Cultural Differences on Individuals' Expressiveness-Related Cues

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Abstract

This study aimed to reveal the difference in expressiveness between a low-gesture and low-context culture on the way they communicate nonverbally. For the current study, American and Dutch people were analyzed with the use of the TV show "Who Wants to be a Millionaire". The results show that there is indeed a difference between a low-gesture and low-context culture since American contestants were generally more expressive than the Dutch contestants. However, there is no difference in expressiveness when they answer a question right or wrong. This means that it was not possible to prove that Americans would show the highest rate of expressiveness when an answer was correct. Future research could address limitations by including other nationalities in the study which might make it possible to include female contestants in the experiment.

Keywords: communication style, non-verbal communication, decoding non-verbal cues, expressiveness, facial expressions, hand gestures, emotions, cultural differences, perception study, low-context, low-gesture, the United States, the Netherlands

Introduction

Human communication consists of several channels, such as the non-verbal visual channels of body movements and facial expressions (Pantie & Rothkrantz, 2000). Individuals tend to perceive interpret, and express verbal communication differently; this phenomenon also applies to non-verbal communication (Elgin & Tannen, 1986). Hand gestures together with facial expressions are two of the most common movements, which are accompanied by speech (Grahan & Argyle, 1975). Furthermore, non-verbal cues usually support speech by either supplying additional content-related information or by expressing diverse emotions (e.g. happiness, sadness, impatience, confusion, surprise, anger, fear, or disgust) (Grahan & Argyle, 1975). Nonetheless, people often express non-verbal cues when talking to each other (McNeill, 1992).

A gesture can be defined as "any movement and hand configuration that hold a precise conventionalized meaning" (Krauss, Chen, & Chawla, 1996**,** p. 5). Symbolic gestures are the ones usually used in the absence of speech (Krauss et al., 1996). Nonetheless, sometimes they do accompany speech, like body and head movements (Krauss et al., 1996). The type of gesture that is never combined with speech is known as an autonomous gesture or emblem (Molnar-Szakacs, Wu, Robles, & Iacoboni, 2007). Although autonomous gestures are not related to speech, they have the advantage of being highly intentionally communicative (Molnar-Szakacs et al., 2007). Moreover, facial expressions are regarded as being a distinctive characteristic of human beings (Molnar-Szakacs et al., 2007). A facial expression refers to the motions of the muscles of the face skin as an individual's unconscious attempt to convey emotions (Russell & Fernández-Dols, 1977, p.3). Namely, fleeting smiles, lingering stares, grimaces, grins, sneers, and poker faces are some examples of the possible human facial expressions (Russell & Fernández-Dols, 1977).

An important question concerning these areas of nonverbal communication concerns the issue of whether such cues are universal; if they can be applied to every human regardless of their cultural characteristics. This is a research area in which scholars are interested for about 100 years (Ekman, 1973; Ekman, 1979).

A culture has been defined by Tylor (1996) as "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (p. 1). Individuals are being partly characterized by the way they communicate with each other (Giri, 2006). However, our cultural background highly influences and, thus, determines the manner through which we express ourselves (Elgin & Tannen, 1986). Different perspectives of life and behavior are associated to each culture (Storey, 1994). Culture and communication mutually influence each other and, hence, these two

concepts are considered as being interrelated (Giri, 2006).

To be more specific, people who live in high gesture cultures (e.g. the U.S.) are different from the ones living in low-gesture cultures (e.g. England) in both gestures' types and frequency (Molnar-Szakacs et al., 2007). Additionally, autonomous gestures as well as facial expressions are used a lot in high gesture societies so as for individuals to better communicate their emotions (Ekman, 1979; Pantic & Rothkrantz, 2000; Molnar-Szakacs et al., 2007). On the other hand, people who grew up in low-context cultures (e.g. the Netherlands) are based on the spoken language without placing a lot of emphasis on nonverbal cues (Nishimura, Nevgi, & Tella, 2008). Namely, the more a population is characterized as being of low context (e.g. Germany), the more its avoidance of emotional displays, the on-topic communication, and the focus on words (Box, 2015). For such individuals, any supplementary content-related information is better to be further elaborated through the rational verbal cues (Hall, 1976).

This study aims to reveal the differences between a low-gesture and low-context culture, that is, between the American and the Dutch people, on the way they communicate nonverbally. Therefore, based on the aforementioned literature, the following Research Question (*RQ*) and Hypotheses (*H*) are formulated:

RQ: "Do the candidates of culturally different TV shows differ in their nonverbal expressions when responding to a question correctly or incorrectly?"

H_1: "American people will be more expressive than Dutch people when responding to a given question."

H_2: "The expressiveness after giving a right answer is greater than after giving a wrong answer, regardless of the respondents' cultural background,"

H_3: "Americans giving the right answer show the highest rate of expressiveness and Dutch people giving the wrong answer the lowest."

Method

Stimuli collection

For the purpose of this study, 40 videoclips of the TV Show "Who Wants to be a Millionaire" were collected from YouTube.

Selection criteria and procedure

From these 40 video clips, 20 clips were collected from the Dutch version of the TV Show and 20 clips from the American version. Furthermore, of the total of 40 clips, 20 video clips showed contestants who answered a question right and 20 clips of contestants who answered a question wrong. This makes a 2 (Dutch or American) x 2 (answer question right or wrong) within subject design, were 10 American-right, 10 American-wrong, 10 Dutch-right and 10 Dutch-wrong video clips were collected.

Moreover, the amount of prize money was also a selection criteria. Namely, all contestants in our clips were about to win 20.000 to 50.000 euros or dollars, when answering their question right. When answering their question wrong, they would lose a lot of money, because the save point was not nearby. Furthermore, only men were selected for the video clips. When searching for video clips it appeared that not a lot of women participated in this TV Show. Therefore, only clips of men were selected.

Video editing

The video clips collected, were all edited with the programs Lightworks and Microsoft Moviemaker. Per video clip, only the two or three seconds after announcing whether the contestant answered the question right or wrong was shown. In these seconds, only the contestant was visible, more specific, from the moment that the host announced the answer, the camera moved to the contestant, and the reaction which is then visible was selected for the cut. Therefore, the clips were edited so that only the reaction of the contestant was visible.

Furthermore, the actual question which is displayed on the screen was removed by adding a black shape to cover it. Also the logo of the TV channel was blurred out, so it was not noticeable what country the contestant was from. An example of a video clip used is presented in Figure 1.

Experiment

For this study, an online survey was conducted with Qualtrics.

Participants

In the study, 75 participants (46 female) took part. Of these participants 53 participants were Dutch, seven Greek, six Bulgarian and nine participants

Figure 1. Example of video clip American-right

had a different nationality (e.g., Chinese, Slovak) with an average age of 29,1 years. Participants were collected via connections of the researchers and Social Media.

Materials and procedure

As mentioned above, 40 video clips of the TV Show "Who Wants to be A Millionaire" were collected for the purpose of this study. An online survey was conducted to present the video clips to the participants in order to answer questions about these clips. A pretest was conducted to test whether the clips were all clear and the questions sufficient. It appeared that the pretest participants, who all received the survey consisting of 40 clips, lost their motivation after 20 clips or even ended the survey. Therefore, the number of clips in the survey was adjusted to 20 clips per participant. The clips were randomized and equally divided over the participants.

In the survey, the participants first were introduced with the survey on the first page and answered demographic questions. Then, after watching the first video, they answered questions about the clip. These questions were about the perceived expressiveness of the contestant. Measurements for expressiveness were extracted from the Diagnostic Analysis of Nonverbal Accuracy (DANVA) theory (Nowicki & Duke, 1994). The DANVA measures individual differences in four types of nonverbal ability (facial expressions, postures, gestures, and tones of voice). Because we eliminated the sound of the video, we did not include the 'tone of voice' item. We did include the facial expression, posture and gesture items. Participants rated the amount of expressiveness of the contestant for these three items on a scale of 1 to 100. Next, they were asked whether they thought the contestant in the clip answered the question in right or wrong.

Results

To address the three hypotheses of the study, a 2 x 2 within-subject Factorial ANOVA was conducted, with nationality (Dutch versus American) and given answer (winning versus losing) as within-subject factors. The dependent variable is the level of expressiveness of the contestants.

The descriptive statistics showcase that American contestants scored an average of 62.54 (SD = 16.05) on expressiveness, while Dutch contestants scored an average of 47.37 (SD = 19.06). In addition, winning contestants scored a 59.16 (SD = 19.58) on the expressiveness scale compared to losing contestants who scored a 50.75 (SD = 17.93), also shown in Figure 2.

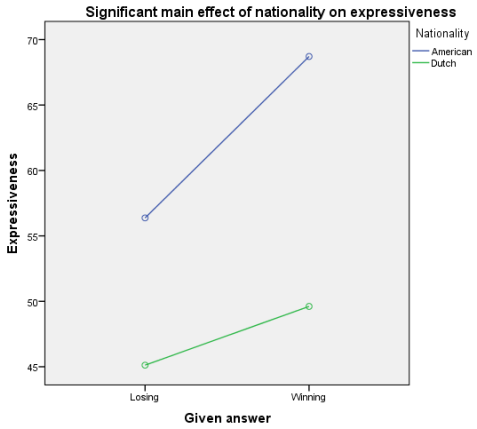

Figure 2. The significant main effect of nationality on expressiveness.

Reliability of the expressiveness scale is moderate (α =.67). However, the reliability was able to increase when the item 'posture' was removed from the expressiveness scale (α=.9). Therefore, the choice was made to eliminate this item. Moreover, the normality of the data was analyzed. All data was normally distributed within the groups nationality ($D_{American}(20) = .13$, p= .20, $D_{Dutch}(20) = .17$, p= .16) and given answer ($D_{winning}(20) = .17$, p= .14, $D_{losing}(20) = .08$, p= .20).

When running the analysis the Levene's test showed that the variances of the two groups were homogeneous (F(3, 36) = 1,10, p = .36). Furthermore, the factorial ANOVA shows that there is only a statistically significant main effect for nationality on expressiveness (F(1, 36) = 7.58, p = .01, η2 = .17). So, American contestants are more expressive (M = 62.54, SE = 3.90) than Dutch contestants (M = 47,37, SE = 3.90), which confirms the first hypothesis as shown in figure 1. However,

there was no statistically significant main effect for given answer ($F(1, 36) = 2.33$, $p = .14$, $\eta 2 = .06$) and no statistically significant interaction effect between nationality and given answer ($F(1, 36) = .51$, $p = .48$, $\eta 2 = .01$). Thus, hypotheses two and three are both rejected.

Discussion

As expected, the results of this study showed that American contestants were generally more expressive than the Dutch contestants. Moreover, it was proved that there is indeed a difference between a low-gesture and low-context culture, such as the U.S. and the Netherlands. Thus, hypothesis 1, which stated that American people will be more expressive was confirmed. Furthermore, our results also confirm that cultural background affects how frequently people use gestures and facial expressions when they communicate their emotions. The results are also in line the findings of Molnar-Szakacs et al., (2007) and Elgin & Tannen, (1986) who identified culture as a factor in how often people express emotions through gestures.

However, no significant difference was found between the contestants' expressiveness when they give a right or wrong answer, which means that they were expressive in their emotions regardless of the answer they give or their cultural background. Moreover, we also expected that the Americans would show the highest rate of expressiveness when they answered a question correctly but it was not confirmed.

One of the limitations of this study was found during the pretest of our online survey. In some of the edited videos, the public can be seen clapping their hands in response to the correct answer given by the participant. This clue alone would be enough to recognize that the TV show contestant answered the question correctly. Another limitation is that our video excerpts included only male contestants, which was due to the scarce female participation in the show. However, we are unsure whether this is the case in other countries where the show is hosted.

Therefore, we suggest that future research could address these limitations by including other nationalities in the study were (possibly) videos with more female contestants could be found.

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