

# Non verbal behavior in reality and scripted reality programs

Anouk van Heteren, Carmen Janssen, Marlou Manders, Milou Remeijns, Roxanne Damen, Sifra van Dalen

## Abstract

The aim of this study was to investigate whether people could detect the difference between sadness shown in reality TV programs and scripted reality TV programs. Therefore, 30 fragments were selected (15 reality, 15 scripted reality) where women were clearly in a sad mood and presented these fragments to 24 participants. Participants were asked to judge each fragment. Main findings of this study were that people are able to distinguish genuine from non genuine emotions of sadness. Thereby, the type of sadness did not influence people's ability to distinguish genuine from non genuine emotions of sadness.

**Keywords:** genuine and non-genuine emotions, recognition of deceptive emotions, sadness

## Introduction

Detecting someone's non verbal cues is a social skill that plays an important role in our daily lives. We create and improve this skill by receiving feedback from others; they tell us whether the observed non verbal behavior is judged right or wrong. In this way, we increase understanding about ourselves and other individuals (Ambady, Bernieri & Richeson, 2000). Non verbal behaviors are of central importance to the expression of emotions (Ekman, 1988).

Our face, along with other non verbal cues, can be used to deceive others about our feelings and thought (Knapp & Hall, 2010). When you hear this statement about deceiving others, you probably immediately think of deceiving in a way that you betray someone. However, there is another way of deceiving, that is not that negatively loaded. Think about all the scripted reality shows you can watch on the television, these actors in a way deceive you about their feelings and thoughts as well since they act as if they have these feelings and thoughts. This kind of deceit, will be the topic of interest in this study.

According to Hall, Murphy and Schmid Mast (2007) we have considerable control over our facial expressions. Therefore, we can successfully present facial messages that we do not feel, in other words, deceive people with our false emotions. However, sometimes we lie imperfectly, by expressing an emotion at the wrong time, or expressing it too often or for too long. For example

when we insincerely display a smile for too long. These factors may help researchers to separate the genuine emotions from pseudo expressions of emotion on the face.

On the other hand, Ekman and Friesen (1969) showed that untrained observers are able to detect whether someone is lying or speaking the truth. This evidence is in contrast with the study of Hall, Murphy and Mast (2007). Shreve, Godavarthy, Goldgof and Sarkar (2011) claim that macro-expressions are easy to recognize, manipulate and to control. These expressions are easily observed, because they occur over numerous facial zones. In contrast, micro-expressions are harder to detect, because they occur in smaller facial zones. However, it appears to be that micro-expressions are observable enough to detect whether showed emotions are genuine or acted.

It is not always an easy task to detect whether an emotion is fake or real. There does not exist one typical pattern of deceptive behavior, that is, different people show different behaviors when lying, and behaviors differ per deceptive situation (Vrij & Graham, 1997). Thereby, some people are better in controlling their emotions and movements. People who are good at 'acting' are more successful in controlling their behaviors than people who are not such good actors (Vrij & Graham, 1997).

While detecting whether emotions are fake or real, body movements are really important. A rich source of information lies in the ways that people move their bodies and therefore, understanding how deceptive intents can be detected from bodily actions (Sebanz & Shiffrar, 2009). So, not only facial expressions are important to decide whether an emotion is fake or real, but also the body movements can be watched to detect deceptive intents. According to Vrij (2000) one of the ways to catch liars, with respect to nonverbal cues, is by observing how they behave. The nonverbal cues to which you can pay attention are the movements people make, whether people smile or not or show gaze aversion. To control their behavior, people who act or lie try to avoid this kind movements. The decrease of movements might be the result of lack of emotional involvement (Vrij & Mann, 2001). Emotions are often present unconsciously and uncontrollable, and

this can be a way to have control over (acting) emotions.

In this study the focus will be on the difference between these genuine and non genuine facial expressions of emotions while expressing sadness. The question we would like to answer with this research is whether people actually can distinguish genuine from non genuine emotions of sadness (RQ1).

(RQ1) Can people distinguish genuine from non genuine emotions of sadness?

We also want to investigate the role of the type of sadness in one's ability to distinguish genuine from non genuine emotions. Therefore, we designed RQ2.

(RQ2) Does the type of sadness influence people's ability to distinguish genuine from non genuine emotions of sadness?

To answer RQ2 we created a hypothesis. We believe that a type of sadness we experience more often ourselves, will be recognized better. If it is better recognized, one's ability to distinguish real sadness from acted sadness will also be better. Sadness about love is more common than sadness about money or illness, so we think that one can better judge the realness of sadness about love than sadness about money or illness.

(H1) Sadness about love will be judged better than sadness about money or illness.

## Stimuli Collection

### Selection Criteria and Procedure

For this research, we decided to use only video clips showing women expressing their sadness, since we wanted to exclude a possible effect of gender. The clips were collected from different websites that stream TV shows after they have been on television. The sites we used were [www.uitzending.net](http://www.uitzending.net), [www.uitzendinggemist.nl](http://www.uitzendinggemist.nl), [www.rtlgemist.nl](http://www.rtlgemist.nl) en [www.kijk.nl](http://www.kijk.nl). The video clips we chose, were evenly distributed over the three different conditions: sadness because of love, sadness because of money and sadness because of illness. For each condition, we found ten video clips: five clips that showed genuine emotions of sadness, and five clips that showed non genuine

emotions of sadness. In total we collected 30 fragments.

### Video Editing

The videos that were selected for this research, were converted to mp4 files using the Camtasia program, a computer program with which you can make recordings of the computer screen. Then, the video clips were cropped using iMovie and Moviemaker, in order to make sure that the recordings only displayed the emotions that we were looking for with this research. We have cut the moment when the sadness was expressed most clearly. After all the video clips were cropped to a length of about five to ten seconds, again iMovie was used to make three separate clips: one for the sadness because of love, one for the sadness because of money and one for the sadness because of illness. The ten fragments that were found for each of the three conditions were placed in a random order to provide any effects of sequence. We added a screenshot of each condition as an example.



Figure 1: Non-acted sadness about money



Figure : Acted sadness about money



Figure 3: Non-acted sadness about love



Figure 4: Acted sadness about love



Figure 5: Non-acted sadness about illness



Figure 6: Acted sadness about illness

## Perception Test

### Participants

The participants were adults from 19 till 58 years old, with an average age of 37. In total 24 adults

participated, 11 men (45,8%) and 13 women (54,2%). All participants were Dutch and were living in the south of the Netherlands.

### Materials and Procedure

The experiment consisted of two elements: the video fragments and a questionnaire. Before the beginning of the experiment the respondents had to fill in their age and their gender. During the experiment the fragments were shown in a random order. After each fragment the respondents had five seconds to judge the realness of the showed sadness. They had to fill in a questionnaire. After each fragment the survey addresses the question: How do you assess fragment ...? With the corresponding fragment number filled in on the dots. The questions were measured using a 4-point scale ranging from (-2) absolutely acted to (2) absolutely realistic.

The experiment was conducted individually and took place in a room without any other distractions. It started with an introduction, which said that the respondent had to watch the fragments, and after each fragments had to judge whether the sadness is acted or not. The task ushered: 'answer after each fragment the corresponding question'. The fragments were shown on a computer screen, the questionnaire on paper.

### Results

Mauchly's test indicated that the assumption of sphericity had not been violated,  $\chi_2(2) = 1.236, p = .539$ . The results show that there was no significant main effect found of the sort,  $F(2, 46) = 1.120, p = 335$ . These results suggested that it makes no difference if people have to judge reality of sadness about disease, money or love; people judge it, in general, equal. However, there is found a strong significant effect whether people can judge correct if the fragments were real or fake,  $F(135.53, 1.59) = 85.09, p = .000$ .

There is no interaction effect found between the kind and the correct judgment of the fragments. Mauchly's test indicated that the assumption of sphericity had been violated for the interaction effect,  $\chi_2(2) = 5.020, p = .081$ , therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ( $\epsilon = .83$ ). These results suggested that there was no significant interaction effect found of sort on the

judgment of the realness of the fragments,  $F(2,46) = 1.735, p = .194$ .

## Discussion

The focus of this study was to investigate whether there are differences in perceived sadness between reality TV programs and scripted reality programs. Participants were presented to different fragments with either sadness in reality programs or scripted reality programs, and had to judge whether the shown sadness was genuine or not.

Results show that people are good in judging whether they have seen a real or an acted fragment of sadness. This confirms the first research question whether people are able to distinguish genuine emotions from non genuine emotions of sadness. This is in contrast with the study of Hall, Murphy and Schmid Mast (2007), who claimed that people can deceive others with false emotions. However, this is in line with the study of Shreve et al. (2011), who claimed that such expressions could be easily observed and that people could detect which emotions are genuine or acted.

Our second research question is disproved. Results show that there is no difference whether people have to judge fragments of sadness about love, disease or money. This means that people judge all the presented sadness in the fragments, in general, the same. This finding is the answer to the second research question if the type of sadness influences people's ability to distinguish genuine from non genuine emotions of sadness. The fact that we did not find any significant differences between the different types of sadness, might imply that people do not receive enough feedback about other's non verbal behavior related to sadness. It might be the case that the social skill for recognizing sadness is not as good developed as other emotions. According to Ambady, Bernieri and Richeson (2000), understanding about ourselves and others will increase by receiving feedback about the observed non verbal behavior. Of course, when someone is sad, the first thing you do, is trying to comfort the person in question. Maybe we do not pay enough attention to the different motives for being sad. It is just an assumption, but this might be an interesting topic to investigate in further research.

For this research, we used existing video material which was available on the internet and we converted this with the Camtasia program. For

future research, we recommend to cut out the logos of the TV programs out of the fragments that will be presented to the participants. In our research, this may have had an influence to detect whether the fragment was reality or scripted reality, because participants recognized the TV program on the basis of the logo. Furthermore, we only used TV programs for the (scripted) reality video's. For further research, it might be interesting to also compare sadness shown in movies with reality shows instead of scripted reality. It may be that actors in movies are better in acting and deceiving the audience then the actors in scripted reality programs.

Finally, we recommend for further investigation to show both men and women in the presented video fragments. It is possible that grief is easier to detect by women then by men or vice versa. With our data this could not be investigated, but it is possible that this will give different results. Further research may also investigate why people think someone is lying or not. From previous research we know that people also look at body movements while detecting whether someone's intents are real or not (Sebanz & Shiffrar, 2009). Therefore, it could be that our participants paid attention to body movements of the people in the fragments. Further research may examine this and can ask people where they are looking at while judging emotions and if several nonverbal cues, like gaze, eye movements and gestures are congruent with each other.

## Conclusion

The aim of this study was to investigate whether people could detect the difference between sadness shown in reality TV programs and scripted reality TV programs. Therefore, we selected 30 fragments (15 reality, 15 scripted reality) where women were clearly in a sad mood and presented these fragments to 24 participants (45,8% men, 54,2% women) which had an average age of 37. Participants were asked to judge each fragment. With a questionnaire, respondents could indicate whether the woman in the presented fragment was showing real sadness or not. Main findings of this study were that people are able to distinguish genuine from non genuine emotions of sadness. Thereby, the type of sadness did not influence people's ability to distinguish genuine from non genuine emotions of sadness. It did not matter if a fragment of sadness about money, love or sickness was presented, respondents

could distinguish reality from scripted reality nevertheless.

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