

**THE INFLUENCE OF AUDIO-VISUAL CUES ON THE
PERCEPTION OF BRITISH-ENGLISH IRONY**

By

Laura Schotte

6521207

BA Thesis Language and Culture, Utrecht University

Supervisor: Stella Gryllia

Second Reader: Roselinde Supheert

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I. ABSTRACT

A knowledge gap between being proficient in a second language (L2) and understanding humour in the second language is apparent in the field of linguistics. The Dutch adult population is considered proficient in English as an L2, however the question remains if they also understand expressions of humorous intent. Irony is considered a form of humour and is widely used by native British-English speakers. 42 L1 speakers of British-English and 52 Dutch L2 speakers of English have participated in the study of evaluating fifteen audio-visual contexts on an irony scale while being presented with varying combinations of verbal, prosodic and visual cues. The method applied is of a quantitative nature with the British comedian, James Acaster, as the performer of irony. Results indicate that Dutch L2 speakers' proficiency includes the understanding of irony for humorous intent in an audio-visual context. The understanding is however lower than that of L1 speakers with a statistically significant effect of language.

Keywords: humour, irony, second language proficiency, audio-visual cues, British-English



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1. INTRODUCTION

Linguistics as the scientific study of languages ranges from language form, to meaning, to context. It is not limited to the study of just one language and its forms, meanings, and contexts, but can also be studied for similarities, differences, and combinations between languages. The researcher's current environment of the Netherlands facilitates such studies between languages greatly. The Dutch adult population is considered highly proficient in the English language (Education First, 2012). Proficiency is considered to have the ability to communicate and understand a language precisely (Sekhar Rao, 2016). The terms 'communicate', 'understand', and 'precisely' indicate a certain vagueness of the definition of proficiency, or a broadness at the very least. The researcher is also of the opinion that the aforementioned definition may even provide limitations to proficiency. 'Understand' poses the largest limitation in the eyes of the researcher as it is not defined *what* one must understand in the context of language. Should a second language learner merely understand with the goal of communication or is there more? The researcher's bilingual background leads to the assumption that in addition to communication, understanding also has the goal of understanding culture, differences and similarities, and humour. Understanding will then lead to appreciation. It appears that even proficient language users of a second language (L2) need to cross the point of linguistic, pragmatic, and sociocultural knowledge in order to understand and thus appreciate humorous intent in their L2 (Chen & Dewaele, 2018). The researcher aims to analyse this understanding of humour in an L2 in her Dutch and British-English environment.



2. THEORETICAL FRAMEWORK

Verbal humour can be expressed in numerous different forms, namely; jokes, conversational humour, lexemes and phrasemes, retorts, teasing, banter, putdowns, self-denigrating humour, anecdotes, and witticisms. A category within the latter form, witticisms, are stylistic figures. This category can again be sub-categorised, one of which being *irony* (Dynel, 2009). Irony can be defined as saying the opposite of what you actually mean (Wilson, 2013). However, irony is often confused with sarcasm; where all sarcasm is irony, not all irony is sarcasm. As previously defined, irony is saying the opposite of what you mean, sarcasm is using irony but adding a form of mockery (or attitude in more accessible speak) (Warner, sd). Sarcasm is often perceived as mean, directed towards a specific person. Irony on the other hand can often be directed at a certain situation and less at people and is accompanied by humour (Perlman, 2014). Frequent users of irony (for humorous intent) are the British (Tan, 2013).

English is considered the world language and thus, many non-British native speakers are exposed to the language in all its forms through multiple media. For many Europeans, English is their second language (L2) with the Dutch adult population taking third place (Proficiency Index = 66.32) in the EF English Proficiency Index ranked across 54 countries around the globe (Education First, 2012). The English Proficiency Index was set up with the intent to measure whether the increased efforts of English language learning as an L2 paid off in the economic growth of non-native English speaking countries (Education First, 2012). Where the measured economic growth is irrelevant to the present study, the ranking of the five million adults on their English proficiency is. However, being proficient in English does not correlate with understanding irony in the L2. Research claims that the effort put into the understanding of irony in an L2 is significantly higher than that in one's native language (L1) (Rataj & Bromberek-Dyzman, 2016). Where the aforementioned study compared the understanding of irony in the L1 and the L2 of one native speaking language group (Polish), the present study aims to research the understanding of irony by a comparison of different native speaking language groups; native British-English speakers (L1) and Dutch with English as their L2.

Research claims that audio-visual contexts assist more advanced language learners in the understanding of irony as there are more stimuli present to indicate irony (Togame, 2016). However, other research claims that a written context provides more assistance in the understanding of irony than an audio-visual context as the processing of the numerous extra stimuli can be too taxing on the receiver (Shivley, Menke, & Manzon-Omundson, 2008). For the present research an audio-visual context will be opted for as opposed to a written context as the focus of the researcher is on the perception of *British-English* irony which would be less significant if only perceived on paper and thus may well be interpreted as American-English for instance. In addition, research supporting Togame's claims of an audio-visual context states that the use of



prosodic cues is heavily relied on by receivers whom have limitations (i.e. understanding an L2 as opposed to an L1) (Bryant & Fox Tree, 2002). The definition of prosodic cues will be elaborated on in the following paragraph.

Within an audio-visual context, numerous cues can be determined with which irony is portrayed. Verbal cues consist of lexical marking (exaggerated adverbs and adjectives), morphological marking (reduction), syntactic marking (dislocation of components), discursive marking (code-switching), direct speech, and discourse markers (Fuente, 2015). However, context is considered the most important verbal cue in recognising irony. It sets the receiver up with a specific expectation which is then contradicted by the irony (Scholten, Engelen, & Hendriks, 2015). The researcher's native proficiency with the British-English language will be employed to interpret the irony of the audio-visuals.

Non-verbal cues consist of prosodic cues (pitch, intensity and duration), facial expressions, gestures, gaze, and (responsive) laughter (Fuente, 2015). Within the prosodic cues *pitch* can be analysed according to its level or range. It appears that an increased pitch level and pitch range expansion are indicators of sarcastic speak (Loevenbruck, Janne, d'Imperio, Spini, & Champagne-Lavau, 2013). As the close relationship between sarcasm and irony has been previously established in the beginning of this chapter the researcher opts to analyse the pitch in the present study in a similar manner, but does not necessarily expect the same results. The second prosodic cue of *intensity* (loudness) is considered an influential factor on speech rate (speed) (Feldstein & Bond, 1981). Research has discovered that a slowed speech rate is perceived in an ironic tone of voice (Bryant & Fox Tree, 2002). *Duration* is considered the third prosodic cue and is lengthened when speaking sarcastically (Loevenbruck, Janne, d'Imperio, Spini, & Champagne-Lavau, 2013). As with the first prosodic cue, the remaining two cues have all mainly been analysed in relation to sarcasm. The present research will address the differentiation if results vary.

The most characteristic *facial expression* employed when expressing irony is the so-called 'blank face' where the individual being ironic has little to no facial expression at all. *Gaze* is often deviated when portraying irony and (responsive) *laughter* is used to indicate both the presence and the understanding of irony. The addition of *gestures* to verbal irony is yet to be researched in a quantitative manner and thus, little can be said on this specific cue (Fuente, 2015).

As of yet there has been little academic attention devoted to the contribution of prosodic and visual cues to the understanding of verbal irony (Fuente, 2015). The present study aims to contribute to this sparsely researched area of linguistics. The reasons behind a potential lower understanding of irony in an L2 can be cultural variation or lack of knowledge on the target culture (Togame, 2016). Due to constraints in time and resources, the cultural reasons behind a potential lower understanding of irony will not be discussed in the present study.



3. RESEARCH FRAMEWORK

On the basis of the above academic discussion the following research question has been determined;

Can the adult Dutch population with English as a second language identify British-English irony in an audio-visual context when unconsciously being presented with varying combinations of verbal, prosodic and visual cues?

This research question will be answered with the help of quantitative research.



4. METHODOLOGY

The aforementioned research question was answered with the help of a specific methodology. The audio-visual British irony was portrayed by the British comedian, James Acaster. Numerous of his available stand-ups, shows and conversations on YouTube were analysed for verbal, prosodic and visual cues of irony. As the availability of Acaster's performances is high, the corpus for analysis was around fifteen videos of ± 15 minutes each. Ten ironic segments and five non-ironic segments were prepared for further analysis by downloading the videos with an [online video converter](#) and edited to only contain the applicable segment with an [online video cutter](#) (*Appendix 9.1.*). The five non-ironic segments were selected to function as a control for the understanding of irony and to maintain a level of attention with the respondents.

4.1. AUDIO-VISUAL STIMULI

As determined in the theoretical framework, an audio-visual context provides both verbal and non-verbal cues. The latter group can also be split into audio and visual cues. The analysis of these stimuli is presented here.

4.1.1. VERBAL CUES

All selected segments were annotated by the researcher and marked for the structure of Acaster's phrasing; all ironic segments contained both context and an ironic statement or vice versa and all non-ironic segments contained both context and a joke or vice versa (*Appendix 9.2.*) The interpretation was handled by the researcher's native British-English proficiency in deeming a video ironic or not.

4.1.2. AUDIO CUES

The duration of each segment was firstly noted and was followed by a frequency analysis of the (responsive) laughter included in each segment (*Table 1* and *Table 2*). All videos were then converted into audio files with an [online audio converter](#) and uploaded into the programme PRAAT where analysis on pitch range was conducted (*Table 1* and *Table 2*). The minimum and maximum pitch of the ironic statement or joke, excluding the context, were taken and determined as the pitch range. Speech rate was then calculated (*Table 1* and *Table 2*) with the following formula:

$$\text{Speech rate} = \frac{\text{duration in seconds}}{\text{syllables}}$$



4.1.2.1. IRONIC

Video no.	Duration	Pitch range		Speech rate	Responsive laughter	
		Range Hz				
Video 1	0.06	173,7 – 354,7	181,0	0,203	Freq.	0
Video 2	0.21	56,5 – 328,6	272,1	0,359	Freq.	1
Video 4	0.15	75,4 – 373,3	297,9	0,191	Freq.	1
Video 5	0.10	75,8 – 178,1	102,3	0,156	Freq.	1
Video 7	0.23	51,5 – 378,8	327,3	0,211	Freq.	0
Video 9	0.19	59,3 – 448,5	389,2	0,208	Freq.	1
Video 10	0.30	83,7 – 262,9	179,2	0,155	Freq.	0
Video 11	0.07	96,4 – 262,2	165,8	0,268	Freq.	0
Video 13	0.06	98,1 – 403,9	305,8	0,133	Freq.	0
Video 15	0.12	63,2 – 328,1	264,9	0,161	Freq.	0
Mean	0.15	83,6 – 331,9	248,55	0,205		0,4

Table 1: Ironic audio cues

4.1.2.2. NON-IRONIC

Video no.	Duration	Pitch range		Speech rate	Responsive laughter	
		Range Hz				
Video 3	0.07	111,0 – 304,4	193,4	0,446	Freq.	1
Video 6	0.12	139,2 – 220,2	81,0	0,386	Freq.	0
Video 8	0.11	60,2 – 376,5	316,3	0,182	Freq.	1
Video 12	0.14	58,8 – 446,9	388,1	0,209	Freq.	1
Video 14	0.13	63,3 – 210,7	147,4	0,208	Freq.	2
Mean	0.11	86,5 - 311,7	225,24	0,290		1

Table 2: Non-ironic audio cues

4.1.3. VISUAL CUES

All visual cues given by Acaaster during the ironic statement or joke were noted with the help of a frequency analysis (Table 3 and Table 4).

4.1.3.1. IRONIC

Video no.	Facial Expressions								Gestures		Total
	Gaze movement		Eyebrow movement		Mouth twitch		Blank face		Hand gesture		
Video 1	Freq.	0	Freq.	2	Freq.	0	Freq.	1	Freq.	1	4
Video 2	Freq.	0	Freq.	0	Freq.	0	Freq.	1	Freq.	0	1
Video 4	Freq.	1	Freq.	1	Freq.	0	Freq.	1	Freq.	0	3
Video 5	Freq.	0	Freq.	0	Freq.	1	Freq.	0	Freq.	0	1
Video 7	Freq.	0	Freq.	4	Freq.	0	Freq.	0	Freq.	2	6
Video 9	Freq.	0	Freq.	2	Freq.	0	Freq.	1	Freq.	3	6
Video 10	Freq.	1	Freq.	1	Freq.	0	Freq.	1	Freq.	0	3
Video 11	Freq.	0	Freq.	0	Freq.	0	Freq.	0	Freq.	0	0
Video 13	Freq.	0	Freq.	0	Freq.	0	Freq.	0	Freq.	2	2
Video 15	Freq.	0	Freq.	1	Freq.	0	Freq.	0	Freq.	3	4
Total		2		11		1		5		11	

Table 3: Ironic visual cues



4.1.3.2. NON-IRONIC

Video no.	Facial Expressions								Gestures		Total
	Gaze movement		Eyebrow movement		Mouth twitch		Blank face		Hand gesture		
Video 3	Freq.	0	Freq.	2	Freq.	0	Freq.	0	Freq.	3	5
Video 6	Freq.	0	Freq.	2	Freq.	2	Freq.	0	Freq.	0	4
Video 8	Freq.	1	Freq.	2	Freq.	0	Freq.	0	Freq.	4	7
Video 12	Freq.	0	Freq.	2	Freq.	0	Freq.	0	Freq.	2	4
Video 14	Freq.	0	Freq.	1	Freq.	0	Freq.	0	Freq.	0	1
Total		1		9		2		0		9	

Table 4: Non-ironic visual cues

4.2. PROCEDURE

An online survey was created with the help of Google Forms (*Appendix 9.3.*). This platform was specifically selected based on its video-friendly-usage. All ten ironic and five non-ironic videos were presented to the participants at random and were each accompanied by a Likert-scale. The participants' task was to rank each video on a 7-point Likert-scale from *sincere* to *ironic*. As the videos had an average duration between 0.11 and 0.15 seconds (*Table 1 and Table 2*), the survey took no longer than five minutes, factoring in reading of the instructions and possible repeated playing of a video. Neither the instructions nor the Likert-scales included the mention of verbal, audio or visual cues as to not take away from the cohesive presentation of all these cues combined together. The study ran for nine days.

4.3. PARTICIPANTS

The population for this research was the adult (21 – 65 years) British-English speaking population (as a control) and the adult (21 – 65 years) Dutch speaking population with proficient English as an L2. The sample contained 42 British-English respondents and 52 Dutch respondents whom were all recruited by targeted sampling and snowball sampling. Participants were not reimbursed for their participation in the study. An overview of the participant profile is provided below.

Language	Gender		Age				Education					Total
	M	F	21-30	31-40	41-50	51-65	HS	BD	MD	P	O	
English	18	24	12	4	6	20	3	16	19	2	2	42
Dutch	18	34	30	5	6	11	10	23	13	2	4	52
Total	36	58	42	9	12	31	13	39	22	4	6	94

Table 5: Participant profile

Abbreviations: M = male, F = female, HS = high school, BD = Bachelor degree, MD = Master degree, P = PHD, O = other



4.4. STATISTICAL DATA ANALYSIS

The results have been analysed using the statistical programme SPSS. The variables were operationalised and some converted from continuous to categorical variables (*Figure 1*). An overview of responses was then generated with descriptive statistics. A multinomial logistic regression was employed to determine the significance of the present study. The results were then presented in various charts, tables, and cross-tabulations.

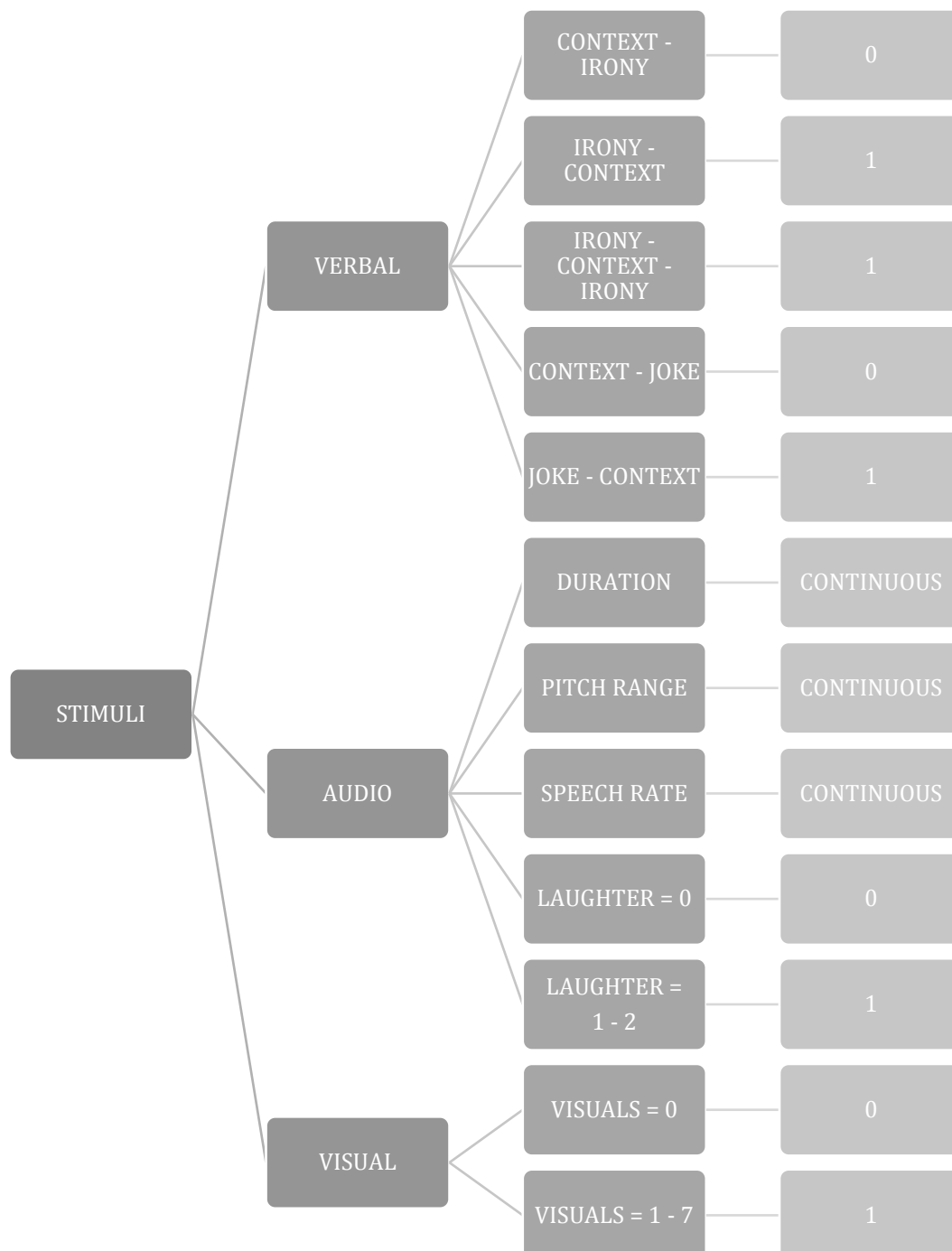


Figure 1: Operationalisation of variables



5. RESULTS

The present chapter aims to provide a cohesive overview of the results of the study. The 94 participants each ranked fifteen videos which results in; $94 \times 15 = 1,410$ responses. However, two participants have been excluded from the results onward as their rankings exceeded 85% of ranking 7 (participant ID 23 = 86,7% ranking 7 and participant ID 87 = 100% ranking 7). The researcher has chosen to exclude these participants from the remainder of the study as there is reason to believe that they may not have paid proper attention or understood the task at hand considering their excessive rankings of 7. The usage of the Likert-scale of the remaining 92 participants is presented below. All charts are presented in percentages as opposed to counts as there is an unequal distribution of English and Dutch participants.

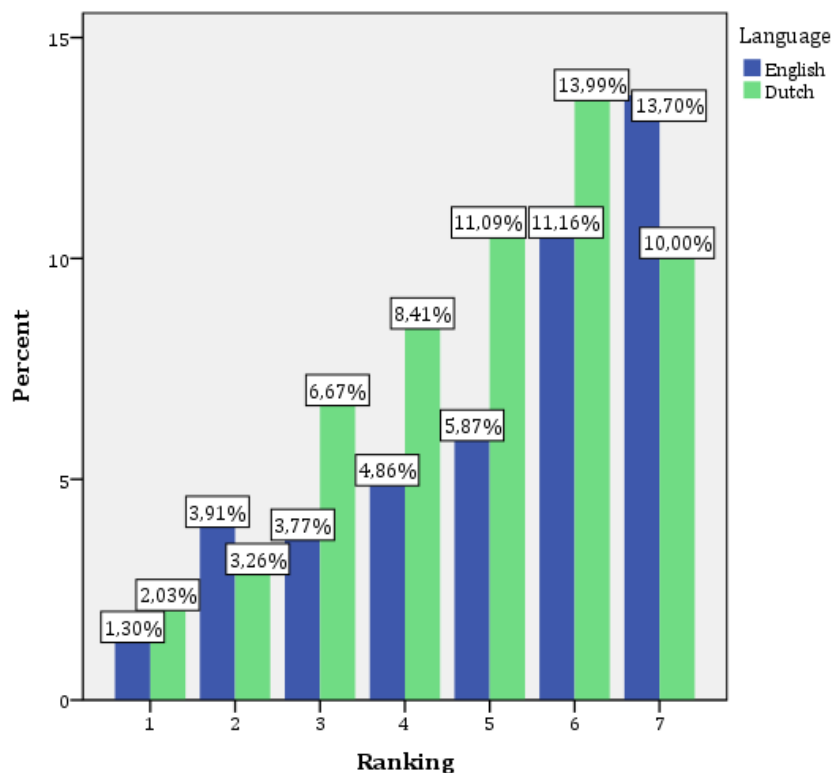


Figure 2: Likert-scale rankings

As can be seen in above graph the L1 speakers (English) ranked point 7 on the Likert-scale the most of all 7 points and they ranked this point more frequently than the L2 speakers (Dutch). The L2 speakers ranked point 6 on the Likert-scale the most of all seven points and they ranked this point more frequently than the L1 speakers. The upper half of the scale was used most frequently for both the L1 and the L2.

The use of the Likert-scale categorised by video type is presented below. The L1 speakers ranked 6 the most for the non-ironic videos, whereas the L2 speakers ranked 5 the most for this video type. However, the L1 speakers' rankings of the non-ironic videos are more evenly spread across the scale than those of the L2 whom had a strong preference for the middle/upper half of the scale. The L1 speakers ranked 7 the most for the ironic videos and the L2 speakers ranked 6 the most for this video type. This is in-line with the overall Likert-scale rankings as presented in *Figure 2*. The upper half of the scale was again most frequently used for both the L1 and the L2.

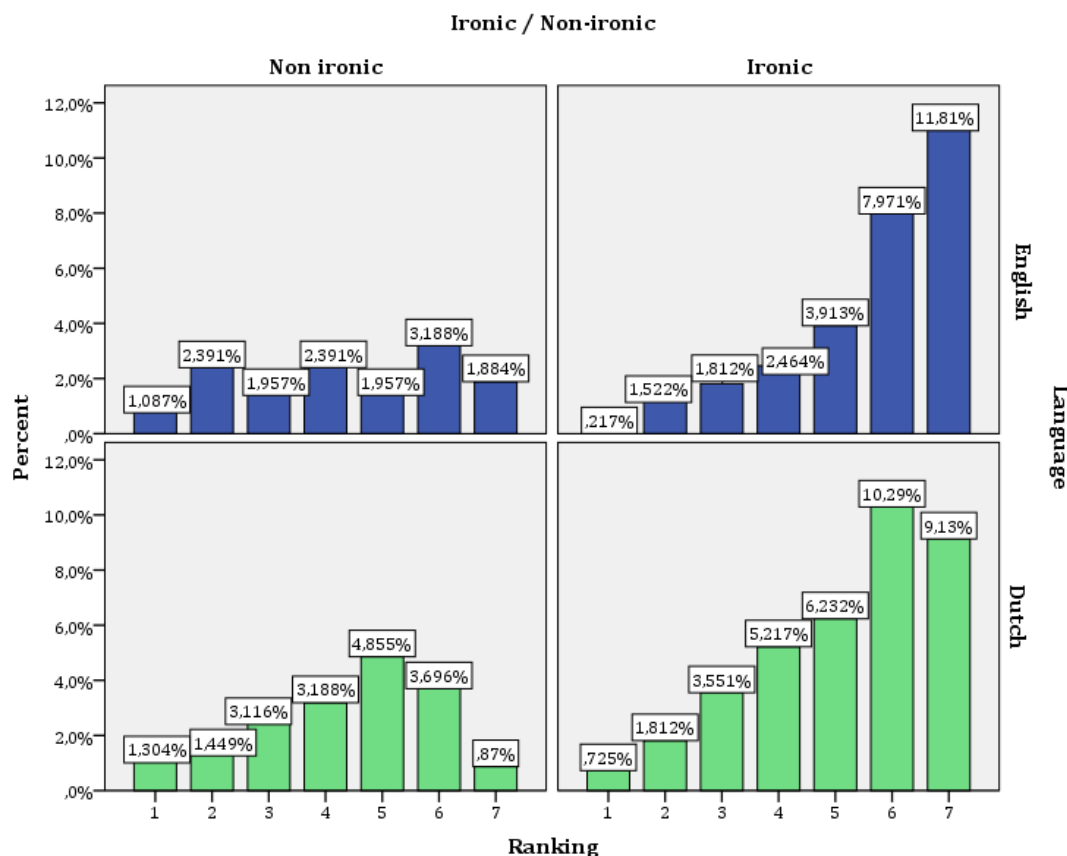


Figure 3: Likert-scale rankings per video type

5.1. CONTRIBUTION OF STIMULI

The following variables have been included in the multinomial logistic regression; 1) language, 2) video type (ironic vs. non-ironic), 3) verbal cues, 4) duration, 5) pitch range, 6) speech rate, 7) laughter, and 8) visual cues with ranking on the Likert-scale as the dependent variable. Analysing the variables with ranking 7 as the reference category resulted in *verbal cues* and *speech rate* being deemed as insignificant ($p > 0,05$) in all comparisons. The remaining six variables are statistically significant in at least one or more comparisons. *Video type* was statistically significant in all six comparisons with 1 vs. 7 $B = 2,860 \pm 0,445$, $p = 0,000$ and 2 vs. 7 $B = 2,147 \pm 0,348$, $p = 0,000$ and

3 vs. 7 $B = 2,123 \pm 0,289$, $p = 0,000$ and 4 vs. 7 $B = 1,676 \pm 0,270$, $p = 0,000$ and 5 vs. 7 $B = 1,695 \pm 0,258$, $p = 0,000$, and 6 vs. 7 $B = 0,966 \pm 0,232$, $p = 0,000$. *Language* was statistically significant in five of the six comparisons with 1 vs. 7 $B = -0,797 \pm 0,326$, $p = 0,015$ and 3 vs. 7 $B = -0,929 \pm 0,210$, $p = 0,000$ and 4 vs. 7 $B = -0,880 \pm 0,191$, $p = 0,000$ and 5 vs. 7 $B = -0,982 \pm 0,179$, $p = 0,000$, and 6 vs. 7 $B = -0,539 \pm 0,154$, $p = 0,000$. *Pitch range* was statistically significant in two of the six comparisons with 1 vs. 7 $B = -0,006 \pm 0,002$, $p = 0,002$ and 3 vs. 7 $B = -0,003 \pm 0,001$, $p = 0,007$. *Visual cues* were statistically significant in two of the six comparisons with 5 vs. 7 $B = -0,981 \pm 0,407$, $p = 0,016$ and 6 vs. 7 $B = -0,785 \pm 0,362$, $p = 0,030$. *Laughter* was statistically significant in two of the six comparisons with 2 vs. 7 $B = 0,803 \pm 0,303$, $p = 0,008$ and 5 vs. 7 $B = 0,600 \pm 0,209$, $p = 0,004$. Finally, *duration* was statistically significant in one of the six comparisons with 2 vs. 7 $B = -6,044 \pm 2,402$, $p = 0,012$ (Appendix 9.4.).

Based on this statistical significance it can be predicted that 1) *video type* can be used as a prediction for all compared rankings on the scale, 2) *language* can be used as a prediction for all compared rankings on the scale except 2 vs. 7, 3) *pitch range* can be used as a prediction for compared rankings 1 and 3 vs. 7 on the scale, 4) *visual cues* can be used as a prediction for compared rankings 5 and 6 vs. 7 on the scale, 5) *laughter* can be used as a prediction for compared rankings 2 and 5 vs. 7 on the scale, and 6) *duration* can be used as a prediction for compared ranking 2 vs. 7 on the scale.

5.2. ITEM ANALYSIS

Depicting the rankings per video, categorised by language and video type reveals both consistencies and discrepancies with the expected results. The expected results would be that all ironic videos would be ranked on the upper half of the scale and all non-ironic videos would be ranked on the lower half of the scale. It would also be expected that the L1 speakers fit these expectations better than the L2 speakers, either by not ranking a lot on the opposing end of the scale or ranking more extreme on the relevant part of the scale.

Both the L1 and the L2 speakers ranked all ironic videos consistent with the expected results; the majority was ranked on the relevant half of the scale and the L1 speakers ranked less on the opposing side of the scale and ranked more extremely on the relevant part of the scale than the L2 speakers. Neither the L1 nor the L2 speakers were entirely consistent with the expected results for the non-ironic videos. The L1 speakers ranked around half of this video type in-line with the researcher's expectations and the other half inconsistently with the researcher's expectations. The L2 speakers ranked one out of the five non-ironic videos more on the lower half of the scale than on the upper half. The remaining four videos were either widely dispersed or focused on the upper half of the scale. Below graphs present the videos ranked most (best) and least (worst) in-line with the researcher's expectations per language group and video type.



5.2.1. L1 ENGLISH

BEST IRONIC

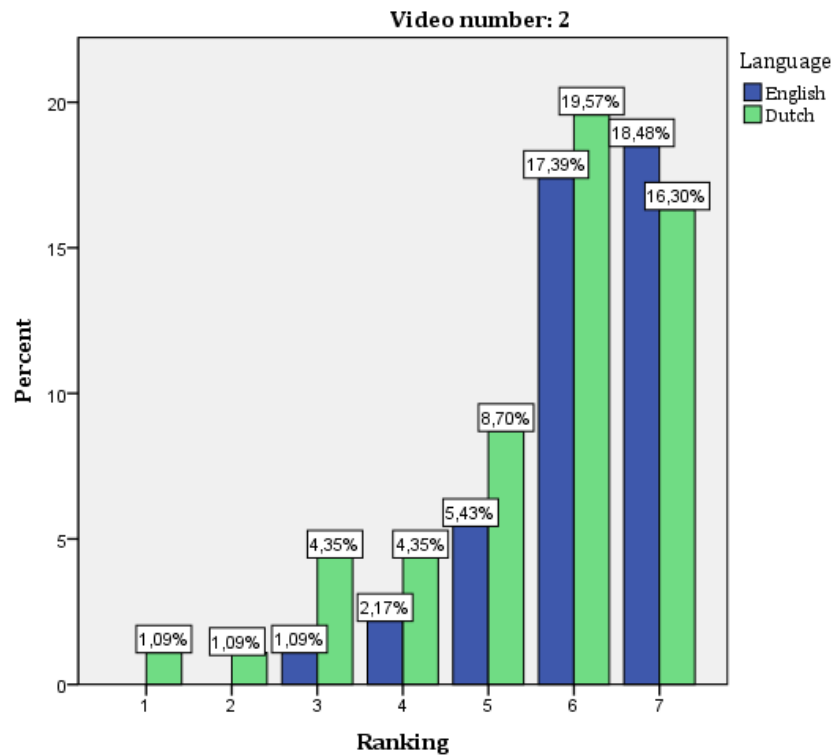


Figure 4: L1 English best ironic ranking video 2

WORST IRONIC

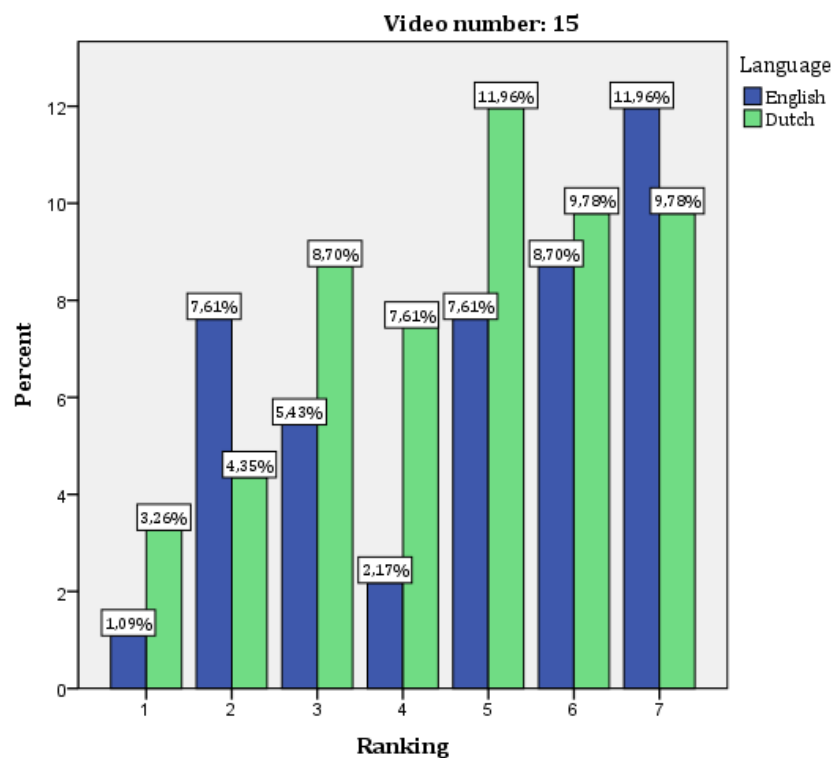


Figure 5: L1 English worst ironic ranking video 15

BEST NON-IRONIC

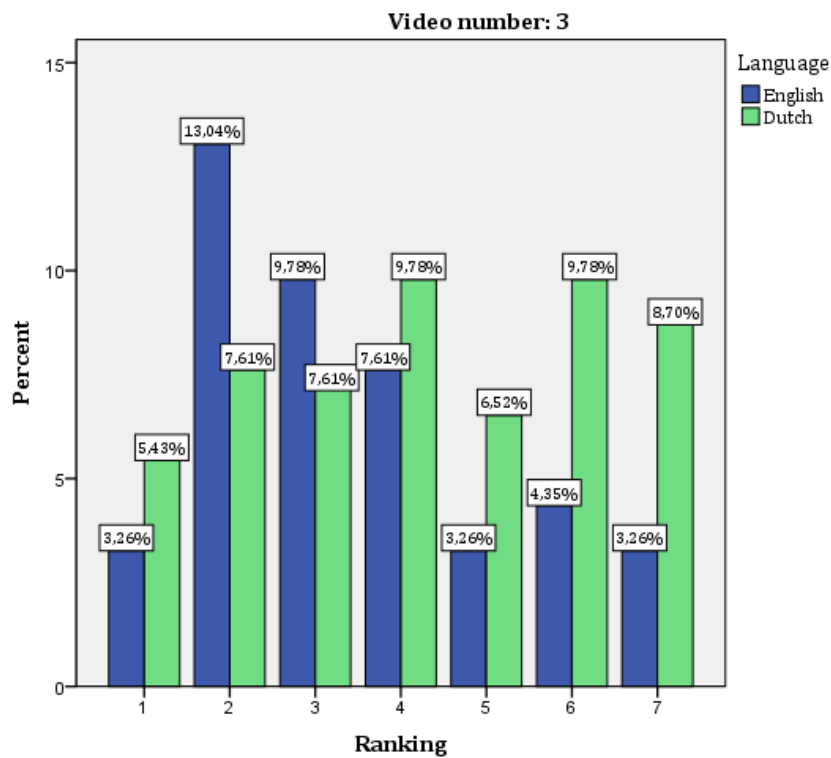


Figure 6: L1 English best non-ironic ranking video 3

WORST NON-IRONIC

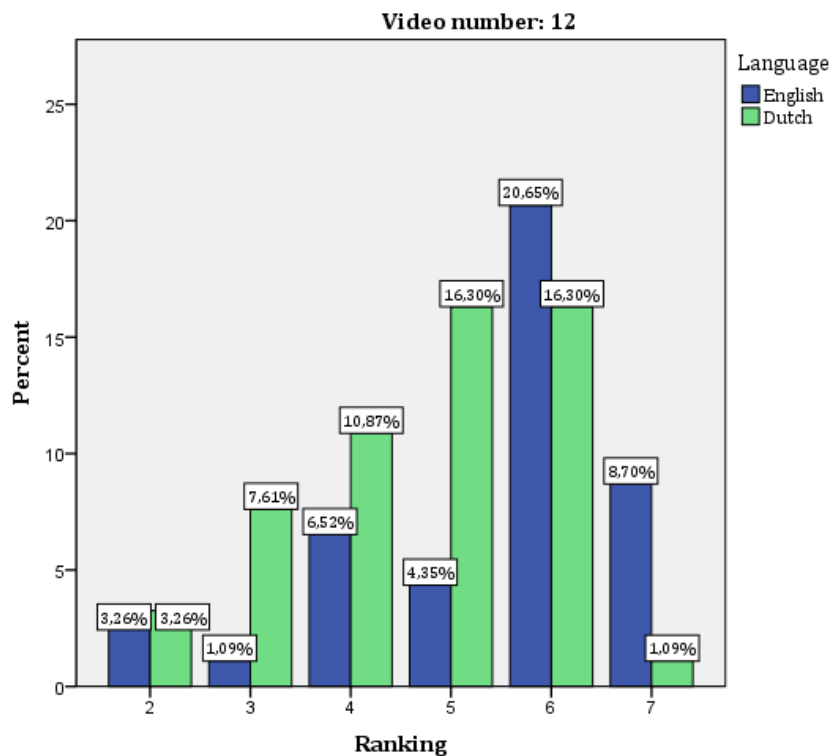


Figure 7: L1 English worst non-ironic ranking video 12

5.2.2. L2 ENGLISH (DUTCH)

BEST IRONIC

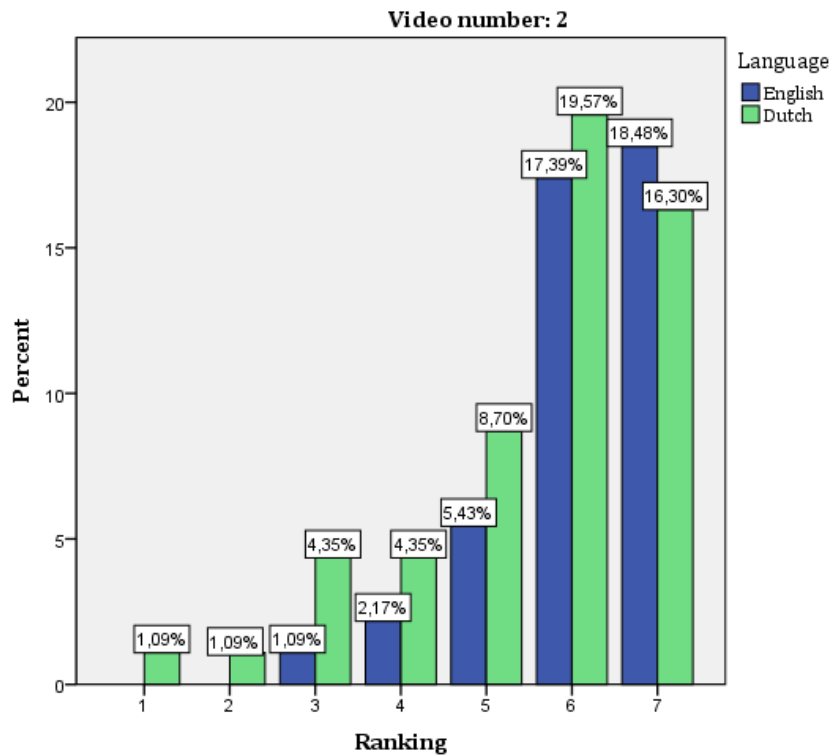


Figure 8: L2 English best ironic ranking video 2

WORST IRONIC

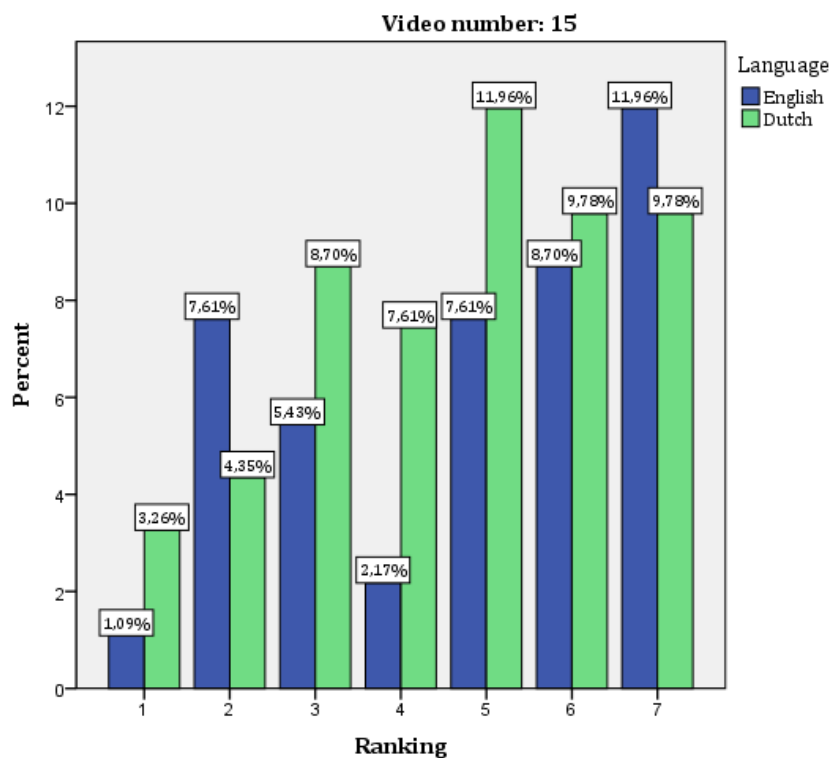


Figure 9: L2 English worst ironic ranking video 15

BEST NON-IRONIC

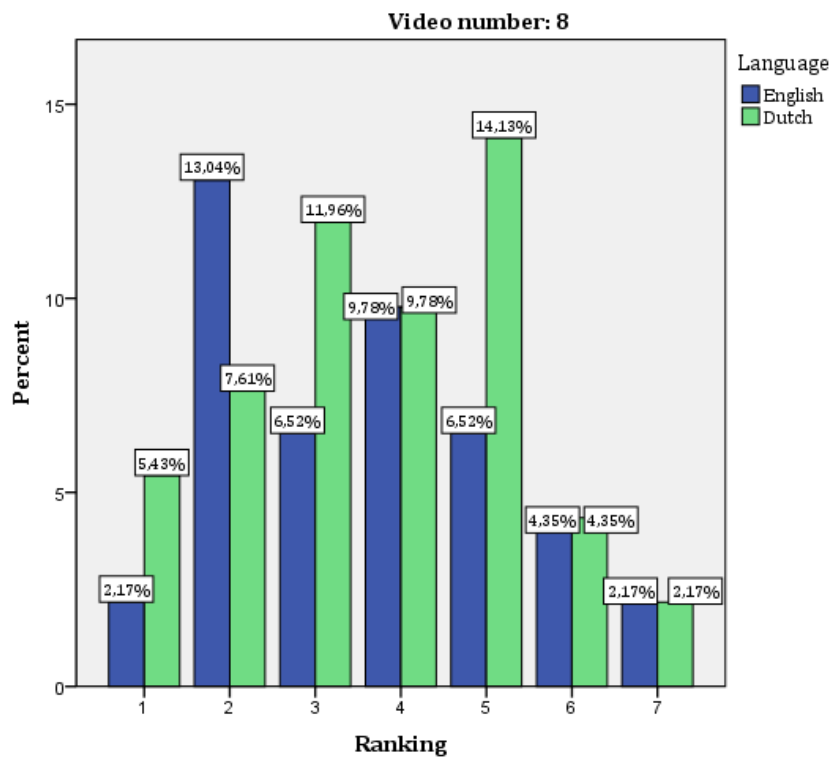


Figure 10: L2 English best non-ironic ranking video 8

WORST NON-IRONIC

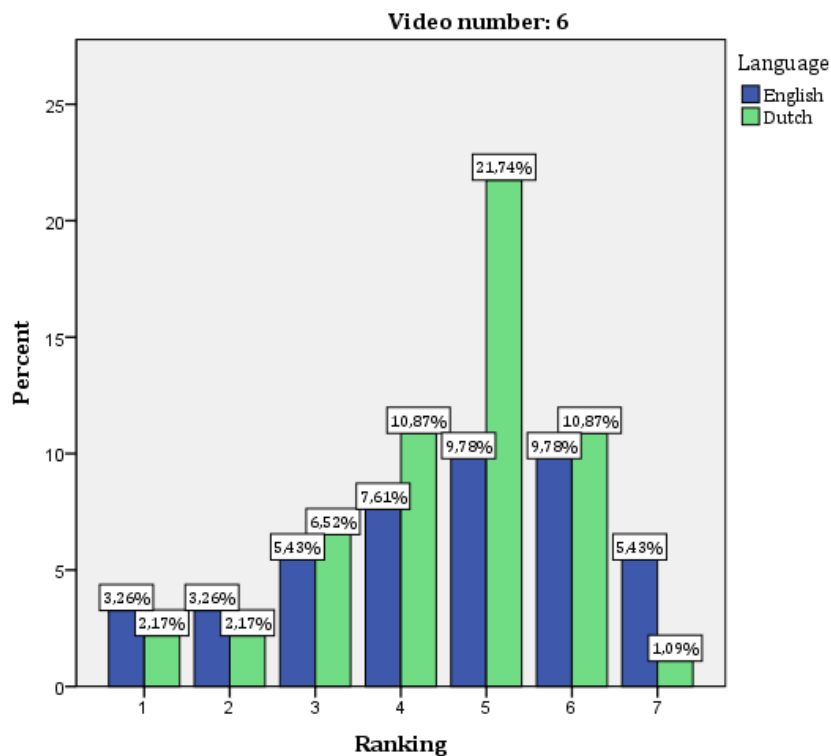


Figure 11: L2 English worst non-ironic ranking video 6

When evaluating the stimuli included in the relevant items (videos) above, certain results can be presented (*Appendix 9.5*). It appears that a longer duration, a broader pitch range, a higher speech rate, (more) laughter, and little visual cues facilitate a good perception of irony in both the L1 and the L2.

A longer duration and a broader pitch range as indicators of irony are in-line with the L1 results for the worst ranked non-ironic video. However, it is contradictory with the lower speech rate as determined in the worst ranked non-ironic video for the L1. No results can be discussed in terms of laughter for the L1 as this does not differ from the best ranked ironic video. Less visual cues resulted in a higher ranking on the irony scale for the non-ironic video, which may be in-line with the little visual cues perceived in the high ranking for the ironic video. However, the frequency was substantially higher than in the best ranked ironic video in the L1.

A longer duration, a broader pitch range, and a higher speech rate as indicators of irony are in-line with the L2 results for the worst ranked non-ironic video. However, less (none) laughter was perceived as a better indicator of irony in the worst non-ironic video ranking, in contrary to the best ironic video ranking of the L2. As with the L1, less visual cues resulted in a higher ranking on the irony scale for the non-ironic video with the L2. However, the same question as to whether this is in-line with the little visual cues perceived in the high ranking of the ironic video still stands as the frequency was again substantially higher than in the best ranked ironic video in the L2.



6. DISCUSSION

This chapter aims to provide an academic discussion of the results of the present study. Where literature states that an audio-visual context as provided to the participants in the present study can be too taxing on the receiver when attempting to understand irony (Shivley, Menke, & Manzon-Omundson, 2008), it appears that this was of no significance in the present study. *Figure 3* in the results chapter presents a very similar distribution on the scale from both the L1 (British-English speakers) whom were the control group and the L2 (Dutch speakers); ironic videos were mainly ranked on the upper half of the irony-scale. However, literature fails to mention the effect of an audio-visual context on the perception of irony in non-ironic situations. Where the L1's rankings of the non-ironic videos are quite evenly distributed across the scale, the L2's rankings lean strongly towards the upper half of the scale. It could therefore be speculated that an audio-visual context interferes with separating irony from other forms of humour, however this merely remains conjecture.

The results have indicated a strong preference for the upper half of the Likert-scale when it comes to ranking irony (*Figure 2*). However, where the L1 most frequently opted for the highest ranking (7), the L2 were slightly less extreme and opted for the ranking 6 most frequently. It can be speculated that the L2 did not dare or feel comfortable or confident enough to express such an 'extreme' (highest) ranking as they are aware that they do not grasp the language the irony was portrayed in as well as their native language.

Where literature has shown that verbal cues, prosodic cues (pitch, intensity and duration), facial expressions, gestures, gaze, and (responsive) laughter are all cues that indicate irony to the receiver (Fuente, 2015), the present research shows that neither verbal cues nor speech rate (intensity) are statistically significant in detecting irony. However, as intensity was measured as an influential factor on speech rate as opposed to an influential factor in itself in the present study, intensity measured in an alternate manner may well have proven to be statistically significant. Also, verbal cues were measured as a whole as opposed to split up into the categories of lexical marking, morphological marking, syntactic marking, discursive marking, direct speech, and discourse markers (Fuente, 2015). This grouping of these cues may have also resulted in its insignificance to the present study. However, due to the audio-visual nature of the present study and constraints in time and resources the researcher opted to include a broader spectrum of stimuli, but at the cost of the verbal cues' analysis. The researcher aimed to include as less laughter in the segments as possible as this may influence or annoy the respondents. However, some laughter could not be cut out as it occurred in the middle of the segment and not at the beginning or the end. In doing so the researcher may have influenced the participants' understanding of irony by not having laughter present in each segment and thus introduced a systematic error to this research.



More statistically significant than the above discussed stimuli however, have appeared to be video type (ironic vs. non-ironic) and language. Where video type and language differentiation may have merely functioned as a control in the study, the statistical significance of language is in-line with previous studies. As previously discussed in the theoretical framework it takes more effort to understand irony in a non-native language (Rataj & Bromberek-Dyzman, 2016). The statistical significance of language in this study could be an indicator of support for the theory from Rataj & Bromberek-Dyzman, especially when combined with the more accurate rankings of irony for the L1 than the L2 in the present study.

In-line with the studies as presented in the theoretical framework are the fact that a longer duration (Loevenbruck, Janne, d'Imperio, Spini, & Champagne-Lavau, 2013), an expanded pitch range (Loevenbruck, Janne, d'Imperio, Spini, & Champagne-Lavau, 2013), and the presence of laughter (Fuente, 2015) have been picked up by the participants in the present study as indicators of ironic speak. However, literature states that a slowed speech rate is perceived as ironic (Bryant & Fox Tree, 2002) which is in direct contrast to the results of an increased speech rate as an indicator of irony in the present study. Where current literature also states that visual cues of an ironic nature are indicators of irony to the receiver (Fuente, 2015), it appears in the present study that the less visual cues there are, the higher the ranking on the irony-scale. However, a higher frequency of visual cues was deemed ironic in the non-ironic videos by both the L1 and the L2. But it must be noted that the frequency remained lower than in the non-ironic videos actually ranked as non-ironic. These varying results limit the conclusions that can be made on the influence of visual cues to the perception of irony, one can only speculate. Quantitative research on the addition of gestures to the perception of irony has not yet been conducted. However, the present study has measured gestures in this quantitative research. It appears that little to no (hand) gestures (*Appendix 9.5.*) are indicators of irony in both the L1 and the L2.



7. CONCLUSIONS

As a conclusion of the study the research question ‘Can the adult Dutch population with English as a second language identify British-English irony in an audio-visual context when unconsciously being presented with varying combinations of verbal, prosodic and visual cues?’ can be answered with yes. Where the control group did prove that the adult Dutch population cannot identify British-English irony in the provided context as accurately as native speakers, the L2 (adult Dutch population) has still proven to possess sufficient proficiency to identify irony in their second language.

Constraints and limitations of the research addressed in the results chapter however still hold. In addition, the researcher’s native proficiency in both British-English and Dutch could possibly have influenced the present research, especially in the selection and categorisation of the ironic and non-ironic videos. This limitation could have been eliminated by having more time and resources to analyse the verbal cues of the videos and / or to have included multiple independent native British-English speakers in the selection and categorisation procedure. Other limitations as not yet mentioned in the results chapter consist of a relatively small sample and the fact that the results cannot be generalised to the entire Dutch population as only the Dutch population with a proficient English level have participated in the present study.

The present research does however have numerous strengths. The sample may have been relatively small, but considering the time frame of the research it can still be concluded that there was a good research participation (94 participants). Including a control-group in both the video types (ironic vs. non-ironic) and language (native British-English vs. English as a second language) emphasised the legitimacy of the results. Finally, including six additional stimuli to video type and language in the analysis broadens the applicability of the study.

Suggestions for further research include conducting the present research but opting for different non-ironic videos in order to force the usage of the lower half of the irony-scale. The employed non-ironic videos may have portrayed a certain type of humour that could be perceived as ironic to the non-specialist perceiver. This leads to the following suggestion of opting for a different comedian as the current comedian, James Acaster, has rather ironic tendencies in his non-verbal cues with a majority of his performances. More in-depth analysis of both verbal and non-verbal cues in the context of this research is also a strong suggestion for expansion of the study. It may even be considered to focus future research solely on verbal cues as these include many different varieties and literature also states that a written context provides more assistance in the understanding of irony than an audio-visual context (Shivley, Menke, & Manzon-Omundson, 2008). Further research may also consider applying the task of the present study to different language combinations.



8. BIBLIOGRAPHY

- Bryant, G. A., & Fox Tree, J. E. (2002). Recognizing Verbal Irony in Spontaneous Speech. *Metaphor and Symbol, 17*(2), 99-117.
- Chen, X., & Dewaele, J.-M. (2018). *The relationship between English proficiency and humour appreciation among English L1 users and Chinese L2 users of English*. Applied Linguistics Review.
- Dynel, M. (2009). Beyond a Joke: Types of Conversational Humour. *Language and Linguistics Compass, 3*/5, 1284-1299.
- Education First. (2012). *EF English Proficiency Index*. Education First.
- Feldstein, S., & Bond, R. N. (1981). Perception of speech rate as a function of vocal intensity and frequency. *Language and Speech, 24*, 387-394.
- Fuente, G. F. (2015). *Audiovisual Prosody and Verbal Irony*. Barcelona: Universitat Pompeu Fabra.
- Loevenbruck, H., Janne, M. A., d'Imperio, M., Spini, M., & Champagne-Lavau, M. (2013). *Prosodic cues of sarcastic speech in French: slower, higher, wider*. Lyon: Interspeech.
- Perlman, M. (2014). How to tell if you're using 'irony' or 'sarcasm'. *Columbia Journalism Review*.
- Rataj, K., & Bromberek-Dyzman, K. (2016). Irony Comprehension in the Nonnative Language Comes at a Cost. *Psychology of Language and Communication, 20*, 336-353.
- Scholten, I., Engelen, E., & Hendriks, P. (2015). *Understanding Irony in Autism: The Role of Context and Prosody*. Groningen: University of Groningen.
- Sekhar Rao, C. (2016). A Brief Study of English Language Proficiency: Employability. *English for Specific Purposes World, 17*, 1-9.
- Shivley, R. L., Menke, R. M., & Manzon-Omundson, S. M. (2008). Perception of irony by L2 learners of Spanish. *Issues in Applied Linguistics, 16*, 101-132.
- Tan, J. (2013, September 30). *British Humour*. Retrieved May 20, 2019, from Huffington Post: https://www.huffingtonpost.co.uk/julian-tan/british-humour_b_4013114.html
- Togame, N. (2016). *Irony in a second language: exploring the comprehension of Japanese speakers of English*. London: Middlesex University.
- Warner, C. (n.d.). *What is verbal irony* Christopher Warner. Retrieved May 20, 2019, from TEDEd: <https://ed.ted.com/lessons/what-is-verbal-irony-christopher-warner>
- Wilson, D. (2013). Irony comprehension: A developmental perspective. *Journal of Pragmatics, 59*, 40-56.



9. APPENDICES

The final chapter of the study provides additional information used or generated to facilitate the present research.

9.1. ONLINE VIDEO OVERVIEW

Below overviews provide the online sources for the videos presented to the respondents in this study.

9.1.1. IRONIC

Video no.	Source
Video 1	https://www.youtube.com/watch?v=SRchek8LDwY
Video 2	https://www.youtube.com/watch?v=Hz0bE_cs8eg
Video 4	https://www.youtube.com/watch?v=0mwt977A110
Video 5	https://www.youtube.com/watch?v=U_N34iMNfcY
Video 7	https://www.youtube.com/watch?v=rFDqLzlMym4
Video 9	https://www.youtube.com/watch?v=rXCA3_7X50E
Video 10	https://www.youtube.com/watch?v=fXmiuFD2Mhc
Video 11	https://www.youtube.com/watch?v=kQ3fGVU6d3Q
Video 13	https://www.youtube.com/watch?v=dJOJHLhwwdg
Video 15	https://www.youtube.com/watch?v=gkogLVOxvFs

Table 6: Overview ironic videos

9.1.2. NON-IRONIC

Video no.	Source
Video 3	https://www.youtube.com/watch?v=bAb8cB3Cvns
Video 6	https://www.youtube.com/watch?v=yG5GRZFu83s
Video 8	https://www.youtube.com/watch?v=rka4Kjiv3D8
Video 12	https://www.youtube.com/watch?v=miwa6hP4U_c
Video 14	https://www.youtube.com/watch?v=vRz699RfQ_M

Table 7: Overview non-ironic videos



9.2. VERBAL CUES

Below tables provide an insight into the verbal analysis of the videos presented to the respondents in this study.

JA	James Acaster speaking
P1	Another person speaking
P2	Another person speaking
I1	Image shown to James Acaster
Context	Context of the irony / joke
Irony	Ironic statement
Joke	Joke

Table 8: Legend verbal cues

9.2.1. IRONIC

Video no.	Annotation
Video 1	JA: "Tried going out with some mates recently, we hit the town. I'm a prankster when I'm out with my friends."
Video 2	JA: "Used to be in a gang. Big time in a gang. SW6-gang was our name. It's the area of London we're from, it's our name and it's what we'd shout at other gangs we didn't like much. Like if I saw the SW5-gang for example, we'd shout at them; SW6! That's clever."
Video 4	P1: "The question I was looking for is; how much is the newly approved nuclear power station expected to cost?" P2: "This is terrible." JA: "I can't wait, I love it." P2: "What?" JA: "I love it! I love nuclear power, I can't wait to be in X-men."
Video 5	JA: "Yeah, I've made my mind up now I'm voting for Trump. Voting for him is going to be a full-on protest vote and he'll never win it'll be fine and if he wins then I'll just Google the consequences later."
Video 7	JA: "Trump's a very green man. He is the greenest... He is out of all the leaders in the whole world he has done the most to combat global warming. 'Cos let me tell you; that travel ban, that reduces so many people's carbon footprint, it's unreal. He's a clever guy. If all of us started banning people from our countries, less people would fly and we wouldn't have a problem on our hands."
Video 9	JA: "We need to put the power back in the hands of the people." P1: "Yeah." JA: "I don't want no EU telling me what to do. I don't even want the government telling me what to do. It should be us, the people. I say each day a different one of us takes it in turns to be in charge. Each day we do whatever we want and that's true democracy; take it in turns to be a dictator."
Video 10	P1: "I'd say I'd probably start stockpiling blood. Like have a freezer just made of... just with blood." JA: "Blood?!" P1: "I mean it's one of those things that..." JA: "We won't have enough blood after this?" P1: "Uhh well not in Dover if it becomes a lorry park and you can't have transport." JA: "So everyone in Dover's just going to be really pale." P1: "Yeah, yeah." JA: "No blood in Dover. Some people will be happy if this country's getting paler to be honest. That's why they voted for Brexit, right?" P1: "Only a small minority." JA: "Absolutely. Don't want to antagonise anyone."
Video 11	P1: "How many people across the globe are expected to watch this year's FIFA World Cup tournament in Russia? Have you been watching it?" JA: "Religiously."
Video 13	I1: Image of a picture of footballer, Lionel Messi, shaved into the back of someone's hair. JA: "I'm getting that done." P1: "Are you?" JA: "Yeah I'm getting it done, but it's going to be my face so people know it's me from the back."



Video 15	JA: "Hi Harry Potter, it's me, your friend Ron Wesley. Don't I look a little bit like that James Acaster we saw on Mock the Week? Hey here's a good idea; let's go to all of his gigs and shout Ron Wesley at him in the audience 'cos no one's ever done that before."
----------	---

Table 9: Ironic verbal cues

9.2.2. NON-IRONIC

Video no.	Annotation
Video 3	JA: "Now an announcement for the people who insist on sitting the way the train is moving 'cos sitting backwards feels weird; you're weird."
Video 6	JA: "Uhh. I'm not like Rob. I don't like going out and getting drunk. I like staying in, I drink on my own."
Video 8	JA: "Worst part of going to the cinema is other people. Easily. Sitting there. Kean the jerks is behind me, this really angry man. Had a go at me at one point 'cos I was snacking. Get over yourself grandad, I'll do what I like."
Video 12	JA: "What you've got to understand is these people have a very dear relationship with the Queen and it's very personal to them, so they line the streets and they... she waves at them to celebrate all the times in the past when they've lined the streets and she's waved at them."
Video 14	P1: "What is Jeremy Corbyn refusing to do?" JA: "Leave." P1: "Yes." JA: "The main... the main news this week is that uhh the guy who ran the remain campaign is remaining and the people who ran the leave campaign have left."

Table 10: Non-ironic verbal cues



9.3. ONLINE SURVEY

Below screenshots portray the online survey as experienced by the respondents in this study. Only video 1 is included in below overview as including all the identically presented remaining videos would be redundant.

The image shows two screenshots of an online survey. The top screenshot is the introduction page, and the bottom screenshot is the first question page.

Introduction Page:

Identifying audio-visual cues in the perception of irony in British English

Dear participant,

Thank you for facilitating me in my research for my Pre-Master dissertation 'Identifying audio-visual cues in the perception of irony in British English' for the programme Intercultural Communication at the University of Utrecht.


The aim of this research is to determine the identification of British English irony in an audio-visual context. Irony is a form of humour within the category witicism.

The survey consists of 15 short videos, no longer than 30 seconds each, of the British comedian; James Acaster. The task at hand is to rank each video on a 7-point scale from sincere to ironic. You can watch the videos as often as you like. The survey will take no longer than 5 minutes of your time. I kindly request you to answer all questions honestly; there are no wrong answers.

Your data will be handled with care and all results are processed anonymously. Should you at any point in time wish to retract from the study, feel free to contact me with below contact details.

Thank you again for your participation.

Kind regards,
Laura Schotte
l.schotte@students.uu.nl

 Utrecht University

VOLGENDE

Question Page:

General questions

What is your native language? *

☐ English

☐ Dutch

What is your gender? *

☐ Male

☐ Female

☐ Other

What is your age? *

☐ 21 - 30

☐ 31 - 40

☐ 41 - 50

☐ 51 - 65

What is your highest level of completed education? *

☐ High school (incl. MBO if applicable)

☐ Bachelors degree

☐ Masters degree

☐ PHD


☐ Other

VORIGE VOLGENDE

Video 1

JA MtW15 1

Later bekijken Delen



Please rank the video on the below scale *

1 2 3 4 5 6 7


Sincere ☐ ☐ ☐ ☐ ☐ ☐ ☐ Ironic

VORIGE VOLGENDE

Thank you for participating

Thank you for your participation in this survey, I greatly appreciate your time and effort. Your data will be saved carefully.

Should you be interested in the results of the study, feel free to send a request to l.schotte@students.uu.nl

 Utrecht University

VORIGE VERZENDEN

Figure 12: Online survey



9.4. MULTINOMIAL LOGISTIC REGRESSION

The below figure indicates the multinomial logistic regression analysis as conducted in SPSS.

Parameter Estimates									
Ranking*		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
1	Intercept	-1,086	,882	1,517	1	,218			
	Duration	,684	3,499	,038	1	,845	1,982	,002	1886,561
	SpeechRate	-1,361	2,122	,411	1	,521	,256	,004	16,419
	PitchRange	-,006	,002	9,675	1	,002	,994	,991	,998
	[LANGUAGE=0]	-,797	,326	5,954	1	,015	,451	,238	,855
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	2,860	,445	41,220	1	,000	17,461	7,293	41,807
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-19,862	,000		1		2,366E-9	2,366E-9	2,366E-9
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	-,151	,435	,121	1	,728	,860	,366	2,016
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,184	,408	,204	1	,652	1,202	,541	2,673
	[Recoded_Laughter=1]	0 ^b			0				
2	Intercept	-1,441	,713	4,080	1	,043			
	Duration	-6,044	2,402	6,334	1	,012	,002	2,143E-5	,263
	SpeechRate	,916	1,727	,281	1	,596	2,498	,085	73,763
	PitchRange	,000	,002	,021	1	,886	1,000	,997	1,003
	[LANGUAGE=0]	-,177	,235	,567	1	,451	,838	,528	1,329
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	2,147	,348	38,132	1	,000	8,559	4,330	16,918
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-,311	,477	,426	1	,514	,733	,288	1,865
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	-,348	,316	1,211	1	,271	,706	,380	1,312
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,803	,303	7,026	1	,008	2,233	1,233	4,045
	[Recoded_Laughter=1]	0 ^b			0				
3	Intercept	-,259	,558	,215	1	,643			
	Duration	1,054	1,741	,366	1	,545	2,869	,094	87,114
	SpeechRate	-1,877	1,462	1,647	1	,199	,153	,009	2,690
	PitchRange	-,003	,001	7,356	1	,007	,997	,994	,999
	[LANGUAGE=0]	-,929	,210	19,568	1	,000	,395	,262	,596
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	2,123	,289	53,815	1	,000	8,356	4,739	14,735
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-,107	,446	,058	1	,810	,898	,375	2,154
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	,158	,270	,340	1	,560	1,171	,689	1,989
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,284	,250	1,283	1	,257	1,328	,813	2,170
	[Recoded_Laughter=1]	0 ^b			0				
4	Intercept	,050	,518	,009	1	,923			
	Duration	-2,530	1,611	2,468	1	,116	,080	,003	1,872
	SpeechRate	-1,371	1,380	,987	1	,320	,254	,017	3,795
	PitchRange	-,002	,001	2,639	1	,104	,998	,996	1,000
	[LANGUAGE=0]	-,880	,191	21,133	1	,000	,415	,285	,604
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	1,676	,270	38,447	1	,000	5,347	3,147	9,083
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-,588	,404	2,117	1	,146	,555	,251	1,227
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	,362	,258	1,965	1	,161	1,436	,866	2,383
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,297	,228	1,692	1	,193	1,345	,860	2,104
	[Recoded_Laughter=1]	0 ^b			0				
5	Intercept	-,206	,500	,170	1	,680			
	Duration	-,742	1,407	,278	1	,598	,476	,030	7,500
	SpeechRate	-,664	1,286	,266	1	,606	,515	,041	6,400
	PitchRange	-,002	,001	2,321	1	,128	,998	,996	1,000
	[LANGUAGE=0]	-,982	,179	29,986	1	,000	,375	,264	,532
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	1,695	,258	43,304	1	,000	5,448	3,288	9,027
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-,981	,407	5,796	1	,016	,375	,169	,833
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	,301	,233	1,671	1	,196	1,352	,856	2,134
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,600	,209	8,245	1	,004	1,823	1,210	2,746
	[Recoded_Laughter=1]	0 ^b			0				
6	Intercept	,159	,419	,144	1	,705			
	Duration	1,005	1,238	,658	1	,417	2,731	,241	30,928
	SpeechRate	-,831	1,155	,519	1	,471	,435	,045	4,185
	PitchRange	-,001	,001	1,837	1	,175	,999	,997	1,001
	[LANGUAGE=0]	-,539	,154	12,225	1	,000	,583	,431	,789
	[LANGUAGE=1]	0 ^b			0				
	[VideoType=0]	,966	,232	17,395	1	,000	2,627	1,668	4,135
	[VideoType=1]	0 ^b			0				
	[Recoded_visuals=0]	-,785	,362	4,696	1	,030	,456	,224	,928
	[Recoded_visuals=1]	0 ^b			0				
	[Recoded_Verbals=0]	,378	,203	3,464	1	,063	1,460	,980	2,175
	[Recoded_Verbals=1]	0 ^b			0				
	[Recoded_Laughter=0]	,036	,181	,040	1	,841	1,037	,728	1,477
	[Recoded_Laughter=1]	0 ^b			0				

a. The reference category is: 7.

b. This parameter is set to zero because it is redundant.

Figure 13: Multinomial logistic regression



9.5. STIMULI RESULTS

Below tables present the results of the best and worst ranked videos in terms of their stimuli.

Video no.	Duration	Pitch range		Speech rate	Responsive laughter	
		Range Hz				
Best						
Video 2	0.21	56,5 – 328,6	272,1	0,359	Freq.	1
Worst						
Video 15	0.12	63,2 – 328,1	264,9	0,161	Freq.	0

Table 11: Ironic audio cues results

Video no.	Facial Expressions								Gestures		Total
	Gaze movement		Eyebrow movement		Mouth twitch		Blank face		Hand gesture		
Best											
Video 2	Freq.	0	Freq.	0	Freq.	0	Freq.	1	Freq.	0	1
Worst											
Video 15	Freq.	0	Freq.	1	Freq.	0	Freq.	0	Freq.	3	4

Table 12: Ironic visual cues results

Video no.	Duration	Pitch range		Speech rate	Responsive laughter	
		Range Hz				
L1 English						
Best						
Video 3	0.07	111,0 – 304,4	193,4	0,446	Freq.	1
Worst						
Video 12	0.14	58,8 – 446,9	388,1	0,209	Freq.	1
L2 English (Dutch)						
Best						
Video 8	0.11	60,2 – 376,5	316,3	0,182	Freq.	1
Worst						
Video 6	0.12	139,2 – 220,2	81,0	0,386	Freq.	0

Table 13: Non-ironic audio cues results

Video no.	Facial Expressions								Gestures		Total
	Gaze movement		Eyebrow movement		Mouth twitch		Blank face		Hand gesture		
L1 English											
Best											
Video 3	Freq.	0	Freq.	2	Freq.	0	Freq.	0	Freq.	3	5
Worst											
Video 12	Freq.	0	Freq.	2	Freq.	0	Freq.	0	Freq.	2	4
L2 English (Dutch)											
Best											
Video 8	Freq.	1	Freq.	2	Freq.	0	Freq.	0	Freq.	4	7
Worst											
Video 6	Freq.	0	Freq.	2	Freq.	2	Freq.	0	Freq.	0	4

Table 14: Non-ironic visual cues results

