason why sarcasm is on

repeated occasions not correctly inferred by him, so that he may need to check the veracity of the assumption with another question or, as a pun that it is, may also be inferred with aids of a visual component.

(13) Scene: (Sheldon and Leonard's living room, same morning. Penny angrily enters.)

-Penny: Give me back my key.

-Leonard: I'm very, very sorry.

-Penny: Do you understand how creepy this is?

-Leonard: Oh, yes, we discussed it at length last night.

-Penny: In my apartment, while I was sleeping.

-Sheldon: And snoring. And that's probably just a sinus infection, but it could be sleep apnoea, you might want to see an otolaryngologist... (Penny shows a shocked face). It's a throat doctor.

-Penny: And what kind of doctor removes shoes from asses?

-Sheldon: Depending on the depth, that's either a proctologist or a general surgeon. (Leonard holds up a sign reading "Sarcasm") ... Oh!



(TBBT, Episode 2.)

After Penny realizes that the geeks have broken into her house, she demands her keys back. Penny screams because they came in while she was sleeping, to which Sheldon considers it relevant to indicate that she was also snoring and that it might be due to a sinusitis and that she should see an otolaryngologist, violating Grice's (1975) maxims of quantity and relevance at the same time. In response, she sarcastically asks what is the scientific name of the doctor who, instead of removing the mucous membranes from the nose and throat, removes shoes from asses. Sheldon again considers the literal meaning of the phrase relevant, thus answering his question. Subsequently Leonard helping Sheldon out pointing out that it was sarcasm. The fact that Sheldon does not and will not get any non-literal comment, either sarcasm, metaphor, or

any other literary figure that is not part of his *cognitive knowledge*, which could have been easily inferred by any other individual, becomes at the same time *relevant* and a recurrent laughing matter for the audience.

Dealing with rhetorical devices and figures of speech, utterances conveyed time and time again are exaggerated to the extreme. This is the case of hyperboles, where a comment is exaggerated in such a way that it should not be taken literally. Fortunately, in this case it is Sheldon the one who conveys the assumption, so he will not need to make any cognitive effort to interpret the correct intention of the utterance.

(14) Scene: (Penny and Sheldon walking up the stairs.)

-Sheldon: Oh dear God!

-Penny: Little misunderstanding, huh.

-Sheldon: A little misunder.... Galileo and the Pope had a little misunderstanding.

(TBBT, Episode 9.)

Penny is trying to get Leonard and Sheldon to make amends and talks to him using euphemisms about a ‘little misunderstanding’ about a scientific work in which she shares authorship with Leonard, however Sheldon proclaims himself sole author of the work, leaving Leonard as a mere helper, fighting both abruptly. Sheldon considers that this abrupt break of friendship and omission of speech, while ironically still living under the same roof, is not casual or fortuitous, but provoked and of even greater colossal magnitudes than Galileo’s break with the pope and the Christian church. Also known as *il processo to Galileo Galilei*, this case lasted more than 20 years and culminated in the trial and conviction of Galileo Galilei by the Roman Inquisition due to Galileo’s heliocentric model, rather than the geocentric, to lifetime house arrest.

Sheldon, first, possesses a set of assumptions about Galileo and his work, as well as how it turned out with the Christian church, so that he may express it resorting to his cognitive knowledge. Sheldon considers relevant to issue that the clash of Leonard and Sheldon’s assumptions regarding authorship is a more important clash than clash by the Roman Inquisition and Galileo for their opposite ideas. This is caused due to Leonard assuming that he collaborated enough to be considered author instead of helper. However, by Sheldon’s assumptions, he is solely author of the experiment, acting as an inquisitor, and condemning Leonard, the collaborator, not to be able to use his project. The gap between the two physicists is so huge that this figure of speech is used, producing the humorous effect.

Wordplay, as we can observe in Yus (2012) is another linguistic feature commonly used in sitcoms and *TBBT* is not exempt from that. Wordplay is employed in an intelligent manner so that it creates a joking effect. While wordplay could be extended by infinite, we will focus on three different types of word play, through the use of homophony, polysemy in homographs and visual puns in context. In this first instance, homophony between two different words with different grammatical category is issued which, needless to say, convey two different meanings, one being pejorative while the other one resulting complimentary.

(15) *Scene: (The apartment living room. Leonard and Sheldon are talking while dressed up with Halloween costumes.)*

-Leonard: Terrific. Um, this party is my first chance for Penny to see me in the context of her social group, and I need you not to embarrass me tonight.

-Sheldon: Well, what exactly do you mean by embarrass you?

-Leonard: For example, tonight no-one needs to know that my middle name is Leakey.

-Sheldon: Well, there's nothing embarrassing about that, your father worked with Lewis Leakey, a great anthropologist. It had nothing to do with your bed-wetting.

(*TBBT*, Episode 6.)

Homophony between Leonard's second name, Leakey, and the verb 'leak' is issued in this scene. Sheldon's use of literalness has embarrassed him in past events, so Leonard asks him to please not embarrass him once again. Leonard then utters Sheldon's assumption that Leakey is something to be proud of, because he is descended from a reputed scientist, for Leonard and probably the rest of humanity. However, the assumption is that Leakey is funny due to being homophone with the adjective 'leaky' from the verb 'leak', which means someone or something that has a crack so that liquids get through – in this case, urine –. We do not know for certain whether Leonard leaked on his pants while he was a child and he was made fun of, but we know that relevance for Leonard and overall people is that *Leakey* approaches to *leaky*, so it is degrading, instead of Sheldon's conception of Leakey, which results exalting as Lewis Leakey was a famous anthropologist and has more relevance than a crude adjective. Moreover, Lewis Leakey has zero relevance to generic people as in all likelihood nobody knows who the man is.

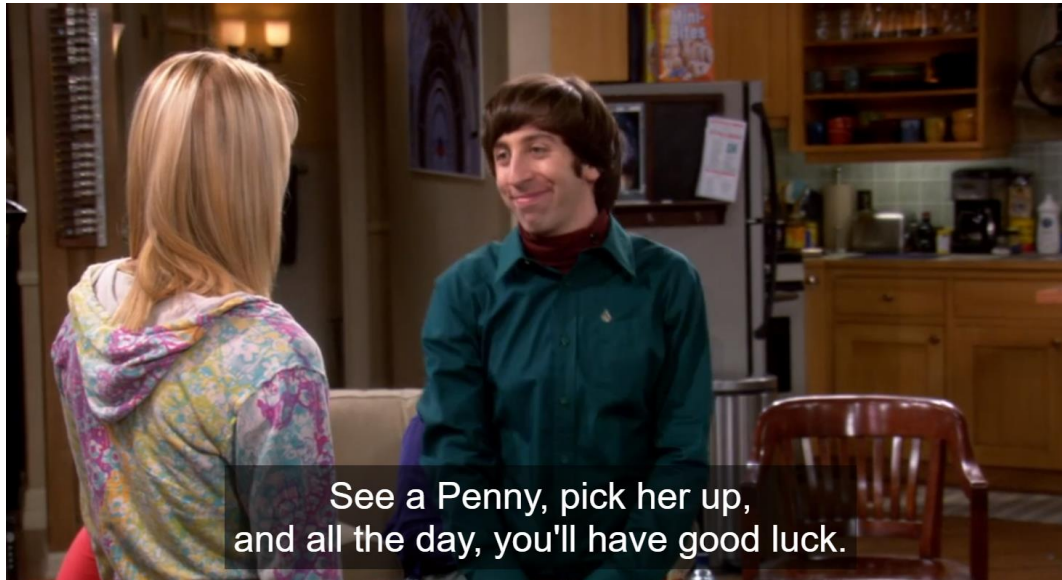
To provide with another example, wordplay may be employed along with other characteristics like visual puns or blending with common features of the sociocultural background.

(16) Scene: (The apartment living room. Penny appears, so that Howard compliments her.)

Leonard (opening door): Hey Penny, come on in.

Penny: Hey guys.

Howard: See a Penny, pick her up, and all the day you'll have good luck.



(TBBT, Episode 7.)

Penny enters Howard's and Sheldon's living room and, through wordplay, Howard expresses feeling blessed employing a proverb/saying that comes from the world of superstitions: 'See a Penny, pick IT up and all the day, you'll have good luck'. Howard changes the pronoun 'it' of the penny for the 'her' of Penny, meaning that should you encounter Penny the rest of the day will be lucky, as she is object of desire just as money. Penny is on scene, so we may understand that her own character and name serve as a visual pun, or a word game involving an image or images, often based on a riddle. The visual pun along with the polysemy is relevant to both Penny and the audience, as the pair Penny-penny and knowledge of the saying (we will further develop culture-bound jokes in 4.2. of our dissertation) convey a series of positive cognitive effect and stimuli. These *stimuli* trigger our cognitive processing apparatus which, through automatic decoding, makes the information relevant, making up for the *cognitive effort* which is the inferring of the ostension, Penny > luckiness, in the wordplay.

In addition, wordplay may be used in a very specific context for the uttering of more than one ostension in a same assumption. These wordplays are conventionally precise due to their nature in which, without the wordplay and supporting visual puns (if any), the ostension would result of little relevance and difficult to infer.

(17) Scene: (The living room of the apartment. Leonard and Sheldon are playing the three dimensional chess game from the original Star Trek series. It is Leonard's move. He takes his time, but finally he tentatively makes a move. Sheldon moves almost immediately.)

-Sheldon: Checkmate.

-Leonard: O-o-o-o-h! Again?

-Sheldon: Obviously you're not well suited for three-dimensional chess, perhaps three dimensional candyland would be more your speed.

-Leonard: Just reset the board.

-Sheldon: It must be humbling to suck on so many different levels.



(TBBT, Episode 11.)

Wordplay and visual puns, may be applied in several ways in an implicit or explicit manner through the use of language, context and distinct visual components. In this scene, both are playing 3D chess, so that the chessboard is divided into five different levels to ensure a different playing experience. While Leonard thinks a lot about his chess move, Sheldon immediately moves and checkmates Leonard. Sheldon utters that Leonard sucks on many different levels. Sheldon's real ostension is that Leonard is truly bad at many things or 'different levels'. As may be observed, he cleverly states it so that he is referring to the chessboard and to Leonard's personal life. The uttering of this wordplay joke is only relevant in this very context where they are playing 3D chess, so that on any other occasion, e.g., playing traditional chess, conveying the same assumption 'to suck on so many different levels' would not result funny nor it would reach the same relevance degree. We must remember that assumptions have a cost-benefit relationship, so that it would probably not be worth to the viewer paying special attention as not enough positive cognitive effects would affect the viewer. This is to say, without the wordplay the assumption would be of little relevance as there would be no additional stimuli

created by Sheldon's double ostension, so that the viewer's attention would not be positively altered without the riddle and humorous effect created in consequence.

Sexual innuendos in sitcoms are also frequent and part of wordplay jokes in sitcoms, as Díaz-Pérez (2021) analyses. The ambiguous effect of the wordplay created in the utterances conveyed, as we may observe below in scene (18), are characterised by having a minimum processing effort with the maximum amount of positive cognitive effects in the viewer, so that it results relevant and funny. Should the processing effort of these sexual approaches be higher, the relevance of the assumptions would, in turn, be lower.

(18) Scene: (A corridor at the University. Leonard and Raj see Howard and others staring at Sheldon's office.)

Howard: Shhh! Hot girl in Sheldon's office.

Leonard: Sheldon's office? Is she lost?

Howard: Don't think so. I followed her here from the parking lot.

Leonard: Maybe she's his lawyer.

Howard: Well, she's free to examine my briefs.

Leonard: Howard...

Howard: I know, I'm disgusting, I should be punished. By her, oh look, I did it again.

(TBBT, Episode 14.)

4.2. Culture-bound jokes

Culture-bound jokes also have to do with the principle of relevance. On many occasions a content or intention conveyed in an utterance, gestures, symbols, alluding to famous characters or any other cultural event, to provide with quick examples, are related to the aspect of *relevance*. Should any of these aforementioned not be perceived, it would denote that these phenomena are not culturally-bound, this is to say, *relevant* to the addressee in the conversation taking place.

This is the consequence of the addresser making an *assumption* that is **not mutually manifest** to everybody participating in the communicative event. In other words, the mental representation of the assumption is not perceived as true or probably true, so *ostensive stimuli* which should take place while conveying the information and ostension and processing and inferring the *intentionality* of these two layers fail and thus communication is not fulfilled to *optimal relevance*. In short, these assumptions more often than not create the humorous effect.

4.2.1. Gestures and kinesics

We have already proved in the practical part of our dissertation⁶ how gestures and kinesics may be relevant when they produce a set of positive cognitive effects in the addressee in scene. Gestures and kinesics, furthermore, may be linked to cultural factors which reside into the *cognitive environment* of individuals. Should this gesture or kinesics be *mutually manifest* to every participant, in other words, among individuals sharing the same sociocultural background, it would be relevant for the conversation.

(19) Scene: (*The apartment. The four geeks are talking first about Star Trek. Then they proceed to try to convince Sheldon to join his University Physics Bowl this year.*)

Leonard: Sheldon, what, do I need to quote Spock's dying words to you.

Sheldon: No, don't.

Leonard: The needs of the many.

Howard: Outweigh the needs of the few.

Sheldon: Or the one. Dammit, I'll do it.



(TBBT, Episode 13.)

The double V hand gesture that Sheldon makes, also known as Vulcan salute, along with Spock's dying words, are relevant just for Star Trek fanatics. As the four geeks are Star Trek fans, every member infers and understands Sheldon's ostension with his Vulcan salute that means 'long live' to the group, as he now belongs to it. The gesture, as it is provided in a correct context, adds to the purpose of communication and culture-bound jokes. In opposition, people with different sociocultural background would not understand the hand gesture and, therefore, it would be of zero relevance.

⁶ Please refer back to scene 6 for more information regarding relevance on gestures and kinesics in ostensive-inferential communication.

4.2.2. Famous characters and events

Famous characters and events which are recognizable, in other words mutually manifest assumptions to both addresser and addressee, are frequently used in sitcoms because they usually trigger cognitive processes which create a series of *stimuli* with little to no effort. Allusion to personalities or memorabilia occurs either when their mention is relevant in context or, on the contrary, when a character does not know an event or famous character that is presumed as manifest.

(20) Scene: (*In the apartment. The four geeks and Penny are eating. Sheldon has just been humiliated by a 15-year-old gifted psychiatrist.*)

Leonard: Something you'd like to share? A tale of woe perhaps.

Sheldon: Fifteen years old. Dennis Kim is fifteen years old, and he's already correcting my work. Today I went from being Wolfgang Amadeus Mozart to... you know, that other guy.

Howard: Antonio Salieri?

Sheldon: Oh, God, now even you're smarter than me.

In this scene, we may fully observe how *relevance* works into the analysis of culture-bound jokes in famous characters or events. While the famous character of Mozart is generally relevant to most people due to being a recognizable name, this is to say, it is a mutually manifest assumption in conversation, Mozart's archenemy Antonio Salieri is the secondary, irrelevant musician who nobody knows or remembers. He is not part of anybody's cognitive environment, therefore uttering his name results of little relevance. The creation of humour in this scene resides in Sheldon believing that he went from the best, recognizable – relevant – psychiatrist, to the second, irrelevant one that nobody will ever remember. (Aclaración: Me refería a que Sheldon es el psychiatrist que ha pasado del mejor al irreconocible, tal y como ocurre con Salieri, al que nadie recuerda)

4.2.3. Symbolism

Symbols are, on the whole, mutually manifest assumptions to the participants in a conversation due to being conventional representations of common knowledge for the members of society. As mentioned in 4.1.1. concerning language-based jokes in ostensive-inferential communication, Penny's *cognitive environment* diverges from the four geeks' *cognitive*

environments. While oftentimes is Penny the one who cannot infer the ostension of any of the four geeks, sometimes it results otherwise.

(21) Scene: (Sheldon and Penny standing outside Leonard's bedroom door. Bryan Adams "Have You Ever Loved A Woman" is emerging. There is a tie on the bedroom door. Both Sheldon and Penny are looking the tie.)

Sheldon: Well?

Penny: Well what?

Sheldon: What does it mean?

Penny: Oh, come on, you went to college.

Sheldon: Yes, but I was eleven.

Penny: Alright, look, a tie on the doorknob usually means someone doesn't want to be disturbed because they're, you know, getting busy.



(TBBT, Episode 5.)

It is of basic American knowledge to infer that a tie on the doorknob of a room means that they are not to be disturbed because they are having sexual affairs. While Penny usually lacks higher education, Sheldon generally lacks of basic education because of his different intellectual background, failing to realize basic American conventions like symbols or gestures. Thus, he cannot infer the ostension on the tie, because he has never faced the assumption regarding 'the tie on the doorknob'. It is not manifest to him that the tie conveys a non-linguistic communicative intention, so that he does not understand the ostension because, while he still perceives *stimuli* and considers the tie relevant to some degree – as it should not be placed there for no reason – , he does not share the same set of assumptions and is not capable of inferring

what the actual intention of the addresser, Leonard, is. Penny, on the other side, does share the assumption with Leonard; therefore, she completely understands the ostension and communicates the information to Sheldon, who from that point on will be able to understand the *assumption* and it will be *manifest* and *relevant* what the intention behind a tie on the doorknob is.

4.2.4. Customs and traditions

Customs and traditions are other culture-based features that result relevant for the creation of humorous effects. Customs and traditions are usually shared by people belonging to the same sociocultural background. Overall, when assumptions concerning customs are not either shared or manifest to the individuals participating in a conversation, discrepancies occur, thus, appearing the joking effect.

(22) Scene: (In the apartment. Ms.Cooper has just made dinner for everyone.)

Mrs Cooper: Okay. Alright everybody, it's time to eat. (Everybody begins to do so) Oh Lord, we thank you for this meal...



(TBBT, Episode 4.)

Everyone is gathered in the apartment after Sheldon's mother, Mrs Cooper, has made 'family' dinner. When Mrs Cooper agrees to start dinner, the other people in the scene interpret, then, that you can obviously start eating. However, Mrs Cooper is a devout Catholic and performs a prayer thanking God for the food when everyone has already put food in their mouths or was about to. The Christian traditions of Mrs Cooper are not *mutually manifest assumptions* nor shared by the rest, not belonging to the same background of Christianity. Ironically, Raj, who

is Hindu, and Howard, Jew, are shown on stage. Both are upset by that tradition that they did not know and have just violated, since it was *not relevant* to make a prayer thanking for the food on the table, as it was not part of their *cognitive environment*.

Furthermore, the thoughts or beliefs of an individual may or may not accurately reflect reality. Stereotypes, prejudices and discrimination may affect the course of the interaction as the recent studies by McGarty, Yzerbyt & Spears (2002) reflect. According to them, any conversation may change its intent into a completely different one due to socio-cultural and cognitive factors, in matter of microseconds.

(23) *Scene: The four geeks in the apartment. They have just concluded a new experiment.*

- Sheldon: You know, in the future, when we're disembodied brains in jars, we're going to look back on this as eight hours well wasted.

- Raj: I don't want to be in a jar. I want my brain in an android body. Eight feet tall and ripped.

- Howard: I'm with you. I just have to make sure if I'm a synthetic human I'd still be Jewish. I promised my mother.

- Raj: I suppose you could have your android penis circumcised. But that's something your Rabbi would have to discuss with the manufacturers.

- Sheldon: Not to mention you'd have to power down on Saturdays.

(TBBT, Episode 9.)

In this scene, after performing an experiment, the geeks imagine themselves with android bodies. Howard sees himself and the Jewish race as superior to others. Nonetheless, this vision does not represent an objective reality nor does it represent the subjective reality of its partners. Sheldon and Raj show some Jewish flaws as a culture, assuming that his android body would have to have the penis circumcised, that his rabbi, the one with power, would fight with the developer to do so and that the android would have to rest on Saturdays, like a good Jew. All these assumptions are relevant in the conversation since there is a Jew in it, simultaneously mocking and denigrating their customs.

Customs or traditions, however, while generally attributed to a certain group of people or society to be understood in communicative events, may be unique to a single individual, in which case its repeated use to a selected number of persons makes that custom relevant, since these series of assumptions will become relevant and manifest to them.

(24) *Scene: (Leonard's bedroom.)*

Sheldon: (Knock, knock, knock) Leonard, (Knock, knock, knock) Leonard, (Knock, knock, knock) Leonard.

(*TBBT*, Episode 10.)

(25) Scene: (*Outside Penny's door.*)

Sheldon: (Knock, knock, knock) Penny, (Knock, knock, knock) Penny, (Knock, knock, knock) Penny, (door opens) Good morning.



(*TBBT*, Episode 10.)

From episode 10 of season 1 of *TBBT* until the conclusion of the series 9 seasons later, the whole cast of the series gets used to be knocked on their door exactly 3 times with a mention of their names for three consecutive times by Sheldon Cooper as somehow a ritual or request for another person to open his/her door. This (knock-knock-knock + name) x3 formula done by Sheldon will get, indeed, relevant to the protagonists of the series, as this particular knocking on the door will be unique to the Sheldon character.

In addition, there are specific occasions when, for instance, Sheldon cannot issue the name of the recipient due to a terrible throat ache (season 4), yet still the second party know it is Sheldon the one knocking the door with no help of the oral component. To provide with another example, on another occasion (season 2), Penny knocks on Sheldon's door mocking Sheldon's knocking and custom. Be that as it may, we cannot deny that this unique custom of this unique character makes this action recognizable and therefore *relevant* by itself.

5. CONCLUSION

The results obtained in this dissertation are a clear demonstration of the general and specific objectives described initially.

Our goal consisted in analysing the creation of humour from the perspective of RT, framework initiated by Sperber & Wilson (1986) and supported by more recent linguistic studies. Another of our objectives throughout this dissertation was to raise awareness of the feature of *relevance*.

After having analysed the first season of the American sitcom *TBBT* and after investigating all the linguistic and visual features supporting humour, we can conclude that *relevance* is key to achieve humorous effects. The practical analysis of our dissertation proves that *RT* through the use of *ostensive-inferential communication* plays a fundamental role in verbal communication and subsequently in humour. The *principle of relevance* and the ostensive *stimuli* the addresser conveys for the addressee in the form of both implicatures and explicatures compromise the utterances issued depending on their informative and communicative intention in conversation.

Furthermore, the corpus-data consulted reveal that *positive cognitive effects* and the individual's *cognitive environment* of assumptions, manifest or not, support the creation of jokes in the ostension – inference process of communication, through the use of language and puns and with sociocultural features present in conversation like symbols, customs and traditions.

This work has been really useful for us not only to detect the features of RT supporting humour, but also to learn how the sociocultural background displayed by a certain individual may play a fundamental role in conversation.

The complexity of our dissertation has been greater than what we imagined at first, therefore, we expect in the near future that RT will be further developed in other projects, dissertations or theses, proving once again to be of highly productivity and relevance in the organization of human social interaction. We also humbly hope to have shed some light on other disciplines of *Pragmatics* to continue supporting RT as a fundamental theory which may help understand human behaviour more accurately, as well as on other studies about the creation of humorous effects.

BIBLIOGRAPHICAL REFERENCES

Blackburn, S. (ed.) (1975). *Meaning, Reference and Necessity*. Cambridge: Cambridge University Press.

- Bloom, B.S. and Krathwohl, D.R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals, by a committee of college and university examiners. Handbook I: Cognitive Domain*. New York: Longmans, Green.
- Carston, R. (2012). "Relevance Theory". In G. Russell & D. Graff Fara (Eds.) *The Routledge Companion to the Philosophy of Language*, New York: Routledge.
- Díaz-Pérez, F.J. (2014). "Relevance Theory and Translation: Translating Puns in Spanish Film Titles into English." *Journal of Pragmatics* 70: 108–129.
- Díaz-Pérez, F. J. (2021). "A relevance-theoretic account of translating jokes with sexual innuendos in *Modern Family* into Spanish." *Pragmatics* 31 (3): 331-356.
- Grice, H. P. (1961). "The causal theory of perception". *Proceedings of the Aristotelian Society*, Supplementary vol. 35: 121-52.
- Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper and Row.
- Holmes, J. (2006). "Sharing a laugh: pragmatic aspects of humour and gender in the workplace." *Journal of Pragmatics* 38: 26–50.
- Hjelmslev, L. (1928). *Principes de grammaire générale*. Copenhagen: Akademisk Forlag.
- Hymes, D. (1964). *Language in Culture and Society*. New York: Harper and Row.
- Joshi, A., Webber, B. and Sag, I. (eds) (1981). *Elements of Discourse Understanding*. Cambridge: Cambridge University Press.
- Katz, J. (1972). *Semantic Theory*. New York: Harper & Row.
- Leech, E. (1983). *Principles of Pragmatics*. London: Longman.
- Levi-Strauss, C. (1958). *Anthropologie Structurale*. Translated by Jacobson C. & Schoeph, B.G. (1963). New York: Basic Books, INC. Publishers
- Levinson, S.C. (1983). *Pragmatics*. Cambridge: C.U.P.
- Lewis, D. (1969). *Convention*. Cambridge: Harvard University Press.
- Lewis, D. (1983). *Philosophical Papers*, vol. 1. Oxford: Oxford University Press.
- Loftus, E. (1979). *Eyewitness Testimony*. Cambridge: Harvard University Press.
- Martínez-Sierra, J.J. (2008). *Humor y Traducción. Los Simpson Cruzan la frontera*. Castelló: Universitat Jaume I.
- McGarty, C., Yzerbyt, V.Y. & Spears, R. (2002). *Stereotypes as Explanations: The Formation of Meaningful Beliefs About Social Groups*. Cambridge: C.U.P.
- Neisser, U. (ed.) (1982). *Memory Observed: Remembering in Natural Contexts*. San Francisco: W. H. Freeman.
- Norrick, N. (1984). "Stock Conversational Witticisms". *Journal of Pragmatics* 8: 195-209.

- Pons, S. (2004). *Conceptos y Aplicaciones de la Teoría de la Relevancia*. Madrid: Arco Libros.
- Sacks, H., Schegloff, E. A. & Jefferson, G. (1974). "A Simplest Systematics for the Organization of Turn Taking for Conversation". *Language* 50: 696-735.
- Saussure, F. de (1916). *Cours de Linguistique Générale*. Paris: Payot.
- Schiffer, S. (1972). *Meaning*. Oxford: Clarendon Press.
- Sperber, D. & Wilson, D. (1986). *Relevance: Communication and Cognition*. Oxford: Basil Blackwell.
- Sperber, D., & Wilson, D. (1995). *Relevance: Communication and Cognition*. (2nd ed.). Oxford: Blackwell Publishing.
- Sperber, D., & Wilson, D. (2004). *Relevance: Communication and Cognition*. (3rd ed.). Oxford: Blackwell Publishing.
- Strawson, P. (1964). "Intention and Convention in Speech Acts". *Philosophical Review* 73: 439-60.
- Vygotsky, L. (1962). *Thought and language*. Cambridge: MIT Press.
- Yus, F. (2012). "Relevance, Humor and Translation." In *Relevance Theory: More than Understanding*, ed. By Ewa Walaszewska, and Agnieszka Piskorska, 117- 145. New Castle upon Tyne: Cambridge Scholars Publishing.
- Yus, F. (2016). *Humour and Relevance*. Amsterdam & Philadelphia: John Benjamins.