The effect of T and V pronouns of address in Dutch and German on pandemic-related messages

Bachelor Thesis

Student: Frits Oudenhoven
Student number: 1027810
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Introduction
More than two years ago, the COVID-19 pandemic started. In those years, policy makers faced difficult decisions with regard to the pandemic. Facemasks, closing hours, lockdowns, testing, vaccinations, are just a few of the complex topics politicians and experts had to deal with. When a decision was made, those decision-makers could count on support, but also on resistance. All those decisions had to be communicated to the population. When the vaccinations finally became available for the public, policy makers started to communicate vaccination campaigns to reach a vaccination ratio as high as possible. However, even when academic sources show that vaccinations reduce hospitalization and death rates many people still have their reasons to not get vaccinated (Xu, 2021). The Guardian stated several reasons for people to not get vaccinated (al-Gharbi, 2022). For example, that the vaccines were ‘developed, approved, mass produced and distributed at record speed’ and ‘were the first mRNA vaccines to achieve approval’. Furthermore, some people were afraid of the short- or long-term side effects or did not trust the big pharma. Another reason for people to not get vaccinated is that people who do have the vaccine still get serious infections with COVID. Conclusively, the article by al Gharbi (2022) describes enough substantiated reasons to not get vaccinated.

The right communication strategy can help convince people to get vaccinated.
Previous research has shown that the manner of communication by health authorities can influence people’s health-related behaviour (Gilkey et al., 2016; Grandpre et al., 2003; Tian et al., 2021; Tu et al., 2021). For example, research has shown that the type of language in a healthcare provider’s recommendation about vaccination influences people’s vaccination behaviour (Gilkey et al., 2016). The study conducted by Gilkey et al. (2016) researched how language in provider’s recommendations for the human papillomavirus (HPV) vaccine influences the vaccination rate. More specifically, they looked at how parents rated the quality of the provider’s recommendation. The quality of the recommendation was assessed with ‘strength of endorsement’, ‘prevention message’, and ‘urgency’. ‘Strength of endorsement’ was measured with the question if the provider said the HPV vaccine was “very” or “extremely” important. ‘Prevention message’ was assessed with the question if the provider said HPV vaccine prevents cancer or not. ‘Urgency’ was measured with the question if the provider recommended vaccination on the same day the message was received. The researchers did not test each factor separately but composed recommendation quality scores based on the three factors. The parents were categorized in three categories: parents who
received no recommendation for HPV vaccine (48%), a low-quality recommendation (16%),
or a high-quality recommendation (36%). Gilkey et al. (2016) found that high-quality
recommendations are likely to be more effective than low-quality recommendations for
promoting HPV vaccine initiation and completion.

Another example of research which found that language in health-related messages
can influence behaviour is a study conducted by Grandpre et al (2009). The researchers found
that the message type (implicit vs. explicit) of pro- and anti-smoking messages had a
significant impact on the processing of tobacco-related messages (Grandpre et al., 2003).
Implicit messages are defined as messages in which freedom of choice is emphasised. The
explicit messages consisted of messages in which utterances as “smoking is cool” were
spoken aloud. They found that explicit messages were rated more negatively than implicit
messages. Furthermore, they found that the message source was evaluated more positively
when implicit messages were used than when explicit messages were used.

A more recent study conducted in 2021 examined the impact of language in stay-at-
home COVID-19 messages on people’s likelihood to follow those recommendations (Tu et
al., 2021). More specifically, they examined the difference in impact between the usage of the
first-person plural (we) and the second-person singular (you) pronouns. They found that
participants with lower self-control had a higher willingness to adhere to stay-at-home
guidelines when the second-person singular (you) was used. Furthermore, they found that
participants who scored high on self-control intended to adhere more to stay-at-home
guidance regardless of pronoun usage. Research by de Ridder et al. (2012) and Redden &
Haws (2013) found that participants with higher self-control are less influenced by their
environment than those with low self-control. This finding may explain why Tu et al. (2021)
found that participants with higher self-control were less influenced by pronoun usage while
external factors such as use of pronoun have less influence on them.

Tian et al. (2021) also conducted research in the area of pronouns and COVID. They
examined if there is an effect of using the we-language vs. the you-language in supportive
messages about COVID-19 on ‘emotional improvement’ in relation to ‘communal coping’.
For communal coping the definition from Lyons et al. (1998) is used in the research and is as
following: ‘communal coping occurs when people perceive their stressor as collectively
owned and work together to manage it’. In this case, the shared stressor is COVID-19. Two
dimensions of communal coping were measured: the *appraisal* dimension and the *action*
dimension. The *appraisal* dimension was measured with the sentence: “When I think about COVID-19, I mostly think about…”. This sentence was followed by the statement: “how it is my community’s health issue that we face together”, and two other statements. The *action* dimension was measured with three statements, for example: “It is my community’s responsibility to prevent the spread of COVID-19”. Furthermore, emotional improvement was measured including five items. For example, participants were presented with the statement “That message helped to cheer me up”.

What they found was that when communal coping orientation was high with participants, the participants associated you-language supportive messages (vs. we-language supportive messages) with more emotional improvement. A possible explanation given for this finding can be that when people have shared illness appraisals, they see you-language supportive messages not as messages which convey separateness and independence but rather as collaboration toward a common goal (Helgeson et al., 2019). In other words, when people experience the same complaints of an illness at the same time, they experience more improvement when they get addressed with the you-form instead of the we-form. This is the case because the you-language does not create a barrier between the sender and the receiver but is rather seen as a joint effort towards a shared goal.

The aforementioned studies show that language can influence health behaviour (Gilkey et al., 2016; Grandpre et al., 2003; Tian et al., 2021; Tu et al., 2021). What these studies do not measure is the effect of language on the perceived persuasiveness of health-related messages. To find out if language also influences the perceived persuasiveness of health-related messages, this research will focus on the influence of formal versus informal language on pandemic-related messages.

An important aspect of the formality of language is formed by pronouns, in particular the distinction between formal and informal pronouns. Brown and Gilman (1960) were the first to discuss the topic of the use of informal and formal pronouns of address in different European languages. After this research was published, the T and V pronouns became commonly used in the literature as concepts which refer to informal and formal pronouns. Brown and Gilman describe that the origin of the T and V pronouns can be found with the Latin *tu* and *vos*. In Europe, each language has developed those pronouns into different forms. In Germany they use *du* and *Sie* and in Dutch the distinction is made between *jij* and *u*.
Brown and Gilman state that the use of the personal pronouns T and V relate very closely with the dimensions of power and solidarity (Brown & Gilman, 1960). According to Brown and Gilman, the choice between T and the V pronoun was determined by the dimension of power for centuries long. The power dimension can be based upon different factors: physical strength, wealth, age, sex, institutionalized role in the church, the state, the army or within the family. These differences in power can be seen as nonreciprocal and asymmetric. When looking at the above factors, this means for example that in a relation or in a conversation, the one participant is stronger, wealthier or older than the other. In those cases, the participant of the conversation between two people who is dominant uses T and receives V. For example, a soldier said V to his officer and received T. This example shows that the relationship between the superior and the inferior was nonreciprocal.

From the 19th century onwards, the usage of T and V pronouns was less determined by power but more by a system based on solidarity, Brown and Gilman (1960) describe. From this moment, the roles of the participants of the interaction became less important when choosing for T and V pronouns. Instead, T became related to intimacy and the V stood for formality. The difference with the power semantic is that the solidarity semantic is based on symmetric relations instead of asymmetric relations. In other words, power is always defined in an asymmetrical relationship where one person has more or is more than the other. Solidarity is defined in a symmetrical relationship where two people who are interacting have a certain similarity. For example, when two people have attended the same school, have the same parents or practice the same profession. Not all similarities between people lead to the use of the mutual T, Brown and Gilman describe. The core of the solidarity semantic is like-mindedness. For example, political membership, family, religion, profession, sex, and birthplace are common factors that will lead to the exchange of the mutual T. Brown and Gilman therefore make a distinction between the familiar pronoun (T) and the polite pronoun (V). Currently, this distinction is still in effect in The Netherlands. Jansen and Jansen (2005) found that the distinction between u (V) and jij (T) in Dutch is used to indicate familiarity and politeness. The more familiar two speakers are, the more it is likely that the T form is used and vice versa.

The T and the V pronouns in Dutch have developed over time. Formerly, the Dutch used du as the T pronoun and gij as the V pronoun. Since the beginning of the 20st century, the T/V distinction is developed into the forms jij and u (Van Zalk & Jansen, 2004). This distinction is nowadays still active in the Dutch language. In Dutch, there has also been a shift
of the usage of *u* to *jij*. According to Vermaas (2002), the higher the age, the likelier Dutch people use the V form instead of the T form and vice versa. This relates to the research of Braun (1988) that the usage of the T and V form is based on more factors than on the dimensions of Brown and Gilman (1960).

In German, the use of the T and the V pronouns have developed over time as well. According to Moraldo (2004), the V-pronoun was prominent until the 1960s. However, the T-pronoun *du* was used more and more from the 1960s. He also states that this shift has been reversed from after the 1960s (Moraldo, 2011). In German, the rules of when to use the T or the V pronoun are not as clear. For example, the choice between the two pronouns in the workspace are more dependent on the type of job instead of the known dimensions of power and social distance (Kretzenbacher, 2010). Kretzenbacher also writes that despite the type of job, the V form is the most used pronoun in the formal environment.

After the research of Brown and Gilman (1960) was published, a significant amount of research has been done in the research area of pronouns. Levshina (2017) conducted research which focussed on the use of T and V forms in European languages. The research was conducted through a corpus analysis based of film subtitles of nine popular films of different genres. Levshina found that there are substantial cross-linguistic differences in the usage of the T and V personal pronoun. In Levshina’s research, the variables are subdivided into four types: relational variables (represent relationships between the speaker and the hearer), speaker-related variables (e.g., age of the speaker), hearer-related variables (e.g., class of the hearer), and variables describing the communicative settings (e.g., in office or not).

First, Levshina found that the solidarity dimension plays a crucial role in all languages (except for Swedish) regarding the usage of the T or the V form. This is in line with the theory of Brown and Gilman. The difference that Levshina found between the German and the Dutch language is that the place of communication (office or not) is more important for German than for Dutch speakers when choosing for the T or the V form.

Furthermore, Levshina found that in Dutch, the power semantic is still more present than in German. This means that in Dutch, the speakers are inclined to use the V form when speaking to someone who belongs to a higher social class. Dutch and German also had similarities in the use of the T and V form. For both languages, the individual characteristics of the listener (in particular age), were more important than the individual characteristics of the speakers. Levishna proposed a general scale in which the importance of factors which
influence the usage of the T or V form is lined up from most important to less. They propose that solidarity is most important, following by power, the age of the hearer and finally other reasons.

There has also been research into pronouns in the marketing world. Cruz et al. (2017) have shown that the manner of usage of the pronouns influences consumer involvement and brand attitude. They found that the presence (vs. absence) of the second person pronoun (you) in brand messages enhances consumer’s involvement and brand attitude. Another study into pronouns in the marketing world is conducted by House & Kádár (2020). They looked at IKEA’s T-form strategy and how the second person T-form is translated in IKEA catalogues in seven different countries. They also looked at how language users evaluate this use of the second person pronominal form. What was found is that German interviewees felt that the use of the T pronoun in the catalogues was inappropriate and was not in accordance with the general marketing convention of the country.

The previous two studies show that descriptive research is done into in what situation and how often the T and the V form are used. In Dutch, research has also been conducted on the effect of the use of the T vs. V pronoun in relation to applications. Segers (2021) conducted research on the effect of the choice of pronoun (u vs. jij) from the recruiter on the appreciation from the applicant towards the organisation. It is found that the choice for the T or the V pronoun does not influence the appreciation of the organisation and the recruiter (Segers, 2021). This research suggests that in the application context, the formality of the pronoun does not influence the attitude of the applicant.

We have seen before that the use of the T and the V pronoun differs in the German and the Dutch language (Levshina, 2017). This might also lead to a difference in persuasiveness of health-related messages. In this research the focus will be on the difference in the use of the T vs. V pronouns of address on the persuasiveness of pandemic related messages. This research will be focussing on this difference in two languages: the Dutch and the German language. Furthermore, the research will be concentrated on young people from the age of 18 to 25. This group has been chosen because the younger the age, the more likely it is that the participants will experience future diseases where a vaccination is necessary. Furthermore, the younger the age, the lower the vaccination coverage is in the Netherlands (Ministerie van Volksgezondheid, 2022). This group is therefore particularly important in future vaccination campaigns in order to persuade them to be vaccinated.
This altogether leads to the following research question: *To what extent do T vs. V pronouns of address have an effect on the persuasiveness of pandemic-related messages in Dutch and German students?*

From the literature that is discussed it can be expected that there will be a difference in the persuasiveness between the two languages. Research has shown that in formal advertisements, the V form is predominant in the German language (Nord, 2008). The prominence of the V form does not directly mean that the persuasiveness will be higher as well. However, previous research has shown that German speakers often have a feeling of inappropriateness when they get addressed with the T form instead of the V (House & Kádár, 2020). There is no research yet into the T and V pronouns and their influence on persuasiveness in the German language regarding health behaviour. However, when we look at the research from House & Kádár (2020), we can hypothesize that this feeling of inappropriateness may lead to a lower level of persuasiveness with students. This leads to the following hypothesis:

**H1:** In pandemic-related messages in German, the V (vs. T) pronoun of address will lead to a higher level of persuasiveness for students.

In previous research we have seen that in Dutch, age does make a difference in how likely it is that people use the V or the T form (Vermaas, 2002). Research has shown that the higher the age, the likelier Dutch people use the V form instead of the T form and vice versa. It is therefore expected that young people (students) will be more persuaded when addressed with the T form instead of the V form. This leads to the following hypothesis:

**H2:** In pandemic-related messages in Dutch, the T (vs. V) pronoun of address will lead to a higher level of persuasiveness for students.

Through this research, there will be an expansion on the current understanding on the use of pronouns of address in relation to the persuasiveness in health-related communication. Furthermore, this research will provide Dutch and German governments and health authorities with new insights into language usage when creating pandemic-related messages. More specifically, this research will benefit governments and authorities in deciding whether to use the T or the V pronoun of address in pandemic-related messages when their objective is to persuade as many people as possible. The information that is gained from this research can help health-authorities and governments with future diseases, epidemics or pandemics when a vaccination is available, to reach a higher vaccination rate. This could then lead to an
improvement of the public health which would be a benefit for the society. In addition to this, this research into pronouns of address can be used for future researchers in the linguistic research field. It can be used as a foundation for further studies to innovate the current communication strategies regarding the pronoun of address.

**Method**

**Materials**

In this research, two independent variables were taken into account. The first independent variable was the personal pronoun of address used in the message that was shown to the participants. This independent variable consists of two levels: in Dutch the T form *jij* and the V form *u*; in German the T form *du* and the V form *Sie*. The other independent variable was language and existed of two levels namely German and Dutch. The stimulus material used were persuasive messages created by the researchers. These messages were posters with a persuasive text aimed for people to get vaccinated.

The messages were in Dutch and German and in each language, there were four different designs shown to the participants. As can be seen in Table 1, each language had four versions in which the participant was addressed with the T form (*jij* in Dutch and *du* in German). Furthermore, each language had four versions in which the participant was addressed with the V form (*u* in Dutch and *Sie* in German). The sixteen versions can be found in Appendix A.
Table 1 Table summarizing the different versions of the materials

<table>
<thead>
<tr>
<th>Language and type of pronoun</th>
<th>Type of poster</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Needle</td>
<td>Doctor</td>
<td>Globe</td>
<td>Scary</td>
</tr>
<tr>
<td>Dutch u</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Dutch jij</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>German Sie</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>German du</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

Participants

In this research, the data of 94 participants of which 51 native Dutch and 43 native German participants was taken into account. Of those participants, 50 identified themselves as female, 43 as male and 1 as non-binary/third gender. The participants were reached by the researchers through their personal network (face-to-face) as well as through social media. The age of the participants ranged between 18 and 25. Bilinguals were accepted as participants in the experiment, but their first language had to be Dutch (for the Dutch group) or German (for the German group).

Design

The experiment had a two (German/Dutch) by two (T/V) between-subjects research design. This means that there were two German groups and two Dutch groups. The first German group was shown four designs with each a persuasive vaccination message and was addressed with the T-form. These designs varied in use of colours and photos to eliminate possible
errors. This variation in designs ensures that possible findings cannot be attributed to certain colours or other external features such as the presence or absence of a person on the posters. The second German group was shown four designs with each persuasive vaccination message and was addressed with the V form. Moreover, the first Dutch group was shown four designs of the persuasive vaccination message and was addressed with the T form. The second Dutch group was shown four designs with the persuasive vaccination message and was addressed with the V form. This means that in total, 16 different poster versions were shown to the participants.

**Instruments**

Thomas et al. (2019) conducted research in which they aimed to develop and validate a scale to measure the perceived persuasiveness of messages. They found in their literature research that it is difficult to measure the actual persuasiveness. Therefore, their goal was to develop a reliable and validated scale to measure *perceived* persuasiveness. The researchers developed the scale by analysing healthy eating messages. The validity of the scale was established through analysing email security messages. The scale which the researchers came up with has 3 factors: **effectiveness**, **quality**, and **capability**.

The factor **effectiveness** involves user behaviour, attitude changes and attainment of participant’s goals (e.g., ‘This message will cause changes in my behaviour’). **Quality** relates to characteristics of a message strength such as trustworthiness and appropriateness (e.g., ‘This message is accurate’). **Capability** relates to the potential to motivate participants to change their behaviour (e.g., This message has the potential to change user behaviour).

The dependent variable in this research is therefore perceived persuasiveness. The dependent variables were measured through different items in a questionnaire. Persuasiveness of the message was measured with the aforementioned nine-item scale developed by Thomas et al. (2019) and is developed to measure the perceived persuasiveness. The statements on which the participants had to respond were divided into three factors: **effectiveness**, **quality**, and **capability** and the statements were as following:

**Effectiveness**

1. This message will cause changes in my behaviour
2. This message causes me to make some changes in my behaviour
3. After viewing this message, I will make changes in my attitude.
Quality

4. This message is accurate
5. This message is trustworthy
6. I believe this message is true

Capability

7. This message has the potential to change user behaviour.
8. This message has the potential to influence user behaviour.
9. This message has the potential to inspire users.

For all statements, the answer scale ranged from 1 (strongly disagree) to 7 (strongly agree).

The reliability of the three factors were calculated separately using Cronbach’s alpha. The reliability of ‘effectiveness of the message’ was good (α = .96). Furthermore, the reliability of ‘quality of the message’ and ‘capability of the message’ were good and were both α = .90. Consequently, the mean of all three factors was used to calculate the compound variable ‘perceived persuasiveness’, which was used in the further analysis.

Procedure

The research is conducted online through the medium Qualtrics. The data of the research was collected collectively by different researchers with the same research question. Before the experiment started, the participants were asked to read an informed consent form after which they were asked to give permission to take part in the experiment. The participants did not get a reward for their participation. After the introduction text, the participants were asked to fill in general questions about their age and gender. Hereafter, the experiment started. Each group was shown four different posters. After each poster, the participants were asked to answer to the statements which were presented in the instruments section. Finally, the participants were thanked for their participation.

Statistical treatment

For both independent variables a two-way univariate ANOVA with between-subject factors was conducted to answer the research question. The dependent variable perceived persuasiveness was divided into three components (effectiveness, quality, and capability) and each component included three statements. For every component the mean of the three statements was calculated. Then, for each component a univariate two-way univariate ANOVA was conducted. For this analysis, SPSS was used.
Results

The purpose of this study was to investigate to what extent formal (V) and informal (T) pronouns of address have an effect on the persuasiveness of pandemic related messages in Dutch and German students. In total, 206 participants responded to the survey. However, data of 102 participants was excluded from the analysis due to several reasons. Reasons to exclude data from the analysis were: participants who did not give consent to participate (4), participants who were not the desired age of between 18 and 25 (9) participants who did not speak German or Dutch as their native language (2), and others who did not finish the survey (87). Below the line, the data of 94 participants was used in this research.

As explained in the method section, the dependent variable in this research is perceived persuasiveness. This dependent variable was measured by a three-factor scale developed by Thomas et al. (2019) and comprised: effectiveness, quality and capability. The independent variables in this research were native language and pronoun of address.

Native language
A two-way analysis of variance with native language and pronoun of address as factors did not show a significant effect of native language on effectiveness ($F (1, 90) = 1.48, p = .227$) and on capability ($F (1, 90) < 1$). The univariate analysis did show an effect of native language on quality of the message ($F (1, 90) = 6.25, p = .009$. As can be seen in table 2, native German speakers rated the vaccination messages with higher quality ($M = 4.73, SD = .94$) than Dutch speakers ($M = 4.20, SD = .96$).

Pronoun of address
A two-way analysis of variance with native language and pronoun of address as factors did not show a significant effect of pronoun on effectiveness ($F (1, 90) < 1$), quality ($F (1, 90) = 3.55, p = .063$) or on capability ($F (1, 90) < 1$).

Interaction between ‘native language’ and ‘pronoun of address’
The interaction effect between native language and pronoun of address was not statistically significant for effectiveness ($F (1, 90) < 1$), quality ($F (1, 90) < 1$), or for capability ($F (1, 90) < 1$).
Table 2  Means and standard deviations for the perceived quality of vaccination messages in function of native language and type of pronoun (1 = very bad quality, 7 = very good quality)

<table>
<thead>
<tr>
<th>Language</th>
<th>Type of pronoun</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch</td>
<td>T</td>
<td>3.98</td>
<td>1.07</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>4.45</td>
<td>.76</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.20</td>
<td>.96</td>
<td>51</td>
</tr>
<tr>
<td>German</td>
<td>T</td>
<td>4.60</td>
<td>1.08</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>4.86</td>
<td>.78</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.73</td>
<td>.98</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>T</td>
<td>4.25</td>
<td>1.11</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>4.64</td>
<td>.79</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.44</td>
<td>.98</td>
<td>94</td>
</tr>
</tbody>
</table>
Discussion

The current study examined to what extent formal (V) versus informal (T) pronouns of address have an effect on the persuasiveness of pandemic-related messages in German and Dutch students. More specifically, it was examined if the choice for the German Sie vs. du and the choice for the Dutch u vs. jij influences the perceived persuasiveness of vaccination messages. Perceived persuasiveness was measured by a combination of three factors: effectiveness, quality, and capability.

The results indicate that the perceived persuasiveness for both German and Dutch students was not affected by the type of pronoun. This is an interesting finding because as discussed in the introduction, the V-form is predominant in the German language (Nord, 2008). This predominancy does not directly mean that the persuasiveness will be higher. However, in the marketing research area it was found that German speakers often experience a feeling of inappropriateness when they get addressed with the T form instead of the V (House & Kádár, 2020). In hypothesis one it was expected that this feeling of inappropriateness would lead to a lower level of persuasiveness for students. In other words, it was expected that in pandemic-related messages in German, the V (vs. T) pronoun would lead to a higher level of persuasiveness for students. However, this effect was not found.

The first possible explanation for the absence of this effect can be found in the age of the participants. Levshina (2017) wrote that in German, it is dependent on the hearer’s age which pronoun of address is used. Levshina writes that the younger the age, the more it is likely that the hearer is addressed with the T-form instead of the V-form. In the current research, only participants between the age of 18 and 25 have participated. This age group may be in the transition phase from being addressed with the T-form to being addressed with the V form. Therefore, they may be used to both forms which could have caused that the effect on the persuasiveness in this age group was absent. It should be noted that this is only speculation and can be investigated in further research by an inclusion of more age groups in the research.

In hypothesis two, it was expected that in pandemic-related messages in Dutch, the T (vs. V) pronoun of address would have led to a higher level of persuasiveness for students. This result was expected because in previous research it was found that the lower the age, the likelier Dutch people get addressed with the T-form instead of the V-form (Vermaas, 2002).
Contrary to the hypothesized association, the results indicate that the perceived persuasiveness for Dutch students was not affected by the type of pronoun.

A possible explanation for this finding can be found in previous research from Jansen & Janssen (2005). In this research, the aim was to investigate to what extent the appreciation of pronouns of address in functional texts is dependent on the medium and the agreement with the advice contained in the text. Jansen & Janssen (2005) found that the relation of the reader towards the subject influences the appreciation of the form of address. They found that when the reader finds the given advice not or only moderately relevant, it does not matter if they get addressed with the T- or with the V-form. The researchers give as possible explanation for this result that readers who find the advice not or only moderately relevant, have paid so little attention to the text that the used form of address has been processed unconsciously. In addition, this could be the case in the current research. In the current research, the participants were shown persuasive vaccination messages. The research was conducted in the beginning of 2022. In January 2021 the first person in The Netherlands received the vaccination for COVID-19 (Ministerie van Volksgezondheid, 2020). In the run-up to that moment and in the months after, people were exposed to numerous of persuasive vaccination messages. In those months, ‘COVID-19 media fatigue’ became a new concept. Research under the population of Lithuania has shown that in December 2020, 32% of the participants were losing interest in COVID-19 news and 32% had started avoiding COVID-19 news (Buneviciene et al., 2021). Although the current research did not specifically state that it was about COVID-19 vaccinations, we can assume that many participants associated the messages with the recent pandemic. Furthermore, with a vaccination rate of over 80% and with more than 60 percent of the population of The Netherlands having received a booster, it can be expected that our participants found the messages moderate or not relevant. If this is the case, it can be expected that the participants in the current research were not consciously processing the pronouns of address. This may have led to the finding that the persuasiveness of the message was not affected by the type of pronoun.

Another explanation for the lack of the effect in the current research could be that the messages were not targeted towards young people. The messages were general and people below the age of 25 may expect that those messages were spread out to the entire population. Their expectancy to be addressed with the V instead of the T form will then be lower which could cause that they are less influenced by the type of pronoun of address.
The current results demonstrate that German speakers rated the vaccination messages with higher quality than Dutch speakers. Quality was measured with statements related to trustworthiness and accurateness. This finding is not in line with previous research because previous research by UNESCO has shown that German people are generally less trusting than people in the Netherlands (Arizpe, 1998). Therefore, it would be expected that German speakers would rate the vaccination messages with lower quality than Dutch speakers.

Furthermore, when looking at Hofstede’s cultural dimensions the opposite effect is expected as well. In Hofstede’s cultural dimensions, German people score higher on the cultural dimension of uncertainty avoidance than Dutch people (Hofstede, 2022). Uncertainty avoidance is, according to van der Schee et al. (2007) related to trust in expert knowledge. This means that according to Hofstede’s cultural dimensions, the trust in expert knowledge of German people is lower than for Dutch people. However, the results of the current research suggest that the trust in experts is higher for German speakers than for Dutch speakers.

The current research obtains several limitations. Firstly, the difference between addressing participants with the T or the V form is subtle. Segers (2021) describes that the perception of the pronoun with which someone is addressed seems to be an unconscious process. She states after the experiment, multiple respondents could not indicate whether they had seen the T or the V form in her experiment. This was not asked in the current research but if this is the case, this could mean that the generalizability of the results is limited by the number of participants (N = 94).

Another limitation of the research is that the purpose of the research was given away to the participants in the informed consent text before the start of the experiment. This may cause participants to be biased in their answers or to direct their answers to the purpose of the study. A further limitation is that COVID-19 has, if we may say so, barely been over. This causes that people are still tired of pandemic/vaccination related messages and can maybe be biased when filling out the survey.

For future research, it could be interesting to conduct the same research however with only within-subjects factors. In this case, the participants are shown both the T and the V message. In future research it may also be interesting to look at other differences. For example: what will be the outcome if the messages are longer, or could there be a difference in oral and written messages? Research could then be conducted where the messages are spoken out loud. Another recommendation could be that in future research, the personal characteristics of the sender are clearer. It can be measured if there are effects of gender or age of the sender on the perceived persuasiveness of the receiver.
These findings have implications for Dutch and German governments and health organizations when communicating pandemic-related messages to the public. In particular, when health authorities or governments address people from age group 18 to 25, it does not matter to use the T or the V form in relation to persuasiveness.

The information that is gained from this research can help health-authorities and governments with future diseases, epidemics or pandemics when a vaccination is available, to reach a higher vaccination rate. This could then lead to an improvement of the public health which would be a benefit for the society. In addition to this, this research into pronouns of address can be used for future researchers in the linguistic research field. It can be used as a foundation for further studies to innovate the current communication strategies regarding the pronoun of address.
Bibliography


Appendix A. Stimulus Material

BEN JE GEVACCINEERD?
Dan ben je beschermd.

BENT U GEVACCINEERD?
Dan bent u beschermd.
DU BIST GEIMPFT?
Dann bist du geschützt.

BEN JE GEVACCINEERD?
Dan ben je beschermd.
LAAT JE VACCI-NEREN!

LAAT U VACCI-NEREN!
LASS DICH IMPFEN!

LASSEN SIE SICH IMPFEN!
Ben je al gevaccineerd?

Bent u al gevaccineerd?
Bist du schon geimpft?

Sind Sie schon geimpft?
Bescherm jezelf en alle anderen.

LAAT JE VACCINEREN!

Bescherm uzelf en alle anderen.

LAAT U VACCINEREN!
Schütze dich und alle anderen.

LASS DICH IMPFEN!

Schützen Sie sich und alle anderen.

LASSEN SIE SICH IMPFEN!