Universiteit Leiden

"Interpreting scalar implicatures and their sensitivity to face in Greek."

Stefania Papanikolaou

(S2097591)

A thesis submitted for the degree of Master of Language and Communication

In the Faculty of Humanities

University of Leiden

Table of Contents

Abstract

In this thesis, we present an experiment designed to examine the interpretation of scalar implicatures in Greek. Scalar implicatures appear to examples like “I ate some of the pasta.” This sentence implies that the speaker uses the term “some” because s/he had reasons not to use the stronger word “all” in the sentence, e.g. “I didn’t eat all of the pasta.” Recent studies of experimental pragmatics suggest that the inference “I ate some (but not all) of the pasta” would not exist in face-saving acts (Bonnefon, J.-F., Feeney, A. & G. Villejoubert (2009). By contrast, Terkourafi and Weissman claim that face-boosting contexts favor lower-bound interpretations. We conducted an experiment addressing this issue, by testing a group of 40 adults (all native speakers of Greek) on four different scalar terms, <often, always>, <possible, impossible>, <good, excellent>, <hundreds, thousands>. Overall, our results indicate that Boost story Version favors lower bound interpretation and are consistent with Terkourafi and Weissman’s conclusions and opposite to Bonnefon’s and colleagues’ hypothesis.

Keywords: Experimental pragmatics, scalar implicatures, politeness, Greek

1. Introduction

Language communication is a complex procedure that goes beyond simply encoding and decoding a message between a speaker and a hearer. It is based on the individual’s ability to recover the interpretation that the speaker intends to communicate with each utterance. According to linguistic pragmatics, the same utterance can communicate many different propositions. In order to understand which meaning the speaker wishes to convey, contextual information is needed; however, the amount of contextual information needed and whether some inferences go through without contextual support is open to question.

The current study focuses on scalar implicatures, one of the most studied phenomena of pragmatic inference. Scalar implicatures are inferences which rely on a scale <W, S> where W is an informationally weak and S is an informationally strong element; consequently, the assertion of W implicates the negation of S.

The interpretation of scalar implicatures is hotly debated, as one scalar term can have different interpretations. For instance, the term “some” in example (1a) would normally convey the negation of “all,” as in (1b) but (1c) would also be valid.

Consider the following example:

(1) a. Tom ate some of the pasta.

b. Tom ate some but not all of the pasta.

c. Tom ate some and possibly all of the pasta.

Most people would agree that the speaker who utters 1.a. means 1.b (the upper-bound interpretation). However, 1.c, the interpretation “Tom ate some and possibly all the pasta” (the lower-bound interpretation) would also be correct (if the plate with the pasta was empty) because the strong scalar term ‘all’ entails the weaker scalar term ‘some.’ More generally, the negation of the stronger term “all” depends on the communication exchange and the contextual framework.

Among the factors that affect the derivation of scalar implicatures, social-interactional factors have recently begun to be explored. Social interactional factors can be expected to be important because the information a speaker is willing to share may depend on their desire to constitute the face of the addressee (and their own). This may in turn lead them to either try not to hurt the face of the addressee (and their own) or to actively boost it. “Face” here refers to the sense of positive identity or public self-esteem that is projected by all people (see Brown & Levinson, 1978/1987). Most people try to protect the face of themselves and others. Interlocutors’ face may be threatened if they disagree, criticize, or embarrass each other while it might be boosted when they reinforce the positive identity of the hearer.

Interlocutors sometimes try to decrease the threat engendered by the utterance to the face of their hearer. To do this, speakers try to be polite, and one of the functions of linguistic politeness is to decrease face threatening. Hearers seem to take politeness strategies into consideration when interpreting utterances. Bonnefon and colleagues in a series of studies, investigated the derivation of scalar inferences in face-threatening contexts, and showed that listeners tend to interpret a face-threatening utterance than a face-boosting one (Bonnefon & Villejoubert, 2006; Pighin & Bonnefon 2011). They also suggest that scalar inferences are less likely to be derived in face-threatening contexts Bonnefon et al. (2009) and Feeney and Bonnefon (2012).

Taking into consideration these findings, politeness should be inserted among the list of social-interactional factors whose manipulation might be important in assessing the diversity of scalar inferences.

There are several important investigations on the development of politeness addressing this issue. Among others, Bonnefon & Villejoubert 2006; Bonnefon, Feeney & Villejoubert 2009; Feeney & Bonnefon 2012; Bonnefon, Dahl & Holtgraves 2015, Terkourafi, Weissman & Roy 2020. Earlier work supports that face-threatening contexts bias towards lower-bound interpretations of scalar terms, whereas later work emphasizes diversity among scalar terms in this respect and argues that face-boosting contexts may favor lower bound interpretations of some scalar terms. Moreover, Terkourafi, Weissman and Roy's investigation uses threat or enhancement of the addressee's "positive face" to conceptualize face orientation and emphasizes the speaker's intention in deriving the scalar implicature. Positive face refers to "the want of every member that his [her] wants be desirable to at least some others" (Brown and Levinson, 1987, p. 62). Our desires include everything from the values that we want to preserve (love, good education, loyalty), to the things that we want to do (meet our friends, go to the cinema). These "wants" are parts of our face that are present when we interact with other people.

The present study tests the claims mentioned above, using scalar terms in Greek, and reports results from an experiment constructed to investigate which of the positions above seems best suited to account for the Greek data. This research aims to examine the role of face-orientation in scalar inference, given that the impact of face-orientation on scalar inferences in Greek is, to my knowledge, not yet examined by previous research that investigated scalar terms in Greek experimentally (Papafragou & Musolino 2002, Breheny et al. 2005). This raises the following general research questions:

1. *Is the interpretation of scalar terms in Greek affected by the face-orientation of the context?*
2. *How are scalar terms in Greek interpreted when they are found in a face-boosting vs. face-threatening context?*

To investigate how native speakers of Greek understand and interpret scalar terms when they are found in face-boosting or face-threatening environments, four types of scalar terms were tested, identified by applying a number of heuristics to the Greek National Thesaurus (HNGG) [1]according to their frequency of use in Greek. The

[1] http://hnc.ilsp.gr Hellenic National Corpus of ILSP is being developed over the last years and today it includes over 47.000.000 words, which are increasing at regular intervals. Users can display HNC sentences using up to three criteria. Searches are performed based on words, lemmas and parts of speech elements. Statistical information is also provided both for the linguistic content of HNC and the user activity.

four terms are: often-always, possible-impossible, good-excellent, hundreds-thousands. A sample of native Greek speakers was recruited as participants. Each term was tested using four different utterances. For each utterance, two different scenarios were constructed, a face-boosting and a face-threatening one. We compare our experimental results with previous results, (Bonnefon et al. 2009, Terkourafi et al. 2020) and discuss the implications of our findings for the interplay between scalar implicatures and face cross-linguistically.

In section 2 we provide an overview of the literature related to the interpretation of scalar implicatures and politeness, from the early stages. In sections 3,4 and 5 we describe the methodology applied to collect the data from the candidates, which replicates that followed by Terkourafi et al. 2020 for English. Section 6 analyzes the results of the linear mixed effect model that we used in both the norming and the main study. In section 7 we conclude and compare our research with previous studies, and in section 8 we mention the limitations of the current study and present suggestions for further research. Finally, in Appendix A we provide a quantitative description of the model used for the linear mixed effect model analysis. Appendix B shows the stimuli used in the main study.

2. Literature Review

Grice suggested that communication is conducted within a cooperation framework based on Maxims. Grice postulated that in order to communicate effectively speakers should be a) as informative as is required, b) as truthful as they can, by giving accurate information supported by evidence c) relevant to the discussion, d) avoid redundancy, obscurity, and ambiguity. Speakers are supposed to maintain these expectations about a conversation when they formulate an utterance and listeners when they interpret it.

These Maxims can be violated to produce several effects. In the case of scalar implicatures, the Maxim of Quantity is violated: 'Make your contribution as informative as is required.' Specifically, taking into consideration our previous example (1.b) the speaker has violated the Maxim of Quantity since s/he uses the weak term from a range of strong informational terms (<some,……, all>). According to the Cooperative Principle, the speaker is assumed to be as relevant and truthful as s/he can be. The use of the informationally weaker term then implicates that the stronger term does not hold. So, the listener infers that the speaker cannot offer an informationally stronger term.

Post-Gricean pragmatics proposes revisions to the maxims aiming at a more cognitively sufficient conclusion. Regarding the current phenomenon, there is an important debate over when scalar implicatures are generated. Many post-Gricean pragmaticians support that the utterance in such cases depends on the context. Broadly, the context is made of different non-linguistic components of information that help in the interpretation of an utterance. Every utterance may reference different extralinguistic information from relevant experiences of the speaker, like beliefs and ideas, or notions that are relevant to the physical environment in which the discussion is taking place. So, the interpretation of an utterance depends not only on the compositional semantics of the sentence but also on extralinguistic factors. This distinction between sentence-meaning and utterance-meaning (Levinson 1995) motivates further the investigation of the different types of conversational implicature. Theoretical developments tend to explain this distinction by separating pragmatics and semantics. Levinson argues for three levels in the theory of meaning: between semantics (coded) meaning and pragmatic (intended) meaning, there is utterance-type meaning. This is represented by Generalized Conversational Implicatures (GCIs), which are different from the Particularized Conversational Implicatures (PCIs) generated by the maxims.

Generalized implicatures are claimed to be default inferences that are computed by some autonomous mechanisms. "Default" interpretation of a speaker's utterance is the salient or automatically retrieved meaning produced by the speaker, without the help of contextual enrichment or the speaker's intentions (Levinson 2000). Neo-Gricean pragmatics, stay close to Grice's idea of original maxims. The main assumption which GCI theory begins with is (Grice 1989: 26): "*Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged".* According to the Cooperative Principle it follows that a generalized conversational implicature can be canceled in a particular case. Grice, provides the following characterization of GCIs (Grice 1989:37)*: Sometimes one can say that the use of a certain form of words in an utterance would normally (in the absence of special circumstances) carry such-and-such an implicature or type of implicature.* Levinson (2000:16) says that Grice attributed no great importance to the distinction between generalized versus particularized implicatures, but he was interested in the whole phenomenon of implicatures, and specifically in GCIs because they are hard to distinguish from semantic or conventional content: *"Non-controversial examples are perhaps hard to find, since it is all too easy to treat a generalized conversational implicature as if it were a conventional implicature"* Neo-Griceans also support Grice's spirit about context-independent pragmatic inference (GCIs) (Grice 1975) and believe that there are salient, presumed meanings that exist independently of the context (e.g., Horn 2004, 2012; Levinson 1995, 2000;).

According to Horn (2004: 4–5):

Whatever the theoretical status of the distinction, it is apparent that some implicatures are induced only in a special context (…), while others go through unless a particular context is present (…).

On this view, GCIs could be canceled at a later stage when contextual inferences are taken into consideration.

Many proposals, including Horn (1984) Levinson (2000) and Chierchia (2004), have suggested that the phenomenon of scalar implicatures is considered to be a prime example of default implicature. According to Levinson, GCIs are defeasible inferences triggered by the speaker's choice of utterance form and lexical items because of three heuristics mutually assumed by speaker and hearer. Levinson developed the three heuristics, based on Grice's Quantity and Manner maxims. These heuristics that guide speaker's behavior in communication, are: The Q-heuristic, the I-Heuristic, and the M- Heuristic (Levinson 2000).

• **The First (Q) Heuristic**: "What isn't said, isn't." For example, in the context of a blocks world where there are salient oppositions of objects {cones, pyramids, cubes} and colors {red, blue}, from the assertion "There's a blue pyramid on the red cube", this heuristic triggers the following inferences: 'There is not a cone on the red cube'; 'There is not a red pyramid on the red cube' (p. 31).

• **The Second (I) Heuristic:** "What is simply described is stereotypically exemplified." For example, from the assertion "The blue pyramid is on the red cube," in the context described above one is licensed to infer 'The pyramid is a stereotypical one ...," 'The pyramid is directly supported by the cube ...,' etc. (p. 32).

• **The Third (M) Heuristic:** "What's said in an abnormal way, isn't normal; or Marked message indicates marked situation." For example, from the assertion "The blue cuboid block is supported by the red cube," in the context described above one is licensed to infer 'The blue block is not, strictly, a cube,' 'The blue block is not directly or centrally or stably supported by the red cube,' etc. (p. 33).

The Q-heuristic: Speaker's maxim is the one in charge of scalar implicatures. This principle applies only to terms that form part of a scale composed of a stronger and a weaker term. In example (1), the relevant scale is <some, all>. The statement that Tom ate all of the pasta is informationally stronger than the statement that Tom ate some of the pasta. Thus, *some* being the less informationally scale member, the hearer automatically assumes that *not all* is implied by the utterance.

Levinson, following Grice, distinguishes generalized conversational implicatures from particularized conversational implicatures because while the former is independent

of context and appear by default, the latter are dependent on the context. Contrary to the Default view, the Context-Driven approach suggests that implicatures are generated effortfully and only in a specific context (Sperber & Wilson, 1986). On this view, represented by Relevance Theory (Carston, 1999; Sperber & Wilson, 1986/1995), scalar implicatures are not made by default, but following a process based on the effort and effect factors. Thus, according to relevance theory, this phenomenon is considered as effortful and non-automatic process, whereas according to neo-Griceans, it is an automatic, default inference. Breheny et al. (2005) after conducting a series of experiments, conclude that scalar implicatures are dependent on the context, and do not find evidence of context independence as the Default view claims.

Other recent studies (e.g., De Neys, Schaeken, & d'Ydewalle, 2005a, 2005b) also indicate that scalar implicatures, which are a paradigmatic case for the study of generalized conversational implicatures, are not made automatically, supporting the idea of Sperber & Wilson.

If scalar implicatures are not generated by default, they should be affected by different contextual factors. The present study tested different scalar inferences in face-threatening and face-boosting contexts, in order to test whether and how the interpretation of a weaker term is affected in both contexts. Adopting the notion of "face" from Brown and Levinson (1987), we are examining whether the interpretation of "some" or "often" in utterances like the example above, is most likely to be "some but not all" or "often but not always" depending on whether the speaker is perceived to be boosting or threatening the face of the listener.

According to Brown and Levinson, "face" is:

'the public self-image that every member wants to claim for himself, consisting of two related aspects:

(a) Negative face: the basic claim to territories, personal preserves, rights to non-distraction- i.e., to freedom of action and freedom from imposition

(b) Positive face: the consistent positive self-image or 'personality' (crucially including the desire that this self-image is appreciated and approved of) claimed by interactants.

Following Brown and Levinson, a face-threatening act (FTA) is an act which challenges the face of an interlocutor. Face-threatening acts may threaten either the speaker's face or the hearer's face, and they may threaten either positive face or negative face becoming actual FTAs if they are performed without using a politeness strategy.

Applying the notion of "face" to politeness can be considered as having a double substance: "positive" and "negative." "Positive politeness" is expressed in two ways: a) by showing appreciation for the other speaker's self-image b) by mitigating face-threatening acts (hereafter FTA) like criticism, disagreement that show disapproval and so threaten the listener's positive face. "Negative politeness" is expressed by showing respect to hearer's right not to be imposed on. To sum things up, politeness is used not only if FTA occurs, but also to constitute the hearer's face in the first place. Bonnefon and colleagues (Bonnefon, J. F., Feeney, A. and G. Villejoubert. 2009), conducted a series of experiments based on Brown and Levinson's politeness theory focusing on face as a sense of positive identity and public self-esteem that all humans project and are motivated to support in social interactions (2009: 250). According to this definition, their main focus is how to mitigate the face-threatening acts more than examining politeness per se; more specifically they examine how to avoid threatening someone's face.

The results of their experimentnums suggest that individuals tend *not* to interpret "some X-ed" to "not all X-ed" (not to draw the scalar inference) when X threatens the positive face of the listener. This is because people are less likely to think that the speaker means "not all X-ed" as they believe that the speaker wants to be nice to the listener. Based on this, they conclude that face-threatening contexts bias toward lower-bound interpretations (without the upper-bounding implicature).

According to Terkourafi, Weissman & Roy (2020), there are several problems with this claim. The most important one is that the definition of face-boosting contexts is not available in Brown and Levinson's theory. So, it's unclear how they define face-boosting contexts, since in Brown and Levinson's theory utterances can only be potentially face-threatening (FTAs). In order to avoid this problem, in their study, Terkourafi et al. clearly distinguish face-boosting from face-threatening contexts with reference to the listener's positive face.

According to Terkourafi et al., another problem is that the example "some people loved your poem," from Bonnefon et al. (2009) can be not only face-boosting but also face-threatening since in some cases a speaker can use it to suggest that she (the speaker) is not among those "some people" who liked the listener's poem.

The problem of defining whether a context is face-boosting or face-threatening lies also on extra-linguistic factors such as culture. Brown and Levinson (1987) suggest three sociological variables that are related to the relationship between the interlocutors and measures of cultural values: "D" the social distance between the speaker and the hearer, "P" the power of the hearer over the speaker, and "R" the ranking of the imposition that FTAs entail in the culture (1987:76). Taking into account these extralinguistic factors, it appears that face-boosting and face-

threatening contexts depend on the interaction between the content of the utterance and the situational context of use and not only on the lexical meaning.

Terkourafi, Weissman & Roy (2020), suggest another definition for face-boosting and face-threatening contexts, which includes these variables. They explain 'face-boosting' as those contexts in which the speaker's act enhances the hearer's positive face (situations in which the speaker is expressing affiliation, solidarity, approval or admiration for the hearer), while they reserve the term 'face-threatening' for those contexts in which the speaker's act threatens the hearer's positive face.

3. The present study

3.1 Rationale

Several researchers have made additional research on the definition of politeness. Although "politeness" is a word that we all use and understand, it is hard to give an accurate definition that covers both aspects of face in all societies. Moreover, many researchers nowadays acknowledge that face is something that individuals don't have in isolation, but they acquire it when they are exposed to society. Thus, because politeness relies on a process of socialization, the interpretation of politeness varies across different cultures.

The present study tests the impact of face-orientation on scalar inferences using data from Modern Greek. There is a small number of previous studies regarding the interpretation of scalar implicatures based on the Greek language. Papafragou & Musolino 2003 tested the comprehension of scalar terms in Modern Greek. The most important conclusion which emerges from their work is about the computation of scalar implicatures by children: children do not treat all scalar terms alike and, more importantly, children's ability to derive scalar implicatures is affected by their awareness of the goal of the task. So, unlike previous researchers (e.g., Noveck 2001), they found that children are capable of generating scalar implicatures if the context requires it. Breheny et al. (2005) similarly examined to what extent contextual assumptions affect scalar implicature generation in Greek, and suggested that scalar implicatures are dependent on the conversational context and that they show none of the autonomy predicted by the Default view.

Although both studies have given significant results on language processing, there are currently no studies about the impact of "face" on the interpretation of scalar implicatures in Greek. In short, the small literature on scalar implicatures in Greek does not answer our question on whether scalar terms in Greek are interpreted differently when they are found in a face-boosting or face-threatening context.

3.2 Methodology

In this study, we examine the following research questions: 1. *Is the interpretation of scalar terms in Greek affected by the face-orientation of the context?* And *How are scalar terms in Greek interpreted when they are found in a face-boosting vs. face-threatening context?* Four types of scalar terms were tested: <συχνά, πάντα> (<often, always>), <δύσκολο, αδύνατο> (<possible, impossible>), <καλό, άριστο> (<good, excellent>), <εκατοντάδες, χιλιάδες> (<hundreds, thousands>). These were identified by applying a number of heuristics to identify relevant terms in the Greek National Thesaurus (HNGG) according to their frequency of use in Greek. :(κάποιοι-ες-α, μερικοί-ες-α,ορισμένοι-ες-α,αρκετοί-ες-α,καλός-η-ο,τέλειος-α-ο). For adjectival scales we followed Van Tiel at al.'s (2016) method, who selected adjectives which were used in 70% of the experimental items, and were selected by searching the Internet and several corpora, for constructions of the form 'X if not Y', 'X or even Y' and 'not just X but Y', which yielded a large number of candidate scales. The terms selected represented a variety of lexical scales: quantificational items: συχνά, gradable adjectives: δύσκολο, καλό, numerals: εκατοντάδες.

Each term was tested using four different utterances, for a total of 32 utterances. For each utterance, two different scenarios were constructed, a face-boosting and a face-threatening one. Taking into consideration that the potential outcomes of a scalar implicature may to some degree be inferred from the extralinguistic context of that situation (B&L: 76) we produced the scenarios with different orientations (face-boosting, face-threatening) regarding the story's context rather than the lexical meaning of the utterance. Consequently, in the current study, the utterance is kept the same in both stories, whereas the context changes in the desired direction. The following example indicates this, using the gradable adjective 'καλό' ('good') embedded in the utterance «Είναι καλό αποτέλεσμα. » ('It is a good result'). These stories contain this utterance in two different contexts:

(2) **Face boosting**: Ο Γιώργος αποφάσισε να αρχίσει προπόνηση για να κατέβει σε αγώνες με μοτοσυκλέτες. Ο πρώτος χρόνος που έκανε ήταν 1'32. Ο προπονητής του που πάντα πίστευε σ' αυτόν και τον παρακίνησε να κατέβει στους αγώνες, ενθουσιασμένος του λέει: «Είναι ένα καλό αποτέλεσμα.»

'George decided to start training to go on motorcycle racing. The time of his first race was 1'32. The coach, who always believed in him and prompted him to go down to the races, excitedly tells him: «It's a good result. »

(3) **Face threatening**: Ο Γιώργος αποφάσισε να αρχίσει προπόνηση για να κατέβει σε αγώνες με μοτοσυκλέτες. Στην πρώτη προπόνηση που έκανε ήταν σχετικά αργός και ο χρόνος του ήταν 2'15. Ο προπονητής του που του είχε πει να μην κατέβει

φέτος στους αγώνες επειδή στους περσινούς δεν είχε πάρει καλή θέση, απογοητευμένος του λέει: «Είναι ένα καλό αποτέλεσμα.»

‘George decided to start training to go on motorcycle racing. In his first race, he was relatively slow, and his time was 2'15. His coach, who had told him not to participate this year because he did not get a good place last year, disappointed says: «It’s a good result. »

4. Norming study

The study was organized into two parts. The first part is the Norming study which was used to check whether participants understood the scenarios to be face-boosting and face-threatening as we expected them to be. In this stage, participants were able to see only one version of the story without the utterance containing the scalar term. For instance, in examples (1) and (2) the utterance «It’s a good result. » wasn’t visible to the participants.

4.1 Participants

The participants in the norming study were a group of 10 native Greek speakers between the ages of 24-28. They were all recruited from my social network via e-mail and social accounts (e.g., Facebook).

4.2 Materials

The 32 story versions (2 versions for each of 16 utterances) without the utterance containing the scalar itself were classified in two blocks such that each participant saw only one version of each story. Each block was seen by 5 participants and contained 16 stories. The order of the stories was randomized for each participant.

4.3 Procedure

Participants were asked to point out on a Likert scale from 1 to 5 (where 1=very unlikely and 5=very likely; see figure 1) their assessment about the face orientation of the story version they’ve read, answering the following question: “Πόσο πιθανό είναι αυτό που θα πει [ο ομιλητής] να ακουστεί φιλικό στον ακροατή;" “How likely is it that [speaker’s utterance] will sound friendly towards the hearer?”.

4.4 Results

To make sure that the two versions of the stories differ according to face-boosting and face-threatening orientation, we run pairwise comparisons based on an ordinal mixed-effects model, using R. To be sure that the stories’ direction is clear to the participants, we calculated mean ratings for face-boosting and face-threatening versions. The results were as we expected to be, higher and lower than three on the five-point Likert scale, respectively.

The average rating for all Boost version stories was 4.13 (sd=0.73), and the average rating for all Threat version stories was 2.28 (sd=0.84). The outcome of the ordinal mixed-effect model with Version (Boost vs. Threat), Story and their interaction as fixed effects and random intercepts for Participants, which we used to analyze the data, indicated a significant overall effect of Version ($p<0.001$). So, the results of the norming study allow us to continue with the main study as they indicate that our contexts bias toward the expected directions (face-boosting and face-threatening respectively).

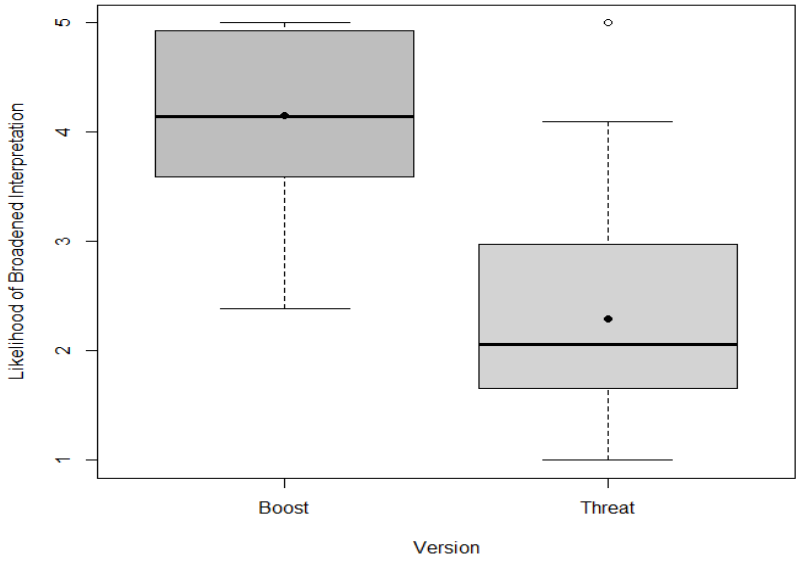

Figure 2- This Boxplot shows the overall effect of Version for all 32 stories. Black dots show the means and horizontal black lines indicate the medians.

5. Main study

For the main study, the participants were 40 (20 men and 20 women) native speakers of Greek between the ages of 18-30 (mean age: 26). They were recruited from social platforms (Facebook) and my social network via e-mail. The participants who participated in the norming study were excluded from completing the main study. Lastly, the participants were asked to report what language they speak at home, and all of them reported speaking Greek.

5.1 Materials

In the main study, participants could see the stories, including the final utterance with the scalar term like the examples (2) and (3) above. There were 32 questions in total which were separated in two blocks.

Additionally, in this part, we used five filler stories. Each of them expressed an implicature, which was unrelated to the scalar implicatures that were used to the main question. This was done to distract the participants from the purpose of the study and provide us with unbiased results.

Each block contained 21 critical stories and five fillers for a total of 26 stories. Twenty participants saw each block in a randomized order.

5.2 Procedure

In the main study, we asked participants to answer a question considering the scalar term that was embedded in the final utterance. The question was the following: "How likely is it that the speaker means the stronger term in the scale?" Participants were required to indicate in the Likert scale their answer, as in the example (3) repeated below:

(3) Face boosting: Ο Γιώργος αποφάσισε να αρχίσει προπόνηση για να κατέβει σε αγώνες με μοτοσυκλέτες. Ο πρώτος χρόνος που έκανε ήταν 1'32. Ο προπονητής του που πάντα πίστευε σ' αυτόν και τον παρακίνησε να κατέβει στους αγώνες, ενθουσιασμένος του λέει: «Είναι ένα καλό αποτέλεσμα.»

'George decided to start training to go on motorcycle racing. The time of his first race was 1'32. The coach, who always believed in him and prompted him to go down to the races, excitedly tells him: "It's a good result."

Πόσο πιθανό είναι ο προπονητής να εννοεί άριστο;

How likely is it that the coach means excellent?

1 2 3 4 5

Very unlikely **Very likely**

Figure 1- Likert scale

6. Results and discussion

In the analysis below, we present the results of a linear mixed effects model with Version (Threatening vs. Boosting), and Scalars (<Often, Always>, <Possible, Impossible>, <Good, Perfect>, <Hundreds, Thousands>) as fixed effects and random effects for Participant ID and Story. Estimates greater than 0 imply that a higher rating is more likely compared to the other variable (e.g Boost for Condition). The

table below shows a significant effect of version and the scalar term 'possible'. The scalar 'good' was dropped out by the model due to multicollinearity issues (high correlation with other variables).

Variable	Estimate	Est Error	Significance [Pr(>|t|)]
Version Threat	-0.60	0.1	Significant ***
Scalar Hundreds	0.45	0.2	no significant
Scalar Often	-0.05	0.2	no significant
Scalar Possible	-0.49	0.2	Significant *
* 0, ** 0.001, *** 0.01			

Table 1 - Summary of version and scalar term based on the linear mix effects model

The boxplot below shows the overall impact of Version across all scalars. For Boost Version stories, there is a tendency for higher ratings (higher likelihood of not inducing the upper-bound implicature) while Threat Version stories show no consistent overall effect. The mean and standard deviation for 'Boost' and 'Threat' are 3.53 (SD 1.1) and 2.93 (SD = 1.3), respectively.

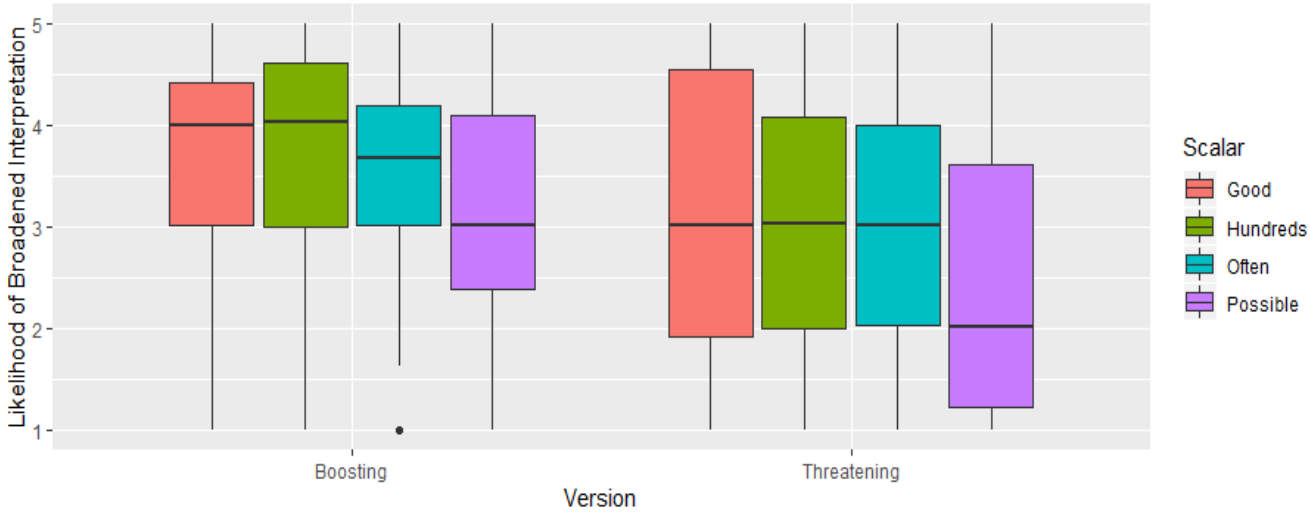

Figure 2- Boxplot showing the overall effect of Version averaged across all 4 scalars.

The second issue that we test, is whether the scalar terms that we use in our experiment behave alike when embedded in face-boosting vs. face-threatening contexts irrespective of the effects of story Version. To examine this question, we run pairwise comparisons based on the ordinal mixed-effects model (significance level is set to .05, p-values adjusted via Tukey method). The test shows that pairwise comparisons are statistically significant and as a result there is variation among the terms.

Scalar	Version	Estimate	Est Error	Lower CL	Upper CL
Always	Boosting	3.63	0.134	3.36	3.89
Good	Boosting	3.68	0.137	3.41	3.96
Possible	Boosting	3.19	0.137	2.91	3.46
Thousands	Boosting	3.73	0.141	3.44	4.01
Always	Threatening	3.02	0.134	2.75	3.29
Good	Threatening	3.08	0.137	2.80	3.36
Possible	Threatening	2.58	0.137	2.31	2.86
Thousands	Threatening	3.13	0.141	2.84	3.41

Table 4 - Summary of multiple comparisons of scalar terms based on least-squared means from the mixed effects model

7. Summary and discussion

The main idea underlying this experiment was to understand whether face-threatening contexts in the Greek language are one type of contexts in which scalar implicatures are not warranted, as claimed by previous studies in other languages (Bonnefon et al. date). We investigate the following research questions: "Is the interpretation of scalar terms in Greek affected by the face-orientation of the context?" and "How are scalar terms in Greek interpreted when they are found in a face-boosting vs. face-threatening context?". The importance of this research is the expansion of the range of languages and scalar terms, because the results of previous studies, are only based on two languages (English and French) and a limited number of scalar terms. Moreover, in this study, we explore further Terkourafi, et al.'s (2020) results on the interpretation of scalar implicatures, as well as the significant deviation between their results' and Bonnefon and colleagues' conclusions.

Terkourafi et al.'s (2020) results did not confirm the findings of previous studies (Bonnefon et al.2009, Feeney & Bonnefon 2012) regarding the generation of scalar inferences in face-boosting vs face-threatening contexts. Rather, they found that when they construed face-threat vs. boost as a matter of context rather than lexical semantics there was no significant effect of face-orientation on the derivation of the implicature. Moreover, they found that some scalar terms (*some, or*) tend to always induce the implicature (in both face-boosting and face-threatening contexts) while others induce the implicature a lot less, again in both contexts. This finding confirms previous research on scalar diversity (Van Tiel et al. 2016).

Following the methodology in Terkourafi et al.'s study, we conducted a parallel experiment to investigate how scalar terms in Greek are interpreted in face boosting and face-threatening contexts. We tested four different scalars in both orientations using data from Modern Greek, and applied a linear mixed-effects regression model to interpret the quantitative results. The content of the stories was designed such

that the weaker (less informative) term is evaluated in two different orientations. Our findings indicate that for face-boosting contents, high ratings are more likely.

It should be noted that in Bonnefon et al. (2009), face-boosting contexts are sentence contexts in which a positively valenced term (eg *loved*) is used, while face-threatening contexts are those in which a negatively valenced term is used (eg *hated*). This does not do justice to the more abstract content of "face" in Brown and Levinson's model.

Consequently, the different determination of 'face-boosting' and 'face-threatening' between Bonnefon et al. (2009), and Terkourafi (et al. 2020) is one possible reason for the discrepancy between the former's results and ours. In short, it is possible that their results have more to do with how scalar terms are interpreted in the scope of positively valenced and negatively valenced predicates rather than in face-boosting vs. face-threatening contexts.

In our study we used the definition of face-boosting and face-threatening contexts from Terkourafi et al. (2020), where the face orientation is deduced by participants based on the content of the story and not any particular term used. Following a similar method to identify face orientation from the situational context in Greek, in our norming study we asked the question "How likely is it that S will say something nice to H?" in order to confirm how the participants themselves perceived the face orientation of the contexts. This question is based on the understanding of face proposed by Terkourafi (2007), which takes into consideration the impact that "face" has on the hearer's emotions. Using the question in the norming "How likely is it that S will say something nice to H?" seeks to determine the affective impact of each utterance on the hearer as a way of establishing the face-orientation of the context.

The second issue that we test is whether the scalar terms that we use in our experiment behave alike when embedded in face-boosting vs. face-threatening contexts irrespective of the effects of story Version. To examine this question, we run pairwise comparisons based on the ordinal mixed-effects model (significance level is set to .05, p-values adjusted via Tukey method). The test shows that pairwise comparisons are statistically significant and as a result there is variation among the terms.

These results align with Terkourafi et al.'s (2020) findings from English. In their experiment, in which different scalar terms were tested, they find significant variability across terms in their interpretations irrespective of Version. Based on these findings, they conclude that not all scalar terms are equally sensitive to the effects of face orientation, and argue that "scalar diversity" (Van Tiel et al. 2016) exists between the terms tested.

8. Post-hoc analysis

A relevant point can be made with regards to the gender of the participants in relation to the gender of the characters portrayed in the stories used. Given many of them are male and that differences have been reported between men and women's use of politeness strategies, it is not clear how the gender of the portrayed characters affected participant judgements. The participants' own gender may have also played a part here. While the general consensus is that Greek is a positive politeness-oriented culture, not enough is known about differences between men and women in their use of face-boosting vs. face-threatening strategies. This prompted us to look more closely into participants reactions to different scenarios according to their gender.

An additional analysis of responses by gender was conducted to investigate this and the results are presented below. This sub-analysis is done to investigate whether there are differences in judgment by men and women for the individual scenarios that may not have been allowed to emerge in the main analysis. The model outcome for both sub-samples supports the significant effect of version while evidence on the impact of scalar terms is scarce. On the basis of these results, we can say that the participant's gender did not affect their judgement of the stimuli.

Variable	Estimate	Est Error	Significance [Pr(>|t|)]
Version Threat	-0.65	0.1	Significant ***
Scalar Hundreds	0.03	0.2	no significant
Scalar Often	-0.12	0.2	no significant
Scalar Possible	-0.54	0.3	no significant
* 0, ** 0.001, *** 0.01			

Table 2 - Gender: Men - Summary of version and scalar term based on the linear mix effects model

Variable	Estimate	Est Error	Significance [Pr(>|t|)]
Version Threat	-0.56	0.1	Significant ***
Scalar Hundreds	0.03	0.2	no significant
Scalar Often	0.06	0.2	no significant
Scalar Possible	-0.4	0.2	no significant
* 0, ** 0.001, *** 0.01			

Table 3 - Gender: Women - Summary of version and scalar term based on the linear mix effects model

This preliminary investigation did not reveal any significant differences in judgement however, without better understanding of how participants' gender may have affected their judgements (ie without clear predictions in this regard), it is hard to know how these differences may have had any impact on our results.

9. Implications and limitations of the study

This section discusses limitations of this study, as well as questions for future research and possible improvements in terms of theory development.

A first limitation of this study concerns the size and composition of the sample. While we generate new and useful conclusions and try to gain in-depth insight into the interpretation of scalar implicatures from the Greek speakers, our sample of

native speakers is based only on particular regions of Greece (Thessaloniki, Volos, Athens) leading to possible bias in comprehension. A larger and more diverse sample including speakers of dialects from different regions may yield somewhat different results.

Another aspect of the present study that deserves some further comment is the fact that although our results align with Terkourafi's and previous scalar implicature studies, the terms that were tested weren't the same. An important difference from previous studies (Bonnefon et al., Van Tiel et al. 2016, Terkourafi et al. 2020) is that we did not test Greek equivalents of the quantifier 'some', the most frequently tested term in studies of scalar implicature. In Terkourafi et al.'s (2000) results from English, 'some' was found to be the term that most consistently induced scalar implicatures irrespective of the face-boosting or face-threatening orientation of the context. Since we were interested in observing the impact of the context's face-orientation on the interpretation of scalar terms, we believe such deviation to be appropriate in the present experiment, even though this could have a potential impact in our results.

There are several issues raised by this work on scalar implicatures. The main goal is to examine the interpretation of Greek scalar terms when they are found in face-boosting and face-threatening environments, in light of contradicting results by previous studies on English. An important investigation for future research would be to test a larger set of scalar terms, and examine in a more detailed way the interpretations of the conversational inferences when they are found in face-threatening or face-boosting orientations.

There is still considerable room to expand scalar implicatures' investigation, regarding their relation with 'politeness,' such as by focusing on different cultures, environments, and diverse ages and genders. Besides, the variability across scalar terms has to be further examined. Concluding, we would like to note that the possibility of comparing the interpretation of scalar implicatures in the Greek language with other languages and of taking into consideration the culture might lead to new and exciting paths of investigation. More research will be necessary to improve and further elaborate on these findings.

10. Appendix

The R code used for the statistical analysis is stated below:

```
library(ordinal)
library(lsmeans)
library(lmerTest)
library(ggplot2)

Sys.setlocale(category = "LC_ALL", locale = "Greek") #adjust the encoding to properly read the Greek aplhabet
Data_mainStudy <- read.csv("C:/Users/User/Desktop/Stef Thesis/Main/Data_final_adjusted.csv") #load the data
head(Data_mainStudy)
Data_mainStudy$ORating = as.ordered((Data_mainStudy$Rating))#creates rating column to be treated ordinally

Data_Women <- subset(Data_mainStudy,Gender == 'Κορίτσι') #dataset for women
Data_Women$ORating = as.ordered((Data_Women$Rating))

Data_Men <- subset(Data_mainStudy,Gender == 'Αγόρι') #dataset for men
Data_Men$ORating = as.ordered((Data_Men$Rating))

Model = lmer(Rating ~ Version + Scalar + (1|ID)+ (1|Story), data=Data_mainStudy, REML = TRUE)
Model_Men = lmer(Rating ~ Version + Scalar + (1|ID)+ (1|Story), data=Data_Men, REML = TRUE)
Model_Women = lmer(Rating ~ Version + Scalar + (1|ID)+ (1|Story), data=Data_Women, REML = TRUE)

lsm = lsmeans(Model,pairwise ~ Scalar*Version)
lsm_Men = lsmeans(Model_Men,pairwise ~ Scalar*Version)
lsm_Women = lsmeans(Model_Women,pairwise ~ Scalar*Version)

contrasts <- lsm$contrasts
contrasts_Men <- lsm_Men$contrasts
contrasts_Women <- lsm_Women$contrasts

ggplot(Data_mainStudy) + geom_boxplot(aes(x = Version, fill = Scalar , y = Rating)) +
      scale_y_continuous(name = "Likelihood of Broadened Interpretation")
dataMedian <- summarise(group_by(dataInput, key), MD = median(value))
```

Main study stimuli - 4 Scalar Terms

<Συχνά, Πάντα>

1. **Face boosting:** Ο Γιάννης μετακόμισε πρόσφατα σε μία καινούργια πόλη για τη δουλειά του. Δεν έχει ακόμα φίλους στην περιοχή αλλά οι συνάδελφοί του είναι πολύ φιλικοί. Ο Γιάννης ρώτησε έναν από τους συναδέλφους του, τον Γιώργο, τι θα κάνει το Σάββατο που έρχεται. Ο Γιώργος απάντησε: «Συχνά πάμε για μπύρες με τα παιδιά το Σάββατο.»

   Face threatening: Ο Γιάννης μετακόμισε πρόσφατα σε μια καινούργια πόλη για τη δουλειά του. Δεν έχει ακόμα φίλους στην περιοχή αλλά προσπαθεί να είναι φιλικός με τους καινούργιους του συναδέλφους. Δυστυχώς όμως εκείνοι και ιδιαίτερα ο Γιώργος, βρίσκουν το Γιάννη ενοχλητικό και δε διστάζουν να του το δείχνουν. Ο Γιάννης ρωτάει τον Γιώργο τι θα κάνει το Σάββατο που έρχεται. Ο Γιώργος απαντάει: «Συχνά πάμε για μπύρες με τα παιδιά το Σάββατο.»

2. **Face boosting**: Ο Θωμάς ευχαριστεί την ψυχολόγο του στο τέλος των συνεδριών. Αισθάνεται πολύ καλύτερα τελευταία και πιστεύει ότι η

θεραπεία πηγαίνει πολύ καλά. Η ψυχολόγος που βλέπει την βελτίωση και το έχει διαισθανθεί, τον ρωτά πώς βρίσκει τη συνεργασία τους. Εκείνος απαντά: «Οι συμβουλές σας είναι συχνά χρήσιμες.»

Face threatening: Ο Θωμάς σκέφτεται να σταματήσει να πηγαίνει στην ψυχολόγο του γιατί αισθάνεται ότι δεν επικοινωνούν σε προσωπικό επίπεδο, και αυτό επηρεάζει την ικανότητα του να προοδεύσει. Η ψυχολόγος που το έχει διαισθανθεί, τον ρωτά πώς βλέπει τη συνεργασία τους. Εκείνος απαντά: «Οι συμβουλές σας είναι συχνά χρήσιμες.»

3. **Face boosting:** Ο Γιαννάκης μάλωσε με έναν συμμαθητή του στο σχολείο και η δασκάλα κάλεσε τους γονείς των παιδιών στο γραφείο για να συζητήσουν αυτό που έγινε. Η δασκάλα που συμπαθεί πολύ τον Γιαννάκη γιατί είναι πολύ ήσυχος και ξέρει ότι δεν προκάλεσε αυτός τον καυγά, λέει στον πατέρα του Γιαννάκη «Η συμπεριφορά του είναι συχνά υπόδειγμα ηθικής.»

   Face threatening: Ο Γιαννάκης μάλωσε με έναν συμμαθητή του στο σχολείο, και η δασκάλα κάλεσε τους γονείς των παιδιών στο γραφείο για να συζητήσουν αυτό που έγινε. Η δασκάλα που ξέρει πόσο ζωηρός είναι ο Γιαννάκης και ότι συνέχεια προκαλεί καυγάδες, λέει με αυστηρό ύφος στον πατέρα του Γιαννάκη: «Η συμπεριφορά του είναι συχνά υπόδειγμα ηθικής.»

4. **Face boosting:** Ο Μάριος είναι υψηλό στέλεχος σε μία πολύ γνωστή τράπεζα. Πριν λίγο καιρό προσέλαβε το Νίκο να δουλέψει στην ρευστότητα κινδύνου και ανέθεσε την εκπαίδευσή του στον Κώστα. Ο Κώστας είναι πολύ φιλικός και ο Νίκος αισθάνεται πως πραγματικά θέλει να τον βοηθήσει. Ο Κώστας επισημαίνει στο Νίκο : «Ο Μάριος συχνά ελέγχει αν οι εργαζόμενοι τηρούν τις προθεσμίες.»

   Face threatening: Ο Μάριος είναι υψηλό στέλεχος σε μία πολύ γνωστή τράπεζα. Πριν λίγο καιρό προσέλαβε το Νίκο να δουλέψει στη ρευστότητα κινδύνου και ανέθεσε την εκπαίδευσή του στον Κώστα. Ο Κώστας είναι πολύ αγχωμένος για τη δική του θέση και δεν είναι πολύ φιλικός με το Νίκο. Ο Κώστας επισημαίνει στο Νίκο: «Ο Μάριος συχνά ελέγχει αν οι εργαζόμενοι τηρούν τις προθεσμίες.»

<Δύσκολο, αδύνατο>

1. Face boosting: Ο Νίκος και η Μαρία βγήκανε ραντεβού την προηγούμενη εβδομάδα και πέρασαν και οι δύο πολύ καλά. Ο Νίκος ενθουσιασμένος ρωτάει τη Μαρία αν θέλει να ξαναβγούν το Σάββατο και αυτή απαντάει: «Αυτό το Σάββατο είναι δύσκολο.»

Face threatening: Ο Νίκος και η Μαρία βγήκαν ραντεβού την προηγούμενη εβδομάδα αλλά δεν πέρασαν πολύ καλά γιατί ο Νίκος ήταν εκδηλωτικός σε βαθμό που ενόχλησε τη Μαρία. Παρόλα αυτά ο Νίκος της ζήτησε να ξαναβγούνε αυτό το Σάββατο. Η Μαρία φανερά ενοχλημένη απαντά: «Αυτό το Σάββατο είναι δύσκολο.»

2. **Face boosting:** Η Ελένη ετοιμάζεται να δώσει Πανελλήνιες του χρόνου, και η πρώτη της επιλογή είναι μία σχολή με πολύ ψηλή βάση. Η επίδοσή της στα μαθήματα κατεύθυνσης είναι μέτρια, αλλά είναι πολύ νωρίς για να κριθεί κάτι. Όταν η Ελένη ρώτησε την αγαπημένη της καθηγήτρια αν θα τα καταφέρει, εκείνη απάντησε: «Προς το παρόν μου φαίνεται δύσκολο.»

   Face threatening: Η Ελένη ετοιμάζεται να δώσει Πανελλήνιες του χρόνου, και η πρώτη της επιλογή είναι μια σχολή με πολύ ψηλή βάση. Η επίδοσή της στα μαθήματα κατεύθυνσης είναι μέτρια, αλλά είναι πολύ νωρίς για να κριθεί κάτι. Αποφασίζει να ρωτήσει την διευθύντρια του σχολείου, που φημίζεται για την αυστηρότητά της, τη γνώμη της για το αν θα τα καταφέρει στις εξετάσεις. Εκείνη σουφρώνει τα φρύδια και απαντά: «Προς το παρόν μου φαίνεται δύσκολο.»

3. **Face boosting**: Ένας δημοσιογράφος του Ιδρύματος Wikimedia σκέφτεται να δημιουργήσει ένα ελληνικό site, το Βικινέα, αντίστοιχο του Wikimedia. Ρωτά έναν συνάδελφο και φίλο του, με τον οποίο έχει πολύ καλή σχέση, πώς του φαίνεται αυτή η ιδέα, κι εκείνος απαντά: «Είναι ένα δύσκολο εγχείρημα.»

   Face threatening: Ένας δημοσιογράφος του Ιδρύματος Wikimedia σκέφτεται να δημιουργήσει ένα ελληνικό site, το Βικινέα, αντίστοιχο του Wikimedia. Ρωτά τον διευθυντή του, που θεωρεί πως ο συγκεκριμένος δημοσιογράφος ψάχνει πάντα τρόπους να αποφύγει τη δουλειά, πώς του φαίνεται η ιδέα κι εκείνος απαντά με δυσαρέσκεια: «Είναι ένα δύσκολο εγχείρημα.»

4. **Face boosting:** Ένας νέος ζωγράφος κάνει την πρώτη του προσωπική έκθεση σε γκαλερί και καλεί διάφορους συγγενείς του που δεν έχουν σχέση με την ζωγραφική. Όταν ρωτάει την αδελφή του, που πάντα τον στήριζε στις προσπάθειές του του αν η δουλειά του θα αρέσει στον κόσμο, εκείνη απαντάει: «Είναι δύσκολο να προσδιοριστεί αντικειμενικά το γούστο στη ζωγραφική.»

   Face threatening: Ένας νέος ζωγράφος κάνει την πρώτη του προσωπική έκθεση σε γκαλερί και βλέπει ανάμεσα στους επισκέπτες έναν σπουδαίο κριτικό τέχνης που φημίζεται για τις δυσμενείς κριτικές του. Όταν τον πλησιάζει και τον ρωτάει αν η δουλειά του θα αρέσει στον κόσμο, εκείνος

απαντάει: «Είναι δύσκολο να προσδιοριστεί αντικειμενικά το γούστο στη ζωγραφική.»

<Καλό, Άριστο>

1. **Face boosting:** Στο σχολείο της Μαρίας έχουν δύο φορές το χρόνο αξιολόγηση από έναν αξιολογητή που επισκέπτεται τα μαθήματα των καθηγητών. Φέτος η Μαρία τα πήγε ιδιαιτέρως καλά, και ο αξιολογητής έγραψε στην αξιολόγησή της: «Είχε προετοιμαστεί καλά.»

   Face threatening: Στο σχολείο της Μαρίας έχουν δύο φορές το χρόνο αξιολόγηση από έναν αξιολογητή που επισκέπτεται τα μαθήματα των καθηγητών. Ο φετινός αξιολογητής θεωρείται από τους πιο αυστηρούς της δευτεροβάθμιας και η Μαρία δεν μπορούσε να συγκεντρωθεί στην δουλειά της, με αποτέλεσμα και η αποδοτικότητά της να είναι μέτρια. Ο αξιολογητής έγραψε στην αξιολόγησή της: «Είχε προετοιμαστεί καλά.»

2. **Face boosting:** Μία τοπική ομάδα ποδοσφαίρου είχε αγώνα που κέρδισε με μεγάλη διαφορά. Στο τέλος του παιχνιδιού ο προπονητής τους, χαμογελώντας λέει στον αρχηγό: «Η ομάδα είχε καλή ατομική απόδοση.»

   Face threatening: Μία τοπική ομάδα ποδοσφαίρου είχε αγώνα στον οποίο έχασε από μία πιο αδύναμη ομάδα. Στο τέλος του παιχνιδιού ο προπονητής τους δυσαρεστημένος λέει στον αρχηγό: «Η ομάδα είχε καλή ατομική απόδοση.»

3. **Face boosting:** Ο Στέφανος έχει το πρώτο του μάθημα κιθάρας με την καινούργια του καθηγήτρια. Ο Στέφανος παίζει ένα κομμάτι στην κιθάρα και η καθηγήτρια παίρνει μία ιδέα των δυνατοτήτων του. Η καθηγήτρια που πάντα προσπαθεί να ενθαρρύνει τους καινούργιους μαθητές λέει στον Στέφανο: «Έχεις καλή αίσθηση του ρυθμού.»

   Face threatening: Ο Στέφανος παίζει κιθάρα σε έναν διαγωνισμό με αυστηρούς κριτές. Αφού τελειώσει το κομμάτι του, ο πρώτος κριτής μένει σιωπηλός για λίγο και μετά ψιθυρίζει: «Έχεις καλή αίσθηση του ρυθμού.»

4. **Face boosting:** Ο Γιώργος αποφάσισε να αρχίσει προπόνηση για να κατέβει σε αγώνες με μοτοσυκλέτες. Ο πρώτος χρόνος που έκανε ήταν 1’32. Ο προπονητής του που πάντα πίστευε σ’ αυτόν και τον παρακίνησε να κατέβει στους αγώνες, ενθουσιασμένος του λέει: «Είναι καλό αποτέλεσμα για πρώτη φορά.

   Face threatening: Ο Γιώργος αποφάσισε να αρχίσει προπόνηση για να κατέβει σε αγώνες με μοτοσυκλέτες. Στην πρώτη προπόνηση που έκανε ήταν σχετικά αργός και ο χρόνος του ήταν 2’15. Ο προπονητής του που του είχε

πει να μην κατέβει φέτος στους αγώνες επειδή στους περσινούς δεν είχε πάρει καλή θέση, απογοητευμένος του λέει: «Είναι ένα καλό αποτέλεσμα για πρώτη φορά.»

<Εκατοντάδες, Χιλιάδες>

1. **Face boosting:** Η κυρία Παπαδοπούλου που μόλις έγινε καθηγήτρια α΄ βαθμίδας, διοργάνωσε για πρώτη φορά ένα διεθνές συνέδριο στην Αθήνα. Ένας συνάδελφός της ,που ήταν και ένα από τα μέλη της επιτροπής που την είχε ψηφίσει για την εξέλιξή της σε καθηγήτρια α' βαθμίδας, ο οποίος πάντα πηγαίνει σε ομιλίες της και της κάνει καλές κριτικές, μετά το τέλος του συνεδρίου της λέει: «Ήρθαν εκατοντάδες επιστήμονες.»

   Face threatening: Η κυρία Παπαδοπούλου που μόλις έγινε καθηγήτρια α' βαθμίδας διοργάνωσε για πρώτη φορά ένα διεθνές συνέδριο στην Αθήνα. Πήγε πολύ καλά, αλλά ήρθε περισσότερος κόσμος από όσο περίμενε και δεν χωρούσαν στο συνεδριακό κέντρο που είχε επιλέξει με αποτέλεσμα να είναι δυσαρεστημένος ο κόσμος που είχε έρθει. Μία συνάδελφός της που ήταν υποψήφια μαζί της για την ίδια θέση, και η κυρία Παπαδοπούλου γνώριζε ότι είχε χρησιμοποιήσει αθέμιτα μέσα εναντίον της για να πάρει τη θέση της, της λέει μετά το τέλος του συνεδρίου: «Ήρθαν εκατοντάδες επιστήμονες.»

2. **Face boosting:** Ο Γιώργος είναι ιδρυτής μιας μεγάλης εταιρίας που πάει πολύ καλά τελευταία. Ο πεθερός του που του έδωσε ένα μεγάλο κεφάλαιο για να τον βοηθήσει να ξεκινήσει, και από την αρχή τον στήριζε, περήφανος του λέει: «Εκατοντάδες ξένοι ποντάρουν τεράστια ποσά στην εταιρία.»

   Face threatening: Ο Γιώργος είναι ιδρυτής μιας εταιρίας που φέτος χρεωκόπησε. Ο πρώην συνεταίρος που σταμάτησε την συνεργασία τους επειδή δεν τον άκουγε ποτέ ο Γιώργος και μάλωναν συνέχεια, άνοιξε μία δικιά του καινούργια εταιρία. Ο Γιώργος τον βρίσκει τυχαία στο δρόμο και τον ρωτάει πώς πάει η εταιρία και εκείνος υπεροπτικά του απαντάει: «Εκατοντάδες ξένοι ποντάρουν τεράστια ποσά στην εταιρία.»

3. **Face boosting:** Κάθε χρόνο γίνεται διαδήλωση για την επέτειο θανάτου του Γρηγορόπουλου. Φέτος η μητέρα του δεν μπόρεσε να παρευρεθεί και ρώτησε τον ανιψιό της αν πήγε πολύς κόσμος. Εκείνος της απάντησε : « Ήρθαν εκατοντάδες διαδηλωτές.»

Face threatening: Κάθε χρόνο γίνεται διαδήλωση για την επέτειο θανάτου του Γρηγορόπουλου. Φέτος ο υπαστυνόμος του τμήματος στο οποίο δούλευε ο άνθρωπος που είχε κάνει τη δολοφονία, ρωτάει τον αρχηγό της ομάδας των ματ που είχε κατέβει στην πορεία αν είχε πολύ κόσμο, και εκείνοι απάντησαν: «Ήρθαν εκατοντάδες διαδηλωτές. »

4. **Face boosting:** Η Μαρία έχει μία κόρη κωφή. Ήθελε να μάθει νοηματική και έτσι τηλεφώνησε σε ένα κέντρο κωφών από τα λίγα που υπάρχουν στην Ελλάδα και κάνουν μαθήματα εξ' αποστάσεως. Η Μαρία ρώτησε διστακτική την υπεύθυνη εάν πολύς κόσμος παρακολουθεί τα μαθήματα, και εκείνη λέγοντάς της ότι καταλαβαίνει την ανησυχία των γονιών, την καθησύχασε λέγοντάς της: «Υπάρχουν εκατοντάδες άνθρωποι με ειδικές ανάγκες.»

   Face threatening: Η Μαρία έχει μία κωφή κόρη. Ήθελε να μάθει νοηματική κι έτσι τηλεφώνησε σε ένα κέντρο κωφών από τα λίγα που υπάρχουν στην Ελλάδα και κάνουν μαθήματα εξ' αποστάσεως. Δεν μπόρεσε να βρει ώρες και τμήματα όμως γιατί υπήρχαν πολύ περιορισμένες επιλογές, και όσα τμήματα υπήρχαν ήταν γεμάτα. Η Μαρία ρώτησε την υπεύθυνη πόσο θα έπρεπε να περιμένει για να αδειάσει κάποια θέση. Εκείνη που δεν ήταν καθόλου φιλική σε όλη τη διάρκεια της συζήτησης, της απάντησε: «Υπάρχουν εκατοντάδες άνθρωποι με ειδικές ανάγκες. »

References

Anna Papafragou, J. M. (2003). Scalar implicatures: experiments at the semantics–pragmatics interface. Cognition, 253-282.

Bonnefon, J.-F. F. (2009). When some are actually all: Scalar inferences in face-threatening contexts. 249–258.

Breheny Richard, K. N. (2005). Are generalized scalar implicatures generated by default? An on-line investigation into the role of context in generating pragmatic inferences. Cambridge University Press.

Brown, P. and S.C. Levinson. 1987. Politeness: Some Universals in Language Usage. Cambridge: Cambridge University Press.

Carston, R. (1995). Quantity maxims and generalised implicature. UCL Working Papers in Linguistics, 213–244.

Carston, R. (1998). Informativeness, relevance, and scalar implicature.

Chierchia, G. D. (2008). The grammatical view of scalar implicatures and the relationship between semantics and pragmatics.

De Neys, W., & Schaeken, W. (2007). When people are more logical under cognitive load: Dual task impact on scalar implicature. *Experimental Psychology, 54*(2), 128–133

Grice, H. (1989). Logic and conversation.In Studies in the way of words. Cambridge, MA:Harvard University Press.

Grice, H. (1989). Studies in the Way of Words. Cambridge: Harvard University Press .

Grice, H. P. (1957). The Philosophical Review. Duke University Press .

Grice, H. P. (1975). Logic and Conversation. Syntax and Semantics, 41-58.

Horn. (1978). Remarks on Neg-Raising. In P. Cole (Ed.), Syntax and Semantics 9: Pragmatics. Academic Press, New York., pp. 129-220.

Horn, L. (1984). A new taxonomy for pragmatic inference: Q-based and R-based implicature. In Schiffrin, D. (Ed.), Meaning, Form and Use in Context (GURT '84). Washington: Georgetown University Press, pp. 11–42.

Katsos, N. B. (2005). Interaction of Structural and Contextual Constraints. During the On-line Generation of Scalar Inferences .

Levinson, S. C. (2000). Presumptive meanings: the theory of generalized conversational implicature. Journal of Linguistics.

Levinson, S. C. (2004). Presumptive meanings: the theory of generalized conversational implicature. Journal of Linguistics , 181 - 186.

Maienborn, Heusinger, K. v., & and Paul Portner, e. (2011). An International Handbook of Natural Language Meaning.

Papafragou, A. &. (2014). Cognitive Science Society. Retrieved from https://escholarship.org/uc/cognitivesciencesociety.

Papafragou, A. (n.d.). Scalar implicatures in language acquisition Some evidence from Modern Greek. University of Chicago Press.

Pavlidou, T. (1991). Cooperation and the choice of linguistic means: Some evidence from the use of the subjunctive in Modern Greek. Journal of Pragmatics, 11-42.

Posada, I. A. (2003). Characterizing the time course of an implicature: An evoked potentials study. Brain & Language.

Robyn Carston, S. U. (n.d.). Relevance Theory: Applications and implications.

Sifianou, M. &. (2005). Politeness in Greece: The politeness of involvement. Politeness in Europe. 263-276.

Sifianou, M. &. (2005). Sifianou, Maria & AntonoPoliteness in Greece: The politeness of involvement. Politeness in Europe. 263-276.). Politeness in Europe, 263-276.

Sifianou, M. (1992). The use of diminutives in expressing politeness: Modern Greek versus English. Journal of Pragmatics, 155-173.

Sperber, D. &. (n.d.). Relevance: Communication and cognition.

Terkourafi, M. (2007). Toward a universal notion of face for a universal notion of cooperation. In Kecskes, Istvan and Laurence Horn (eds.), Explorations in Pragmatics: Linguistic, Cognitive and Intercultural Aspects, 313-344. Berlin: Mouton de Gruyter.

Terkourafi, M., Weissman, B., Royb, J. (2020). Different scalar terms are affected by face differently. International Review of Pragmatics 12.1.

Van Tiel, B., Van Miltenburg, E., Zevakhina, N., & Geurts, B. (2016).Scalar Diversity. Journal of semantics, 33(1), 137-175.