PERSUASIVENESS OF POLITICIANS

Does the number of hand gestures performed in speeches influence the persuasiveness of politicians?

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Abstract

Persuasive messages are omnipresent in today's society; especially politicians try to be persuasive. Nonverbal communication, and in specific hand gestures, are considered to be important in these persuasive messages. Previous studies already examined the influence of the type of hand gestures on persuasiveness, but the influence of the number of hand gestures has not been researched yet. Therefore, it was examined whether the number of hand gestures performed in speeches influences the persuasiveness of politicians and the citizens' intention to vote. To address this question, a corpus of videos of 11 politicians was selected to conduct a within-subject experiment in which participants rated the persuasiveness of politicians and indicated their intention to vote. The results showed that there is no effect of number of hand gestures on persuasiveness and intention to vote. These results are not in line with previous studies. Therefore, further research should also focus on the number of hand gestures. Researchers could design an experiment in which the number of hand gestures is completely controlled to get a clear understanding of the relationship between persuasiveness and number of hand gestures or a between subject design could be used to test whether results are different when the experiment is shorter and participants are less influenced by fatigue or boredom.

Introduction

Not a day passes without coming across a large number of persuasive messages. With one footstep out of the house we are confronted with dozens of advertisements. Even with just opening the internet we see advertising displays everywhere. Advertisements are important for businesses because of marketing purposes; however, persuasive messages are of great importance for politicians as well. Politicians increasingly appear on television with the objective to persuade the public of their opinion and eventually to have people vote for them. With the upcoming elections in the United States politicians cover different media channels, such as television and newspapers, even more. Candidates attempt to give persuasive speeches; when doing so, politicians have to find methods that ensure them to appear persuasive. Different factors are considered to be important in this process. Besides verbal aspects, many nonverbal cues are believed to influence the persuasion process. One specific type of nonverbal behaviour is the use of hand gestures. This type of nonverbal behaviour could be important for politicians in particular, since their hands are highly visible during speeches. Some studies have examined the relationship between hand gestures and persuasiveness. However, knowledge is still lacking. It is of great importance to study hand gestures, because it provides further knowledge about the persuasion process which is ubiquitous in today's society. Furthermore, it will provide practical information to help politicians with the development of successful strategies for their speeches.

Theoretical background

As stated in the introduction, persuasive messages are omnipresent in today's society. The aim of these messages is to change someone's behaviour. This process of persuading someone via communication is often referred to as 'persuasive communication'. Simons (1976: 21) defines persuasion as ''human communication that is designed to influence others by modifying their beliefs, values, or attitudes''.

Attitudes are an important factor in persuasive messages, since people want to hold correct attitudes (Petty & Cacioppo, 1986). Therefore, persuasive messages are designed to convince the audience that they proclaim the proper statements and that the audience holds correct attitudes when believing their statements. According to Simons (1976: 80) an attitude is a ''relatively enduring predisposition to respond favourably or unfavourably toward something''. Because attitudes influence behaviour and are changeable over time, researchers have proposed different persuasion models.

McGuire (1968) was one of the first researchers to propose a model of attitude change. His model of persuasion includes six steps: presentation → attention → comprehension → acceptance → retention → behaviour. During the first step, the persuasive message is presented to the audience. A requirement for attitude change, step two, is that the audience pays attention to the message. Furthermore, the audience should understand the message before it can influence their attitudes. When the audience understands the message, they have to accept it. Attitude change occurs after the acceptance of the message. Retention refers to the process in which the attitude change lasts. In the final step, someone's actual behaviour changes. This is the goal of a persuasive discourse (McGuire, 1968).

Another model that explains the change of attitudes in persuasive processes is 'the elaboration likelihood model' (ELM) (Petty & Cacioppo, 1986). Elaboration is a central aspect in this model and is referred to as ''the extent to which a person thinks about the issue-relevant arguments contained in a message'' (Petty & Cacioppo, 1986: 128). Two different kinds of persuasion processes are distinguished in the model: the central- and peripheral route. The likelihood of elaboration and which route a person will take is determined by a person's motivation and ability to evaluate the information that is presented. If motivation and capacity are high, the person will take the central route. In the central route, arguments are critically evaluated. However, if motivation or capacity is low, someone will process information via the

peripheral route. In the peripheral route, arguments are not critically evaluated, rather mental shortcuts are used and aspects such as the attractiveness or expertise of a speaker become important (Petty & Cacioppo, 1986).

In the peripheral route, nonverbal behaviour is important (for example, those behaviours that lead to attractiveness) and increases the persuasiveness of communication. The importance of nonverbal signals could also be distracted from 'the communication pyramid' in which it is stated that ''55% of the effect of a speech results from the body language, 38% from the voice and just 7% from the content of a speech'' (Maurer and Reiemann, 2007: 320 as cited in Jackob, Roessing and Petersen, 2011).

Nonverbal behavior refers to actions such as postures, positions, hand and arm gestures, and facial expressions (Jackob et. al, 2011). Some nonverbal aspects are closely linked to speech and play a role in affective behaviors. Scherer (1980, as cited in Bull, 1986: 103) states that ''nonverbal stimuli either affect the meaning of speech (semantic function); regulate the occurrence of verbal and non-verbal signs (syntactic function), indicate characteristics of the sender and receiver (pragmatic function), or indicate the nature of the relationship between the conversationalists (dialog function)''.

Jackob et. al (2011) showed that nonverbal behaviours can influence persuasion processes. They examined the effects of nonverbal elements in persuasive communication and stated that speech with vocal emphasis and body language is rated as the most vivid, powerful, liveliest, and most self-assured and evaluated as most persuasive. Furthermore, the perceived performance of the presenter is positively influenced by nonverbal support (Jackob et. al, 2011).

Burgoon, Birk and Pfau (1990) also found that nonverbal behaviors influence dimensions of source credibility (character, competence, composure, sociability, and dynamism) and speaker persuasiveness. These researchers divided many nonverbal cues into two categories. The first category, vocalic nonverbal cues, consisted of cues such as pitch, tempo, and loudness of the voice. The second category, kinesic/proxemic nonverbal cues, consisted of cues such as eye contact, body distance, smiling, and hand gestures. It was shown that both categories of nonverbal behaviors contributed to all five credibility judgments except for dynamism. Furthermore, results showed that a speaker was perceived as more persuasive when he had greater vocal pleasantness, kinesic/proxemics immediacy, facial expressiveness, and kinesic relaxation and expressiveness (Burgoon et al., 1990).

From the various nonverbal cues discussed so far, one specific type of non-verbal communication is co-speech/speech-accompanying gestures. Kendon (2000: 49) refers to these gestures as ‘‘that range of visible bodily actions that are, more or less, generally regarded as part of a person’s willing expression’’. Co-speech gestures (henceforth called gestures) are produced while speaking and can refer to actions, concepts or relations between elements that are said (McNeill, 1992). They do not have fixed meanings or occur in the absence of speech. For example, emblems are not considered as gestures in this study, since they have specific meanings and occur in the absence of speech (for example, the ‘’V’’ victory sign) (Ekman & Friesen, 1969 as cited in Streeck, 2008).

When performing a gesture, it passes five gesture phases: preparation, prestroke hold, the stroke itself, posthold stroke, and retraction; all are optional except for the stroke (McNeill, 2006). During the preparation, ‘‘the limb moves away from a rest position into the gesture space where it can begin the stroke’’ (McNeill, 2006: 62). The stroke is the effortful and meaningful part of the gesture. Pre-and post-stroke hold phases are temporary holds of motion before or after the stroke. The phase in which the hands return to rest is called retraction. The period from the preparation to retraction is called a gesture phrase. The gesture phrase occurs within a gesture unit, which is ‘the period of time between rests of the limbs’ (McNeill, 1992). It is shown that 90% of all strokes occurred during speech (McNeill, 1992).

McNeill (1992: 60) proposes four different dimensions of gestures:

‘‘First of all, ‘iconic’ gestures present images of concrete entities and/or actions. ‘Metaphoric’ gestures picture abstract contents as if they had form and/or occupied space. Thirdly, ‘deictic’ gestures locate entities and action in space, by pointing. Lastly, beats are gestures that rhythmically beat on the prosodic peak of speech”.

Kendon (2004) also distinguishes ‘pragmatic’ gestures. These are gestures which visualize aspects of the communicative action performed and indicate the overall structure.

These five different type of gestures were studied by Marrichiolo, Gnicsci, Bonauiuto and Ficca (2009). They examined the role of gestures alone in persuasive speech. Because gestures can clarify the discourse of speech, they are believed to help the speaker coordinate speech as well as aid comprehension by the listener (Marrichiolo, et al., 2009). Gestures can also be used to

evaluate the speaker's personal and social features (warmth, competence, persuasiveness) and attitudes and intentions (Patterson, 1982, 2001 as cited in Marrichiolo et al., 2009)**.** Marrichiolo et al. (2009) tested the effect of gestures on speaker effectiveness during persuasive communication among students on a subject which the students were involved with. Marrichiolo et al. (2009) set up two experiments in a university setting (one with sound and an 'audio-only' version to ensure that the effects were attributable only to gesture) in which one message was prepared in five different versions, manipulating only gestures while holding constant remaining source features (such as the number of gestures). After seeing the video, the students filled in a questionnaire in which they evaluated the speaker (on composure, competence, and communicative style), the message (on persuasiveness), their attitude, and intention to vote. Results showed that gestures have a significant effect on composure and competence of the speaker as well as the speaker's communication style and the persuasiveness of the message. Gestures had no influence on perceptions of warmth and vote intention. Participants paid more attention to and evaluated the message more positively when the speaker used gestures (Marrichiolo et al., 2009).

Since these results show that the use of gestures positively influences evaluations of competence (which could be seen as an aspect of persuasiveness), composure, persuasiveness of the message, and attention to a message, it could be argued that these positive effects increase when a speaker uses more gestures. Because the speaker is actually perceived as more persuasive when (s)he used gestures, it could be suggested that the speaker would be seen as more persuasive when the speaker uses gestures with higher frequency. Although studies suggest that performing gestures is useful, speakers are often not aware of their gesture production. Therefore, a speaker cannot consciously decide to use gestures.

However, the favourable findings stated in the previous paragraph (e.g. the positive influence of gestures on speaker evaluations of composure, effectiveness and competence) could be reasons for politicians to try to use gestures. And indeed, previous studies have found politicians to use gestures. For example, Streeck (2008) researched the use of gestures by politicians. Streeck (2008) stated that bodily expressions and gestures of politicians have become of great importance, since television has a pervasive presence in our society. Via television, politicians communicate with the public and maintain relationships with the nation. Therefore, Streeck (2008) analyzed bodily expressions by watching the speeches of candidates in two

Democratic Party primary debates during the 2004 presidential campaign. Streeck (2008) made a descriptive analysis of forms and functions of gestures. Specifically, he addressed the most frequently used gestures, their production over time and their coordination with speech. After analyzing these speeches, Streeck (2008) stated that politicians appear to have a shared gesture code. Politicians most frequently used pragmatic gestures. One of the most frequently used pragmatic gestures is the 'slice', which could be placed in the category 'beats' of McNeill (2006). This gesture is used to emphasize stressed syllables and intonation peaks. Other frequently used gestures are pointing (deictic gesture), the precision grip to connote specificity (metaphoric) and the power grip (beats), which is used to stress syllables and to mark the core idea. Since they only used four gestures frequently, Streeck (2008) stated that these politicians had a small size of gesture repertoire. They continuously repeated the same strokes, but changed the gesture's size and tempo while performing a gesture to give a visual structure; it tied the utterance together while at the same differentiating parts (Streeck, 2008). He showed that it is important for politicians to vary in their gestures (or at least change the size and tempo of a gesture), because the use of only one gesture was shown to be detrimental for one's success resulting in having the fewest votes. It was shown that it is important to provide structure that facilitates the processing of speech.

As mentioned before, gestures are shown to positively influence speaker evaluations such as competence, effectiveness, composure, as well as attention to the message and persuasiveness of the message. Therefore, it was expected that politicians use gestures, which Streeck (2008) has shown to be true. The use of gestures by politicians in combination with previous findings of persuasiveness leaded to the current study.

Current study

Persuasive communication has been a topic of interest for decades and many researches have examined it. Various persuasion models have been proposed such as McGuire's model of attitude change (1968) and the Elaboration Likelihood Model of Petty and Ciacoppo (1986). Previous studies have also examined the relationship between nonverbal behaviour and persuasiveness. For example, Jackob et. al (2011) found that speech with vocal emphasis and body language is rated as most persuasive. Furthermore, Burgoon et. al (1990) found numerous

associations between nonverbal behaviors and attributions of credibility and persuasiveness. One particular type of nonverbal behaviour, hand gestures, has also been examined by many researchers. For example, Kendon and McNeill (1992; 2000; 2006) categorized different hand gestures. However, few researchers have examined the role of hand gestures in relation to persuasive communication. Merely Marrichiolo et al. (2009) examined the role of hand gestures specifically in persuasive speech by experimentally manipulating the speakers' hand gestures while holding constant remaining source features. However, this is very unlikely to happen in the real world, because other source features can't be held constant. Streeck (2008) analyzed the use of hand gestures in a real life setting, namely case studies of politicians. However, he only analysed a few examples and hand gestures were only examined in terms of the forms and functions; not in the number of hand gestures. Previous studies have not researched hand gestures in an ecologically valid experiment. Furthermore, previous studies have not examined whether the *number* of hand gestures has an influence on the persuasiveness of politicians. It is clear that knowledge is lacking, which led to the following research question:

Does the number of hand gestures performed in speeches influence the persuasiveness of politicians?

H1: It could be suggested that a politician who uses many hand gestures is perceived as more persuasive than a politician who uses few hand gestures. This is expected, because a speaker is actually perceived as more persuasive when (s)he uses hand gestures and this is likely to increase even more when the speaker uses hand gestures with higher frequency.

Furthermore, persuasiveness is closely related to vote intention. Previous studies (Marrichiolo et. al, 2009) already examined the effect of hand gestures on vote intention. However, they did not find any significant results. Furthermore, the study of Marrichiolo et. al (2009) was not ecologically valid. This gap needs further research, which led to the following sub question:

Does the number of hand gestures performed in speeches influence vote intention?

H2: Since persuasiveness in politics is closely linked to vote intention, it could be argued that people vote for a politician who is persuasive. A speaker's persuasiveness is likely to increase when the number of hand gestures raise. Therefore, it is expected that the intention to vote is higher for a politician who uses many gestures than for a politician who uses few gestures.

These topics would be interesting to examine, because it provides further knowledge into aspects of persuasiveness which is omnipresent in today's society. This is found to be very important in politics in particular, since one of their main goals is to convince people of their opinion. Furthermore, it gives additional insights into the effects of non verbal communication, hand gestures in specific, on persuasiveness. Moreover, outcomes will provide practical information to help politicians with the development of successful strategies for their speeches.

Method

A quantitative study was conducted to answer the research questions. The method section provides further details on the content of this quantitative study. Beforehand, it should be mentioned that data for this study was gathered within a group of eight people. We performed our own study, but worked within the same theme. Data was gathered together.

Materials

A corpus, consisting of 11 videos of political speeches in which Dutch politicians used hand gestures, was used. A corpus was collected, because it provided realistic examples of persuasive speeches. While the videos were selected, it was kept in mind that the Dutch politicians had to be relatively unknown; so that there was little chance of there being previously formed opinions. Furthermore, the politicians selected for the videos had to be men between the age of 30 and 60-years-old. Both hands of the politicians had to be clearly visible in front of a calm background. The videos lasted one to two minutes (two was the maximum). If they lasted longer, the videos were shortened using Windows Movie maker. The audio in the videos was removed, so that vocal features could not influence the perceived persuasiveness of the politicians. An annotation tool, ELAN, was used to count the independent variable; the number of hand gestures performed

by politicians in the videos (Sloetjes & Wittenburg, 2008)[1]. The number of gestures was divided into two categories: many and few gestures. When a politician used less than 15 gestures per minute, the video was put into the 'few gestures' category. When a politician used more than 15 gestures per minute, the video was put into the 'many gestures category'. Five videos in total were classified to the many gestures category, six to the few gestures. The actual categorization of politicians who performed many or few gestures is included in the appendix.

Subjects

Originally, 174 respondents participated in the experiment. However, data from 89 respondents was deleted from the experiment: 84 participants did not answer all the questions of the questionnaire and were therefore excluded (52%). Another five participants were under the age of 18 and were not allowed to vote. Therefore, they were excluded from the dataset as well. This resulted in a total number of 85 respondents participating in the experiment.

Out of the 85 respondents included in the experiment, 37.6% (32) were male and 62.4% (53) were female. The average age was 29.60 (SD = 14.73, R = 18 – 76). The majority of the respondents had a higher vocational education as their highest level of education (65.9%), followed by a high school students or secondary vocational education (28.2%) and lower vocational education (4.7%). One of the participants had primary school as the highest level of education (1.2%).

Design

A within-subjects design was used for the experiment; all subjects saw all 11 videos.
The independent variable in the experiment was the number of hand gestures. The dependent variables were persuasiveness and intention to vote.

[1]Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands.

Instrumentation

The dependent variables were measured with a questionnaire. First of all, participants were asked if they were familiar with the politician in the video on a 7-ponits Likert scale anchored by 'unknown' and 'well known'. When participants said to be familiar with the politician by giving a score of 5, 6 or 7, their answers for that particular video were deleted from the data so previously formed opinions could not influence the outcomes. Secondly, persuasiveness of the politician was measured in the present study using the scale developed by Maricchiolo et al. (2009) for evaluation of the speaker. Persuasiveness of the politician ('How do you evaluate the speaker of the message?') was measured through ten items on a 7-points Likert scale: friendly (0 = not at all friendly; 7 = completely friendly), interesting, pleasant, calm, relaxed, confident, competent, expert, credible, and convinced. The reliability of persuasiveness compromising 110 items (10 items per fragment) was good: $\alpha = .958$. Lastly, intention to vote was measured with one question based on Maricchiolo et al. (2009): 'would you vote for the speaker if there were elections right now'. Participants could either answer unlikely or likely. At the end of the questionnaire, demographic data (age, gender, and educational level) was gathered. The questionnaire (in Dutch) is included in the appendix.

Procedure

An online, individual questionnaire was conducted via Qualtrics. The questionnaire was distributed via Facebook or directly send to respondents through e-mail. The experiment was introduced with a short text about the purpose and content of the study. Following the introduction, the 11 videos were presented to the participants in sequence. For each video, participants were asked to click on a link. Afterwards, they had to fill in questions about the videos. The experiment (watching the video and filling in the questionnaire) took approximately half an hour. The questionnaire was anonymous.

Statistical analysis

The data was analysed using SPSS. A samples-paired T-test was performed, testing for the effect of number of gestures on persuasiveness. A chi-square test was executed to test the effect of number of gestures on vote intention.

Results

A paired-samples t-test did not show a significant effect of number of gestures on persuasiveness ($t(84) = .052$, $p = .959$). Table one provides an overview of the means for the number of gestures for persuasiveness.

Table 1. *Overview of means for persuasiveness of many gestures and few gestures (n = 85) (1 = not at all persuasive, 7 = completely persuasive)*

		Persuasiveness	
		M	*SD*
Number of gestures	Many gestures	4.37	0.61
	Few gestures	4.37	0.61

A chi-square test showed no significant relation between number of gestures and vote intention ($\chi^2(1) = 2.422$, $p = .120$). Table two shows the distribution of vote intention across the number of gestures.

Table 2. *Cross tabulation of number of gestures and vote intention*

		Vote intention		
		Unlikely to vote	Likely to vote	Total
Number of gestures	Many gestures	314	137	451
	Few gestures	267	146	413
	Total	581	283	864

Conclusion/discussion

The purpose of this study was to test whether the number of hand gestures performed in political speeches influences the persuasiveness of politicians. Furthermore, it was tested whether the number of hand gestures influences the intention to vote. The results show that there is no effect of number of gestures on persuasiveness and intention to vote, meaning that there is no

difference in persuasiveness of speeches with many gestures or few gestures. Therefore, the research questions could be answered by stating that the number of hand gestures performed in speeches does not influence the persuasiveness of politicians and people's intention to vote. These results are not in line with the hypothesis with regard to persuasiveness. Previous studies led us to infer that politicians who use many hand gestures are more persuasive than politicians who use few hand gestures. Although no studies explicitly studied the number of gestures performed in speeches, studies certainly examined the use of hand gestures.

For example, Marrichiolo et al. (2009) found that participants paid more attention to a speaker when the speaker used hand gestures. Furthermore, the participants evaluated the message more positively when the speaker used hand gestures and found that hand gestures have a positive effect on composure and competence of the speaker. This shows that the speaker was perceived as more persuasive when (s)he used hand gestures. Therefore, it was suggested that in the present study the speaker would be seen as even more persuasive when the speaker uses gestures with higher frequency. Especially since no audio was present in the videos, it was expected that participants paid a lot of attention to the gestures of politicians and that politicians with many gestures were found to be more persuasive than the politicians who did not use many gestures. Petty and Cacioppo (1986) showed that an individual 'follows' the peripheral route when the persuasive message does not contain verbal arguments, as is the case in this experiment. When 'following' the peripheral route, an individual pays attention to nonverbal cues such as gestures and makes easy decisions (mental shortcuts) based on these nonverbal cues. Therefore, it was suggested that the use of many gestures was more persuasive than the use of few gestures. Furthermore, Burgoon et. al (1990) and Jackob et. al (2011) found that nonverbal behavior in general influences speaker persuasiveness. Since gestures are part of a speaker's nonverbal communication, it was expected to increase persuasiveness. However, it seems to appear that the number of hand gestures does not matter much; just the use of gestures is persuasive enough.

With regard to intention to vote, the results are in line with previous studies. Marrichiolo et al. (2009) also found that hand gestures had no influence on vote intention. Except for Marrichiolo et al. (2009), no previous studies examined this relation and there is no other material to compare it with. Although it was argued that a politician who uses many gestures is

more persuasive than a politician who uses few gestures and that this may in turn affect the intention to vote, the results did not show a relation between hand gestures and intention to vote.

Possible explanations for having no effect of number of hand gestures on persuasiveness and vote intention are considered. The results could be explained by assuming that persuasiveness is influenced by the kind of gesture rather than the number of hand gestures. Since there was no difference between persuasiveness of speeches with many gestures or few gestures, it might be the case that it doesn't matter if a speaker makes many or few gestures in a natural setting. Previous studies have shown that it is important to make some gestures, but the number of gestures may not matter much. Furthermore, other nonverbal cues could be paid more attention to than hand gestures. Burgoon et. al (1990) showed that there are many different nonverbal behaviors. For example, facial expressions, smiling or eye contact were mentioned. These nonverbal cues could be more relevant to find someone persuasive than the number of gestures (s)he uses.

A few limitations of the study should be mentioned. During the experiment a lot of participants stopped and did not watch all videos. Therefore, our experiment may have been too long. Some of the participants did finish the questionnaire, but did not pay much attention to the videos or did not watch the full 2 minutes completely. This might be due to fatigue or boredom, which could have influenced the results. Furthermore, a few mistakes were found in the questionnaire: some videos contained the name of the politician while the identity of the politician was supposed to be unknown. Furthermore, one of the questions (question 11 from fragment 11) had the reversed order: likely – unlikely instead of unlikely – likely. Participants could have read the question wrongly and could have given the wrong answer as a result. However, it is not expected that these errors have affected the results in any large way.

A practical implication from this study could be that politicians pay attention to the gestures they perform, especially during campaigns. They may especially focus on the type of gestures instead of the number of gestures, since the number of gestures has no influence on persuasiveness. However, if politicians pay attention to the type of gestures they perform, they could try to make the use of gestures a conscious process and seem more persuasive as a result. More general, gestures and nonverbal communication remain important, since previous research showed that gestures make a speaker appear more persuasive. To make the importance of

gestures clearer and improve a politician's nonverbal skills, a training into nonverbal cues, and hand gestures in specific, could be suggested.

Since no previous studies researched the number of hand gestures in persuasive contexts, further research should focus on this aspect. In all studies discussed in this thesis, the type of hand gestures was examined, but the number of hand gestures was disregarded. Since this study provided real life examples of political speeches by using a corpus, further research could design an experiment in which researchers manipulate the number of hand gestures themselves. For example, Maricchiolo et. al (2009) manipulated the type of hand gestures themselves. A similar experiment could be set up for manipulating the number of hand gestures instead of the type of hand gestures. When the number of hand gestures is completely controlled, it could possibly give a clearer understanding of the relationship between persuasiveness and number of hand gestures. Furthermore, other researchers could use a between subject design instead of a within subject design with a corpus of actual videos of politicians as well. Using a between subject design could enable researchers to collect more accurate data, since the experiment will take less time. Therefore, participants will be more likely to fill in the questionnaire completely and watch one entire video with more attention, since they are probably less tired or bored, as was the case in this experiment. It also allows researchers to study specific differences between the two categories (many or few gestures) per group.

Persuasive messages are ubiquitous in today's society; especially politicians try to be persuasive, but at least the number of hand gestures does not influence the persuasiveness of politicians and society's intention to vote.

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Appendix

1. Questionnaire sent to Dutch participants

Q1 Introductie

Beste deelnemer,

Deze vragenlijst maakt onderdeel uit van de Bachelorscriptie van Communicatie- en Informatiewetenschappen van de Radboud Universiteit Nijmegen. Meedoen aan het onderzoek houdt in dat u een online vragenlijst gaat invullen. Het invullen van de vragenlijst kost ongeveer 30 minuten. We zijn vooral benieuwd naar uw mening, er zijn daarom geen juiste of onjuiste antwoorden op de vragen. U zult een aantal video's te zien krijgen waarbij het geluid is weggelaten. De video's duren elk ongeveer 2 minuten en zijn te vinden door op 'fragment' in de tekst te klikken. Nadat u het fragment gezien heeft, wordt u gevraagd een aantal vragen hierover te beantwoorden. Aan het einde van de vragenlijst wordt u gevraagd persoonlijke gegevens te verstrekken, zoals leeftijd, geslacht, opleidingsniveau en moedertaal. U doet vrijwillig en anoniem mee aan dit onderzoek en kunt op ieder moment tijdens het invullen van de vragenlijst uw deelname stopzetten.

Alvast bedankt voor uw deelname!

Q5 Fragment 1

Q6 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q7 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q8 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q9 Fragment 2

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q10 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

Q11 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q12 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q13 Fragment 3

Q14 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q15 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q16 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q17 Fragment 4

Q18 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkend maar er geen mening over heeft

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q19 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q20 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q21 Fragment 5

Q22 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q23 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q24 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q25 Fragment 6

Q26 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q27 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q28 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q29 Fragment 7

Q30 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q31 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q32 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q33 Fragment 8

Q34 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q35 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q36 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q37 Fragment 9

Q38 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q39 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q40 Zou u op de spreker stemmen als er nu verkiezingen waren?

❍ Onwaarschijnlijk (1)

❍ Waarschijnlijk (2)

Q41 Fragment 10

Q42 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q43 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q44 Zou u op de spreker stemmen als er nu verkiezingen waren?

- ❍ Onwaarschijnlijk (1)
- ❍ Waarschijnlijk (2)

Q45 Fragment 11

Q46 Bent u bekend met de spreker uit dit filmpje? (Kies het midden als u de spreker wel herkent maar er geen mening over heeft)

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Onbekend:Bekend (1)	❍	❍	❍	❍	❍	❍	❍

Q47 Hoe beoordeelt u de spreker in dit filmpje?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
Zeer onvriendelijk:Zeer vriendelijk (1)	❍	❍	❍	❍	❍	❍	❍
Zeer oninteressant:Zeer interessant (2)	❍	❍	❍	❍	❍	❍	❍
Zeer onprettig:Zeer prettig (3)	❍	❍	❍	❍	❍	❍	❍
Zeer onrustig:Zeer rustig (4)	❍	❍	❍	❍	❍	❍	❍
Zeer gespannen:Zeer ontspannen (5)	❍	❍	❍	❍	❍	❍	❍
Helemaal geen zelfvertrouwen:Vol zelfvertrouwen (6)	❍	❍	❍	❍	❍	❍	❍
Zeer incompetent:Zeer competent (7)	❍	❍	❍	❍	❍	❍	❍
Zeer ondeskundig:Zeer deskundig (8)	❍	❍	❍	❍	❍	❍	❍
Zeer ongeloofwaardig:Zeer geloofwaardig (9)	❍	❍	❍	❍	❍	❍	❍
Helemaal niet overtuigend:Zeer overtuigend (10)	❍	❍	❍	❍	❍	❍	❍

Q60 Zou u op de spreker stemmen als er nu verkiezingen waren?

- ❍ Waarschijnlijk (1)
- ❍ Onwaarschijnlijk (2)

Q62 Persoonlijke gegevens

Q56 Hoe oud bent u?

Q57 Wat is uw geslacht?

- ❍ Man (1)
- ❍ Vrouw (2)

Q55 Wat is uw hoogst genoten opleiding?

- ❍ Lagere school (1)
- ❍ lbo/mavo/vmbo (2)
- ❍ havo/vwo/mbo (3)
- ❍ hbo/wo (4)
- ❍ Anders (5) _____

Q49 Hartelijk dank voor het invullen van deze vragenlijst!Als u geïnformeerd wilt worden over de uitkomsten van dit onderzoek, vul dan hieronder uw e-mailadres in.

Q59 E-mailadres:

2. Categorization of videos into the ‘many gesture category’ or ‘few gesture category’

1. Bas Eickhout: 50/minute: many
2. Eelco Brinkman: 3/minute: few
3. Tof Thissen: 16/minute: many
4. Julius Lindenbergh: 35/minute: many
5. Tunahan Kuzu: 4/minute: few
6. Bas van der Vlies: 30/minute: many
7. Henk Krol: 9/minute: few
8. Menno de Bruyne: 7.5/minute: few
9. Hans Weijers: 10/minute: few
10. Gerben Jan Gerbrandy: 27/minute: many
11. Harm Beertema: 10/minute: few