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Table of contents

List of abbreviations.....	i
List of Figures.....	ii
1 Introduction	1
1.1 Subjectivity in communication	1
1.2 Mind-reading and ToM in human communication.....	4
1.3 Power in communication.....	6
2 Subjectification – a speaker driven language change?.....	10
3 An attempt at categorizing modality.....	13
3.1 Root and epistemic modality.....	13
3.2 Modality and Subjectivity	16
3.3 Modalization and modal strength	17
3.4 Will, must and should – modal modals for subjectification	20
3.5 Really and clearly.....	24
4 Understanding and being understood.....	27
4.1 Theory of mind and taking the intentional stance	27
4.2 Power in language	30
5 Synthesis, hypothesis and predictions	33
5.1 Synthesis.....	33
5.2 Experiment set-up	34
5.3 Hypotheses.....	35

5.4	Predictions	38
6	Method	45
6.1	Participants	45
6.2	Design	45
6.2.1	<i>Rating scale format</i>	<i>46</i>
6.2.2	<i>Creation and manipulation of the experiment scenarios.....</i>	<i>48</i>
6.2.3	<i>Phase I and II of the testing process.....</i>	<i>50</i>
6.2.4	<i>Pre - and post - experimental questionnaire</i>	<i>52</i>
6.2.5	<i>Procedure.....</i>	<i>54</i>
6.2.6	<i>Pilot study</i>	<i>55</i>
6.2.7	<i>Items and Materials.....</i>	<i>57</i>
7	Results	58
7.1	Evaluation procedure	59
7.2	Reactions to S1, S2 and S3	60
7.2.1	<i>Reactions to S2 (easy)</i>	<i>61</i>
7.2.2	<i>Reactions to S1(put).....</i>	<i>65</i>
7.2.3	<i>Reactions to S3 (interesting)</i>	<i>69</i>
7.3	Really	73
7.4	Interpretations of ambiguous answers.....	75
8	Discussion	78
8.1	Lower levels of agreement for P- : two explanatory models.....	79
8.1.1	<i>Deontic interpretations as semantic reinforcement.....</i>	<i>79</i>
8.1.2	<i>Different levels of emotional and intellectual investment.....</i>	<i>80</i>
8.2	Power distribution and response style	81
8.3	Interpretations of ambiguous utterances.....	82
8.4	The listener's role in the subjectification process.....	84
8.5	Limitations and possible modifications of the study design	85

8.6	Summary.....	87
9	Conclusion.....	88
10	References.....	92
11	Appendix.....	96
11.1	Chat conversation items	96
11.1.1	<i>Questions and Answers</i>	96
11.1.2	<i>Statements</i>	99
11.1.3	<i>Follow-up questionnaire</i>	101
11.2	Data.....	104
11.2.1	<i>Data from while experiment ratings</i>	104
11.2.2	<i>Data follow-up questionnaire part 1</i>	106
11.3	Additional material	108
12	Abstract.....	114
13	Zusammenfassung (Abstract in German)	116

List of Abbreviations

AA.....	Ambiguous answer
AD/R.....	Addressee/reader
CA.....	Control answer
CMC.....	Computer mediated communication
DPT.....	Dyadic power theory
LS.....	Degree of listener subjectification
NARS.....	Net Acquiescence Response Style
OE.....	Old English
P+.....	Powerful
P-	Powerless
SP.....	Degree of speaker power
S 1/2/3/4/5/6.....	Statement 1/2/3/4/5/6
SP/W.....	Speaker/writer
ToM.....	Theory of Mind

List of Figures

Figure 1. ‘The Gricean umbrella’ as presented by Levinson (2000:13).....	2
Figure 2. Types of modality.....	14
Figure 3. Illustration of hypothesis 1.....	36
Figure 4. Illustration of hypotheses 2+3.....	37
Figure 5. Case 1, distribution of deontic/epistemic interpretations.....	38
Figure 6. Case 1, ratings of statements.....	39
Figure 7. Case 2 , distribution of deontic/epistemic interpretations.....	40
Figure 8. Case 2, ratings of statements	41
Figure 9. Case 3, distribution of deontic/epistemic interpretations.....	43
Figure 10. Case 3, ratings of statements	44
Figure 11. Differences in oral instructions.....	51
Figure 12. Kinds of assessment in phase I and II.....	51
Figure 13. Steps of phase I and II of the testing procedure.....	55
Figure 14. Changes made after pilot study.....	56
Figure 15. Selection of questions and answers	57
Figure 16. Reactions to S2, AA, Phase I+II.....	62
Figure 17. Reactions to S2, AA, Phase II.....	63
Figure 18. Reactions to S2, AA, Phase I.....	64
Figure 19. Reactions to S2, CA, Phase I+II.....	65
Figure 20. Reactions to S1, AA, Phase I+II.....	66
Figure 21. Reactions to S1, AA, Phase II.....	67
Figure 22. Difference in reactions to S1(put).....	68
Figure 23. Difference in reactions to S1(put)	68
Figure 24. Reactions to S1, CA, Phase I+II.	69
Figure 25. Reactions to S3, AA, Phase I+II.....	70
Figure 26. Reactions to S3, AA, Phase II.....	71
Figure 27. Reactions to S3, AA, Phase I.....	72
Figure 28. Difference in reactions to S3(interesting).....	73
Figure 29. Difference in reactions to S3(interesting).....	73
Figure 30. Rating of S1 and S3 regarding AA (really)	75
Figure 31. Distribution of deontic/epistemic interpretations according to group.....	76
Figure 32. Distribution of deontic/epistemic interpretations according to group	76
Figure 33. Distribution of deontic/epistemic interpretations according to group	77
Figure 34. Distribution of deontic/epistemic interpretations according to group	77

1 Introduction

1.1 Subjectivity in communication

When communicating with each other, there are two main things we want others to know – what we know and what we feel. Therefore, what we convey in conversation is both information and our feelings about that information. We can talk about one and the same event in many different ways because what we say is not only made up by the factual meaning of the words we use, but also by what is implied in them. This means that meaning of words have varying degrees of objectivity. There are words like *bed* or *hand* that are pretty straightforward and leave little room for interpretation. They refer to objective facts, as does for example the phrase *The bed is round*. Both *bed* and *round* have fixed meanings that anyone who knows English can relate to, therefore the phrase can be considered as being rather objective. Anyone who sees the same bed as the speaker does, can check whether or not the bed possesses the property of roundness. Although *round* can also be used in its metaphoric sense (e.g. *a round character*) it is mostly used in a way that does not depend on the speaker's personal opinion. The criteria for considering a bed as round are fixed and reflect the outside world.

However, other words are more open to interpretation. These are words that convey value judgements, opinions and attitudes. One example for such a word would be *beautiful*. *Beautiful* has a greater variety of subjective meanings compared to *round*. The phrase *The bed is beautifully round* says something about the speaker's attitude towards the bed. It tells us something about the speaker beyond their ability to accurately name the shapes of objects. It tells us something about the speaker's personal sense of beauty, about what they like and do not like. Words like *beautiful* can therefore be considered subjective, since beauty, as we all know, lies in the eye of the beholder.

Subjective meanings of words are not fixed, they can mean different things in different contexts, depending on the person who uses them and the intended meanings they imply. The word *beautiful* can mean many things depending on

how, where and by whom it is used. The following examples show how *beautiful* can signify different things according to how and where it is used:

(1.)

- a. This is a beautiful bed.
- b. Well, that's beautifully written, isn't it?
- c. He's such a beautiful character.

In (1a) *beautiful* refers to external beauty, whereas in (1b) and (1c) it is used in a metaphorical sense. In (1b) *beautiful* could be replaced by *well*, whereas in (1c) it could be replaced by *honest*, *loyal* or whatever the speaker considers favourable character attributes.

So why is there not one fixed meaning corresponding with every word? For some words, such as *bed*, this is mostly the case, for others like *beautiful* it is not. One famous theory of the meaning of words and what it is made up of is Grice's theory of meaning. According to Levinson (2000:12), who calls one part of the Gricean theory of meaning 'the Gricean umbrella', it can be illustrated as follows

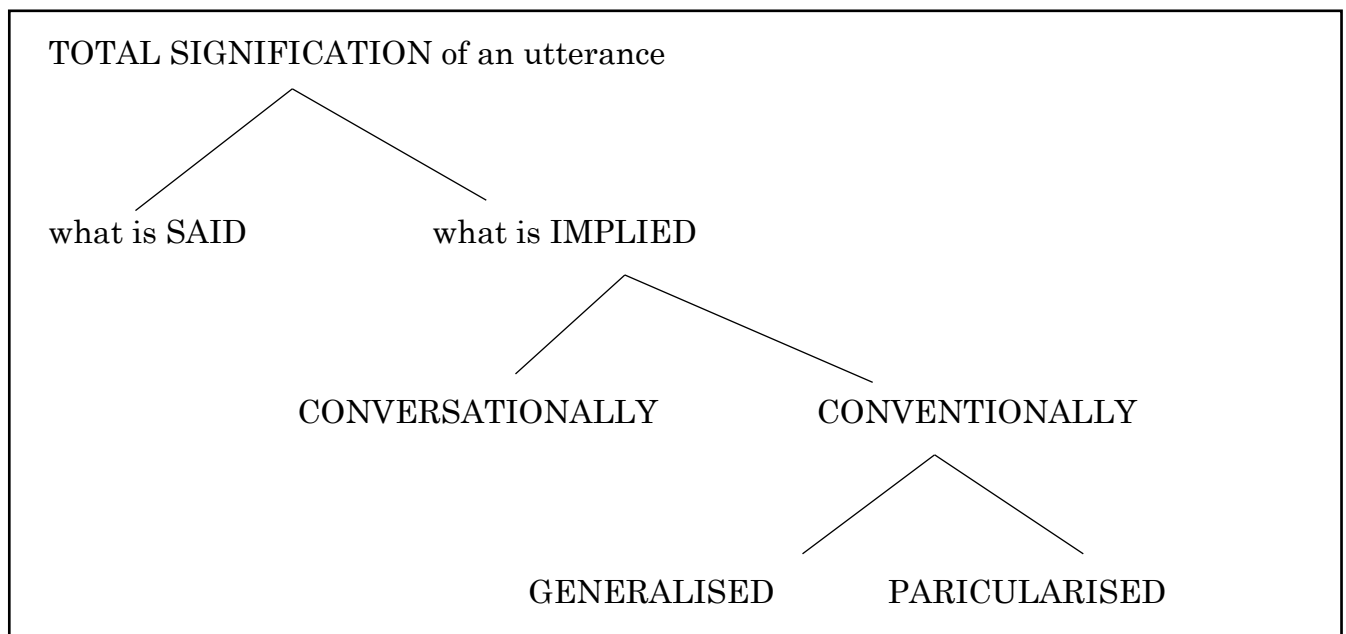


Figure 1. 'The Gricean umbrella' as presented by Levinson (2000:13)

This illustration shows that meaning is not made up of one factor only, it is never made up only of what is being said. There are always at least two components to every utterance. What Grice means by *what is said* and *what is implied* are both highly complex concepts which can both be analysed in great detail. Due to the limited scope of this thesis, I will however only briefly discuss it now, referring again to Levinson (2000:171), who describes: “what is *said* is the input to the pragmatic reasoning responsible for output of *implicatures*: what is implicated is calculated on the basis of what is said”. *What is said* is the core, stable meaning of a word that exists independently of its context and the way in which it is used. What is implied is what can be added to the core meaning of a word, in a particular context, as well as from the way it is used.

When certain meanings are repeatedly implied by the speakers, these implications can become a conventionalised part of the meaning of a word. When these conventionalised implications tell us something about the speaker’s values, attitudes or opinions, we call this kind of semantic change *subjectification*. Subjectification is described by Elizabeth Traugott (1998), one of the leading researchers on the topic, as a kind of language change in which a word comes to convey the speaker’s opinion, attitudes or values towards the proposition. According to Traugott (1989: 31) “meanings tend to become increasingly situated in the speaker’s subjective belief, state or attitude toward the proposition”. According to this theory of subjectification, utterances can come to be interpreted more subjectively over time. Traugott believes that this reflects the speaker’s need to express their subjectivity.

However, when looking at animal communication, which can be considered the basis of human communication, Krebs and Dawkins (1984: 381) observed that addressees of a communicative act are not merely passive recipients, but contribute to the meaning of an utterance by mind-reading and consequently manipulating what is being said to fit their own goals or their interpretation of a given situation. Krebs and Dawkins (1984: 381) looked at research on animal communication and argued that successful communication requires both “manipulation by the actor and mind-reading by the reactor”. In quite a number of animal signals, it is not only the actor who manipulates the reactor, but through

mind-reading, the actor's behaviour is predicted and possibly influenced as well. According to Krebs and Dawkins, the difference between manipulation and mind-reading is that the latter "involves exploiting the victim's behaviour as it spontaneously emerges from the victim, while manipulation involves actively changing the victim's behaviour." (Krebs, Dawkins: 1984: 383) ¹

Mind-reading in this context does of course not mean that one animal reads the mind of another in the sense associated with science fiction, but rather refers to the act of instinctively guessing what the needs and objective of the other animal are. In the case of subjectification, it could be argued that the listener 'exploits' what is being uttered by the speaker in order to gather information about the speaker's attitudes, opinions and beliefs.

1.2 Mind-reading and ToM in human communication

Although animal communication has many similarities to human communication and has been called "the beginning of human language" by the famous linguist Bréal (1964: 238), mind-reading in humans is somewhat different in the way it manifests itself than in animals. In human communication, one important tool that helps us read the minds of others is called Theory of Mind (ToM) (de Villiers 2007: 1859). According to de Villiers, ToM is our theory of how our minds and the minds of others work. Through the application of ToM, individuals can adopt another person's cognitive perspective and thus gain insight into their attitudes and beliefs.

Krebs and Dawkins' work (1984: 401), suggests that subjective implicatures are partly made on the basis of mind-reading and can serve to predict the future behaviour of others. I would therefore claim that it is not only the speaker's "subjective belief, state or attitude toward the proposition" (Traugott 1989:31) that is responsible for the shift towards subjective meanings, but also the listener's theories about the speaker's beliefs. This is especially relevant in contexts where the listener is in some way dependent on the speaker. In these contexts, the

¹ Note: 'victim' and 'manipulator' are roles that can be adopted by any given individual at a certain time.

listener might not only interpret what they hear in a way that fits the context but also try to infer the speaker's attitudes and opinions towards themselves and the world in general. In other words, I would argue that it is really the listeners who try to infer and create hypotheses about what the speakers intend or imply and then base their responses on these hypotheses. This hypothesis forms the basis of this thesis. Together with my thesis supervisor Univ.-Prof. Mag. Dr. Nikolaus Ritt, I conducted an experiment and investigated how the speaker's perceived power influences the listener's subjective interpretations of modal (ad)verbs in written conversation, containing ambiguous utterances. 62 participants took part in the experiment and were divided into two groups, according to the power distribution between them and their conversation partner. The distribution of power was the key element that was predicted to account for a difference in the level of subjectivity participants attributed to the ambiguous utterances.

ToM, as explained above, is at the basis of our hypothesis. It is through this mechanism that listeners can take on the perspective of the speaker. Being able to consider both their own perspective and, thanks to ToM, that of their communicative partner enables listeners to evaluate the interpersonal factors of a communicative situation. Interpersonal factors such as the personal relationship, emotional bonds or power distribution between speaker and listener lead to differing degrees of subjectivity in the listener's interpretation of an utterance. Depending on the needs and objectives the listener and speaker bring into a communicative situation, they will make use of ToM to varying degrees. If for example the power distribution is uneven and the listener is less powerful than the speaker, they will likely want to find out as much as possible about the speaker's attitudes, opinions and objectives in order to re-establish, or try as far as possible to re-establish a power-equilibrium by acquiring knowledge about the speaker. An asymmetrical power distribution often arises when one of the parties involved is more vulnerable than the other. The interpersonal factors mentioned above are complex and differ greatly from one individual to the next. It is therefore difficult to accurately reproduce personal relationships and emotional bonds in an experimental setting. An uneven distribution of power, however, which in fact characterises most personal relationships, can more easily be replicated and

analysed in an experimental setting. In order to test how interpersonal factors lead to different degrees of subjectivity in the interpretation of certain words, we chose power distribution as the defining element of the communicative situation in our experiment.

1.3 Power in communication

Power relations play an essential role in communication. Bertrand Russell (2004: 10) argues that “the fundamental concept in social science is Power, in the same sense in which Energy is the fundamental concept in physics”. This notion of power emphasises its omnipresence in interpersonal relationships and communication. Power can be defined in many different ways and there are numerous factors that influence how it is perceived. Linell and Luckman (1991: 10) identify exogenous and endogenous factors that influence the power distribution within a given communicative situation. According to Linell and Luckman, endogenous asymmetries in dialogue comprise the roles of speakers and listeners, the existence of adjacency pairs and the discursive rights to elaborate on the topic. Exogenous asymmetries on the other hand arise from inequivalences of knowledge, social positions, education, individual versions of reality and pre-established institutional or interactional constraints. The latter class of asymmetries are the focus of this experiment. Contrary to endogenous factors, which are communication-internal factors, exogenous asymmetries are independent of the communicative situation. These factors stem from differences in social standing, knowledge and institutional conditions. Examples of exogenous factors can be found in a school setting. The teacher’s higher position in the school’s hierarchy and their higher level of subject knowledge relative to the students, as well as and the fact that teachers arguably have a higher social standing than students, all mean that the teacher can be considered to be more powerful than the student in a communicative situation. Exogenous factors can be reproduced fairly easily in an experimental setting as most people are familiar with them and understand their definitions and implications.

Our hypothesis is that exogenous power asymmetries influence how utterances are interpreted and that especially in contexts where the speaker is perceived as more powerful than the listener, the listener will demonstrate a desire to find out as much as possible about the attitudes and underlying opinions of the speaker and will consequently interpret ambiguous utterances in a more subjective way than they would do in situations where the speaker is perceived to have less power over the listener. For the purposes of this thesis, the definition of perceived power is based on Michel Foucault's (1982: 788) notion of power, namely that "the exercise of Power is not simply a relationship between partners, individuals or a collective; it is a way in which certain actions modify others. Which is to say, of course, that something called Power, [...] does not exist. Power exists only when put into action [...]."

Foucault's definition is one of many attempts to define power. The reason for its application in this thesis is that it contains the key message that power only exists, insofar as its effects exist. Power is not merely a characteristic of a relationship between individuals, it manifests itself through the influence of the actions of more powerful individuals on those who are less powerful. The extent of the power attributed to the executor of a particular action in a given situation is defined by the potential of the action to influence others. For the purpose of this paper *influencing others* is defined as influencing those individuals in the widest sense: not only shaping their scope for action, but also changing their way of thinking about themselves and others.

In order to address the question whether perceived power influences the listener's subjective interpretations of modal (ad)verbs in written communication an experiment was conducted. Participants were divided into two groups: group P- and P+. Both groups engaged in a chat communication with a virtual partner. The part of the partner had been pre-designed, therefore the same stimuli could be presented to all participants without variation. The results of the experiment will be discussed below. The experiment was designed to test whether a slight change in power relation would result in a change in the participants' interpretation of the meaning of an utterance. Both groups were told to rate their partner's performance, however participants P+ were told their performance

would not be tested, whereas participants P- were told their partner would rate their performance. This difference was expected to cause participants P+ to feel more powerful than participants P- and therefore interpret ambiguous utterances from their partner less subjectively than participants P-, who were expected to feel less powerful. This should help to clarify whether the speaker or the listener have greater influence on the subjectification process in this particular context.

To date, only a very limited number of studies has focused on the interpersonal factors that influence how ambiguous utterances are interpreted by the listener (cf. Holtgraves 1994). Holtgraves (2014) looked at some of the studies that tested how uncertainty terms such as *possible*, *like*, *some* and *good* are interpreted in different scenarios. The underlying premise was that interpersonal factors not only influence how something is said but also how it is interpreted. One important interpersonal factor Holtgraves looked at is *face* and *face threat*. Face as a linguistic category is central in pragmatics. The most prominent discussion of face and politeness can be found in Brown and Levinson (1978/1987). According to Brown and Levinson, face can be described as the way we see ourselves and the way we want others to perceive us. The term refers to the way we construct our public self-image. The concept of face is linked to power to the extent that saving face depends on the politeness of others. As long as others are polite, one's face is not threatened. If another person has more power than we do in a specific communicative situation, they often exert a certain degree of face threat. Holtgraves argues that the higher the degree of face threat, the more likely it is that face-threatening expressions will be interpreted as such. This model views listeners as active interpreters who "will be more likely to give a face-threatening interpretation of uncertainty terms as face threat increases" (2014: 225). This supports our proposition that power influences how utterances are interpreted. In our experiment we build on this assumption and argue that the more power the speaker has over the listener, the more likely it is that the listener will interpret ambiguous utterances that might tell them something about the speaker's subjective opinion, attitude or beliefs in a way that helps them to gain knowledge about the speaker's subjective perspective.

The asymmetrical power relations in our experiment are constructed within a written chat communication context, therefore in the course of this thesis, speakers will be referred to not only as speakers or listeners but also SP/W (speaker or writer) and listeners as AD/R (addressee or reader). This choice of terms, which is a borrowing from Traugott and Dasher (2002), aims to illustrate that although many of the concepts presented apply to oral as well as written communication, in the case of our experiment, communication takes place through a written medium. The reason for choosing chat conversations as the basis for this experiment is that chat conversations are not live, but are synchronous to some extent: they are based on real-time interaction and linearity of contributions and context. However, there is no physical, visual or audio component between participants. As all of the non-verbal content is missing, chat conversations are well-suited to be used in research that examines how language is interpreted in contexts where intonation and body language cannot contribute to interpreting the meaning of an utterance (Nieste, Sussex 2006:65ff). Computer Mediated Communication (CMC), as it is referred to by Viertanen, Stein and Herring (2013: 7), gives rise to new forms of participation and co-construction of meaning. Their analysis of CMC highlights that the number of cues available in CMC to help users make sense of utterances are significantly reduced, increasing the importance of factors such as language and style (Jones 2013: 491).

The first part of this thesis provides an overview of the relevant theoretical concepts: the concept of subjectification, theory of mind, modality and power. First, the concept of subjectification will be defined and elaborated, drawing on Langacker, Traugott and Dasher's conceptions of subjectivity and subjectification. Secondly, I will outline the theoretical background for the concept of modality in English using examples of characteristics and idiosyncrasies of the English modal verbs, focusing on the modal verbs *will*, *must* and *should* and the modal adverbs *really* and *clearly*. The meanings of these modal (ad)verbs will be analysed in connection with perceived power. Thirdly, I will discuss the concept of *theory of mind* and how our ability to read minds helps us to make sense of semantic and pragmatic cues. The fourth and final section of the theory part discusses the concept of power. The second part of this thesis outlines my methodology and the

procedure of the study. First, I will provide a detailed account of the synthesis, hypothesis and predictions. Secondly, I will outline the method. The third part consists of the results and a discussion of the same.

In the following section I will provide an overview of subjectification, which is one of the driving factors behind semantic change. I will briefly discuss this type of language change from a historic perspective and then elaborate on the mechanisms behind subjectification.

2 Subjectification – a speaker driven language change?

Every time we communicate with someone, we as the SP/Ws are not only conveying factual information, but also our own subjective perspective. Langacker (1990: 5) found that the subjective information contained in every utterance has to be considered equally important as the factual representation when it comes to making sense of an utterance. It is very rare for an expression to be considered completely neutral. Almost all linguistic expressions build on particular viewing arrangements. The viewing arrangement is conveyed both consciously and unconsciously by the choice of words and the information given (Langacker 1990: 6). Developments such as grammars, literacy and dictionaries have an objectifying effect on language, however, the adherence to these norms is a matter of individual choice that presupposes subjectivity of language (Traugott, Dasher 2002:33). The notion that language is highly subjective is not new. Already in 1887, the famous French linguist Michel Bréal, who is considered to be the founder of modern semantics, wrote: “To express desire, to intimate an order, to denote a taking possession of persons or of things – these were the first uses of language.” (Bréal 1964: 238). Bréal and Beneviste, who built on Bréal’s research, coined the terms subjectivity and intersubjectivity (Traugott 2010: 29). According to Bréal, “speech was not made up for purposes of description, of narration, of disinterested considerations” (Bréal 1964: 238) and subjectivity has always been part of human communication.

Almost 80 years after Bréal's essay, Traugott discusses the concepts of subjectivity and subjectification in the context of semantic change. Traugott (2010: 30) emphasises the distinction between the terms subjectification and subjectivity, arguing that the former refers to a diachronic process whereas the latter refers to a synchronic state. Subjectivity refers to an element of (human) language that allows for subjective representations of the mental and material world. Subjectification on the other hand refers to the way in which meanings change in order to continually increase focus on the subjective attitudes and needs of the SP/W. As this type of language change can be viewed from a diachronic as well as synchronic perspective, it is not only interesting from a pragmatic and cognitive semantic perspective, but also from a historical linguistic perspective. For the purposes of this paper, however, I will primarily look at subjectification from a cognitive semantic and pragmatic perspective. Below I will give a brief overview of the characteristics of subjectification and subjectivity.

Semantic change, and therefore also subjectification, which is the main mechanism of semantic change aside from invited inferencing, is widely assumed to arise out of pragmatic need (Traugott 2010: 32). This means that SP/Ws use words in new ways to enable them to express themselves more accurately. Metaphor and metonymy are two ways by which this pragmatic need, whether cognitive or communicational, can be met (Traugott, Dasher: 2002: 27). Traugott claims that subjectification arises out of the mechanisms of 'metonymic inferencing' and 'rhetorical strategizing' and defines it in the following way:

Subjectification is the semasiological process whereby SP/Ws come over time to develop meanings for Ls [lexemes] that encode or externalize their perspectives and attitudes as constrained by the communicative world of the speech event, rather than by the so-called 'real-world' characteristics of the event or situation referred to. (Traugott, Dasher 2002: 30)

Subjectivity means that words develop polysemous meanings at certain points in time and come to convey values, attitudes or beliefs in addition to their formerly more objective, factual meanings. According to Traugott (2010: 32), many of the recent developments in semantics stem from polysemies that are first pragmatic and later semantic. Semantic meanings focus on the meaning of a word in phrasal context, whereas pragmatic meanings deal with the context of the utterance

beyond the linguistic information that is encoded in grammar and the lexicon. Pragmatic meanings convey communicative intentions: the reason for a word to be uttered and what speakers aim to convey with their choice of words. (Plag et al. 2007: 177) Pragmatic meanings are therefore subject to individual interpretation and not always conventionalised. What is meant by pragmatic polysemies is that certain words allow for various different interpretations of the SP/W's intended meaning. In certain cases, these pragmatic polysemies can be conventionalised and ultimately reanalysed as semantic polysemies (Traugott, Dasher 2002: 1). Subjectification is one example of what happens when a pragmatic polysemy becomes conventionalised and then reanalysed as part of the semantic meaning of a word. Originally, a particular meaning was not part of the lexical meaning of a word. It was part of the context dependent meaning that conveyed the SP/W's communicative intention. Over time, this meaning became fixed and no longer depended on certain contextual aspects. Traugott argues that subjectification is one of the key mechanisms that drive semantic change. Subjectified polysemic meanings often convey an evaluation of others, which can be seen in Traugott's (2010: 32) example of *silly*, which once meant 'innocent, blessed' and came to signify 'stupid'.

As Langacker (1990: 6) points out, the terms 'subjective' and 'objective' cannot be used in an absolute sense, because subjectivity is a matter of degree. Words may have different positions on the cline from objective to subjective over time. As we can see in the example above, even when *silly* still meant 'innocent, blessed', its meaning was not completely objective, though more so than its later meaning 'stupid'. It is, however, not merely a matter of positive or negative connotation, but of how the meanings are evaluated by the speaker and which attributes are invoked in the speaker's and/or listener's mind. Traugott and Dasher (2002: 42) argue that "SP/Ws manipulate language for their own ends". Our hypothesis however is that it is not only SP/Ws but also AD/Rs who manipulate language. I will argue that depending on the power relation in a speech event, AD/Rs take on more active or less active roles in interpreting an utterance and contribute their own deictic stance to different extents. While

hearing or reading, the meanings interfered differ, depending on the relationship between the AD/R and the SP/W.

The aim of this section was to provide an overview of subjectivity and subjectification as driving mechanisms behind semantic change. The two phenomena are assumed to arise out of pragmatic need. From pragmatic and later semantic polysemies, new primary meanings arise. Traugott and Dasher classify subjectification as speaker driven language change, whereby the speaker aims to meet their need to express their perspectives and attitudes by making use of metaphors and metonymies. I will, however, argue that this change is not solely speaker driven, but depends on the listener's ability to read minds and interpret utterances as being subjective to different degrees as well. Before discussing the importance of mind reading and *theory of mind* in communication, I will first elaborate on modals in the following section. Modals are a class of words which tend to be polysemous, with objective as well as subjective meanings, and therefore lend themselves to the analysis of subjectification. I will first discuss the categories and functions of the English modals generally, which I will then illustrate with some specific examples.

3 An attempt at categorizing modality

3.1 Root and epistemic modality

When looking for a definition of modality, a large number of different concepts of the term can be found. One of them, taken from the Cambridge Encyclopaedia of the Language Sciences, provides a particularly comprehensive definition of modality: "In its broadest sense, the term encompasses all means by which we can talk about hypothetical situations" (Portner 2011: 508). According to Portner, the category of modality encompasses expressions of necessity, expressions of knowledge, expressions of the commitment of the SP/W, expressions of obligation and permission and conditional sentences. Especially the third category, modal sentences which express the speaker's commitment to what they are stating, is relevant to my thesis.

Palmer (2003: 2) distinguishes modal sentences of this third category and non-modal sentences: non-modal sentences such as *This is Beethoven* indicate that the speaker states their belief as a fact, whereas the same sentence, but containing the modal verb *must*, *This must be Beethoven*, indicates a judgement by the speaker. Here another important distinction comes into play. As mentioned in the section above, modals tend to be polysemous, having a more objective and a more subjective meaning. The more subjective meaning, also called epistemic meaning and the more objective meaning, also called root or deontic meaning, are illustrated by the following example. The phrase *This must be Beethoven* can either mean that Beethoven is the only possible answer (deontic meaning) or that the speaker is unsure but suspects Beethoven to be the right answer (epistemic meaning). Modality therefore allows us to “negotiate the truth-values of mental representations” (Leiss 2012: 41). Larreya’s (2009:10) diagram is a good illustration of the difference between root and epistemic modality.

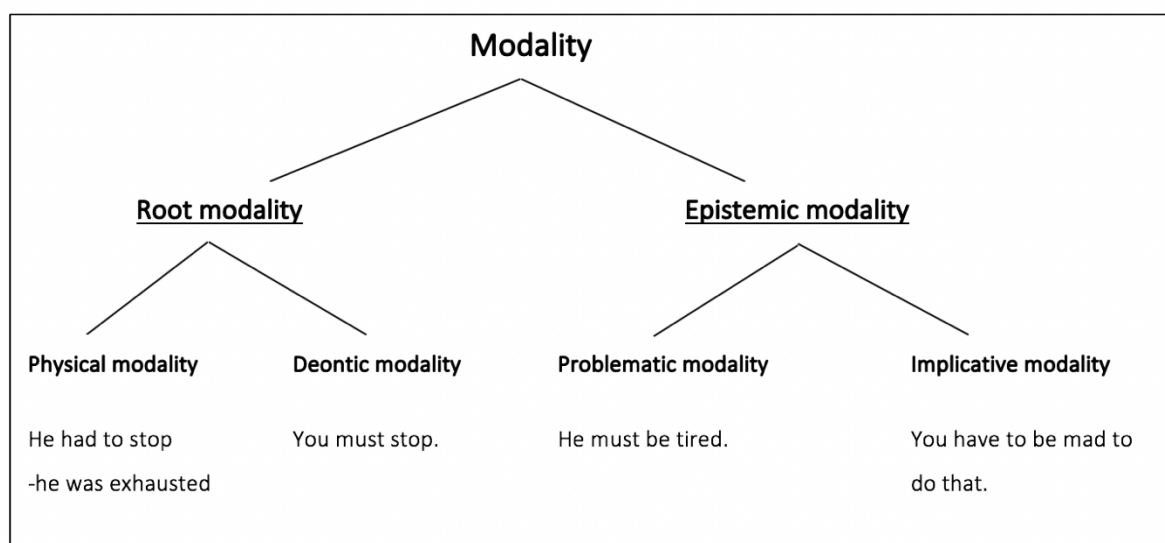


Figure 2. Types of modality

By using a modal verb in its epistemic sense, the SP/W expresses their judgements about the possibility or necessity of something (not) being the case (Palmer 1979: 41). According to Palmer (1979: 41/42), epistemic modality therefore describes propositions instead of states or actions. Epistemic modals are subjective in the

sense that “the epistemic judgement rests with the speaker” (Palmer 1979:42). The OED lists the adjective *epistemic* as: “of or relating to knowledge, or to its extent, linguistic expression, or degree of validation”, the entry continues, “*epistemic modality* indicates factual necessity, probability, possibility as opposed to *deontic modality*, indicating obligation, recommendation, prohibition, etc.” (OED “epistemic adj.”). This concise definition emphasises that *epistemic* is not only a category relevant to modality, but also to human mental activity (Larreya 2009: 11). It is a category that allows for subjective interpretation and expression as epistemic modality is based less on objects and states than root or deontic modality. While Epistemic modality focuses on more abstract categories like thoughts, feelings and values (Traugott 1989: 35), using a deontic modal, the speaker does not express their judgement, but rather gives permission, makes a promise or threat.

Root and epistemic modality, have sub-categories, illustrated in the diagram above, such as problematic and implicative modality. According to Larreya (2009:12), problematic modality is connected to root modality through a relationship of metonymy. The epistemic-problematic meaning of *must* that is equivalent to *I think that...* is what distinguishes it from its root meaning. This is what Larreya (2012:12) calls a ‘speech/thought-act proposition’. In epistemic modality, a truth value is attributed to a given proposition. In the case of implicative modality, this truth value expresses whether a statement is true or false in absolute terms, whereas in problematic modality, the truth value is intermediate or weak, and states that the proposition is probably or possibly true or false. The strength of the truth value is therefore a clear difference between the two. (Larreya 2009:12/13/14)

What both epistemic and root modals have in common is that the proposition they appear in refers to a hypothetical world to a certain degree (Declerck 2009: 50). Langacker (1991: 275) distinguishes between modals that refer to possible future worlds and those which refer to possible present situations. In this context it is particularly interesting to look at the difference between *will* and *must*. (Langacker 1991: 280) The meanings of deontic modals put less focus on other possible worlds. The example *That must be Rome*, from this study, is a

good example of both the difference between deontic and epistemic modality and also the difference between implicative and problematic modality. Possible interpretations for the phrase above are:

- (2) (a) That has to be Rome. (deontic modality)
- (b) I am convinced this is Rome. (problematic modality)
- (c) I think this is probably Rome. (implicative modality)

We can classify interpretation (2a) as deontic modality, as the speaker infers that Rome is the only possible answer from external factors (Palmer 2003: 7). Another basis for categorising this example as one of objective deontic modality is the third person subject, Rome. Example (2b), on the other hand, is an example of problematic epistemic modality: the speaker is the subject and suggests Rome to be the answer based on available evidence (Palmer 2003: 7). Agency is therefore given to the speaker, the subject of the clause, making the clause more subjective than in (2a), where the reasons for taking Rome as the answer are made up by outside factors. Example (2c) constitutes implicative modality, as it implies that the identity of the city cannot be ascertained, because it is outside of the scope of direct knowledge of the speaker (Larreira 2009: 24).

3.2 Modality and Subjectivity

One factor that is particularly relevant when distinguishing the different kinds of modality presented in Figure 2 is subjectivity. Subjectivity can be considered one characteristic of modality (Salkie 2009: 82). Including subjectivity as a defining element of modality is, however, somewhat controversial, as the factor does not apply to all modals in the same way. As part of a larger corpus of defining criteria I however find this limitation especially interesting as it helps to define epistemic and deontic aspects of modality. As discussed in the previous section, epistemic modals have a higher degree of modality than deontic modals, which in turn have a higher degree of subjectivity than physical modals. Salkie places physical (also called dynamic) modality at the periphery of modality as it has a very low degree

of subjectivity. Salkie (2009: 84) argues that the more a modal expression relies on pragmatics, the higher the degree of modality. As subjectivity, which is part of pragmatics, defines one category of modality, it can be considered an indicator of modality. Another interesting point made by Salkie concerns the relationship between the modal expression and the rest of the sentence, and whether the meaning of the sentence and the meaning of the modal expression can be viewed as separate entities, or to put it in Salkie's (2009:86) words: "whether or not there is a complete proposition which can be identified separately from the modal." Salkie argues that the more subjective the modal is, the more likely it is that a distinction between modal and propositional content can be made. Furthermore, a low degree of modality makes it possible for modals to be substituted with a form of *to be*, without influencing the meaning of the utterance (Collins 2009: 127). This leads me to the process of modalization and the degree of modality or modal strength inherent in a modal.

3.3 Modalization and modal strength

The act of attributing modal meaning to the modal in an utterance can be subsumed under the term *modalization*. The process of modalization is in so far relevant for the purposes of this thesis, as especially in the written form and with little context, it is almost exclusively up to the AD/R to interpret the given utterance and the modal (ad)verb. According to Larreya (2009:24) modalization "can be defined as the way in which modality is used in utterances, depending on (i) the state of the knowledge of the speaker [SP/W] concerning the modalized situation and (ii) the assumed state of knowledge of the hearer [AD/R] concerning the same situation". The added abbreviations *SP/W* and *AD/R* emphasize that modalization is not only part of spoken but also of written communication. According to this definition, a modal verb is not always modal to the same extent, rather, it has different modal meanings attributed to it. According to the context it appears in, the degree to which a verb is modal differs. As Papafragou (2000:

25) points out, the categories of modality established above could be viewed as “by-products of the comprehension process rather than stable and basic semantic information guiding pragmatic interpretation”. This concept of modalization will be further illustrated in the discussion section of this paper. Again, as with subjectification, I would like to add here, that an utterance may also be modalized by the hearer depending on (i) the state of the knowledge of the AD/R and (ii) the assumed state of knowledge of the SP/W concerning the same situation. Furthermore, it is essential to look not only at the state of knowledge of the parties involved, but also at the emotional implications (including the relationship between the AD/R and the SP/W) of the situation, as this will also influence how and to what extent a verb is modalized.

In order to fit the different degrees of modalization better, Papafragou (2000: 42ff) proposes we categorise our interpretation of modals into domains that are different from the traditional rather limiting categories. I would not rely solely on these domains, as they are vague and open to interpretation, but I find them a good addition to the categories mentioned above, as they can be more easily matched with the real-world use of modal verbs. Papafragou argues that propositions can firstly be interpreted along the factual domain. Utterances that describe the real world will be interpreted in the domain of fact, which can also be described as root modality. Secondly, regulatory domains, including modals describing systems of law, regulations or rules, could also be subsumed under root modality. Interpretative domains, on the other hand, are stored as abstract representations, hypotheses or interpretative attitudes such as doubting, proposing or wondering (not to be confused with descriptive attitudes such as fearing, demanding or regretting). Interpretative attitudes include “our ability to entertain and manipulate second-order representations in the language of thought” Papafragou (2000: 68). The interpretative domains also includes the metacognitive capacity, that will be described in the following chapter as *theory of mind*. In this sense, uses of epistemic *may*, *must*, *should* or *ought to* link propositions with the SP/W’s belief set. Epistemic modality is therefore dependent on the SP/W’s and the AD/R’s ability to “reflect on the content of one’s own beliefs,” and those of the communicative partner (Papafragou 2000: 70). According to the

domain to which the modals adhere, they show different degrees of modal strength. Epistemic modality may be assumed to be modal to a higher degree than deontic modality. In cases where there is a third person subject, the degree of modality is lower than it is in cases where there is a first or second person subject (Collins 2009: 36ff). Here the link between semantic strength and pragmatic factors is particularly relevant to my study. Collins argues that modal strength for concepts of necessity is higher than for concepts of possibility and that pragmatic factors weaken the semantic strength of semantically strong modals, such as *must*. We can therefore argue that subjectification, as a part of pragmatics, weakens the modal's semantic strength. (cf. Huddleston, Pullum 2002: 177)

According to Lyons (1977: 808), an epistemic modal weakens the sense of speaker commitment. By including an epistemic modal in an utterance, SP/Ws distance themselves to a certain extent from the truth content and sometimes the semantic content of what is being said/written in the rest of the utterance. Consider the following pair:

- (3) a. This is the biggest park in Vienna.
- b. This must be the biggest park in Vienna.

In (3a) the content is presented as a factual information, whereas (3b) includes an assessment of the assumption. In (3b) we have additional information that tells us that the SP/W is drawing their conclusion from available but not all-encompassing evidence. This introduces a subjective perspective that is naturally part of every utterance but often not mentioned in order to make a statement more reliable (as we see for example in (3a)). In (3a) it appears that the SP/W believes what they state to be the absolute truth, whereas in (3b) they convey the fact that what is stated is only true as far as their evidence is concerned. The speaker commitment to the truth conditional of the statement is therefore stronger in (3a) than it is in (3b). (Papafragou 2000: 73)

Having analysed the different categories of modality in general, I will now continue by discussing the three modals *will*, *must* and *should*, that are especially relevant to my experiment. I will first talk very briefly about the semantic

development of *will* and *must* and then look at the different semantic aspects that can be found when looking at *will*, *must* and *should* today.

3.4 Will, must and should – modal modals for subjectification

The tendency of meanings to become increasingly focused on the internal world of the speaker can be observed when looking at the historical semantic development of *will*. In her article, Traugott (1989: 37ff) maps the changes *will* underwent over time. *Will* stems from Old English (OE) *willan* and was once a main verb. As Traugott shows, the modal developed its relative tense meanings earlier than its subjective tense meanings. This means that before developing into a subjective future tense marker, that in order to be interpreted correctly requires knowledge of the speaker time, *will* was a relative future tense marker that could be interpreted without knowing the exact circumstances under which it was uttered.

Today, *will* is most often used in its epistemic sense and can be found in three main contexts: tense, modality and future time expressions (Haegeman 1983: 13). For the purposes of this paper, I will look at *will* from the tense and modality perspectives, which are often linked. Coates (1983: 169/70) argues that the meanings of *will* as a modal expression are usually associated with future concepts such as *willingness*, *prediction* and *intention*. When signifying willingness, *will* presents a “polite form of imperative” in situations “where there is a need to play down or camouflage the authority structure [...] between the participants”, as in the following example:

(4) Will you grab that letter for me?

The meaning of *will* that expresses intention, can be seen in example (5)

(5) I will go to the cinema with you.

The difference between the two is that although both of them are subject oriented, in the first example, “the focus is on the modal prediction that is on the subject’s state of mind,” whereas in the second example the focus is on the future event (Coates 1983). The examples above illustrate *will* in its non-epistemic or deontic

meanings. For the purpose of this paper, however, it is the epistemic meanings of *will* that are primarily important. Research on corpora suggests that *will* is primarily used in its epistemic sense. Collins (2009: 126) conducted a study on the various meanings of *will* using corpora and found that its epistemic meaning accounts for 59,2% of all tokens. Collins divides the epistemic use of *will* into two categories. First, there is the use which Coates refers to as *predictability will*, which “conveys the speaker’s confidence in the truth of the proposition, based on evidence and knowledge of, respectively, a present situation and a past situation” (Collins 2009: 127). Similarly to epistemic *must*, which will be elaborated on in the following section, *predictability will* conveys the speaker’s confidence that what they propose is true. There is, however, an important difference between *predictability will* and epistemic *must*, namely that *predictability will*, “unlike epistemic *must*, is not based on a process of logical inference. Instead it is based on common sense, or on repeated experience.” (Coates 1983: 177). As mentioned above, the second use of epistemic *will* is referred to by Coates (1983:169) as *prediction*. It is the use of *will* that is called *futurity will* by Palmer (1990: 57). *Prediction will* can either be only slightly different from *will* in its future tense meaning or convey uncertainty about what is being uttered. Consider three possible interpretations for the example *This will be climate change* taken from our experiment:

(6)

- a. I think this is climate change. (*predictability will*)
- b. I suppose this is going to be climate change. (*prediction will*)
- c. This is going to be climate change. (temporal concept of *futurity*)

In (6a) the modal verb *will* takes a subjectively factual function, implying that what follows is factual in the speaker’s opinion (Declerck, Reed 2005: 313). As opposed to (6a), the future aspect does play an important role in (6b). (6c) is less subjective than the other two, but shows a higher degree of speaker commitment, as it conveys the impression that what is being uttered is not only the speakers’ opinion, but rather a more general truth. It could still be interpreted as *prediction*

will, but there is a sense of certainty that is characteristic of the tense meaning. This is, of course, a brief outline of *will*, which does not account for all the ongoing debates about how to classify *will* as a tense marker as well as a modal. It should, however, suffice to get an overview of the characteristics of *will*. I will now continue my discussion by talking about the different meanings of *must*. A more detailed account of the characterization of *will* can be found in Ziegeler (2013).

As mentioned above, one modal that has a similar degree of semantic strength as *will* is *must*. *Must* also has a somewhat similar semantic history to *will*. *Must* stems from the OE word *motan*, and similar to OE *willan*, its epistemic meaning developed out of its deontic meaning. *Must* developed a relative future meaning and only later on occurs in its strong epistemic meaning (Traugott 1989: 40ff). The big difference between *will* and *must* is that *must* conveys a sense of conclusion whereas with *will* it can usually be inferred that what is being uttered will be confirmed in the future, conveying assumptions or expectations.

According to Palmer (1979: 91) it is often difficult to distinguish between the completely neutral ‘it is necessary for...’ meanings of *must*, its neutral expression of ‘circumstantial necessity,’ internal obligation and the epistemic, speaker oriented meaning. Similarly to other modals, *must* is polysemous. Sentences such as example (6) below can be interpreted in various different ways. When there is a deontic interpretation of a sentence, there is often an epistemic one as well (de Haan 2012: 719). The two interpretations of *must* that will be relevant in the context of this paper are, firstly, the meaning of objective deontic modality, conveying something is factually necessary and secondly the epistemic meaning of *must*. The epistemic meaning of *must* is described by Palmer (1990:57) as differing from the epistemic *will* insofar as “*will* indicates what is a reasonable conclusion, while *must* indicates the only possible conclusion on the basis of the evidence available”. *Must* in its epistemic sense can be paraphrased as *The only possible conclusion is that...* or *I think this is*. They both are epistemic in nature but contain different degrees of speaker commitment. With epistemic *must* there is a pragmatic weakening, which leads to a distinct difference in the interpretations of the example (7) *That must be 2015...* from this experiment.

(7)

- a. This has to be 2015... (deontic)
- b. I think this is 2015... (epistemic)

The sentence above is ambiguous as it is presented to the participants out of context and in written form, therefore lacking intonational cues. In (7a) *must* expresses strict semantic necessity. Here *must* could easily be replaced with the non-modal form *is* without much difference in meaning. (7b), on the other hand, is much more personal and implies that 2015 is the most likely possibility the speaker can think of, rather than the only possibility there is. Subjective *must* leads to pragmatic weakening therefore (7a) is stronger and more categorical than (7b) (Huddleston, Pullum 2002: 181). *Must* in its deontic sense thus adds strength to that which is being said. This means the semantic content that is proposed by utterances containing deontic *must*, are usually strengthened by the modal. In the following section I will give a brief overview of the modal *should*, before taking a look at modal adverbs *really* and *clearly*.

Should has a strong sense of obligation at the core of its meaning that is however weaker than that of *must* and *should* is mainly used deontically and only secondarily in its epistemic sense (Coates 1983: 60). In its deontic sense, it is located between *must* and *may* in terms of strength of modality. Deontic *should* can either be used in order to express a subjective point of view, where the speaker expresses what they find desirable, or objectively when the reference point is outside of the speaker's subjective reality (Collins 2009: 45). One reason why Collins (2009: 46) describes *should* as weaker than *must* is that when using *should* it is possible that the action it refers to actually never occurred. Contrary to *must*, *should* can refer to something that according to the SP/W was supposed to happen, but did not, or did not go as expected.

Epistemic *should* is usually subjective "with the speaker indicating a tentative assumption, or assessment of the likelihood of the prediction" (Collins 2009: 46). By using epistemic *should*, the SP/W makes an assumption about what they consider to be the case. In (8), two possible interpretations of *should* in the

phrase *It should be Rome* illustrate the difference between epistemic and deontic *should*.

(8) a. Rome should have that title! (deontic)

b. I think this is probably Rome... (epistemic)

In (8a) we see *should* in its deontic sense. It expresses a notion of obligation that is however weaker than the one of *must*. (8a) conveys the notion that Rome, for factual reasons, may be assumed to be the city identified. However, the proposed course of action will not necessarily turn out to be true. In (8b) the SP/W indicates what they assume is the case. In this case, the answer is based on subjective impressions rather than factual information. One difference between deontic and epistemic *should* therefore is that deontic *should* expresses a kind of obligation that is either based on objective or subjective information and is sometimes perceived as fact, whereas epistemic *should* can be substituted by *I think* and often expresses assumptions or likelihoods. (Collins 2009: 46)

This illustration of the modal *should* concludes this chapter on the different meanings of the modals *will*, *must* and *should*. In the following section I will go on to discuss the modal adverbs *really* and *clearly*.

3.5 Really and clearly

Adverbs are among the most frequently occurring epistemic items in the database researched by Kärkkäinen (2003: 45). The adverbs *really* and *clearly* are especially interesting in the context of this experiment. According to Kärkkäinen, these adverbs do not explicitly express a subjective stance but constitute an impersonalized element of epistemicity. They are, therefore, a more subtle an expression of attitude than explicitly subjective elements such as epistemic modals. Their frequent occurrence in conversational contexts can also be explained by the fact that they syntactically mobile and possess great freedom of occurrence. (Kärkkäinen 2003:44/45) The adverb *really* can perform different functions in a clause, depending on its position. In the following section, I will explore these functions and explain why in the case of my experiment it can be interpreted as

either emphasising the semantic content of the utterance it occurs in or functions as a comment on the proposition made (Paradis 2003: 191). Paradis, drawing on research by Stenström in 1986, argues that *really* can be used in order to epistemically qualify the truth of the expression of an utterance. Depending on the position *really* takes, it can serve to intensify, emphasis, or when placed in clause initial position to comment on the whole utterance. However, Paradis also stresses that it is the semantic and pragmatic factors as much as the position, which influence how *really* is read. In the following example, I will give two possible interpretations of the phrase *Really, that's Beethoven!* In order to illustrate its function as intensifier and comment:

(9)

- a. This is obviously Beethoven!
- b. Silly question, that's Beethoven of course!

In (9a), *really* functions as an intensifier and reinforces the 'truth' of what is being stated. *Really* often presupposes evidence, either factual or subjective, that the utterance is based on and that often remains implicit (Paradis 2003: 194). In our case, the SP/W refers themselves to implicit evidence that leads to their conclusion that Beethoven is naturally the right answer. In (9b) *really* is interpreted as a comment on the preliminary question and the utterance. In (9b) it is highly epistemic as it does not only express SP/W's subjective opinion of the truth value of the utterance but of the validity of the preliminary question as well. The semantic strength of *really* in (9b) is much lower than in (9a) and it provides more pragmatic information. In both cases, *really* is interpreted as modifying the phrase in an epistemic sense. However, the quality of this modification is entirely different. In (9a), *really* acts as reinforcement of the truthfulness of the content, in (9b) it possesses a strong pragmatic value and expresses the SP/W's attitude towards the phrase as well as the preliminary question.

Similar to *really*, also *clearly* can be interpreted as commenting on the truthfulness of the phrase as well as on the preliminary question. In example (10) we see two possible interpretations of the phrase *Well, that's clearly the Chinese:*

(10)

- a. I am sure it is the Chinese.
- b. This is so obviously the Chinese, why even ask?

The two interpretations of *clearly* show its function as reinforcement (10a) as well as as a comment on the preliminary question (10b). Similarly to *really*, in example (9) the adverb *clearly* is used in both cases in its epistemic sense, since it comments on the subjective truth content the SP/W attributes to their answer, however, (10b) has a much higher pragmatic value than (10a).

What all of the above examples aim to show is that when listening or reading, we do not merely decode the input, but rather interpret it by matching features of the input with representations, prototypes of a collection of things, whether this be the forms words take, grammatical structures, properties of the person the input is coming from or the expected sequence of events (Fairclough 1989: 10). In the examples above, we saw one phrase reoccurring as a possible interpretation of the modal verbs, *I think*. *I think* as an epistemic marker often occurs at the beginning of sentences, for example in order to frame the context for the interpretation of an utterance (Kärkkäinen 2003: 107/8). The meanings of *I think* can be located somewhere on the continuum between expressing doubt and uncertainty and expressing a personal attitude or conviction. This serves as an additional argument for categorising phrases that contain a modal verb and are interpreted as *I think...*, such as in the examples above, as highly epistemic. Analysing *I think* is however not only interesting in relation to modality, but also in the context of *theory of mind*. By using *I think* we can modify the truth value of an utterance and facilitate discussions about differing attitudes, points of view and needs (Howard et al. 2008: 376). In conversation, we constantly try to learn about and meet our partner's needs and adapt the language we use accordingly. One possible way to predict another person's needs is by taking the intentional stance.

In the following section I will discuss the intentional stance and the theory of mind (ToM), and apply them to different ways of approaching the task of interpreting what is meant by what is being said.

4 Understanding and being understood

4.1 Theory of mind and taking the intentional stance

As mentioned above, in the process of communication, a great deal of what is being meant by what is being said is subject to interpretation. This is why Harris and Monaco (1978:1) speak of the ‘probabilistic nature’ of language. It is rarely certain and mostly only probable, that the AD/R interprets what the SP/W uttered the way it was intended. They speak of language comprehension “as an ongoing process of continual hypothesis testing.” Certain pieces of information are directly asserted by the SP/W, and are therefore logically inferred by the AD/R, others however, are only, if at times strongly, suggested by the SP/W. This is what Harris and Monaco call ‘pragmatic implications’. In this section I will discuss how the AD/R can approach the task of interpreting what is being implied by making use of the intentional stance and ToM.

In order to make sense of our world in general and the objects and especially people that are in it, we employ different strategies. One example of such a strategy, given by philosopher Daniel Dennett (1987: 16), is the physical strategy or physical stance. We make use of our knowledge of physical nature and the laws that are attributed to it, in order to find out how the world around us works. When trying to interpret more abstract things, like words and phrases another stance comes into play – the intentional stance. When interpreting a message transmitted by a SP/W we need to use “mechanisms for contextual disambiguation and for recovering implicit meanings that the speaker intended to convey in a particular context” (Basnáková et al. 2013: 2572). What is intended by the speaker often cannot be inferred from linguistic signals alone. The AD/R often has to make use of the wider discursive and social context (Basnáková et al. 2013: 2572). Dennett (1987: 17) describes the intentional stance as follows:

Here is how it works: first you decide to treat an object whose behaviour is to be predicted as a rational agent; then you figure out what beliefs that agent ought to have, given its place in the world and its purpose. Then you figure out what desires it ought to have on

the same considerations, and finally you predict that this rational agent will act to further its goals in the light of its beliefs. A little practical reasoning from the chosen set of beliefs and desires will in many – but not all- instances yield a decision about what the agent ought to do; that is what you predict the agent will do.

What Dennett describes here, is that by taking the intentional stance, we as subjects in a given situation can infer from what we assume about an object, in our case a fellow human being, what their future actions or thoughts might be. Our ability to take the intentional stance and “figure out what beliefs that agent ought to have” is built on a psychological theory, called the theory of mind (ToM), which helps us to anticipate the behaviour and feelings of others (de Villiers 2007: 1859). By applying ToM, we can consider the perspective of another human being and thereby make assumptions about their needs and attitudes. The importance of the application of ToM for communication becomes apparent through research with autistic children who have theory of mind deficits (cf. Schneider et al. 2013). Effective communication depends on both the speaker and the listener taking into account each other’s emotions, knowledge and mental states (Hale, Trager-Flusberg 2005: 160). Children with ToM deficits have difficulty communicating as they often cannot understand the other person’s point of view as easily as individuals without those deficits. Theory of mind is, therefore, “the cognitive ability to associate mental states (both verbal and non-verbal), such as beliefs, intents, desires, and knowledge to oneself and others in order to understand other people’s mental states” (Goldman 2013:1). In every communicative situation, it is not only essential to consider our own thoughts, beliefs and intentions, but also those of our communicative partner.

Research in ToM shows that possessing ToM entails an understanding that other people have mental states that give rise to certain behavioural patterns and that these states differ from one individual to the next. However, as there are different mental processes at work that help us to learn about other people’s intentions and thoughts, it is more accurate to talk about individuals performing rather than possessing ToM. (Böckler-Raetting 2019: 10/11)

According to Böckler-Raetting, ToM can be differentiated from empathy, which describes the immediate feeling of what others’ feel, and the warm, positive

feeling of compassion towards others. Another phenomenon Böckler-Raetting describes as being similar to ToM is ‘spatial perspective taking’ (“räumliche Perspektivübernahme”). Spatial perspective taking makes it possible for us to take other people’s perspectives into account, which is necessary for successful coordination of actions. Unlike ToM, in the case of spatial perspective taking, there is usually a direct, visual insight into the other person’s perspective, whereas it is other people’s mental and therefore largely invisible perspective that is adopted in ToM (Böckler-Raetting 2019: 17). ToM therefore helps us to predict behaviour that is practically invisible (cf. Fodor 1987).

The importance of ToM in regard to this thesis is that it accounts for differences in linguistic behaviour in different contexts. As mentioned above, language comprehension relies on continuous hypotheses testing. These hypotheses are being made on the basis of what is being said, together with the AD/R’s interpretation of the social context and the conversational partner’s mental state. ToM enables the SP/W to choose language according to interpersonal variables and enables the AD/R to interpret utterances taking into account the point of view of their partner. As a result, SP/Ws alter their language use according to their own and the AD/R’s gender, age, occupation or personality (Pennebaker, Mehl, Niederhoffer: 2003).

In Holtgraves’ (2014: 129) study on interpersonal relationships and language interpretation, he found that the interpersonal context influences the way uncertainty terms such as *good*, *some* or *possible* are interpreted. In his study he focused on *power* as one of three variables and the accompanying possibility of *face threat*² that leads to a more negative interpretation of these terms. Furthermore, he found that while *face* plays an important role in language production research, it is not nearly as prevalent in language comprehension research (Holtgraves 2014: 220). However, it is not only the SP/W but also the AD/R who behave differently depending on the interpersonal power distribution in communicative situations (Holtgraves 1994). Therefore, power was a central

² According to Brown and Levinson (1987), *face* describes an individual’s self-esteem and self-image in conversation that can be threatened by requests or insult. This can lead to face threats, that can be addressed by resorting to face-saving behavior. Power imbalance can be a further factor that enhances face-threat.

consideration in the design of our study. How we define power and its role in social interaction will be explained in the next section of this chapter.

4.2 Power in language

Power is an omnipresent factor in interpersonal relationships and greatly influences the way we communicate. Before going onto the question of how power is reflected in communication and language, I will outline the definition of power used in this study. According to Dunbar (2004: 236), power can be defined as an ability that enables us to manipulate, influence or control circumstances or individuals. It does not always have to be exercised, often it is latent and the mere thought of another person having this ability can make less powerful individuals anticipate and meet the needs of the more powerful person. Less powerful individuals may also avoid conflict in fear of negative consequences. In other words, power differs from dominance in that it does not always have to be exerted in order to influence a certain situation or individual. (Dunbar, Abra 2010: 656)

It is sometimes enough if a communicative partner knows that their interlocutor could make use of their power to induce them to comply and try to meet their interlocutor's needs. Power which manifests itself in this way, is classified by Dunbar and Abra as latent power. It is, therefore, not surprising that individuals that find themselves in an unequal-high power position are least affected by their partner's attitude and are, as Dunbar and Abra (2010: 657) found, most satisfied with the social interaction as a whole. This suggests that interpreting ambiguous utterances subjectively is an attempt to understand and therefore control and fulfil the requirements of the communicative situation, especially in the absence of further evidence of the partner's attitude and needs. This form of latent power is of particular interest in this thesis.

Various previous studies have shown that low power partners are under greater cognitive pressure than their higher-power partners (Guinote 2008). This is due to the fact that in any social interaction, the partners involved depend on each other to cooperate to certain extents in order to achieve the desired outcomes. Any inequalities in power and dependence lead to imbalances in the power

relation, the less dependent actor having a power advantage over the other (Molm 2000: 1398/9). By making use of language and addressing a fellow human being, either via spoken or written language, we automatically give them power and therefore control over us. This can often lead to an unequal distribution of power, as one person needs more than the other (e.g. an answer/information/compliance), thereby giving power away.

Thus, power and control are closely interlinked. Which communicative partner controls the situation, is usually determined by the socially accepted norms the communicative partners adhere to. As an attempt to re-establish a power equilibrium, *resources* are given from one partner to the other in order to support them in satisfying their needs and attaining their goals. Making decisions over and controlling resources helps individuals regain power in situations where the relationship dynamics cause them to feel less powerful than their partner. (Dunbar 2004: 238, Dunbar, Abra 2010: 661)

According to Dunbar (2004, 2010), in the *dyadic power theory* (DPT), power is recognised as an essential part of any relationship and influences how partners relate to each other. According to DPT, differences in power influence how the partners attempt to control the communicative situation. Power imbalances, which are a significant aspect of communicative situations, also generate uncertainties and risks. We often do not know whether our partner will meet our needs and will respond to our requests in a cooperative manner. Mind reading could be applied as one way to minimise and anticipate the risks and uncertainties that accompany any social interaction. By adopting the intentional stance and applying ToM, we form hypotheses about our communicative partners and make sense of what we hear.

Power thus influences language in many ways, one of which is that according to how we interpret the power dynamic in a given situation, we interpret the words that are uttered in this situation. One group of words that has polysemous meanings and is context-dependent, are modal (ad)verbs, such as those discussed in the section above. For the reasons outlined in this section, we have chosen to focus on power as a key element in our experiment scenario.

In the context of this thesis, we intend power as an all-encompassing factor in relationships that expresses itself through our dependency on one another to meet our needs, and influences the way we behave, think and use language. This paper aims to demonstrate that power relations not only influence our day-to-day language use, but the way language changes as well. We argue that one kind of language change, subjectification, is greatly influenced by the power dynamic between communicative partners and that both the speaker and the listener drive the shift towards more subjective meanings. In the power dynamic between communicative partners, the subjective interpretation of ambiguous utterances can be viewed as resources that help to bridge the power gap and support less powerful partners in dealing with the risks and uncertainties that accompany the social interaction.

In the following section, I will outline the rationale behind the present study as well as my own predictions about the results.

5 Synthesis, hypothesis and predictions

5.1 Synthesis

As mentioned in the introductory chapter of this thesis, subjectivity is a natural part of language. However, not all words are equally subjective or objective. Words can be subjective to different degrees. Some words such as *beautiful* have a higher degree of speaker involvement and tell us more about the speaker's opinions and attitudes than others, such as *round*. Differences in subjectivity are not only found between words, but also between the different meanings of the same word. These differences in meaning in one word can lead to ambiguity when it comes to the interpretation of the word. This ambiguity arises from the word's polysemy, i.e. when it has several distinct meanings, or from only slightly different, subjective notions of the same fixed meaning of a word. According to Traugott, meanings tend to become increasingly subjective over time, due to the SP/W's need to express attitudes, beliefs and opinions as well as facts. Modal verbs and modal adverbs constitute a grammatical category that provides a particularly good insight into the subjective and objective meanings of a word. Modal verbs and modal adverbs tend to be polysemous, and one part of their meaning is more subjective than the other(s). Examples of words with this kind of polysemy are the modal verbs *must*, *will* and *should* and the modal adverbs *really* and *clearly*. These words have one kind of meaning that is more objective and is called 'deontic' meaning, and one kind of meaning that is more subjective, called 'epistemic' meaning. I will argue that in different contexts to different degrees, the listener determines the meaning of these words as well as the speaker. Studies have shown that interpersonal factors such as the power distribution between speaker and listener influence how the listener interprets certain meanings (cf. Holtgraves 2014). This finding is at the centre of this study.

I predict that relatively powerless listeners will interpret ambiguous utterances in a more subjective way than relatively powerful listeners. In order to

test this prediction, a study was conducted. Participants were divided into two groups. Group 1 (P+) was presented with a communicative scenario where they felt relatively powerful, while group 2 (P-) was presented with a scenario where they felt relatively powerless. Both groups were presented with the same ambiguous utterances and told to provide their interpretation of the utterances. The aim of the experiment was to find out whether subjective interpretations of ambiguous modal verbs and modal adverbs were more likely to occur in a setting where the speaker was to be perceived to have a greater degree of power over the listener than in settings where the speaker was perceived to have little or no power over the listener. The modal verbs *must*, *will* and *should* and modal adverbs *clearly* and *really* were the focus of the experiment, as their ambiguity arises from the fact that they express different degrees of speaker involvement and speaker attitude.

Holtgraves (2014) found that one aspect of power, face threat, has a significant influence on the way uncertainty terms, such as *like*, are interpreted. Like some of the studies discussed by Holtgraves (2014), this study examined the interpretation of ambiguous terms, in our case modals, in scenarios that differ in terms of the distribution of power between the AD/R and SP/W. Making use of ToM, listeners first assessed the communicative situation from the perspective of the AD/R and then interpreted what they were saying in order to fit the context.

5.2 Experiment set-up

In our experiment, both the powerful participants (P+) and powerless participants (P-), first asked their chat partner a question and then were presented with answers containing words that could be interpreted either subjectively or objectively (ambiguous answers (AAs)) as well as answers that did not contain such words (control answers (CAs)). These answers were presented to the participants by a chat partner, who participants thought was located in another room. In reality, however, this person did not exist. The main challenge in designing this study was not to make it too obvious what the experiment aimed to investigate. Too much focus on the interpretation of the ambiguous utterances

could have made participants suspect their partner was not a real person, which would have influenced the outcome of the experiment. Participants were therefore told that the aim of the experiment was to test communication efficiency in chat communication. For that purpose, they should rate their partner's performance. Immediately after getting an answer from their chat partner, participants would be presented with 6 statements (e.g. *My partner found the question interesting*.) and were instructed to indicate their (dis)agreement with the statement on a 9-point-scale (1 = *strong disagreement*, 9 = *strong agreement*). After the chat conversation was finished, participants were asked to fill in a follow-up questionnaire. In the first part of this questionnaire, participants were asked to rate the overall performance of their partner by making a mark on a line with two opposing adjectives on either side of that line. (e.g. cooperative – rude). They were instructed to make their mark according to how they perceived their partner to behave during the chat conversation. The second part of the follow-up questionnaire consisted of a number of ambiguous answers the participants had got. The participants were asked to choose the interpretation of the ambiguous utterance that they had attributed to the answer during the experiment.

The first part of the follow-up questionnaire will not be analysed in detail in this study due to the limitations of this thesis. Illustrating the ratings during the experiment in combination with the second part of the follow up questionnaire should account for a sufficiently comprehensive basis for analysis of the study results.

5.3 Hypotheses

Having briefly touched upon the design of this study and the steps in the data collection process, in this section I will talk about the hypotheses this experiment aimed to test.

The first hypothesis is based on the use of ToM. We claim that by focusing on the subjective perspective and attitude of the speaker to differing extents, participants P- and P+ read different degrees of speaker attitude into an ambiguous element. There are three main hypotheses that lead to this claim.

Hypothesis 1: The process of subjectification of meanings is driven not only by the speaker but also by the listener.

Hypothesis 2: The distribution of power influences the way ambiguous utterances are interpreted.

Hypothesis 3: The more powerless a listener feels, the more they will interpret ambiguous utterances subjectively.

The first hypothesis is the main hypothesis this experiment sets out to test. Hypothesis 2 and 3 are more specific hypotheses, building on hypothesis 1 and concern the interpersonal factors that may motivate listeners to create hypotheses about the speaker's opinions, attitudes and beliefs. These hypotheses are illustrated in the following diagrams.

Hypothesis 1 can be illustrated as follows:

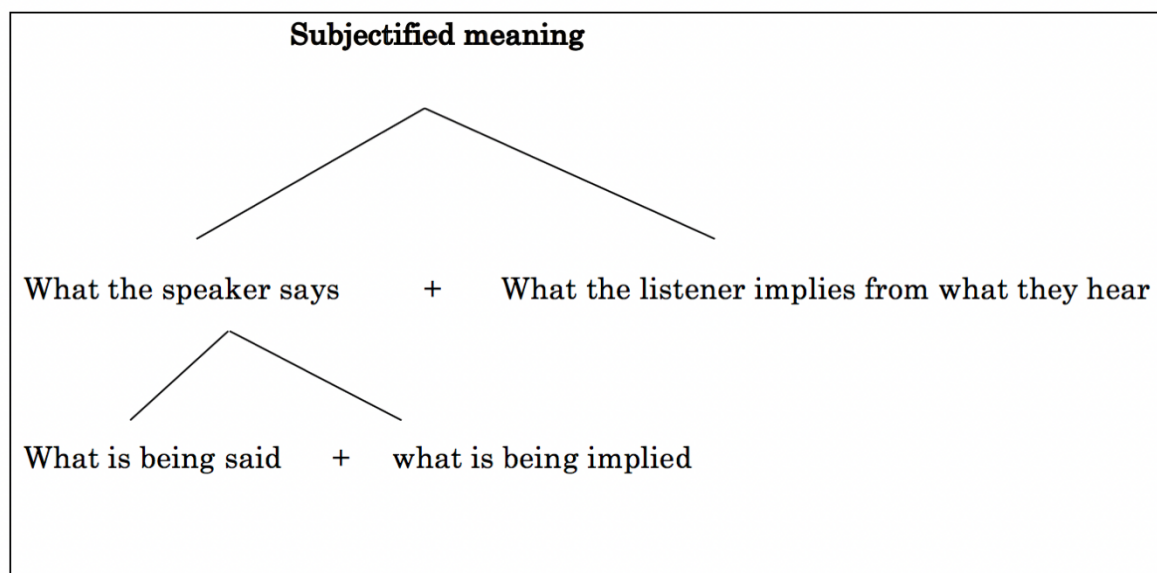


Figure 3. Illustration of hypothesis 1.

Figure 3 illustrates the hypothesis that subjectified meanings do not only stem from the speaker's desire to communicate their attitudes and opinions, but also

from the listener's desire to collect information about the speaker's beliefs from what they hear. This is a simplified view of how communication works and cannot be generalised and applied to all communicative situations. However, certain factors influence this process, such as power. In situations where the speaker has power over the listener, ie. where they can influence how others perceive the listener or how the listener perceives themselves, the listener's desire to find out about the speaker's attitudes and opinions will be greater than in situations where the speaker does not have that power. This connection between speaker power and subjectification is illustrated in Figure 4.

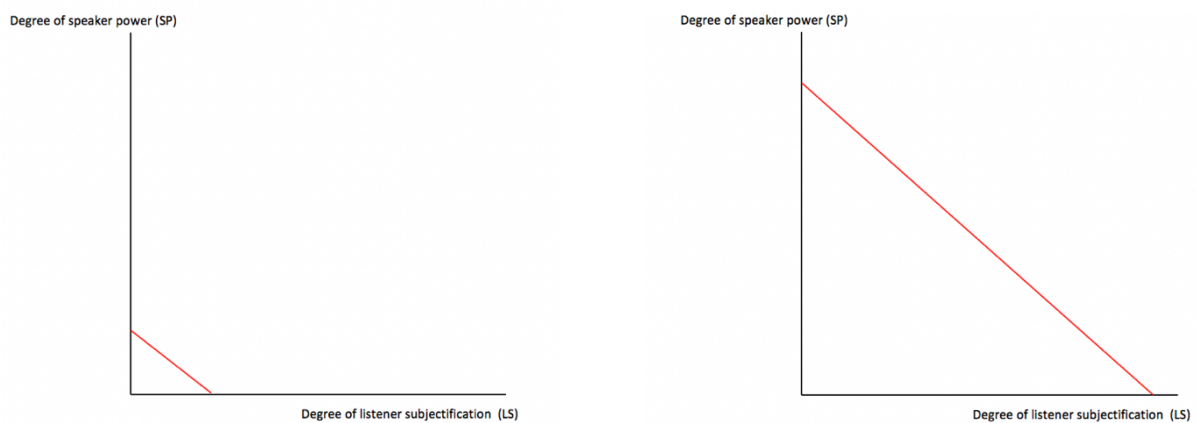


Figure 4. Illustration of hypotheses 2+3, assumed correlation of speaker power and degree of listener subjectification.

Figure 4 shows our hypotheses that the degree of LS increases with the degree of SP: in contexts where the speaker has a greater degree of power over the listener, the listener will interpret ambiguous utterances more subjectively than in contexts where the speaker has less power.

5.4 Predictions

Having outlined the hypotheses this experiment aimed to test, I will now have a look at the possible outcome scenarios regarding these hypotheses.

Case 1: There will be a positive correlation between the degree of powerless felt by the listener and the degree of subjectivity of their interpretation of ambiguous utterances.

This case, which is illustrated in Figure 4 above, would confirm our hypotheses. For a confirmation of our hypotheses, results would show that participants P+ interpret AAs based on the objective/deontic meaning of the words, and participants P- would tend to attribute more subjective/epistemic meanings to the ambiguous utterances. In this case, the results of the interpretation of the ambiguous utterances might look similar to those illustrated in Figure 5 below:

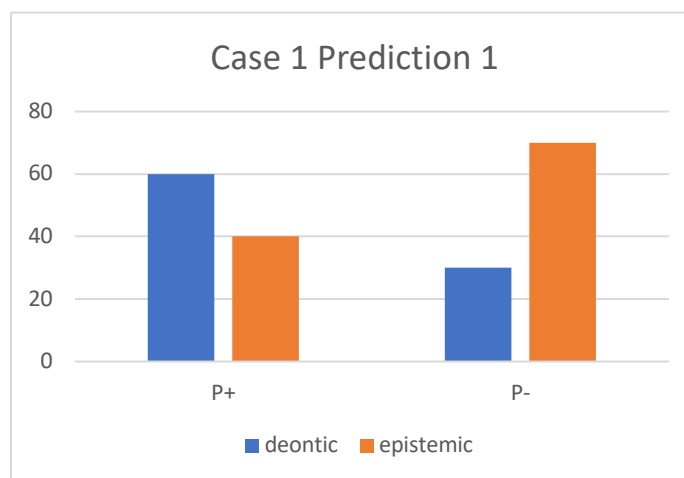


Figure 5. Illustration of one possible outcome for case 1 for distribution of deontic/epistemic interpretations of ambiguous utterances between P+ and P-. Numbers refer to percentages.

If there is correlation between SP and LS in the sense that the majority of P- participants would interpret ambiguous utterances in a subjective way, while a large percentage of P+ participants would do the opposite, our hypotheses would

be confirmed. The exact percentage may vary in the actual results, but should be clearly above/below 50 % respectively.

For the results of the 9-point scale ratings, I would predict that in case 1 participants P- would give more differentiated ratings than participants P+, meaning that they would make use of a wider range of numbers in order express their (dis)agreement with the statements. In case 1, P- participants do not only take the literal meaning of the ambiguous words into consideration, but also the subjective meanings that can be attributed to them. Thereby they have a greater amount of diverse information to process, that will account for greater individual differences among participants P-. Ambiguous utterances that may potentially be interpreted in a deprecative, offensive way, might be interpreted accordingly by P- participants more than by P+ participants. In this scenario P- participants consider their chat partner as less cooperative and give lower grades to the statements they are presented with after they receive their partner's answer. This distribution of ratings is illustrated in Figure 6.

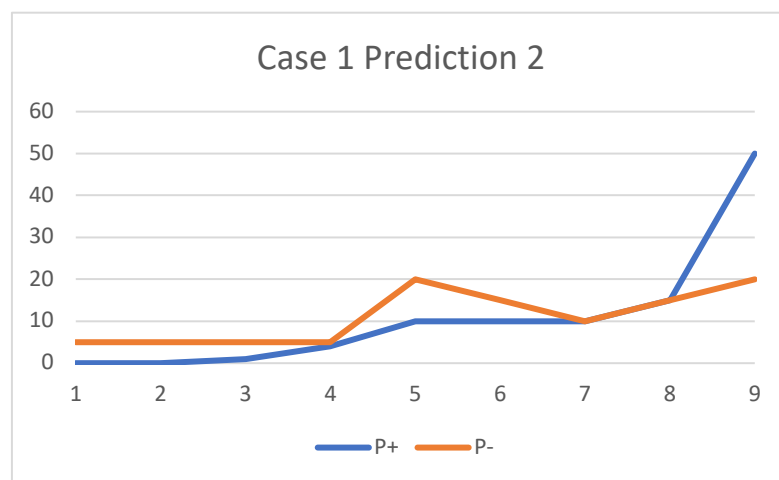


Figure 6. Case 1, Ratings of statements with ambiguous answers. Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

As seen in Figure 13, the percentage of participants P+ showing absolute agreement (9) is much higher than it is for participants P-. Participants P- show a greater diversity of ratings, with the tendency to give lower grades and make use of the whole scale from 1-9.

The first part of the follow-up questionnaire will not be analysed in detail due to the limitations of the scope of this study, therefore predictions regarding this set of data will not be made.³

I will now have a look at the predicted results for case 2.

Case 2: The more powerful a listener feels, the more they will be drawn to interpreting ambiguous utterances in a subjective way.

In this case, the adjective *powerless* has been substituted by *powerful*. There is a correlation between speaker power and listener subjectification but it is contrary to what we set out to prove in our hypotheses. This is another possible outcome of the study . One possible result that would confirm a correlation between power and subjectification, such as case 2 refers to, will be illustrated below.

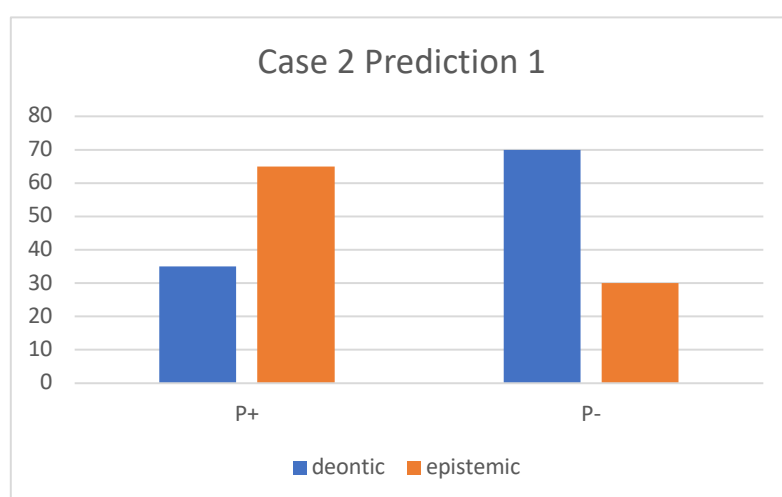


Figure 7. Illustration of one possible outcome for case 1 for distribution of deontic/epistemic interpretation of ambiguous utterances between P+ and P-. Numbers on the vertical line refer to percentages.

Figure 7 shows one possible outcome for the distribution of deontic and epistemic interpretations among participants P- and P+ that would confirm hypotheses 1 and 2, but disprove hypothesis 3, which would be if the AD/R does interpret the

³ To view the results of the first part of the follow-up questionnaire see appendix page 107.

ambiguous utterances in a more subjective way, the more powerful they feel. This finding would not only contradict hypothesis 3, but also the results presented by Holtgraves (2014), that have been illustrated in the introductory chapter of this thesis. Holtgraves (2014: 224) found that “remarks uttered by a higher status speaker will be recalled as being more direct and assertive than the exact same remarks uttered by a lower status speaker”. On the other hand, Holtgraves (2014: 221) also found that “as the recipient’s relative power increased, perceived face threat is increased, and this will result in more face-threatening interpretations [...]”. (Note: *Face-threat* and *status* are not synonymous to *power*, but do contain similar aspects to the concept of *power* in this context). Holtgraves’ finding as presented in the second quote above would be confirmed by results as presented in Figure 7, as it shows how participants P+ interpret ambiguous answers in a more subjective, possibly face-threatening way.

One possible outcome of the results of the 9-point-scale for case 2, is illustrated in Figure 8.

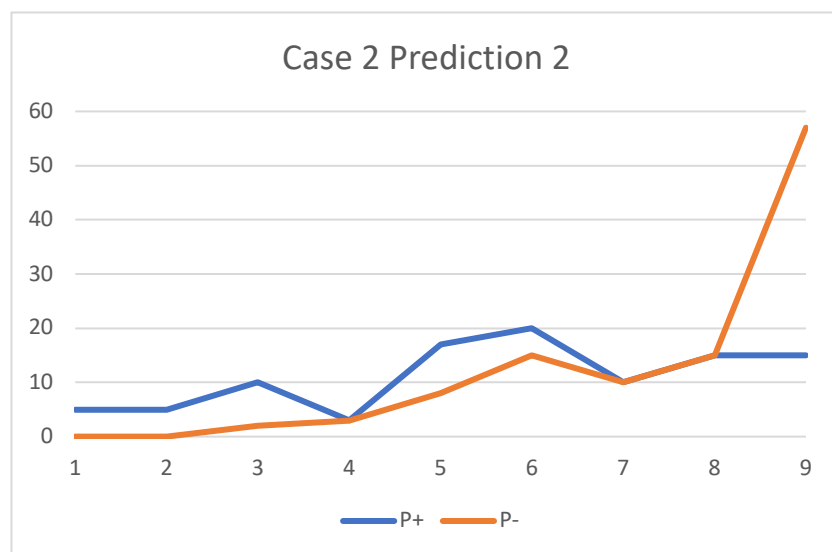


Figure 8. Case 2, one possible result for ratings of statements regarding ambiguous answers. Numbers on the vertical line are in percentage, numbers on the horizontal line are rating options from 1 to 9.

In this case, the majority of participants P- strongly agree with the statement provided and only a limited number of them chose numbers below 5. The

expressions of agreement or disagreement by P+ participants, on the other hand, are more equally distributed among the different numbers, with a relatively large proportion of participants choosing numbers 6 and 7. Numbers below 5 are not uncommon among this group as well. This could be due to the fact that, as Figure 7 shows, many of them interpreted ambiguous utterances in a subjective way and, therefore, took into account not only the semantic but also the pragmatic content of the ambiguous utterances to a larger extent than P- participants. This meant that P+ participants had to process a greater number of potentially conflicting information. The listener's perception of how their question was answered was influenced not only by the content-related information, but also by the subjective opinion of the speaker. This will be discussed in more detail in the discussion section of this paper (Chapter 8).

Having examined case 1 and 2, which would either confirm our hypothesis (case 1) or contradict it (case 2), I will now discuss a third possible outcome of the experiment (case 3):

Case 3: The results do not show any correlation between SP and LS.

If the results do not show any correlation between SP and LS, this would mean that the experiment design was not successful in testing this correlation, however, it would not necessarily mean that there is no correlation between the two factors. One possible line of results that would contradict the second and third hypothesis will be outlined in the following section.

To reiterate, the hypotheses are:

Hypothesis 1: It is not only the speaker, but also the listener who is responsible for the shift towards subjectification of meanings.

Hypothesis 2: The distribution of power influences the way ambiguous utterances are interpreted.

Hypothesis 3: The more powerless a listener feels, the more they will be drawn to interpreting ambiguous utterances in a subjective way.

Even if the results of our study do not show an apparent relation between the speakers' power and the listeners' subjective interpretations, this would not constitute conclusive evidence for or against hypothesis 1, as our experiment only tests the correlation between speaker power and the listener's role in the subjectification process. Other factors may still influence the interpretation of ambiguous utterances in a similar experiment design.

Figure 9 shows one possible line of results for case 3.

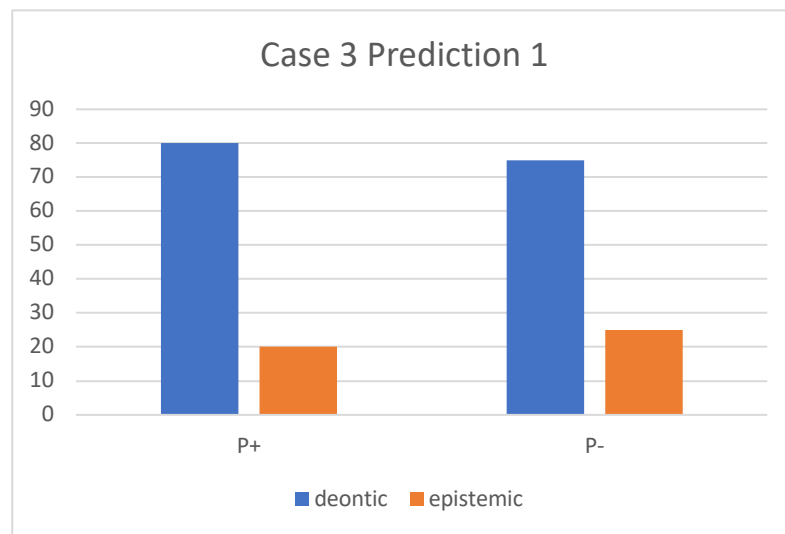


Figure 9. Illustration of one possible outcome for case 3 for the distribution of deontic/epistemic interpretation of ambiguous utterances between P+ and P-. Numbers on the vertical line refer to percentages.

Figure 9 illustrates one possible outcome that would suggest that there is no or only very little correlation between SP and LS. Even though a slightly higher proportion of participants P- than participants P+ interpreted ambiguous utterances in an epistemic way, the vast majority of participants resorted to deontic interpretations (80% for P+ and 75% for P-). The percentage of participants who chose the epistemic/subjective version is slightly higher for participants P- (25%) than for P+ (20%). It is difficult, however, to draw conclusions from these results, as they are quite similar for both groups. In order to be sure that they do not hint at any correlation between SP and LS in this scenario, they need to be viewed in combination with the results for the 9-point-scale, which are illustrated in Figure 10.

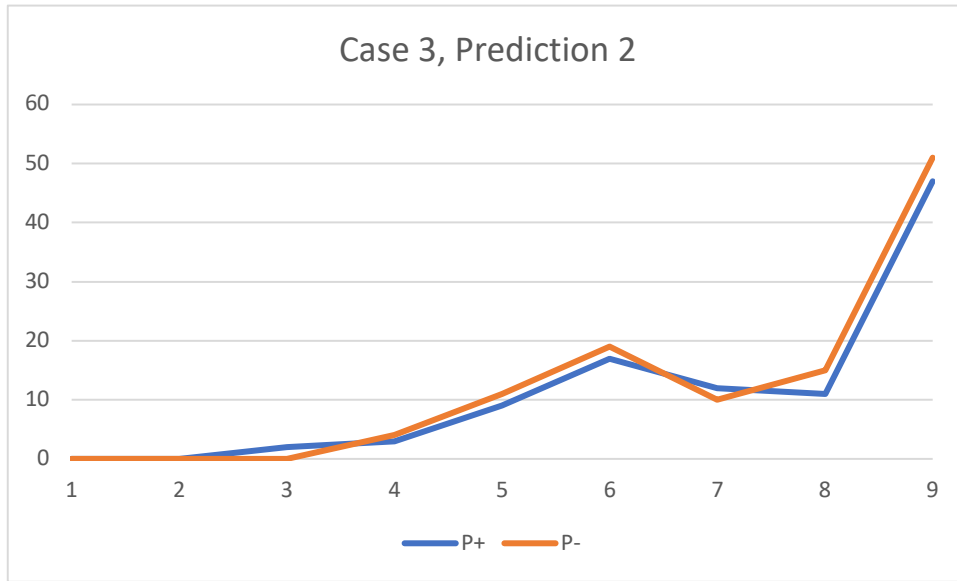


Figure 10. Case 3, one possible result for ratings of statements regarding ambiguous answers. Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

In combination with the results in Figure 10, the results presented in Figure 9 can be interpreted more easily. Although, as can be seen in Figure 10, participants P- attributed subjective meanings to ambiguous utterances slightly more often than participants P+, they did not behave accordingly in the results presented in Figure 10. Like Figure 9, Figure 10 shows that there are slight differences in behaviour between P+ and P- participants, but they do not show any clear patterns. Participants P+ and P- behave more or less in the same way: very few participants P- and P+ chose numbers lower than 5, with nearly half of both groups (47% for P+ and 51% for P-) expressing absolute agreement with the statement.

This outcome would suggest that the study design had not been successful in eliciting the behaviour expected from participants. This could be due to various reasons. One possibility is that the experiment scenario does not make participants feel sufficiently powerful or powerless to behave in a certain way. Another possible explanation for case 3 would be that there is indeed no correlation between SP and LS in this kind of setting.

For the control questions, we predict that in each of the cases 1, 2 and 3 the results will be similar to the ambiguous questions presented in the figures above. The big difference will be that a higher number of participants will chose number 5, and that the difference between participants P- and P+, as in case 1,2 and 3, will be less strong.

In this chapter I have presented the hypotheses this experiment aims to test. Additionally, 3 possible outcomes and their respective implications for the hypotheses, have been described. The following chapter will outline the method of the present study.

6 Method

6.1 Participants

A total of 62 participants took part in the experiment. They were recruited online. The criteria for participation was firstly that their mother tongue was not English and secondly that their level of English was at least a B2. The 62 participants were all adults and many were students.

6.2 Design

The following section will describe the design of the experiment in more detail. The testing phase consisted of 9 rounds with three steps each. Each participant was tested individually and completed one testing phase. In each round, the participants were given a question, an answer and finally 6 statements to rate that answer. The experiment scenario was a chat communication. In step one participants were presented with 4 versions of the same question and asked to select one out of these four versions. The questions all were designed to elicit the same answer but were different in style. The following is an example of the first step of each round, the question participants were asked to select:

- (11) a. The biggest issue future generations will have to tackle is...

- b. What do you think the biggest issue for future generations will be?
- c. Off the top of your head – what is the biggest issue future generations will have to tackle?
- d. The biggest issue for future generations will be...

After selecting one version, participants were presented with an answer, which they were told came from their chat partner. The answer to the question above was:

(12) This will be climate change...

Finally step three of each round consisted of participants rating the answer by assessing six statements, using a nine-point Likert scale. These ratings are the first part of the data that was collected during the experiment. One of these six statements was:

(13) My partner liked the way the question was put.

The three steps, illustrated in examples (11), (12) and (13), were the same for all participants. However, the instructions given to the participants differed according to the experimental phase (Pilot phase, Phase I, Phase II) and power scenario they were in. In the next section the rating scale format will be illustrated, afterwards the instructions will be outlined according to phase.

6.2.1 Rating scale format

When creating the digital questionnaires and choosing rating scale as the platform for our participants to express their attitude towards their chat partner, one of the major design-related questions was the number of response categories and the labelling of the response categories. The rating scale, like the overall design, was developed in co-operation with an expert, Univ.- Prof. Mag. Dr. Nikolaus Ritt. A Likert scale was chosen for the experiment ratings by participants. Likert scales are often used in psychological research as they lend themselves to investigations

of participants' attitudes. These types of scales present participants with various attitude statements that range from strongly agree to strongly disagree on a continual scale (Komorita 1963: 327). One important question that arises when designing a Likert scale for quantitative research regards the number of response categories. A 9-point Likert scale with endpoint labels (1=I don't agree, 9= I totally agree) was used in this experiment. The aim was to use a fairly comprehensive scale, which would still make it possible to measure nuances between attitudes of powerful and powerless participants. We expected to see a more nuanced response style in powerless participants. A 9-point scale has sufficient options to allow for nuanced responses without overwhelming participants.

The midpoint (5) was an important category because powerless participants were expected to demonstrate conflict when interpreting ambiguous utterances. They were expected to demonstrate higher feelings of ambiguity towards AAs than participants P+, who were expected to interpret AAs with less conflict and based on the semantic content of the ambiguous answers. As powerless participants were expected to interpret ambiguous elements more subjectively, they would be faced with pragmatic information that would sometimes conflict with the semantic content of the utterance. Midpoint responses have been found to be an indicator of uncertainty as well as item ambiguity (Coombs, Coombs 1976: 498), and can therefore be considered an indication that participants are interpreting ambiguous answers in a subjective way and interpret the information given as conflicting, which would then lead to uncertainty in these participants. Our hypothesis was that this kind of uncertainty would occur more frequently in powerless than in powerful participants and would lead powerless participants to select points corresponding to lower degrees of agreement with the statements, and to be less likely to state explicit opinions due to their relative uncertainty. In order to produce clear results on this point, a midpoint was included in the scale.

Another notable aspect of the Likert scale that was used for our experiment is that the extreme points (1,9) were labelled. Two interesting trends can be observed with regards to the extreme labelled response scales. According to Weijters, Cabooter and Schillewaert (2009: 237), participants have a tendency to agree with statements and are reluctant to disagree, which is called Net Acquiescence

Response Style (NARS). Furthermore, individuals have been observed to disproportionately use the extreme response categories (extreme response style). It has however been found that participants who lack interest in or knowledge of a certain topic, tend to apply these rating patterns (Jedinger 2018: 50). This behavior is reflected in our predictions as well. We expect that participants P+, if they interpret ambiguous answers in a more objective way, will have a tendency towards extreme response categories and will tend to agree with statements more than their less powerful counterparts. Therefore, we chose to present participants with response categories that made it possible to distinguish between participants that are knowledgeable about their partner and those who are not.⁴

6.2.2 Creation and manipulation of the experiment scenarios

The chat conversation had been pre-designed in order to guarantee that the input for P- and P+ participants was identical. The manipulation occurred through the instructions given. The instructions, therefore, played a key role in the implementation of this experiment as the different scenarios were created based on these instructions. In the pilot phase of the experiment (participants 1-10), the written and oral instructions and the digital input were thoroughly tested and adapted, as the success of the experiment depended on the participants' being convinced their partner was a real person. The experiment scenario itself was the source of the experimental condition. It was a field experiment disguised as a lab experiment. In the instructions, the participants were told they were taking part in an experiment on communication efficiency. The object of study was the behavior of participants who thought they were taking part in an experiment on communication efficiency. As mentioned above, participants were given different instructions, according to the experimental phase and the power scenario they were in. Participants with an uneven participant identification number were instructed to rate the performance of their partner and told that they themselves would not be assessed by their partner. These participants were called powerful

⁴ For a more comprehensive explanation of Likert scale analysis see Weijters, Cabooter and Schillewaert (2010).

participants or participants P+. Participants with an even participant identification number were told to rate their partners performance and that they themselves would be rated by their partner as well. These participants were called powerless participants or participants P-.

One difference in the written instructions was the following sentence (14), which for participants P+ was:

- (14) In step 3 you will have to answer 5 questions concerning your partner's performance.

but for participants P- was :

- (15) In step 3 you and your partner will rate each other's performance.

Participants P+ were not given any information about whether their partner would rate their performance as well, because to do so explicitly would have drawn too much attention to the rating process. The question of whether their own performance was rated or not should not enter the conversation for participants P+. For participants P- on the other hand, it was essential that they knew that they were being assessed by the partner they were assessing. After the written instructions the instructions were given again orally to ensure that all participants understood their role and the power distribution in the experiment situation. In the oral instructions, participants P+ were told they were not being rated as "there was nothing that could be rated about their performance, seeing that they only selected a question". Participants P- were told in the oral instructions that while they were rating their partner's answer, their partner would rate their choice of question. The selection of question was therefore a key task for participants P-. Another difference between the oral and the written instructions was that the written instructions stated that the chat partner had 15 seconds to answer the question. In the oral instructions participants were told that initially chat partners had been allocated 15 seconds to answer the question, but as there had been many incomplete answers, this had been extended to 20 seconds. This discrepancy between oral and written instructions served to make the testing scenario seem more natural and reinforced the impression that there were two

human participants. After the experiment the participants were informed of the actual aims of the study.

6.2.3 Phase I and II of the testing process

In phase I (participants 11-35), the participants were told to select the version of the question that they found most appropriate, implying that the versions were not equally well suited to the context. Although participants P+ were told that they were not being rated, this formulation of the instructions may provoke a form of internal judgement, as participants might question their own choices. In phase II (participants 36-62), participants P- were given the same instruction to select the most suitable version, while in this phase participants P+ were told to choose any question.

In phase I participants P+, unlike participants P-, were not subject to partner assessment but were still subject to their own judgement as to the acceptability of their choice of question. In phase II, there were no changes to the instructions given to participants P-, whereas participants P+ were liberated as far as possible from any kind of external or internal judgement. Figure 11 and 12 below show the different stages and phases of the research process.

	Oral Instruction participants P+	Oral Instruction participants P -
Phase I (11-35)	Step 1: “Choose the version of the question you find most efficient.” Step 2: “You will see the answer.” Step 3: “In step 3 you will answer 5 questions concerning your partner’s performance.”	Step 1: “Choose the version of the question you find most efficient.” Step 2: “You will see the answer.” Step 3: “In step 3 you and your partner will rate each other’s performance.”

Phase II (36-62)	Step 1: “Choose any question you like; it does not matter which one. ” Step 2: “You will see the answer.” Step 3: “In step 3 you will answer 5 questions concerning your partner’s performance. ”	Step 1: “Choose the version of the question you find most efficient. ” Step 2: “You will see the answer.” Step 3: “In step 3 you and your partner will rate each other’s performance. ”

Figure 11. Differences in oral instructions given to participants P- and P+ in phase I and II of the experiment.

Phase	P+	P-
Phase I		
High degree of assessment by an outside agency	x	☐
High degree of assessment by an inside agency	☐	☐
Phase II		
High degree of assessment by an outside agency	x	☐
High degree of assessment by an inside agency	x	☐

Figure 12. Illustration of the different kinds of assessment in phase I and II of the experiment.

The figures above serve to illustrate the predicted effects of the differing oral instructions given to participants P+ and P- before the experiment. They show the impression of assessment, whether by an outside or inside source, that is produced by the instructions.

Figure 12 represents a simplified version of the kinds of assessment that may be at work in every situation and the sources that produce them. The terms ‘high’ and ‘low’ degree of assessment refer to whether this kind of assessment is emphasised in the oral instructions. This figure serves to show that both explicit judgement and implicit (self)judgement can produce feelings of powerlessness. By asking participants to choose the question they find the most appropriate, the implications that not all questions are equally efficient arises, and therefore participants may begin to question whether they chose the ‘most efficient’ one.

6.2.4 Pre - and post - experimental questionnaire

Before the testing phase, participants were asked to fill out a pre-experimental questionnaire, asking participants to state their age, occupation and gender, as well as their native language, the number of years spent in an English-speaking country, and any additional languages they spoke.

After the experiment, participants were asked to fill in a two part follow-up questionnaire.⁵ In the first part of the follow-up questionnaire, participants were asked to assess the quality of the chat conversation as a whole, the overall performance of their partner, and reflect on how they think their partner had (participants P-) or would have (participants P+) assessed their performance. One example of an item from the first part of the follow-up questionnaire is:

(16) Overall my partner’s performance was...

very bad ----- excellent

This part of the questionnaire aimed to gather information about the participants’ overall impression of their partner’s performance and their partner’s assessment

⁵ All questionnaires can be found in the appendix, page 102.

of their performance. It was intended to serve as a guideline to support the results from the ratings given by participants during the experiment.

In the second part of the follow-up questionnaire, participants were asked to choose the interpretation of an ambiguous answer they had attributed to a phrase during the experiment. Example (17) shows one item in this part of the questionnaire.

(17)

1. **Really, that's Beethoven!**

X This is obviously Beethoven!

X Silly question, that's Beethoven of course!

Out of the two interpretations given, as can be seen in example (17), participants had to choose the one that fit their own interpretation best. The answer participants got from their partner during the experiment is given in bold. In this case, the most ambiguous element in the phrase is the modal adverb *really*. The first interpretation *This is obviously Beethoven* presents a transcription of the word *really* in its' more objective meaning, where *really* refers to the fact that Beethoven is the correct answer. In the second transcription, *really* refers how the question that had been asked previously by the participant is being perceived by the recipient. In this phrase, *really* is rephrased in its' more subjective meaning, conveying speaker attitude. Example (17) serves as an example of the 4 items of the second part of the follow-up questionnaire. These items help to verify the results from the 9-point-scale ratings. By explicitly asking participants whether they interpreted answers in a subjective or objective way, the results from the 9-point-scale and the first part of the follow-up questionnaire can be substantiated. The two interpretations given in the second part of the questionnaire are, of course, only two of many possible interpretations. Participants could have interpreted the answer in many other ways. If they were unsure because their interpretation was not given in the questionnaire, they were instructed to choose the option that was most likely to fit their own interpretation.

6.2.5 Procedure

Participants were tested at the department of English and American studies at the University of Vienna. Participants were tested individually. Testing lasted for 30 minutes per participant, 20 of which were dedicated to the chat conversation, 10 to instructions and pre- and post-experimental questionnaires. Every participant received 10 euros as financial compensation. The level of English was not tested prior to participation, but adequate language competence was tested indirectly through communication and instruction-giving in English. One participant (participant 55) had to be excluded subsequent to participation when the ratings on the 9-point-scale suggested that they had not fully understood the instructions. All 63 participants were tested over a period of 3 weeks in June/July 2019. Participants signed up for their 30-minute time slot online via a doodle link. In order not to influence the study outcomes, participants were not informed about the true aims of the study, but instead were told that the study focused on factors influencing communication efficiency.

Before starting the main part of the experiment, the chat conversation, participants were asked to read through the instruction sheet and fill out the pre-experimental questionnaire. Afterwards the instructions were repeated orally, in order to emphasize the respective power scenarios. The distribution of power could be more subtly conveyed via an oral conversation. Explicit instructions in a written context could have put too much focus on the power relation which could have led participants question the alleged aim of the study. The exact instruction giving process is illustrated in the above section of this paper (section 6.2.5.). Participants were told that their chat partner was seated in another floor, taking part in a different experiment and participating in the present study as well. When participants were ready to start the chat conversation, a phone call was staged where participants could overhear someone asking if the downstairs partner was also ready to start the conversation. Participants were asked to wait three more minutes until their alleged chat partner was ready.

A laptop was put in front of the participants. Instructions on how to lead the chat conversation and the different steps of this part of the study were standardised and integrated in the computer program used. Participants were told to proceed with the experiment at their own speed and call the researcher when finished. As the follow-up questionnaire was based partly on the answers participants got from their partner, participants in phase II were told that the follow-up questionnaire was designed parallel to them taking part in the chat conversation and printed afterwards. Participants in phase I, in contrast, were told the truth: that the follow up questionnaire was pre-designed and standardised. This was another difference between phase I and II of the experiment. The general testing procedure is illustrated in figure 13 below.

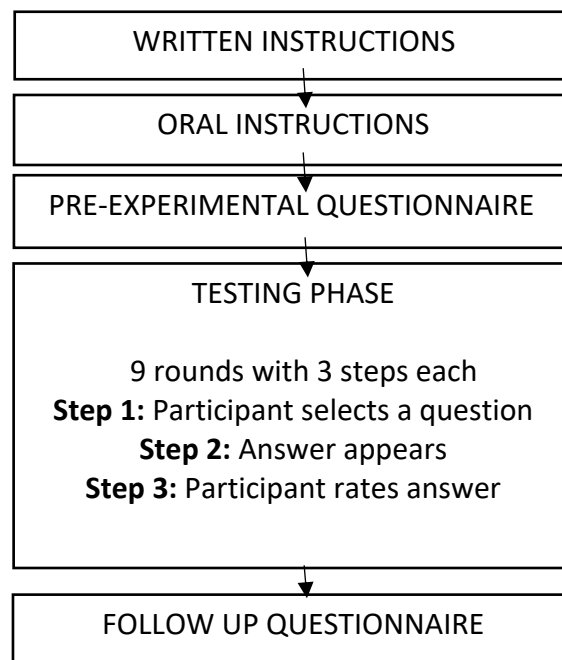


Figure 13. Steps of phase I and II of the testing procedure.

6.2.6 Pilot study

Before phase I started, the first 10 study participants were asked to take part in a pilot study. The instructions given in the pilot phase were very similar to those

given for phase I (see above). The only difference between the testing process in the pilot phase and phase I was that in the pilot phase participants were asked for feedback on the study design after their participation in the chat conversation. The feedback given by participants in the pilot study showed that the pre-designed chat answers were not sufficiently coherent as to plausibly come from one person. Additionally, participants from the pilot study thought certain answers sounded artificial and unnatural in the context of the chat conversation. Therefore, certain alterations were made in the course of the pilot study. Firstly, the punctuation, spelling and capitalisation of the sentences was standardised. Secondly, certain expressions that were unlikely to occur in a chat conversation where individuals had to answer unrelated questions within a very limited amount of time, were altered. Figure 14 shows a list of the changes made following the pilot study:

Before pilot study	After pilot study
Puh..this will probably be climate change...	this will be climate change
That's Michleangelo	Michelangelo
Ahm...red?!	thats red
either facebook or Instagram	either facebook or instagram.
It should be Rome...	it should be Rome
Well, that's clearly the Chinese.	Well, that's clearly the Chinese
Really, that's Beethoven!	Really, Beethoven!

Figure 14. Changes made in the chat conversation in the course of the pilot study.

As can be seen from the figure above, after the pilot study and the adjustments made accordingly, the answers are shorter, omitting pronouns and articles that are not essential for comprehension. Furthermore, after the pilot study, the answers were rewritten with reduced punctuation and capitalisation to reflect the limited amount of time (20sec) that the respondent has to reply.

The following section will present the items which occurred in phase I and II of the study.

6.2.7 Items and Materials

Items (questions, answers, statements and while-experiment instructions) were presented to the participants using Psychopy3 software. Items were programmed to appear on the laptop screen either after a certain amount of time had passed in case of the answers, or after the participants had pressed ‘1’ for instruction screens, ‘a,b,c,d’ for the questions and numbers 1-9 for the evaluative statements. A sample of three out of the total nine questions and corresponding answers that appeared in random order in the experiment, are given in Figure 20.

Question	Answer
a. The biggest issue future generations will have to tackle is... b. What do you think the biggest issue for future generations will be? c. Off the top of your head – what is the biggest issue future generations will have to tackle? d. The biggest issue for future generations will be...	this will be climate change
a. The most influential musician on the planet – who is it? b. Who do you think is the most influential musician ever alive? c. Which musician is most influential on a global scale? d. If you had to name only one – who would you say was/is the most influential musician on the planet?	Really , Beethoven!
a. Who is the most important renaissance painter? b. Of all the renaissance painters – who i most important one? c. Could you name the most important renaissance painter? d. Thinking about the renaissance – which painter strikes you as being the most important one?	Michelangelo

Figure 15. Sample of questions and answers as presented to the study participants in phase I and II.

Ambiguous elements are given in bold. Two out of five ambiguous answers and one out of four answers that do not contain deliberately ambiguous elements are shown in Figure 15. These four elements are the control elements or control answers. The control elements had two functions: firstly, to distract from and obscure the true aim of the study and, secondly, to help to determine whether the deliberately ambiguous element is responsible for any differences in rating between participants P+ and P-.⁶

7 Results

This study investigated the correlation between perceived power and subjective interpretations of ambiguous utterances by the listener. Three hypotheses form the basis of the study. The first hypothesis states that it is not only the speaker but also the listener who drives the process of subjectification of meaning. The second hypothesis concerns the influence of power on the interpretation of ambiguous utterances. Finally, the third hypothesis states that the more powerless a listener feels, the more they will be drawn to interpreting ambiguous utterances subjectively. These three hypotheses led to three main predictions concerning the results of this study.

The results confirm our hypotheses and indicate that there is a correlation between speaker power and listener subjectification and that the less powerful a listener feels the more they will be drawn to interpreting ambiguous utterances subjectively. The results, therefore, fulfil the predictions for case 1 (see section 5.4.). Participants P+ exhibited less variation in their rating of their partner's performance and tended to interpret ambiguous utterances more objectively in comparison to participants P-. Still many participants P+ did choose subjective readings of the ambiguous utterances, which makes the results less clear than they are for case 1 (Figure 5 and 6). In the following sections I will look at a representative sample of the results and analyse them in detail.

⁶ For a detailed discussion of the ambiguous elements see sections 3.4. and 3.5.

7.1 Evaluation procedure

The results were analysed in two steps according to the two sets of data that were analysed per phase. The first set was collected during the experiment and the second from the post-experimental questionnaire.

During the experiment, the version of the question (a, b, c, d) the participants selected and their rating of the statements that followed their partner's answer were recorded. Only the ratings were analysed. Possible correlations between question selection, subjectification and power were not taken into consideration at this point. The data has been organised according to three phases: phase I, phase II and phase I+II. The first part of data that will be analysed in the following section are the while-experiment statement ratings. Afterwards, the data from the second part of the follow-up questionnaire will be discussed.

As explained in section 6.2.7., participants received both ambiguous and control answers from their partner during the experiment. After each of the ambiguous answers (AA) and after each of the control answers (CA), participants were asked to indicate their degree of agreement with statements from 1 to 9. The six statements all described their partner's performance.⁷ Due to the limited scope of this thesis, only reactions to three statements have been taken and analysed in detail.

The three statements that will be analysed in the next section are:

(18)

- a. My partner liked the way the question was put. (S1-put)
- b. My partner thought the question was easy. (S2-easy)
- c. My partner found the question interesting. (S3-interesting)

⁷ For a complete illustration of this process see sections 6.2.5. and 6.2.7.

These statements have been chosen because they focus on the point of view of the respondent, and therefore call on the participant to interpret the respondents' answers based on judgements about the subjectivity of the respondent, which requires a form of mind reading. S1 and S3 focus almost entirely on the participants subjective interpretation of the subjective attitude encoded in the answer, while S2 can more easily be read based on the way the answer is put. These three statements, therefore, present a good variation from medium subjective to highly subjective, and lend themselves to an in-depth analysis. The analysis of these three statements was step one of the evaluation process.

7.2 Reactions to S1, S2 and S3

Step one, the analysis of the reaction to S1(put), S2(easy) and S3(interesting) showed that these three were characterised by the greatest range of diversity in the two groups (P-, P+), meaning that reactions to those three statements ranged more widely on the scale from 1 to 9 than reactions to the remaining three statements (S4, S5, S6), and caused more significant reactions compared to other reactions by the same participant. As mentioned above, S2 is situated between S1/S3 on the one hand and the remaining statements regarding the level of subjective interpretation that is asked of the participant on the other. S4, S5 and S6 do not call for the same amount of subjective interpretation because their aim is to distract participants from the true aim of the study by leading them to believe that the study tested communication efficiency. Statements 4, 5 and 6 ask participants to state whether they thought that their partner was certain that their answer was right, answered clearly and answered to the point. All of these can be factors that determine whether communication is efficient or not, and do not aim to elicit participants' pragmatic interpretation of the answers but rather to present a counterbalance to the high level of subjectivity that is asked of participants through S1, S2 and S3. For the purposes of this paper, S4(clearly), S5(right) and S6(point) will not be analysed in detail.

7.2.1 Reactions to S2 (easy)

I will start this presentation of results with the reactions to the ambiguous answers for S2 (easy), as this is the least subjective statement of the three, and will then discuss the control answers for the same statement, in order to present the results in a contrastive manner. This procedure will be repeated for S3 and finally S1 before going on to presenting the results of step 2 of the research process. Every participant was given five ambiguous and four control answers and rated six statements after each answer. Therefore, we have 5 ratings per statement for ambiguous and 4 ratings per statement for non-ambiguous answers. With 26 participants for phase I and 26 participants for phase II, we have a total of 130 (5x26) ratings per statement for ambiguous answers and 104 (4x26) ratings per statement for unambiguous answers per phase. The number of ratings per statement is, therefore, given in percentages relative to the number of total ratings per statement.

For the ambiguous answers the reactions to S2 (*My partner thought the question was easy*) are presented in the following table.

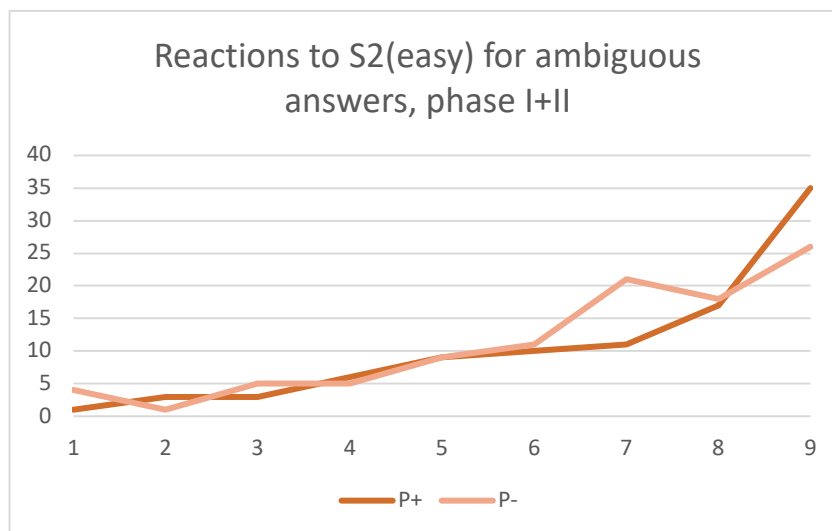


Figure 16. Reactions to S2 AA, Phase I+II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

Figure 16 shows that, in general, participants P+ showed a higher degree of consent with S2(easy) for the ambiguous answers than participants P-: 35% of participants P+ completely agreed with the statement. Among participants P- the number of complete agreement is about 10% lower than among participants P+. This 10% can then be found in lower grades such as 7. 7 still shows some degree of consent but leaves room for doubt and can be considered a more differentiated grade than full agreement. Furthermore, Participants P- were more prepared to express total disagreement, seeing that almost 5 % of them chose grade 1. These results confirm our hypothesis and therefore also the predictions for case 1. Although the difference between participants P+ and P- was not as great in the actual results (Figure 16) as it was in the predictions (Figure 13), the average rating is still lower for participants P- than it is for participants P+. Together with the fact that the number of participants P- who chose a number 9 was significantly lower than the number of P+ and the fact that a slightly higher number of participants P- chose grades lower than 5, the results can be considered a confirmation of our predictions for case 1. The willingness to show very low degrees of agreement (grades lower than 5) can be seen more clearly in Figure 17, where the results from Phase II are presented.

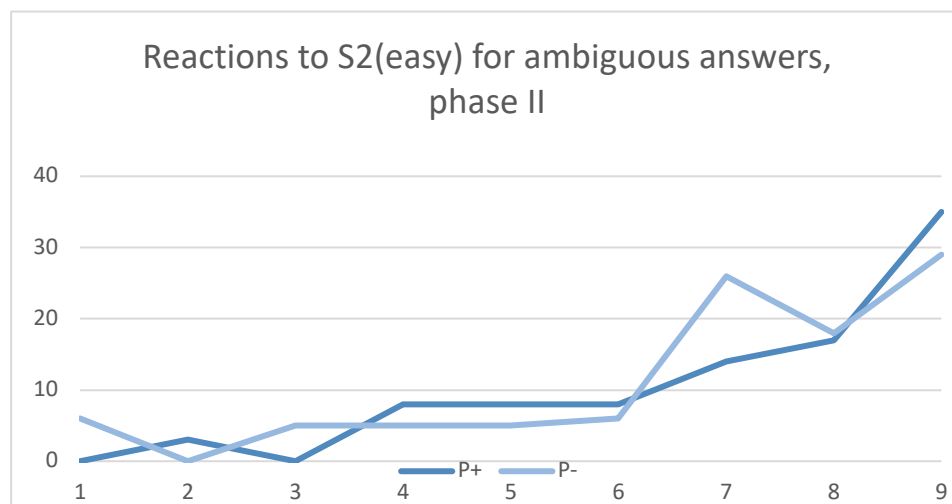


Figure 17. Reactions to S2 AA, Phase II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

In phase II, participants P+ were given instructions to pick any question they liked and were not instructed to “pick” what they judged to be “the best one.” In this phase, participants P+ were therefore completely free of their own judgement as well the judgement of others. An even smaller number of participants P+ resorted to grades lower than 4 than can be seen in Figure 16. This leads to the conclusion that the majority of grades lower than 4 that can be seen in Figure 16 come from participants P+ in phase I. On the basis of these results, it could be argued that even though participants P+ were told that they were not being assessed by an external force in phase I, their internal judgement led them to behave in a similar way to participants P-, who were told that they were being assessed by their partner. This difference will be discussed in more detail in the discussion section of this thesis. Looking at Figure 18 the difference in behaviour between participants P+ in phase I and participants P+ in phase II can be seen.

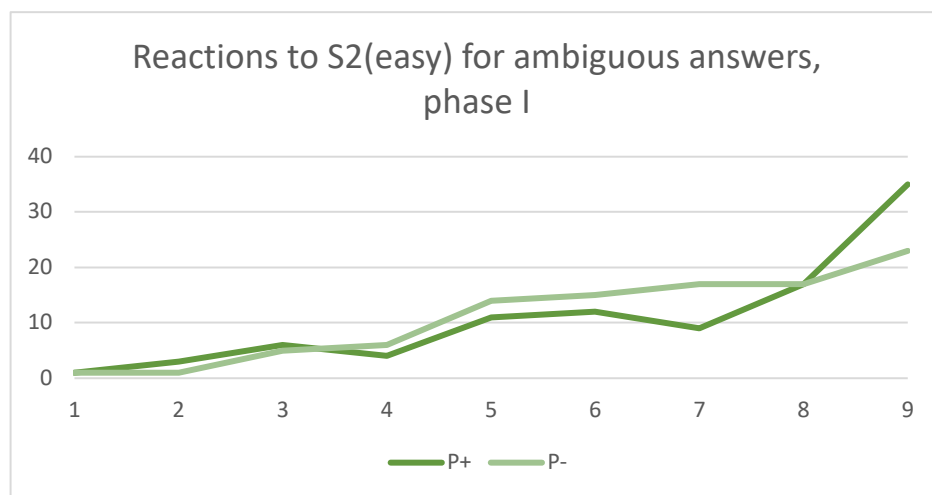


Figure 18. Reactions to S2 AA, phase I, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

As mentioned above, the behaviour of participants P+ was rather different in phase I than in phase II. Figure 18 shows that participants P+ resorted to giving ratings lower than 5 more often than they do in phase II (Figure 17). Furthermore, although they showed a high number of total agreement (35%), participants P+ gave more differentiated ratings in phase I than they did in phase II. More than

10% of participants P+ chose ratings 5 and 6 in phase I, whereas in phase II the number of participants choosing grades 5 and 6 is below 10%. The number of participants P+ choosing grade 8 on the other hand was higher in phase II than in phase I. These numbers show that in phase I, where participants P+ were subject to their own judgement concerning which version of the question was best, they rated their partner lower than in phase II, where they were free of internal judgement to a larger extent. Furthermore, Figure 18 shows participants P+ and P-'s behaviour was similar, apart from the large number of participants P+ who showed full agreement with S2 (35%).

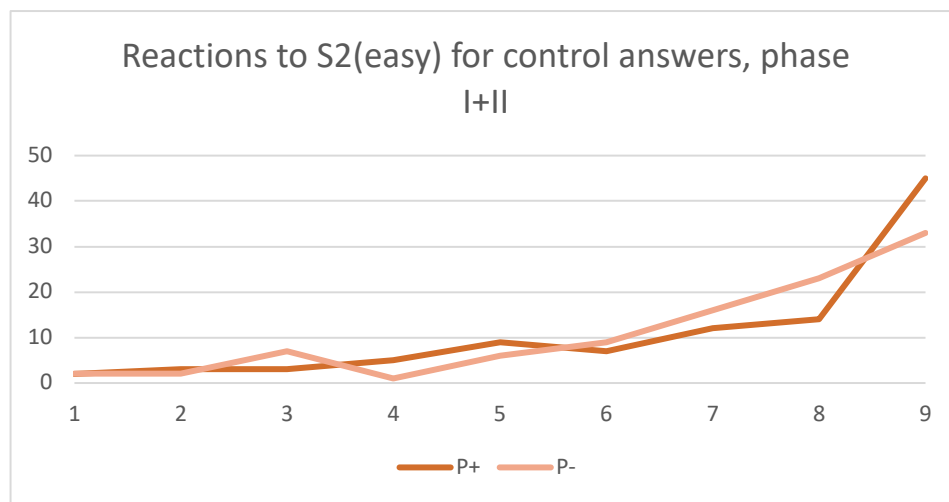


Figure 19. Reactions to S2, control answers, Phase I+II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

The Figures above shows that for S2(easy) overall reactions are rather similar to the CAs and AAs. In all phases, both groups tended to agree with S2, with the majority of participants expressing agreement between 7 and 9. However, full agreement is expressed more often for CAs than for AAs in both groups (45% in P+, 33% in P-). For AAs, only 35% of participants P+ and 27 % of participants P- showed full agreement. Participants P- resorted less frequently to ratings lower than 5 for CAs than they did for AAs, whereas this difference is less marked for participants P+. In phase II, a greater difference between P- and P+ may be observed than in phase I. However, in phase I, participants P+ tended to give lower grades than participants P-. The difference in behaviour is more striking for AA

than it is for CA for S2(easy). This confirms our hypothesis that power influences the way in which openly ambiguous utterances are interpreted.

7.2.2 Reactions to S1(put)

I will now have a look at the reactions to S1 *My partner liked the way the question was put*. The reactions to S1 (put), where especially interesting with regards to the difference in reactions between phase I and II. Before looking at the different phases however, I will have a look at the reactions to S1 in general. Figure 20 shows the reactions of phase I and II to the ambiguous answers.

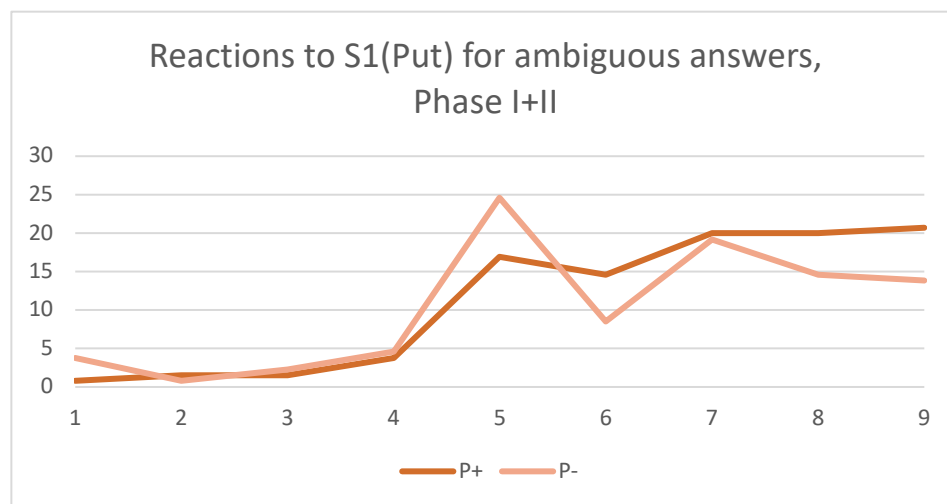


Figure 20. Reactions to S1, AA, Phase I+II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

In Figure 20, we see that participants P- showed lower levels of agreement with the statement than participants P+, which again confirms our predictions. One big difference between S2(easy) and S1(put), is that participants showed greater reluctance to express full agreement with S1 and they did with S2. The proportion of both participants P+ and P- choosing full agreement was more than 10% lower for S1 than for S2. This could stem from the fact that it is easier to infer from an answer whether the speaker found the question easy than it is to tell whether the speaker liked the way the question was put.

To infer from an answer whether the speaker liked the way the question was put, asks for a significant degree of interpretative effort. The fact that participants P+ were under less pressure than participants P- could explain why they were more certain that their partner liked the way their question was put. This is especially true for phase II, where their selection of question was not subject to any kind of deliberate judgement, neither internal nor external. Another possible reason for the high number of full agreement among participants P+ could be due to the fact that the group tended to interpret ambiguous utterances deontically to a larger extent (see section 7.4.) and, therefore, took the subjective attitude of the speaker into account to a lesser extent.

Additionally, the results show that the proportion of participants P- who choose number 5 (25%), was considerably higher than for participants P+. This can be seen clearly in Figure 21, which shows the results for phase II. In this phase the difference between P- and P+ is even greater.

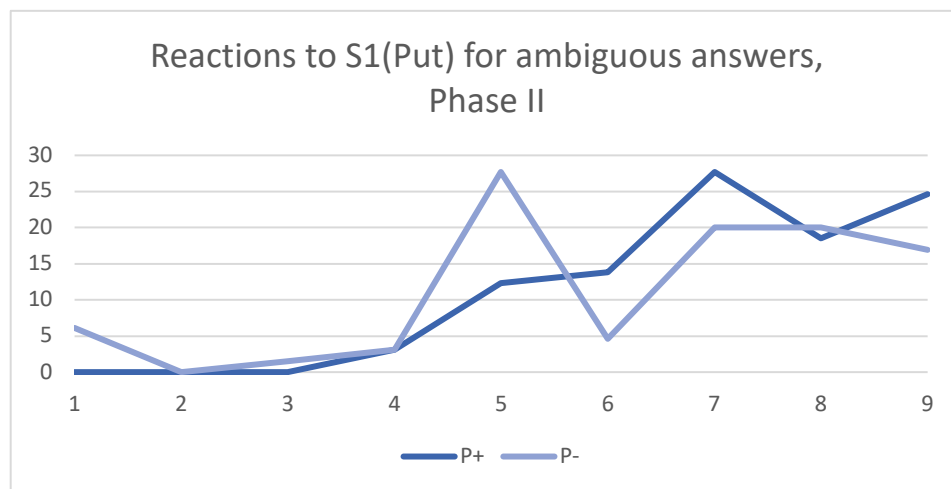


Figure 21. Reactions to S1, AA, Phase II. Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

Figure 21 shows that the difference between P- and P+ in Figure 20 is a result of their difference in behaviour in phase II. In phase II, the divide between participants P- and P+ can be seen most clearly when looking at the midpoint. This behaviour confirms our hypothesis that participants P- would choose lower grades than P+ for ambiguous answers. What is striking, however, is that the

difference in reaction to ambiguous and control answers is more prominent for participants P+. This is illustrated in Figures 22 and 23.



Figure 22. Figure 23. Difference in reactions to S1(put) for ambiguous and control questions for participants P- and P+, phases I+II; Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

Figures 22 and 23 show that the midpoint is popular in both participants P- and P+. What is interesting however is, that a greater number of participants P+ chose number 5 as a reaction to control questions (25%) than to ambiguous questions (17%). This difference cannot be found for participants P-, who reacted very similarly to ambiguous and control questions. This behaviour by participants P+ could be the result of participants P+ interpreting ambiguous answers deontically. The deontic interpretations of the ambiguous answers have less potential to provide information that conflicts with the literal meaning of the words. Therefore, participants P+ may have a stronger tendency to agree with S1 (put) in the case of ambiguous answers, however, this is not the case for the control answers, where there was no intentional cue, as to whether the respondent liked the way the question was put or not. For participants P- on the other hand, the epistemic interpretations of the ambiguous elements might have added conflicting information to the ambiguous answers, resulting in the high number of participants P- choosing 5 for the ambiguous answers. The fact that the control answers did not provide any intentional information regarding the respondent's

attitude towards the question explains the similarity in reactions to the control answers that we see in the reactions by both participant groups in Figure 24.

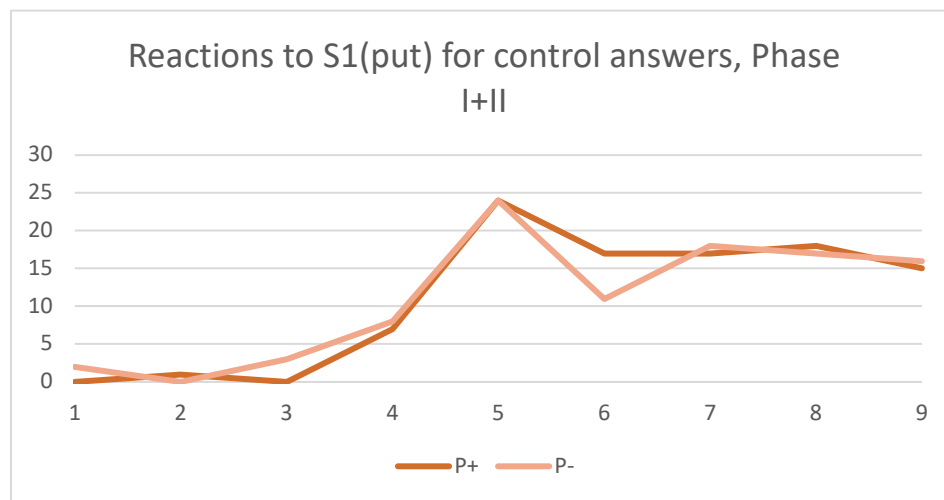


Figure 24. Reactions to S1 (put), control answers, Phase I+II. Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

Participants P- and P+ reacted in a similar way to the control answers, with exactly the same number of participants P- and P+ choosing a number 5 (24%). The biggest difference was in the responses that chose numbers below 5: these were chosen slightly more often by participants P- than P+, while numbers above 5 were chosen slightly more often by participants P+. This trend confirms our predictions. Participants P- tended to rate the statements with lower grades than participants P+, and a higher number of participants selected number 5 for the control answers than for the ambiguous answers. As mentioned above, it is particularly interesting to note that the difference in reactions to S1(put) regarding ambiguous and control answers is higher for participants P+ than for participants P-. This will be discussed in detail in the discussion section of this paper. The next section will look at the reactions to S3 *My partner found the question interesting*, before then going on to look at the results from the follow-up questionnaire.

7.2.3 Reactions to S3 (interesting)

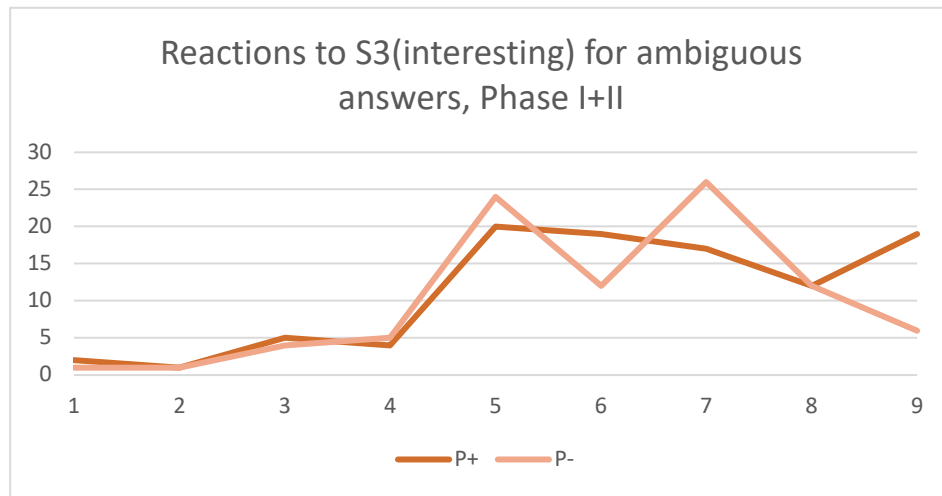


Figure 25. Reactions to S3, AA, Phase I+II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

As with S1(put) and S2(easy), I will start my analysis with the general results from phase I+II for the ambiguous answers. The reactions to S3 (interesting), show that here the roles were contrary to our predictions, with regards to ratings below 5. A slightly higher number of participants P+ than P- chose numbers lower than 5 for S3. Nevertheless, the average rating by group P- was lower than the one by P+, which confirms our predictions. The lower average rating is undoubtedly due to the fact that only about 7% of participants P- expressed total agreement with the statement, while this number is nearly three times as high for participants P+. For S3 (interesting) the rating of the ambiguous answers is especially interesting to analyse, as it produced a wide variety of ratings from the participants. For S3 (interesting), both groups resorted to a wide range of numbers, expressing their varying degrees of agreement. While numbers 5,6,7 and 9 were almost completely evenly distributed in the responses by participants P+, participants P- show a clear preference for numbers 5 and 7.

Looking at the two phases one for one, we see that in phase II (Figure 26) participants behaved very much in accordance with our predictions for case 1. Participants P- showed lower levels of accordance with S3 than participants P+. The difference between the two groups is particularly apparent when looking at ratings 6,7, 8 and 9. Although there is a clear tendency for participants P- to show lower levels of agreement with S3(interesting) than participants P+ in phase II, almost 20% of participants P- chose number 8, which expresses very strong, although not absolute, agreement with the statement. Participants P+ did not chose number 8 as often, which results in a clear gap between the two groups for number 8. There is a similar gap with numbers 6, 7 and 9, although these numbers, which express moderate to strong agreement, are dominated by participants P+. Numbers lower than 6, though lower in percentage, are more frequently chosen by participants P-, which also supports our hypothesis.

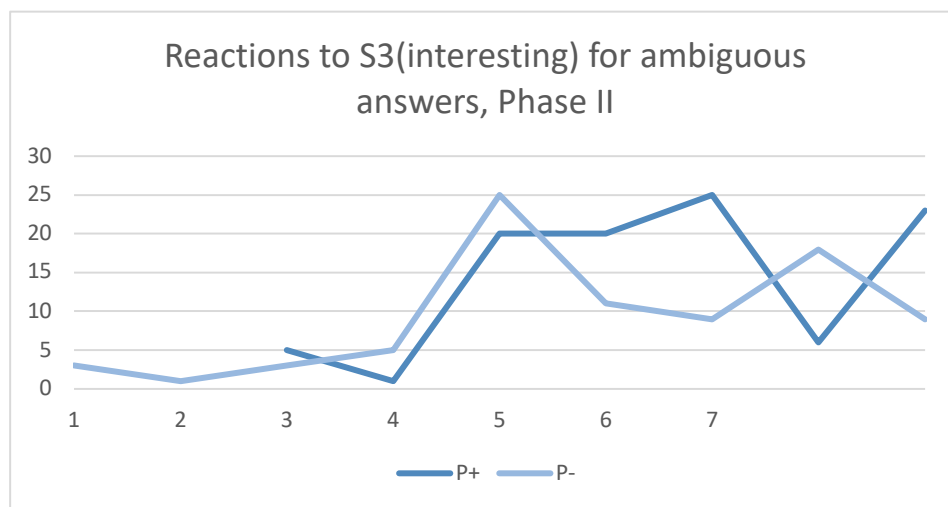


Figure 26. Reactions to S3, AA, Phase II, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

In phase I (Figure 27), the difference between the two groups is not as striking as it is in phase II. Especially for numbers lower than 7, the difference between the groups is never greater than 5%. For numbers 7 and 9, however, participants P- clearly favour a more moderate expression of agreement, with 28% of participants choosing number 7, while the number of participants P- expressing total agreement is less than 5 %. The line representing participants P+ shows that the

highest points are numbers 5, 6 and 8 which somewhat resembles the behaviour of participants P- in phase II. This may confirm our assumption that it is not only the exertion of external power, but also internal judgement which makes individuals feel less powerful. The lines representing participants P- typically are highest at number 5 and around numbers 7 or 8. Participants P+, on the other hand, behaved very differently in phase I compared to II. When looking at Figure 25 above, there seems to be a more or less equal distribution of participants P+ choosing numbers 5,6,7,8 and 9, while it is their contrasting behaviour in phases I and II that balances out the peaks.

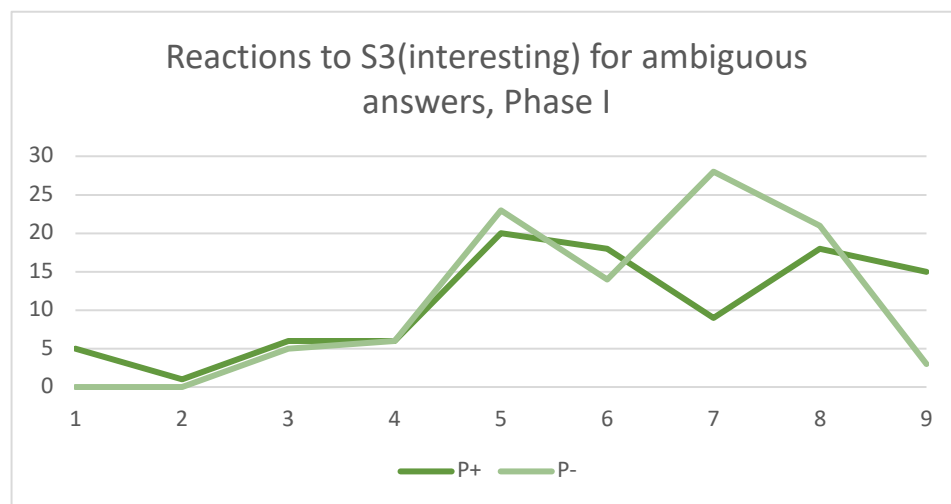


Figure 27. Reactions to S3, AA, Phase I, Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

Having looked at the reactions to S3(interesting) for the ambiguous answers, I will now look at how participants P- and P+ reacted to control answers and contrast this with the results I presented in the figures above.

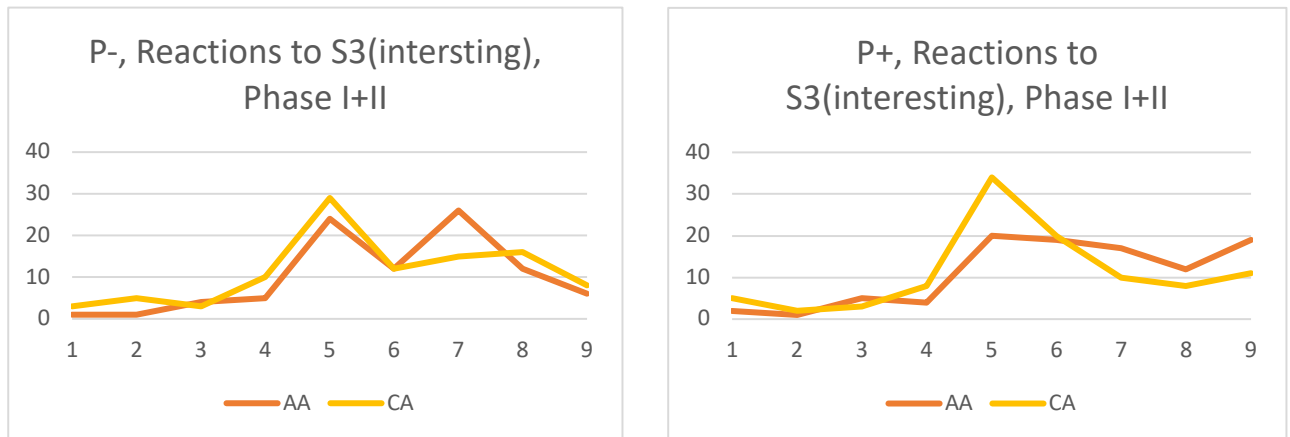


Figure 28. Figure 29. Difference in reactions to S3(interesting) for ambiguous and control questions between participants P- and P+, phases I+II. Numbers on the vertical line refer to percentages, numbers on the horizontal line refer to rating options from 1 to 9.

The figures above (Figure 28, Figure 29), show that as far as the midpoint is concerned, the difference in reactions to ambiguous and control questions is more striking for participants P+ than it is for participants P-. As mentioned above, there was an almost equal distribution of Participants P+ choosing numbers 5,6,7 and 9 for ambiguous answers. In contrast to the reactions to AAs, in reaction to CAs, participants P+ favoured midpoint levels of agreement with more than 30% of participants P+ choosing number 5, while this number is more than 10% lower for AAs. The number of participants P+, choosing numbers 7,8 and 9 is higher for AAs than for CAs. For participants P- on the other hand, we can observe contrasting trends for numbers 8 and 9. In this group, a higher number of participants chose numbers 8 and 9 when rating CAs. The number of participants P- who chose number 5 in response to CAs is higher than it was in response to AAs, despite the fact that the difference between AAs and CAs is not as high as it is for participants P+. This was also the case with S1(put) (see Figures 22&23). For both statements S1 and S3, participants P+'s midpoint ratings were all higher for CAs, and numbers 8 and 9 were more often chosen when rating a statement regarding AAs. Participants P-, on the other hand, chose numbers 8 and 9 more

often when confronted with CAs. The implications of these findings for our hypothesis will be discussed in more detail in section 8.

To summarise, I have now looked at three out of six statements and the reactions to them. The statements that have been discussed are S1 *My partner liked the way the question was put*, S2 *My partner thought the question was easy* and S3 *My partner found the question interesting*. The reactions to these statements have been analysed according to group (P-, P+), according to the phase of the experiment (phase I, phase II, phase I+II) and according to whether they regarded an ambiguous answer (AA) or a control answer (CA). In the following section, I will examine the reactions to these statements for only one of the ambiguous answers, namely *Really, that's Beethoven*.

7.3 Really

The answer *Really that's Beethoven* was chosen for closer analysis, because out of all 5 ambiguous answers, the difference in reaction shown by participants P- and P+ to AAs and CAs is clearest for this answer. As stated above, the difference in the average rating of the ambiguous answers is most diverse for statements S1(put), S2(easy) and S3(interesting). In this chapter, the findings that were discussed in the section above regarding S1 and S3 will be analysed in relation to the ambiguous answer *Really that's Beethoven* (AA(really)). One particularly important finding, that can be seen in the Figures above, is that in accordance with the predictions for case 1, participants P- tended to give considerably lower ratings than participants P+. This is especially true for AAs in phase II. This tendency is particularly evident in the reactions to AA (really). The figure below presents the average level of agreement that participants P- and P+ attributed to S1(put) and S3(interesting) regarding AA(really) in phase I and phase II.

Participant group	Average rating for S1(put)		Average rating for S3(interesting)	
	Phase I	Phase II	Phase I	Phase II
P-	6,12	6,08	6,08	6,15
P+	7,5	7,9	7,65	8
(P+) – (P-)	1,38	1,85	1,58	1,85

Figure 30. Rating of S1 and S3 regarding AA(really) in phase I and II. Numbers refer to percentages.

Figure 30 illustrates the difference in rating between participants P- and P+ for AA(really). On average, participants P+ gave higher ratings in both phases and for both statements. The difference in average rating between the groups for both statements is higher in phase II, namely 1,85 in both cases. In phase II of the experiment, the average rating by participants P+ was 1,85 grades higher than the average rating by participants P-. One explanation for this considerable difference is that *really* can be interpreted in two very different ways: either as a comment on the content, or on the context of an utterance (see section 3.5.). When interpreted in its epistemic sense, it comments on the question and reveals the speaker's attitude towards it. When interpreted in its deontic sense, it comments on the rest of the utterance and reinforces that the content is true. Therefore, it could be argued that participants P+, who tended to express higher levels of agreement to the statements, did so because they interpreted *really* in its deontic sense to a larger extent and did not perceive any contradictory information. The participants in group P- who interpreted *really* in its epistemic sense to a greater extent than P+ (see section 7.4.) gave lower grades and were often unsure of whether to agree or disagree with a statement. This is likely to be connected to the fact that in its epistemic sense, *really* adds a face threatening piece of information to the utterance. It conveys the sense that the question itself is somehow flawed or inappropriate, and thus *not* well put or interesting. When interpreting *really* in

this way, the level of agreement with statement S1(put) and S3(interesting) will be lower than when interpreting it deontically.

Having discussed the reactions to statements S1, S2 and S3, for AAs and CAs in general, and in connection with AA(really) in particular, I now want to take a look at the interpretations of the ambiguous answers. The results from the second part of the follow-up questionnaire are especially important, because they provide direct evidence of how the ambiguous utterances were interpreted by the participants in the course of the experiment.

7.4 Interpretations of ambiguous answers

In this section, I will discuss the results from the second part of the follow-up questionnaire. In this part of the questionnaire, participants were asked to recall how they had interpreted ambiguous utterances during the experiment and tick the answers that fit their own interpretations best. There were always two possible interpretations: one rephrased the ambiguous item in a deontic way, the other rephrased the ambiguous item in an epistemically.⁸ The following figures (Figure 31 - 34), show the corresponding results.

⁸ For a detailed discussion of the second part of the follow-up questionnaire see section 6.2.4.

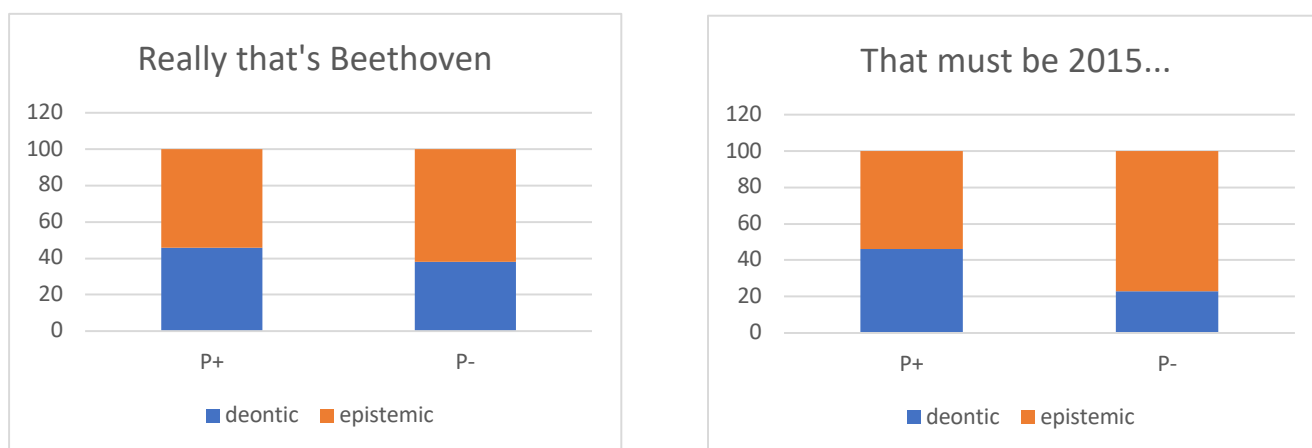


Figure 31. Figure 32. Distribution of deontic/epistemic interpretations of ambiguous answers according to group. Numbers on the vertical line refer to percentages.

Figures 31 and 32 show the distribution of deontic and epistemic interpretations of the ambiguous answers *Really that's Beethoven* and *That must be 2015...* What quickly becomes apparent is that the majority of participants from both groups interpreted AAs in an epistemic way. However, the percentage of participants P- who chose a subjective interpretation is higher in three out of four ambiguous answers. This confirms my hypothesis in that the more powerless a listener feels, the more they will tend to interpreting ambiguous utterances subjectively. Furthermore, these results support my predictions for case 1. For *Really that's Beethoven*, the difference between groups P- and P+ is clearly visible, with 54% of participants P+ choosing an epistemic interpretation and 62% of participants P- choosing the subjective interpretation. For *That must be Rome*, the difference is even greater, with 77% of participants P- choosing the epistemic option and only 54% of participants P+ interpreting the ambiguous utterance subjectively. These results confirm our hypothesis and show that for the members of the powerless group, the tendency to interpret ambiguous utterances in a subjective way is stronger than for those in the powerful group. However, it is important to note that the powerful group also tended to choose the epistemic option more often than the deontic one.

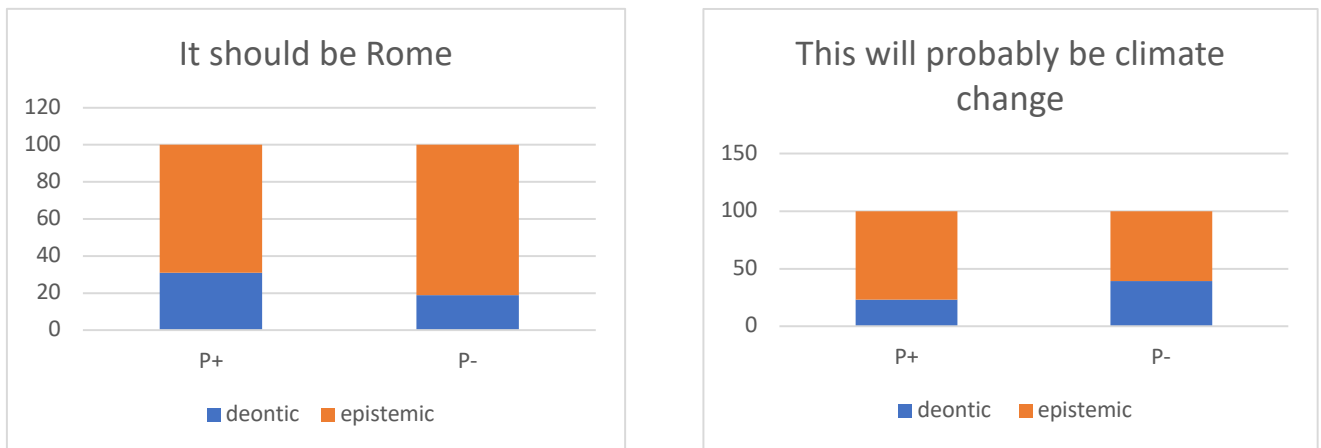


Figure 33. Figure 34. Distribution of deontic/epistemic interpretations of ambiguous answers according to group. Numbers on the vertical line refer to percentages.

In Figure 33, the same behaviour can be observed. Only 81% of participants P- and only 69% of participants P+ chose the subjective interpretation. What appears to disprove our hypothesis is that, as can be seen in Figure 34, for *This will probably be climate change*, the powerful group's behaviour is different. Both groups still favour the subjective interpretation, however, this time it is the powerful participants who choose the epistemic option much more frequently than the deontic one (77% / 23%). This could be due to the fact that *will* is more commonly used in its epistemic sense than *should* and *must* (see section 3.4.) and is, therefore, more likely to be interpreted accordingly.

Having looked at the various parts of results, I will now discuss the findings and its significance to the research area of subjectification. Furthermore, I will outline the limitations of the study and discuss alternative ways in which the data could be analysed.

8 Discussion

This study examined the influence of power on the subjectification process in a written communicative context and aimed to analyse Elizabeth Traugott's claim that meanings tend to become increasingly focused on the subjective reality of the speaker. The study aimed to shed light on the driving forces behind this form of language change and the interpersonal circumstances that promote it. The central question this study aimed to answer was whether perceived power influences the listener's subjective interpretations of modal verbs and adverbs in a written communication scenario. The main hypothesis was based on the notion that the more powerless a listener feels, the more they will tend to interpret ambiguous utterances subjectively. The results support our hypothesis to a large extent, however not as clearly as we predicted for case 1. Participants P- gave lower ratings than participants P+, which confirms our predictions, however, the difference between the two is not as striking as expected. In the post-experimental questionnaire, the overall results did confirm our hypothesis: a larger proportion of participants P- than participants P+, chose subjective interpretations of the ambiguous utterances. However, looking at the two groups individually, the tendency to interpret ambiguous utterances subjectively can be observed in both of the of the subgroups.

In the following chapter, I will discuss these results, relate them to the theoretical concepts presented in chapters 2 to 4, and give possible explanations for discrepancies between our predictions for case 1 and the results. The discussion of the results will be structured in the same way the results were presented in the section above. In the first part of this section, I will discuss the results from the ratings given during the experiment, and in the second part, the results from the second part of the post-experimental questionnaire will be discussed. Finally, I outline possible modifications and limitations. I will now look at the differences in rating between participants P- and P+ and discuss two possible reasons that may account for this difference.

8.1 Lower levels of agreement for P- : two explanatory models

8.1.1 Deontic interpretations as semantic reinforcement

The during-experiment ratings of statements regarding ambiguous (AA) and control answers (CA) showed that powerful participants (P+) tended to agree with the statements to a higher degree than powerless participants (P-). Furthermore, among participants P- a greater variety of ratings was found. This confirms our hypothesis. It was supposed that participants P- would be more reluctant to fully agree with the statements, as their interpretation of AAs would include a conflicting subjective attitude of the speaker. The subjective meanings would often add contradictory value to the answers and thereby make it more difficult to formulate a clear opinion. It can be argued that participants P- took more factors into consideration and therefore gave more differentiated ratings. P+ participants tended to interpret AAs in a deontic way to a larger extent than participants P- and could therefore give a clearer rating for AAs than for CAs, where there was no intentionally ambiguous item. The deontic interpretation of the ambiguous item usually underlined the lexical meaning of the words in question which led to impressions of certainty and cooperation whereas the epistemic interpretations to a certain degree challenge the act of asking or the way the question was put. This also leads to the difference in reaction to AAs and CAs being more striking for powerful than for powerless participants. For participants P-, who interpreted AAs in a subjective way to a larger extent, there is some degree of uncertainty with AAs as well as CAs and a clear preference for the midpoint in both cases. One possible explanation for this is, that the control answers do not provide any deliberate clue as to whether the respondent found the question interesting or liked the way the question was put and the ambiguous answers interpreted epistemically, do give certain hints, which, however, often contradict the semantic content of the utterance. This could lead to participants P- tending to give lower ratings in both cases. It could be argued that participants P- made use of taking the intentional stance and ToM to a larger extent than participants P+, in order to find out how the respondents felt about the question and thereby interpreted

the answers in a more subjective way than participants P+. Participants P+ adhered more often to the literal meaning of the ambiguous elements, as can be seen from the results of the 2nd part of the follow-up questionnaire.

8.1.2 Different levels of emotional and intellectual investment

Another possible explanation for lower grades and the midpoint preference in participants P- is that they were under more pressure to succeed as they were told that their performance was being rated. This could have led to them being more reluctant to show high levels of agreement, as they did not know how their answers would reflect back on them. Participants P+ possibly being less emotionally and intellectually invested in the scenario due to them not being graded by their partner might have found it easier to agree with a statement where they did in fact not know the answer. They might have rated their partner more freely as they did not have to worry about possible consequences (e.g. a wrong answer/partner's reaction). Participants P- might have refrained from possibly conflicting ratings because of a fear of negative results (Dunbar 2004: 236).

This explanation is possible. It does however not account for the difference in rating between AAs and CAs that could be observed in participants P+. Participants P+ showed much higher levels of agreement for AAs than for CAs. If the higher levels of agreement for AAs were to be traced back to lower levels of emotional and intellectual investment in the scenario only, they would most likely have occurred consistently for both AAs and CAs. As this is not the case, and the reactions to AAs and CAs differ greatly for participants P+ we can assume that both participants P- and P+ were emotionally and intellectually invested in the experiment to equal amounts.

Despite the fact that the emotional and intellectual investment is different in quality, it can be considered to be similar in degree. Therefore, given the context, it is more likely that the higher levels of agreement for participants P+ stem from the fact that they, as proposed in the previous section, interpreted ambiguous utterances deontically and took the literal meaning as semantic reinforcement. In this context it really is the objective/subjective interpretation of

ambiguous utterances that can be considered to be the reason for the difference in rating behaviour.

8.2 Power distribution and response style

Although, as elaborated above, participants P- and P+ were emotionally and intellectually invested to similar amounts, their emotional and intellectual investment was different in quality. Participants P- depended on their respondent to rate their performance whereas participants P+ did not. This left participants P+ feeling more powerful than participants P-. Power is always part of communication and power dynamics influence how we perceive each other in any given social context. In the experiment scenario, the power the partners hold over participants P- is to a large part latent. This notion of latent power that accompanied the chat conversation for participants P- might have led them to avoid conflict by sticking to more moderate ratings. The variety of ratings is as well greater for participants P- than for participants P+. What may be inferred from this greater variety of numbers chosen in response to AAs by participants P-, is that powerless individuals indeed, as found by Guinote (2008), are “under greater cognitive load” (Dunbar, Abra 2010: 660) than the higher power partner and thereby take more factors into consideration. As predicted in section 5 of this thesis, powerless participants would rate the statements in a more nuanced way, as they would take a greater variety of (objective as well as subjective) information into account.

Furthermore, when looking at the response style on the while-experiment Likert scale, we see that participants were on a whole rather reluctant to disagree. This behaviour was described in section 6.2.1. as Net Acquiescence Response Style or NARS. It was predicted to occur more frequently in participants P+, which is supported by our results. The tendency to agree with the statements provided can be seen in both subgroups, however, it is much stronger among powerful participants. One possible explanation for this behaviour given in chapter 6.2.1. is that participants P+ simply had less knowledge about whether their partner found

the question interesting or liked the way the question was put, as they interpreted ambiguous utterances in an objective way to a larger extent than participants P⁻. As the objective interpretation contains less information about SP/W's attitude, it was more difficult for participants P⁺ to rate these statements. Therefore, they were more prone towards resorting to fixed response styles. Another explanation is that by interpreting the ambiguous utterances in an objective way, the semantic content of the utterance was underlined, therefore giving the impression that the speaker *did* like the way the question was put and *did* find it interesting.

When speaking about participants P⁺ it is worth as well looking at the difference we see in this group in phases I and II of the experiment. In general, there is to observe that the difference between participants P⁻ and P⁺ is more striking in phase II than in phase I of the experiment. In phase II, other than in phase I, the instructions for participants P⁺ did not evoke any kind of deliberate internal or external judgement for the powerful participant group. This suggests that it is not only the external judgement that makes participants feel less powerful, but also internal judgement. Internal judgement in the case of our experiment, is triggered by the phrase *Choose the best one*. This phrase gives the impression that not all questions are equally suited to the context. Although for participants P⁺ there was no mention of anyone rating their performance, this phrase apparently made them feel less powerful and behave in a similar way to participants P⁻.

8.3 Interpretations of ambiguous utterances

When looking at the 2nd part of the follow-up questionnaire, the tendency of participants P⁻ to interpret ambiguous utterances subjectively can be directly observed. However, it is also the subjective interpretations that are chosen more often by participants P⁺. This contradicts our predictions for case 1 (Figure 5, Figure 6) to a certain extent, as we had expected the difference between participants P⁻ and P⁺ to be bigger when it comes to the interpretation of ambiguous utterances. This find however does confirm to a certain extent Elizabeth Traugott's claim that "meanings tend to become increasingly situated

in the speaker's subjective belief, state or attitude toward the proposition" (1989: 31). The subjective interpretation was clearly favoured by all participants for all ambiguous elements. Although the present study is not a long-term one, it does still show that individuals from both groups preferred interpretations that reveal the speaker's attitude and needs over objective interpretations that do not give them this kind of information.

Still, there is a noticeable difference between powerful and powerless participants, which supports our hypotheses. When looking at participants P- in isolation the predictions are met, as the vast majority (between 62% and 81%) of participants P- consistently chose the subjective interpretations of the ambiguous utterances. In addition, the percentage of participants P+ choosing subjective interpretations is smaller than for participants P- (between 54% and 77%). This finding confirms our hypothesis that less powerful individuals interpret ambiguous utterances in a subjective way in order to find out more about the attitudes and needs of their partner and bridge the power gap.

The results furthermore show that as proposed by Papafragou (2000: 25), the process of modalization as explained in the theory part of this thesis, depends very much on the state of knowledge of both the AD/R and the SP/W, as well as the emotional bonds that exist between the two parties. For *must*, the divergence between participants P- and P+ is especially high. This could be due to the fact that *must* is a semantically strong modal (Collins 2009: 36ff). As seen in the examples in section 3.4., epistemic modals often add an extra piece of evaluative information to the utterance, which makes it more difficult to see the semantic content of the proposition in isolation. As illustrated in the theoretical part of this paper, *must* in its deontic sense adds strength to the proposition and underlines its semantic content without adding conflicting pragmatic cues. Therefore, it makes sense that participants P+ would show higher levels of agreement with the statements as deontic *must* gives additional weight to the content of the answer and almost half of participants P+ interpreted *must* deontically. Thereby, the impression could have been conveyed that their partner is sure of their answer and could relate rather well to the question the participant had asked them.

For *will*, the numbers are different. This could be due to the fact that, as found by Collins (2009: 126), almost 60% of the uses of *will* in corpora are of *will* in its epistemic sense. Therefore, this interpretation by participants of both groups is not surprising. Seeing that *will* is used in its epistemic sense to such a large extent, it makes sense that this interpretation will be chosen more often by participants, than epistemic interpretations of modals like *must*, that are less often used epistemically.

The modal adverb *really* was especially interesting to analyse in the context of this paper. As illustrated in section 7.3. the difference between participants P- and P+ was most striking when looking at *really*. A large number of participants P- interpreted *really* in an epistemic sense and consequently gave considerably lower ratings when it came to statements regarding this adverb. In its epistemic sense *really* can be regarded as being offensive and as putting the preceding comment in question. This is likely to have made participants P- feel uncertain as to whether their partner liked their question or not.

8.4 The listener's role in the subjectification process

As discussed above, participants P-, who were in a position of greater dependency on their partner than participants P+, chose lower ratings and a greater percentage of participants P- interpreted the ambiguous utterances subjectively. Although the results are not as striking as was expected they present an observable tendency of participants P- being more drawn towards subjective ratings. This can be traced back to the fact that there was a different type of power dynamic between participants P- and their partner than between participants P+ and their partner and confirms our hypothesis that in a written chat communication scenario it is not only the speaker but the listener as well who attributes meaning to what is being said. Power as an all-encompassing factor in communication influences the extent to which an ambiguous utterance is interpreted as being subjective and revealing something about the speaker's needs and attitudes. Subjective interpretations of ambiguous utterances were favoured by all participants, yet, the less powerful group chose them more often than the

more powerful one. It could therefore be argued that subjective interpretations are indeed resources, powerless individuals make use of in order to balance the power gap and avoid negative conflict (Dunbar 2004: 238).

The study at hand shows that it is indeed the listener as well as the speaker, who attributes meaning to a given utterance. The findings furthermore support our hypothesis and confirm the ‘probabilistic nature’ (Harris and Monaco 1978:1) of language, in that communication largely depends on the AD/R to interpret what the SP/W produces in the way it was intended. Most of the time this process is successful. However, as claimed by Harris and Monaco (1978: 1), while communicating we are constantly testing and adapting our hypotheses of what we think the SP/W’s attitudes and needs are. Especially pragmatic cues can be easily misinterpreted as they often are not overtly communicated. The pragmatic cues, the information that is not logically inferred but only suggested by the SP/W, are of particular interest in the context of this thesis. The ambiguous modal (ad)verbs that are at the centre of our experiment imply different information depending on whether they are interpreted in a deontic or epistemic sense. The results show that the power relationship between communicative partners influences how these words are interpreted by the listener. This finding is of great value to further investigation in this field. Most of the research conducted in the field of subjectification has primarily focussed on the role of the speaker and marginalized that of the listener. Although our findings are only representative of a very specific communicative scenario, they can be applied to many written communication situations in which there is a power imbalance between SP/W and AD/R. The results show that the role of the listeners in the meaning making process is not passive, but that they are actively involved in it and should be considered as such. The role of power in communication has once again been proved to be crucial in that it not only determines the way we speak but also the way we listen.

8.5 Limitations and possible modifications of the study design

The validity and generalizability of the study at hand has been ensured by having 62 individuals who speak English as a foreign language, perform the same task

under almost equal conditions.⁹ By modifying only one variable, namely the power relationship, that distinguishes the control group from the investigated group, the results can be considered to be connected to this variable. Still, there are certain limitations to the study design that could be modified in order to make the experiment more effective. The study design was already significantly modified after the pilot study was conducted. The ambiguous and control answers were made more homogenous and the instructions were clarified, however, some limitations remain. Firstly, the midpoint on the rating scale could be eliminated in favour of a scale with no midpoint in order to make participants chose whether they agree or disagree with the statement. This change should only be made after sufficient consideration as it would greatly affect the results and the study set up. In the current study design the midpoint ratings themselves do tell a lot about the participants' interpretations. Furthermore, the study design could be modified in a way which makes the scenario seem more realistic. After the pilot study and the according modifications, the answers were more homogenous but still they did not always seem natural. Participants often asked whether there was only one person answering and whether the answers were written by their partners or only selected by them. Furthermore, there are certain issues regarding the clarity of the control answers. Although they were intended to be non-ambiguous, it is very difficult to be sure of the fact there really was no ambiguous element contained in them. The control answers did not contain openly ambiguous words, but certain features, as for example punctuation or word choice, can lead to different interpretations in different individuals. These are limitations that should definitely be addressed should the study be further developed or conducted a second time.

Another possible alteration could be made concerning the way instructions are given. In the present scenario the oral instruction giving process was a vital factor for the experiment to work. Through the oral instructions essential information concerning the true aim of the study could be passed on without having participants doubt the alleged aim of the study. Should the study be further developed, this limitation should be addressed, as an oral instruction giving

⁹ Time and date are naturally unique to each participant.

conversation cannot be replicated in a way that ensures that every participant is instructed in exactly the same way.

8.6 Summary

This study has looked at one type of semantic change, subjectification, and the factors that promote it. Subjectification is a mechanism which describes a shift in meaning from less to more subjective. One example for this shift is the word *silly*, which once meant ‘innocent’ or ‘blessed’ and has come over time to signify ‘stupid’. This type of semantic change has been described by one of the leading researchers on the topic, Traugott (1989: 31), as deriving from the speaker’s need to express their subjective attitudes, opinions and needs. The speaker is widely assumed to be the driving force behind the shift towards increasingly subjective meanings. In this thesis, we have argued, however, that it is not only the speaker, but also the listener, who drives the subjectification process. Some studies, such as Holtgraves (2014) have already explored this approach. Looking at various studies on the topic, Holtgraves (2014) found that interpersonal factors, such as the degree of face threat in a given situation, influences how uncertainty terms such as *like*, *some* or *good* are interpreted. Employing theory of mind (ToM), listeners are able to consider the point of view of the speaker and read certain attitudes into ambiguous words. Krebs and Dawkins (1984: 381) found that in animal communication the recipient’s communicative role is not a passive one. Through mind reading and consequently manipulating that which is being said in order to match their own goals in a given situation, listeners are actively involved in the meaning making process. In this study, we built on the findings by Krebs and Dawkins and argued that depending on how powerful the listener feels in a given communicative situation, they will interpret certain ambiguous elements such as the modal verbs *will* and *must* more subjectively or objectively. The study was conducted in order to test our main hypothesis, that it is not only the speaker but also the listener who drives the shift towards subjectification of meaning. In the experiment, 62 participants were asked to take part in a short chat conversation. The chat conversation consisted of nine rounds with three steps each. In step one,

participants were presented with four versions of the same question and were asked to select one of them to ask what they thought was a real person sitting in another room. The part of the chat partner, however, had been pre-designed in order to ensure that all participants were presented with the same stimuli.

In step two, the ‘partner’s’ answer appeared before the participant on the computer screen. Five out of the total 9 answers contained ambiguous elements. In step 3, participants were asked to express their level of agreement with 6 statements in order to rate their ‘partner’s’ performance. The power scenarios were created by dividing participants into two groups. Participants in the first group (P+) were told that their ‘partner’ would not be rating their selection of question, which was expected to make them feel powerful relative to the other group. Participants in the second group (P-) were told that their ‘partner’ would be rating their performance, which was expected to make them feel more powerless in relation to their ‘partner’. After the experiment, all participants filled in a post-experimental questionnaire, where they were asked to rate the overall performance of their ‘partner’ and give their interpretation of a number of ambiguous elements from the chat conversation.

The results confirm our hypothesis in that powerlessness promotes subjective interpretations of ambiguous utterances by the listener. However, the results are not as decisive as we expected. Powerless participants interpreted ambiguous utterances in a subjective way more frequently than powerful participants, however, both groups favoured subjective readings of ambiguous utterances. Additionally, there are certain methodological issues that need to be addressed if the experiment were to be conducted again.

9 Conclusion

In this thesis I looked at subjectification and investigated whether it is not only the speaker but also the listener who drives the shift towards increasingly subjective meanings of words. I argued that listeners tend to interpret ambiguous utterances more subjectively the less powerful they feel. Power is a significant factor that was expected to trigger subjective interpretations of ambiguous words

and was one of the key elements examined by this experimental study. The study aimed to clarify to what extent the reader in a written communicative scenario has the power to interpret ambiguous utterances subjectively, and which interpersonal factors promote subjective interpretations on part of the listener. The main research question that guided this study was: how does perceived power influence subjective interpretations of modal verbs and adverbs by the listener in written chat communication?

The results indicate that power does influence the interpretation of modal verbs and adverbs in certain communicative situations. The power imbalance between chat partners led powerless participants to interpret ambiguous words more subjectively. This subjective aspect added an additional dimension to the meaning of the phrases in question and led participants P- to feel less certain of their partner's attitude towards the question they had asked them. This can be seen from the way participants P- responded to the statements (S1, S2, S3, S4, S5, S6) presented to them after they had received their partner's answer. Participants P- tended to agree with the statements to a lesser degree than participants P+. Furthermore, the difference in reaction to ambiguous (AA) and control answers (CA) was more marked for participants P+. As seen from the results from the second part of the follow-up questionnaire, this was linked to the fact that participants P+ interpreted ambiguous utterances in a deontic way more frequently than the powerless participants did. By interpreting ambiguous utterances deontically, the semantic content of the ambiguous utterance was often strengthened. Participants P+ were not confronted with as much conflicting pragmatic information as participants P-, which in turn made it easier for participants P+ to agree with statements like *My partner found the question interesting* (S3). One especially interesting ambiguous element was *really*. For *really*, the difference between participants P- and P+ is particularly noticeable. Especially in phase II of the experiment, the average rating by participants P+ was 1,85 grades higher than the average rating from participants P-. These results not only show that participants P+ showed higher levels of agreement with the statements than participants P-, they also highlight the difference between phase I and II of the experiment. In phase I, the difference between participants P- and

P+ is less marked. This may be due to the fact that in phase I, both participants P- and P+ were told to choose the version of the question they found most efficient, whereas in phase II, participants P+ were told to choose any question. Therefore, in phase II, participants P+ were much freer from internal and external judgement and felt even more powerful than in phase I.

The implications for the wider context are naturally limited by the scope of the study. They do, however, show that in a written communicative context, it is not only the SP/W but also the AD/R, who plays an active role in attributing subjective meanings to a given utterance. As to this point, the listener's/reader's role in communication only played a subordinate role in the study of subjectification. This experiment, though in a very specific context only, shows that one cannot talk about subjectification without taking the addressee's perspective into account as well. Meaning is attributed to ambiguous utterances, especially in written contexts, by the writer as well as the reader. This can be seen from the fact that depending on how powerful AD/Rs perceive themselves to be in relation to SP/Ws, they attribute different degrees of subjectivity to ambiguous utterances. These findings show that the same word can have different meanings depending not only on how the SP/W perceives herself and the situation, but on the way the AD/R perceives it as well.

Finally, it is important to once again mention the limitations of the study at hand and point out that the conclusions that could be drawn from the results of this explorative study should be taken with a grain of salt. The analysis of the results focuses only on a very limited number of aspects selected from the data available.

The small number of participants was an additional limitation of the study. The relatively low number of participants, only 31 participants per groups and 62 in total, means that the sample cannot be considered representative. Additionally, the possible ambiguity of control answers could have influenced the validity of the study results.

Despite these limitations, this study can serve as a possible starting point for future research on the topic of listener power and subjectification. This experiment has indicated a possible correlation between certain interpersonal

factors such as the distribution of power between the AD/R and the SP/W, and the degree to which the AD/R perceives ambiguous utterances as revealing something about the SP/W's subjective attitude. The difference in results between phase I and phase II suggests that power in communication has many layers, which generate different kinds of reactions in communicative partners. Future research on the topic could be done to investigate different kinds of power and how they manifest themselves in communication. It would be especially interesting to explore the effect of a high degree of assessment by an external agent and examine how it differs from assessment by an internal agent, as well as the influence of these types of assessment on the interpretation of ambiguous utterances, in particular the subjective interpretation. Furthermore, future research could investigate how relative power influences the interpretation of ambiguous utterances in a spoken communicative scenario. Such research could shed light on the question of whether the AD/R is more influential on the process of making meaning in a written or spoken context.

Although this study concerns only a very specific scenario and the results of the study are not yet generalisable, the study is still relevant, as it may shed light on what additional factors promote the emergence of subjectified meanings aside from the SP/W's need to be able to better express their attitudes and opinions. There is, therefore, a strong need for additional research in this area to further investigate the extent to which powerlessness contributes to the subjectification process, and to integrate this factor into existing pragmatic and historical-linguistic research.

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11 Appendix

11.1 Chat conversation items

11.1.1 Questions and Answers

Question	Answer
a. The biggest issue future generations will have to tackle is... b. What do you think the biggest issue for future generations will be? c. Off the top of your head – what is the biggest issue future generations will have to tackle? d. The biggest issue for future generations will be...	this will be climate change
a. The most influential musician on the planet – who is it? b. Who do you think is the most influential musician ever alive? c. Which musician is most influential on a global scale? d. If you had to name only one – who would you say was/is the most influential musician on the planet?	Really, Beethoven!

a. Which European city is historically the most important? b. From an historic point of view – which European city is the most important? c. If you had to choose one – which European city would you say is the most important from a historic perspective? d. Historically, what European city is the most significant?	it should be Rome
a. Which is the fastest growing nation on the planet? b. Do you know what the fastest growing nation on the planet is? c. What nation is the fastest growing one on the planet? d. The fastest growing nation on the planet is...	Well, thats clearly the chinese
a. The Rettungsgasse in Austria was established in... b. The Rettungsgasse in Austria – do you know when it was established? c. What year was the Rettungsgasse introduced in Austria? d. Do you know the exact year the Rettungsgasse in Austria was introduced in?	That must be 2015.

a. Who is the most important renaissance painter? b. Of all the renaissance painters – who is the most important one? c. Could you name the most important renaissance painter? d. Thinking about the renaissance – which painter strikes you as being the most important one?	Michelangelo
a. What is Barack Obama's most popular statement? b. When thinking of Barack Obama, which statement comes to mind first? c. Could you name Barack Obamas most popular statement? d. What statement is Barack Obama most often associated with?	Yes, we can
a. What color is used in Spain's controversially discussed bullfights in order to provoke the bull? b. In Spain's bullfights, what color is shown to the bull in order to stir his aggression? c. What color is used to provoke the bull during popular Spanish bullfights? d. What color continues to be used in order to stir aggression in bulls during Spanish bullfights?	thats red

a. Which social network is currently most popular amongst teenagers worldwide? b. Teenagers worldwide use which online platform in order to connect? c. When thinking social networks – which platform do you think is most popular? d. Which controversially discussed social media platform is most popular among teenagers worldwide?	either facebook or instagram.
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11.1.2 Statements

Please rate this statement entering a number ranging from 1 (=I don't agree at all) to 9 (= I totally agree). MY PARTNER LIKED THE WAY THE QUESTION WAS PUT. 1.....2.....3.....4.....5.....6.....7.....8.....9	Please rate this statement entering a number ranging from 1 (=I don't agree at all) to 9 (= I totally agree). MY PARTNER FOUND THE QUESTION INTERESTING. 1.....2.....3.....4.....5.....6.....7.....8.....9
Please rate this statement entering a number ranging from 1 (= I don't agree at all) to 9 (= I totally agree). MY PARTNER THOUGHT THE QUESTION WAS EASY. 1.....2.....3.....4.....5.....6.....7.....8.....9	Please rate this statement entering a number ranging from 1 (=I don't agree at all) to 9 (= I totally agree). MY PARTNER ANSWERED CLEARLY. 1.....2.....3.....4.....5.....6.....7.....8.....9

Please rate this statement entering a number ranging from 1 (=I don't agree at all) to 9 (= I totally agree). MY PARTNER WAS CERTAIN THAT THEIR ANSWER WAS RIGHT. 1.....2.....3.....4.....5.....6.....7.....8.....9	Please rate this statement entering a number ranging from 1 (=I don't agree at all) to 9 (= I totally agree). THE ANSWER WAS TO THE POINT. 1.....2.....3.....4.....5.....6.....7.....8.....9
--	---

11.1.3 Follow-up questionnaire

Follow-up questionnaire

Part 1 – Partner A

Please rate the following statements/questions marking your response on the line below the statements.

1. Overall my partner's performance was...

very bad -----
excellent

2. How do you think your partner would rate your performance?

very bad -----
excellent

3. Overall the conversation was...

difficult ----- very
smooth

4. My questions were answered...

insufficiently ----- in
great detail

5. During the conversation I felt...

stressed ----- relaxed

6. My partner seemed....

rude -----cooperative

Part 1 - Partner B

Please rate the following statements/questions marking your response on the line below the statements.

1. Overall my partner's performance was...

very bad -----
excellent

2. How do you think your partner has rated your performance?

very bad -----
excellent

3. Overall the conversation was...

difficult ----- very
smooth

4. My questions were answered...

insufficiently -----in
great detail

5. During the conversation I felt...

stressed ----- relaxed

6. My partner seemed....

rude ----- cooperative

Part 2 – Partner A+B

Please choose which exact meaning you would have attributed to the following statements.

1. Puh, this will probably be climate change...

X this is going to be climate change...

X I think this is climate change...

2. Really, that's Beethoven!

X This is obviously Beethoven!

X I am convinced this is Beethoven!

3. It should be Rome...

X Rome should have that title!

X I think it is probably Rome...

4. That must be 2015...

X It has to be 2015.

X It think this is 2015...

11.2 Data

11.2.1 Data from while experiment ratings

Note:

Partner A = participant P+

Partner B = participant P-

[illegible]

11.2.2 Data follow-up questionnaire part 1

Partner A

Part 1

Please rate the following statements/questions marking your response on the line below the statements.

x - one vote

x - two votes

X - three or more votes

1. Overall my partner's performance was...

very bad -----x-----x-----x-x---xxx-x-XXX-XXXXXX
excellent

2. How do you think your partner would rate your performance?

very bad -----x-----x-----x---xxXXXXXXx-x-xxxxxxxxxxx
excellent

3. Overall the conversation was...

difficult -----x---xx---xx-----xxxxxxxx-x---XXXX
very smooth

4. My questions were answered...

insufficiently -----xx---x---xxXxx-x-xxx---xxx---xxx----- in great
detail

5. During the conversation I felt...

stressed -----x-----x---xxxx-----xxXXXX
relaxed

6. My partner seemed....

rude -----x-----x---xx-x---x---XXXXXXX
cooperative

Follow-up questionnaire

Partner B

Part 1

Please rate the following statements/questions marking your response on the line below the statements.

x - one vote

x - two votes

X - three or more votes

1. Overall my partner's performance was...

very bad -----XXXXXXXXX-X-XXXXXXXX**XXXXXX**---xx
excellent

2. How do you think your partner has rated your performance?

very bad -----X---X---xxxxxxx---XXXXXXXXXXXXX-X---
excellent

3. Overall the conversation was...

difficult -----X-----X---XX---X---xxx-----xx**XXXXXXxxxx**
very smooth

4. My questions were answered...

insufficiently -----X-----X-----xxxx**XXXXXXXXXXXXX**--X-----x in great
detail

5. During the conversation I felt...

stressed -----X-----X-X-X-----xxx---xx---**XXXXXXx**
relaxed

6. My partner seemed....

rude -----X-----X-XX-----xxx---X---XX-xxx-----**XXXXXX**
cooperative

11.3 Additional material

Participant ID: _____



Information sheet Partner A

Dear participant,

Thank you for choosing to participate in our experiment. This experiment creates the basis of a diploma thesis in historical linguistics.

Before starting we kindly ask you to read through the following document as it provides you with relevant information concerning the process of the experiment.

Our experiment researches factors that influence the efficiency of written communication.

You will communicate with a partner via a chat window and answer questions concerning the efficiency of your conversation, both during and after the conversation.

The experiment is divided into 9 rounds. Every round consists of 3 steps.

In the first step you will be presented with 4 versions of the same question. The questions aim at testing your partner's general knowledge and are not interconnected in any way. You will have to choose the version of the question you find most efficient typing in 'a', 'b', 'c' or 'd'.

Afterwards your partner will have 15 seconds to answer this question. After 15 seconds his/her answer will appear at your screen. This is step 2 of the experiment.

In step 3 you will have to answer 5 questions concerning your partner's performance.

These 3 steps will be repeated 9 times with different questions.

Afterwards you will be asked to fill-out a follow up questionnaire, rating your partner's overall performance.

Your answers will be saved and used as data for the study.

You will receive further information as the experiment proceeds.

The chat conversation will take about 15 minutes.

The follow-up questionnaire will take about 5 minutes.

You can choose to quit the experiment at any time and will get money according to the time you invested.

Before or after the chat conversation you can take breaks, during the chat conversation this will not be possible.

After completing the whole experiment, you will receive 10 € as compensation for the time you invested.

After you finished the study you will be instructed regarding the full contents and aims of the study. Afterwards you still have the option of retrieving your consent, which allows us to use your data. Your data will then be deleted.

We kindly ask you not to talk about the study's aims and contents to any potential participants.

If you have any further questions do not hesitate to ask the researcher.

Participant ID: _____

Information sheet Partner B

Dear participant,

Thank you for choosing to participate in our experiment. This experiment creates the basis of diploma thesis in historical linguistics.

Before starting we kindly ask you to read through the following document as it provides you with relevant information concerning the process of the experiment.

Our experiment researches factors that influence the efficiency of written communication.

You will communicate with a partner via a chat window and answer questions concerning the efficiency of your conversation, both during and after the conversation.

The experiment is divided into 9 rounds. Every round consists of 3 steps.

In **step 1** you will be presented with 4 versions of the same question. The questions aim at testing your partner's general knowledge and are not interconnected in any way. You will have to choose the version of the question you find most efficient typing in 'a', 'b', 'c' or 'd'.

Afterwards your partner will have 15 seconds to answer this question. After 15 seconds his/her answer will appear at your screen. This is **step 2** of the experiment.

In **step 3** you and your partner will rate each other's performance.

These 3 steps will be repeated 9 times with different questions.

Afterwards you will be asked to fill-out a **follow up questionnaire**, rating your partner's overall performance.

Your answers will be saved and used as data for the study.

You will receive further information as the experiment proceeds.

The chat conversation will take about 15 minutes.

The follow-up questionnaire will take about 5 minutes.

You can choose to quit the experiment at any time and will get money according to the time you invested.

Before or after the chat conversation you can take breaks, during the chat conversation this will not be possible.

After completing the whole experiment, you will receive 10 € as compensation for the time you invested.

After you finished the study you will be instructed regarding the full contents and aims of the study. Afterwards you still have the option of retrieving your consent, which allows us to use your data. Your data will then be deleted.

We kindly ask you not to talk about the study's aims and contents to any potential participants.

If you have any further questions do not hesitate to ask the researcher.

Participant ID: _____



Declaration of consent – Participation in a study researching factors influencing communication efficiency

This form aims at guaranteeing that you are willing to take part in an experiment researching factors that influence the efficiency of written communication. Your signature does however not oblige you to take part in any action you do not want to during the experiment.

Did you read the information sheet?

Yes No

Were your questions sufficiently answered?

Yes No

Are you aware that you can quit the experiment at any time?

Yes No

Do we have permission to use the data collected during the course of the experiment?

Yes No

Additional information:

Age: _____

Gender: m/w/other

Occupation:

Languages + Levels:

Years spent in an English speaking country: _____

The data and results that are collected in the course of this experiment are used, saved, analyzed and presented in **anonymized** form only.

If you want to participate in the experiment, please sign below

Signature: _____

Name: _____

Date: _____

Experiment instructions Partner A

Step 1: You will be presented with four versions of the same questions. Choose the one you find most efficient.

Step 2: Your partner has 15 seconds to answer your question. Once this time has passed you will be presented with their answer.

Step 3: You will have to rate your partner's performance answering 5 follow-up questions.

These 3 steps will be repeated 9 times.

Experiment instructions Partner B

Step 1: You will be presented with four versions of the same questions. Choose the one you find most efficient.

Step 2: Your partner has 15 seconds to answer your question. Once this time has passed you will be presented with their answer.

Step 3: You will have to rate your partner's performance answering 5 follow-up questions.

These 3 steps will be repeated 9 times.

12 Abstract

Subjectification is one major mechanism driving semantic change. It leads to utterances becoming increasingly focused on the speaker's "subjective belief, state or attitude towards the proposition" (Traugott 1989: 31). Subjectification is considered by Traugott to be one way in which speakers can meet their desire to convey their subjective needs and opinions. One important aspect that has received little attention in current research on subjectification is if and how the listener contributes to the subjectification process. Holtgraves (2014) looked at a number of studies that tested how uncertainty terms such as *possible* or *like* are interpreted in different communicative scenarios and found that interpersonal factors not only influence how something is said, but also how it is interpreted by the listener. Like the studies reviewed by Holtgraves, this experimental study looked at how the interpretation of a selection of ambiguous words differed, depending on how powerful the listeners perceive themselves to be. The underlying hypothesis was that as an omnipresent element in communication, *power* would influence the interpretation of ambiguous words, causing less powerful individuals to interpret ambiguous utterances in a more subjective way than individuals who perceived themselves to be more powerful in relation to the speaker. The reasons for increasingly subjectified meanings in language, it was argued, would be found not only in the speakers' desire to convey their subjective attitude, but also in the listeners' wish to find out more about the speakers' attitude towards them and the world. In order to test this hypothesis, an experiment was conducted. 62 participants took part in a short chat communication and were instructed to ask their chat partner 9 questions. The part of their chat partner had been pre-designed in order to ensure that all participants were presented with the same stimuli. The chat conversation consisted of nine rounds (questions) with three steps each. First, participants were instructed to ask their 'partner' one out of four versions of the same question. Secondly, they were presented with their 'partner's' answer. 5 out of the total 9 answers contained ambiguous elements. Thirdly, they were presented with six statements about their 'partner's' answer and had to express their level of agreement with the statements

on a Likert scale (1= I don't agree at all, 9= I totally agree). Participants were divided into two groups. Group P+ was the powerful group. Participants in this group were told that their selection of question would not be assessed. Group P- was the powerless group. They were told that their selection of question would be assessed. After the experiment, all the participants completed a follow-up questionnaire, where they had to give their interpretation of a selection of ambiguous elements. The results of the experiment showed that there was indeed a difference between participants from group P+ and those from group P-. The powerless participants more frequently chose subjective interpretations of ambiguous utterances and showed considerably lower levels of agreement with the six statements than the powerful participants, which confirms our hypothesis. However, the results did not confirm our hypothesis as clearly expected, and there are a number of methodological issues that have to be addressed, should the experiment be repeated.

13 Zusammenfassung (Abstract in German)

„Subjectification“ ist ein Mechanismus, der für Bedeutungsveränderungen von Wörtern verantwortlich ist. Traugott (1989: 31), eine führende Forscherin zum Thema „Subjectification“ versteht unter dieser Form von Bedeutungsveränderung eine zunehmende Fokussierung von Äußerungen auf die „subjektive Meinung oder Einstellung [des Sprechers/der Sprecherin] im Hinblick auf die Aussage“. Laut Traugott entspringt „Subjectification“ dem Wunsch von SprecherInnen ihre Meinungen und Bedürfnisse zu vermitteln. Ein wichtiger Aspekt von „Subjectification“ ist wie und ob die ZuhörerInnen zu dieser Bedeutungsveränderung beitragen, diesem wurde jedoch in der bisherigen Forschung wenig Bedeutung geschenkt. Holtgraves (2014) analysierte einige Studien im Kontext von Szenarien wechselnder Machtverhältnisse zwischen SprecherInnen und ZuhörerInnen, wie Begriffe die Unsicherheit ausdrücken (z.B. möglich, einige) interpretiert werden. Aus den Ergebnissen schloss Holtgraves, dass das persönliche Verhältnis von SprecherIn und ZuhörerIn beeinflusst wie etwas gesagt und auch wie es interpretiert wird. Ähnlich wie diese von Holtgraves analysierten Studien, erforschte die vorliegende Studie, wie mehrdeutige Wörter abhängig davon, wie machtvoll oder machtlos sich der Zuhörer/die ZuhörerIn fühlt, unterschiedlich interpretiert werden. Die zugrundeliegende Hypothese war, dass Macht, als ein allgegenwärtiger Faktor in Kommunikation, die Interpretation von mehrdeutigen Wörtern auf eine bestimmte Weise beeinflusst, und zwar insofern, als dass machtlosere Menschen mehrdeutige Wörter subjektiver interpretieren, als Menschen die sich selbst als machtvoller im Vergleich zum Sprecher/zur Sprecherin wahrnehmen. Die Gründe für zunehmend subjektive Bedeutungen von Wörtern, könnten daher nicht nur dem Wunsch des Sprechers/der Sprecherin, seinen/ihren Bedürfnissen Gehör zu verschaffen, entspringen. Ein weitere Grund für diese Bedeutungsveränderung könnte im Wunsch des Zuhörers gefunden werden, möglichst viel über den Sprecher/die Sprecherin und dessen/deren Einstellungen zu erfahren. Um diese Hypothese zu testen, führten wir ein Experiment durch. 62 TeilnehmerInnen absolvierten eine kurze Chat-Konversation, in der sie ihrem Partner/ihrer Partnerin 9 Fragen

stellen mussten. Die Antworten der PartnerInnen waren jedoch vorab erstellt worden, wodurch alle TeilnehmerInnen dieselben Antworten bekamen. Die Chat-Konversation bestand aus neun Runden (Fragen), die jeweils in drei Schritte gegliedert waren. Zuerst mussten die TeilnehmerInnen aus vier Versionen derselben Frage diejenige auswählen, die sie ihrem ‚Partner‘/ihrer ‚Partnerin‘ stellen wollten. Danach erschien die Antwort des ‚Partner‘/ der ‚Partnerin‘ vor ihnen auf dem Bildschirm. 5 der 9 Antworten enthielten mehrdeutige Elemente. Im dritten Schritt sahen die TeilnehmerInnen 6 Aussagen, das Verhalten und die Leistung ihres ‚Partners‘/ihrer ‚Partnerin‘ betreffend, zu denen sie den Grad ihrer Zustimmung auf eine Skala von 1-9 ausdrücken mussten. Vor dem Experiment wurden die TeilnehmerInnen in zwei Gruppen unterteilt. Gruppe P+ war die machtvolle Gruppe. TeilnehmerInnen in dieser Gruppe wurde gesagt, dass ihre Auswahl der Frage nicht beurteilt wurde. Gruppe P- war die machtlose Gruppe. TeilnehmerInnen in dieser Gruppe wurde gesagt, dass die Auswahl ihrer Frage von ihrem ‚Partner‘/ihrer ‚Partnerin‘ beurteilt wurde. Nach dem Experiment füllten alle TeilnehmerInnen einen Fragebogen aus, in dem sie ihre Interpretation von einigen mehrdeutigen Elementen bekanntgeben mussten. Die Ergebnisse des Experiments bestätigten unsere Hypothese und zeigten einen merklichen Unterschied zwischen den beiden Gruppen. Machtlose TeilnehmerInnen wählten öfter subjektive Interpretation von mehrdeutigen Aussagen und drückten weniger Zustimmung zu den Aussagen in Schritt 3 aus. Jedoch muss auch erwähnt werden, dass die Resultate nicht so eindeutig ausfielen wie erwartet, und einige methodologische Aspekte modifiziert werden sollten, wenn das Experiment noch einmal durchgeführt werden soll.

