

The effect of emotion regulation on food intake

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Abstract

Introduction. As the numbers of overweight people increases each day it is an interesting phenomenon to explore. Therefore we investigated the effect of emotion on food intake to see if not emotions, but emotion regulation strategies play an important role in overeating. A regulation strategy named reappraisal was investigated in relation to food intake, to see if using reappraisal would result in less emotional impact and therefore result in less food intake.

Methods. Twenty-five female students from the University of Utrecht participated in this experimental study. They were instructed to watch a video intended to evoke negative emotions. Thirteen participants were instructed to watch the video with a reappraisal strategy, twelve participants were instructed to look freely at the video. Afterwards food intake was measured.

Results. Negative emotions significantly increased after watching the video. There was no significant effect of condition on food intake.

Conclusion. These findings demonstrate the effects of reappraisal and a control condition by emotional experiences and the intake of food. No differential effect of food intake per condition was found. As regulation strategies reduce the emotional impact it results in more healthy ways to cope with negative emotions.

Keywords: Emotional Eating, Emotion Regulation, Reappraisal.

Introduction

Worldwide approximately 22 million children under 5 years of age are overweight. Therefore the risk of high blood pressure, diabetes and cardiovascular diseases also increased the last years (Deckelbaum and Williams, 2001). In the United States, the number of overweight adolescents has doubled in the last two to three decades (Centers for Disease Control and Prevention, 2006). These findings were also estimated in the Netherlands, where overweight is found among youth in large cities (Fredriks, Buuren, Hira Sing, Wit and Verloove-van Horick, 2005). As overweight in childhood often results in overweight in adulthood, this may lead to a rapidly increasing effect on health and is therefore important to explore. This article poses some underlying factors for the increasing numbers of overweight.

Emotional Eating

There are many causes of overweight in adult en youth these days, but a well known aspect involves emotional eating. Emotional eating refers to a tendency to eat more in emotional states. What it actually means is that not your body, but your emotions control how much you eat (Conner, Fitter and Fletcher, 1999). Therefore emotional eating may lead to overeating because it often takes place in the absence of hunger. A study by Nguyen-Michel, Unger and Spruit-Metz (2007) revealed that emotional eating is associated with increased intake of (sweet) high energy foods, like cake and ice cream. Also increased intake of salty energy food like chips and soda was associated with emotional eating. As emotional eating is further investigated, it came clear that negative emotional experiences involve overeating (Macht, 1999). A distinction was made between positive and negative emotions to see any difference in emotional eating. The results reveal that positive emotions like joy, increases food pleasantness and intake of healthy foods. But negative emotions, such as anger and fear increase impulsive eating and consumption of junk food (Macht, 1999).

Some people are particularly vulnerable to eat in reaction to negative emotional events like stress. Stress induced eating results in high energy food intake and chances unhealthy dietary practices, like intake of fat food and decreases intake of fruits and vegetables. Also women were found more vulnerable to stress-induces eating than men are (Cartwright et al, 2003; Greeno and Wing, 1994; Oliver and Wardle, 1999). Another study concluded that some people eat more when anxious or emotionally aroused compared to non-emotional eaters who do not show such reactivity to emotions in their eating habits (Conner et al., 1999).

Several other studies found a difference in dietary practises people use. They reveal that restrained eaters show increased eating during the experience of negative emotions (Greeno and Wing, 1994; Oliver and Wardle, 1999). Lebel, Lu and Dubé (2008) compared comfort food preferences and eating behaviour in emotional en restrained eaters, especially women. Women who scored high on emotional and restrained eating preferred high calorie comfort foods, even when they were feeling full. The results revealed that comfort foods are eaten to fill a void when experiencing negative emotions. But the results also revealed that women who scored low on emotional and restrained eating favoured high but also low calorie foods when they experienced positive emotions, so the results were mixed. The effect between restrained and non-restrained eaters towards negative emotions is also investigated by Heatherton et al., (1991). They used ego-threatening manipulations and found increased effects of eating in restrained subjects. No significant effect was found for the non-restrained eaters. So they assumed that the type of distress causes individual differences across restrained en non-restrained eaters. Other results were shown by Wardle et al., (1992) that restrained eaters had a higher body weight, more negative attitudes towards food, but a lower likelihood of overeating and a lower overall energy intake.

After all, the results of food intake between emotional, restrained and non-restrained eating were mixed, therefore not always do emotions lead to (more) food intake. Because many results were mixed we were forced to take a step further to see witch mechanisms play a role in the intake of food. It is therefore interesting to see if not the emotion itself, but a coping strategy like emotion regulation, plays a role in overeating.

Emotion regulation

Emotion regulation refers to a strategy that people use to influence the experience of their emotions (Goldin, McRea, Ramel and Gross, 2007). Emotion regulation can be conscious or unconscious, and may differ in duration and magnitude. It is also an ongoing process and some people may use it more than others (Gross and John, 2003; Mauss, Cook, Cheng and Gross, 2007).

There are two kinds of regulation strategies; antecedent-focused and response-focused strategies. The major difference between these two strategies is that antecedent-focused strategies refers to things we do before the emotion response tendencies have been fully activated. In this case the behaviour and peripheral physiological responding have changed before the emotion has been fully activated (John and Gross, 2004).

One form of an antecedent-focused strategy is reappraisal as it involves changing the way you think about an emotional situation to change the emotional impact. Response-focused strategies refer to things we do after the response tendencies have been generated.

Suppression, a response-focused strategy involves reducing emotional behaviour once the individual is already in an emotional state to suppress the emotion (Gross, 1998).

To explore the effects of antecedent-focused strategies we used cognitive reappraisal to investigate. The reason why this strategy is investigated is because several studies have shown that reappraisal minimizes a negative affect on emotional experiences. Many studies explored this type of strategy but none of the studies investigated the effects on food intake (Gross, 1998; Gross and John, 2003; John and Gross, 2004).

Reappraisal serves as an “cooling strategy” that involves a cognitive change about an emotional situation, for the main reason that the emotional impact would be reduced.

It also involves thinking, planning and controlling oneself with delaying gratification (John and Gross, 2004). People who use this strategy daily experience lesser negative affect and fewer depressive symptoms (Gross and John, 2003). Furthermore, using reappraisal results in less psychological activation and more positive emotion experience and may be healthier in short and in long term (McRae et al., 2008; Goldin, McRea, Ramel and Gross, 2007; Mauss, Cook, Cheng and Gross, 2007). But it could be harmful to use it continuously, because it leads to a longer toleration of dangerous and unhealthy situations than one should (John and Gross, 2004).

To see if not emotions, but emotion regulation strategies play an important role in overeating, we investigated the effects of an antecedent-focused strategy in relation to food intake. Because reappraisal serves as a cooling strategy, participants would not be overwhelmed by negative emotions and would therefore eat less than participants in the control condition. But does reappraisal actually result in decreased food intake? Our hypotheses are that participants in the reappraisal condition eat less food than participants in the control condition. Furthermore we hypothesized that participants in the reappraisal condition eat less comfort food than participants in the control condition.

Methods

Participants

Twenty five female students of the University of Utrecht with a mean age of 22 years ($SD = 5.21$) participated in this study with a mean BMI of 21.11 ($SD=2.75$). They were all volunteers recruited by flyers and an announcement on the internet. Participants were not allowed to eat two hours before testing and had to be younger than thirty years old. Participants with a BMI above 30 were not included in the analyses. After completing the test, participants received money (five euro) or course credit for participation.

Procedure

A cover story was used to inform participants about the aim of the study, so the results would not be influenced (see appendix A). They were told that the study consisted of two unrelated parts. One about affect while watching a video and the second about taste differences between students. Participants were asked to fill out the emotion questionnaire first to test their emotional states before the actual test would begin. The emotion questionnaire consists of 21 different emotions on a 7-point Likert scale ranging from 0 (*not at all*) to 6 (*very much*).

Thereafter, participants were asked to take a seat behind a computer to watch a video. They were selected for a reappraisal condition ($N=13$) or a control condition ($N=12$). Participants in the reappraisal conditions were given instructions to encourage thinking objectively to decrease emotional reactivity. They were instructed to focus on the technical aspects and camera views while watching the video. Participants in the control condition were instructed to look freely at the video. For an overview of these instructions see appendix B. All participants were told that a video camera was shielded and positioned to record continuous facial expressions, even though this was not the case. Afterwards, the same emotion questionnaire was taken to see the differences in emotional states before and after the video. After filling out the questionnaire, participants were told that the “second part” of the study would begin.

Four bowls with different kinds of food were presented. Participants were instructed to eat as much as they wanted, as long as they tasted every kind of food. They were given ten minutes to taste the food (Lowe & Maycock, 1988).

What the participants did not know was that each bowl was weighted before and after they were given, to see how much they had eaten. Afterwards, participants had to fill out a questionnaire that consisted of twenty five questions about the structure, perception and preference of the food.

Participants had to fill out the Dutch Eating Behaviour Questionnaire (DEBQ: Van Strien, Frijters, & Bergers, 1986). This questionnaire measures individual differences in emotional, external and restrained eating. Thereafter, the investigator weighted the participant and a few questions were taken to see if the participant would know the real aim of the study. The survey took approximately 45 minutes to complete.

Materials

Manipulation check. All participants viewed the same film under different instructions. To see if all participants used the right instructions (reappraisal or control condition), two main questions were used. The questions were: “Did you take a distant view while watching the video?” and “Did you pay attention to technical aspects of the film?”.

Emotion experience. There were several emotions investigated in this study. The distinction was made between positive and negative emotions by use of a factor analysis.

The negative emotions were: frustration, sadness, anxiety, anger and disgust. The reliability before watching the video was .65 and after watching the video .86. The positive emotions were: happiness, pleasure, satisfaction, joy and vivacity. Reliability before watching the video was .92 and afterwards .90.

Video fragment. The video was a four minute during piece of the film: *American History X*. This video was chosen because the negative emotion experiences were quite intense as shown in other research (Schaefer et al., 2006 & Smeets et al., 2004).

Food intake. Four bowls were given with different types of food; apples, crackers, M&M’s and chips. Each bowl was weighted before and after the tasting part, to see how much they had eaten.

Body size. Height and weight were measured and Body Mass Index (BMI) has been calculated.

Results

Manipulation check

To test if participants used the right instructions a MANOVA was performed, with condition as independent variable and two manipulation questions as dependent variables. The results for condition were significant, $F(2,22) = 12.86$, $p < .001$ confirming a difference in condition while watching the video. Participants in the reappraisal condition ($M = 3.92$, $SD = 1.19$) used the technical aspects of the film more than participants in the control condition ($M = 1.58$, $SD = 1.56$), $F(1,23) = 17.92$, $p < .000$. Taking a distant view while watching the video was not significant $F(1,23) = .095$, $p = .76$. The explanations would be that participants in the reappraisal condition did not take a distant view as much as expected or participants in the control condition also watched the video with a distant view.

Experience of emotions

To see if emotions increased or decreased, a MANOVA was subjected with time as independent variable and emotions as dependant variable. The negative emotion scale significantly increased after watching the video, $F(1,23) = 55.68$ $p < .001$, $\eta^2 = .71$. However an interaction effect of time and the negative emotion scale was not found $F(1,23) = .10$, $p = .75$, $\eta^2 = .00$. Therefore, all negative emotions significantly increased after watching the video for both conditions. The positive emotion scale was significant $F(1,23) = 45.95$ $p < .001$, $\eta^2 = .67$, confirming that positive emotions before and after the video significantly changed. The interaction effect for time and condition was not significant $F(1,23) = .18$, $p = .67$, $\eta^2 = .01$. This results in decreased effects of positive emotions for both conditions. See Table 1 for all means.

Table 1

Emotion experience

	Before watching the video	After watching the video
Negative emotions	.70 (.60)	2.34 (1.21)
Positive emotions	4.10 (1.00)	2.54 (1.10)

Food intake

To determine if participants ate more comfort food, a MANOVA was performed with condition as independent variable and the four food types as dependant variables. There was no significant multivariate effect of condition $F(1,23) = .49, p = .75, \eta^2 = .09$. It means that there was no differential effect of food intake per condition. For an overview of the differences see Table 2.

Table 2

Food intake in grams

	Condition	
	Reappraisal	Control
Apples	25.31 (5.44)	31.75 (5.67)
Chips	7.62 (1.97)	10.67 (2.05)
M&M	11.62 (2.74)	10.42 (2.85)
Crackers	8.15 (1.67)	6.42 (1.74)

Control variables

The DEBQ subscales were used to see if there were significant differences between the participants in emotional, restraint or external eating. Therefore, these subscales were used as covariates in a MANOVA. None of the subscales were significant, for emotional ($p = .31$), restraint ($p = .32$) and external ($p = .97$) eating. BMI was also included as covariate to see if it affected food intake, but was not significant ($p = .48$).

Discussion

The aim of this study was to see if not emotions but emotion regulation strategies play an important role in overeating. An emotion regulation strategy was tested to see differential effects between cognitive reappraisal and a control condition. These two different approaches were evaluated in the context of watching a video, that elicited negative emotion experiences. The intake of food was evaluated before and after watching the video.

We hypothesized that participants in the reappraisal condition would eat less than participants in the control condition. Furthermore we hypothesized that participants in the reappraisal condition eat less comfort food than participants in the control condition, for the main reason that comfort food commonly alleviate one's affect. As the results have shown, negative emotions significantly increased after watching the video, but there was no significant effect of condition on food intake.

Reappraisal serves as a “cooling strategy”, it involves a cognitive change about an emotional situation, to reduce the emotional impact (John and Gross, 2004). Therefore it seems convincing that participants in the reappraisal condition could control their eating habits better than people in the control condition. We expected that reappraisal would serve as a buffer against emotional eating. But the results have shown that there was no condition effect, what means that there was no difference on food intake between the two conditions. As we expected that participants in the reappraisal condition would use their regulation strategy to reduce the emotional impact, this effect was also shown by the control condition. It could be that the video was too intense and caused participants (in the control condition) to use a regulation strategy to cope with the emotional impact. After all, participants in the control condition were told to look freely at the video and were not forbidden to use a regulation strategy. So maybe participants in the control condition also used reappraisal or another regulation strategy to cope with the negative experiences. Another assumption would be that the video was too emotional whereby participants had difficulty using reappraisal. It was quite hard in this video to regulate your emotions, because many negative emotions were experienced.

Implications

As more and more people are getting overweight it is important to investigate the underlying mechanisms of overeating (Centers for Disease Control and Prevention, 2006; Fredriks, Buuren, Hira Sing, Wit and Verloove-van Horick, 2005). Reappraisal, a regulation strategy would learn people to regulate their emotions in more healthy ways, it could serve for less emotional impact and therefore results in less food intake. If it is used more commonly in daily life it reduces negative affect and fewer depressive symptoms (Gross and John, 2003). And as it results in less psychological activation and more positive emotions it is healthier in short and in long term (McRae et al., 2008; Goldin, McRea, Ramel, Gross, 2007; Mauss, Cook, Cheng, Gross, 2007).

As many studies investigated emotional eating, the focus has primarily been on dietary practices people use. Negative emotions would cause people to overeat in restrained eaters (Greeno and Wing, 1994; Heatherton, Herman and Polivy, 1991; Lebel, Lu and Dubé., 2008; Wardle et al., 1992) and emotional eaters (Nguyen-Michel, Unger and Spruit-Metz, 2007; Macht, 1999; Cartwright et al., 2003; Oliver and Wardle, 1999; Conner, Fitter and Fletcher, 1999). But as the results are mixed it is interesting to investigate this phenomenon further and see if individual differences may contribute to emotional eating.

The results of this study serves as an important implication of emotional eating and the way we regulate our emotions. If people would learn to regulate their emotions in more healthy ways, it results in less food intake because people are not overwhelmed by emotions. Therefore a regulation strategy may serve as a minor step in reducing the overweight population and could result in more healthier ways to cope with emotional events.

Limitations and future directions

As this study has shown the effects of an emotion regulation strategy named reappraisal, there are also some limitations. First, this study used an emotional eliciting video to examine the effects of emotion regulation, but whether these results could be generalized to other emotional states or stimuli is unknown. Other video samples could be used whereby negative emotion experiences are easier to regulate or by watching the same video with other regulation strategies.

Second, only healthy, non-restrained eaters participated in this study. To improve the understanding of emotion regulation, future research should investigate this in clinical populations. As the role of emotion regulation is further observed, it can create better treatment methods.

Third, it could be that reappraisal would not serve as a good buffer function to reduce the emotional impact. To test a complete design of the effects of regulation strategies, future research could investigate the effects of antecedent -focused and response-focused strategies. So the best method to reduce the emotional impact and therefore less food intake could be determined. By example, reappraisal, suppression, and a control group could be investigated to see the differential effects. As suppression uses limited resources, it suggests that people consume a global, but limited resource when they override habitual or natural responses. Limited self-control is therefore responsible for increased eating, because suppressing your emotions draws on the same limited resource as controlling the intake of food (Baumeister, Bratslavsky, Muraven and Tice, 1998).

It could therefore be an interesting strategy to explore (Gross, 1998 Baumeister, Bratslavsky, Muraven and Tice, 1998; Vohs and Heatherton, 2005). As the study of Vohs and Heatherton (2005) concluded that suppression results in even more eating, it may be caused in a way that the self-regulatory resource was depleted. Therefore emotional suppression results in depleting, causing people to fail to control their eating behaviour.

Further, only females were investigated in this study because the phenomenon of overeating is primarily studied by females (Lebel, Lu and Dubé, 2008; Nguyen-Michel, Unger and Spruit-Metz, 2007; Wardle et al. 1992). Females seem more vulnerable for emotional eating and eat more comfort food when experiencing negative emotions (Cartwright et al, 2003; Greeno and Wing, 1994; Oliver and Wardle, 1999). The differential effects between men and women in emotion regulation should be interesting to investigate in future research.

As future research is needed to investigate the underlying mechanisms of emotion regulation, this study also provided new insights. As emotion regulation is not been investigated before in relation to the intake of food it could serve as promising new insights to regulate our emotions in more healthy ways.

References

- Baumeister, R.F., Bratslavsky, E., Muraven, M., & Tice, D.M. (1998). Self-control depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74, 1252-1265.
- Cartwright, M., Wardle, J., Steggle, N., Simon, A. E., Croker, H., & Jarvis, M. J. (2003). Stress and dietary practices in adolescents. *Health Psychology*, 22, 362–369.
- Centers for Disease Control and Prevention. (2006). State-specific prevalence of obesity among adults – United States, 2005. *Morbidity and Mortality Weekly Report*, 55, 985-988.
- Conner, M., Fitter, M., Fletcher, W. (1999). Snacks and Stressing: A diary study of daily hassles and between-meal snacking. *Psychology and health* vol. 14, pp 51-63.
- Deckelbaum, R.J., Williams, C.L. 2001. Childhood obesity: The Health Issue. *Department of Paediatrics and the Institute of Human Nutrition, Columbia University, New York, New York* Vol. 9 Suppl. 4.
- Fredriks, A.M., Buuren, S., Hira Sing, R. H., Wit, J., Verloove-van Horick, S.P. (2005). Alarming prevalences of overweight and obesity for children of Turkish, Moroccan and Dutch origin in The Netherlands according to international standards. *Ada PcBdiatrica*, 2005; 94: 496-498.
- Goldin, P.R., McRea, K., Ramel, W., Gross, J.J. (2007). The Neural Bases of Emotion Regulation: Reappraisal and Suppression of Negative Emotion. *Society of Biological Psychiatry* 63: 577-586.
- Greeno, C. G., & Wing, R. R. (1994). Stress-induced eating. *Psychological Bulletin*, 115, 444–464.
- Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, 74, 224–237.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348–362.
- Heatherton, T.F., Herman, C.P., & Polivy, J. (1991). Effects of physical threat and ego threat on eating behavior. *Journal of Personality & Social Psychology*, 60, 138-143.
- John, O.P., Gross, J.J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72, 1301-1333.

- Lebel, J.L., Lu, J., Dubé, L. (2008). Weakened biological signals: Highly-developed eating schemas amongst women are associated with maladaptive patterns of comfort food consumption. *Physiology & Behavior* 94: 384–392.
- Lowe, M.R., Maycock, B. (1988). Restraint, Disinhibition, Hunger and Negative Affect Eating. *Addictive Behaviors*, Vol. 13, pp. 369-377, 1988.
- Macht, M. (1999) Characteristics of eating in anger, fear, sadness, and joy, *Appetite* 33 (1999), pp. 129–139.
- Mauss, I.B., Cook, C.L., Cheng, J.Y.J., & Gross, J.J. (2007). Individual differences in cognitive reappraisal: Experiential and psychological responses to an anger provocation. *International Journal of Psychophysiology*, 66, 116-124.
- McRae, K., Ochsner, K.N., Mauss, B., John, J., Gabrieli, D., Gross, J.J. (2008). Gender Differences in Emotion Regulation: An fMRI Study of Cognitive Reappraisal. *Group Processes & Intergroup Relations* Vol 11(2) 143–162.
- Nguyen-Michel, S.T., Unger, J.B., Spruit-Metz, D. (2007) Dietary correlates of emotional eating in adolescence. *Appetite* 49, 494-499.
- Oliver, G., Wardle, J. (1999) Perceived effects of stress on food choice, *Physiology & Behavior* 66, pp. 511–515.
- Schaefer, A., Nils, F., Sanchez, X., & Philippot, P. (2006). *A multi-criteria validation of 70 emotion-inducing films* (Technical Report). Louvain-La-Neuve, Belgium: Université Catholique de Louvain.
- Smeets, T., Candel, I., & Merckelbach, H. (2004). Accuracy, completeness, and consistency of emotional memories. *The American Journal of Psychology*, 117, 595-610.
- Van Strien, T., Frijters, J.E.R., & Bergers, G.P.A. (1986). The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior. *International Journal of Eating Disorders*, 5, 295-315.
- Vohs, K.D. & Heatherton, T.F. (2005). Self-regulatory failure: A resource-depletion approach. *Psychological Science*, 11, 249-254.
- Wardle, J., Marsland, L., Sheikh, Y., Quinn, M., Fedoroff, I., & Ogden, J. (1992). Eating style and eating behaviour in adolescents. *Appetite*, 18, 167–183.

Appendix A

Coverstory

Je gaat nu meedoen aan een tweetal onderzoeken. Het eerste deel gaat over emoties bij het bekijken van een filmfragment. De effecten van emoties worden hierbij onderzocht. Daarna zal je hier een aantal vragenlijsten over krijgen.

Het tweede onderzoek betreft een smaaktest van Gezondheidspsychologie. Bij dit onderzoek zul je een aantal voedselsoorten proeven en wederom een aantal vragenlijsten invullen. De afdeling Gezondheidspsychologie doet regelmatig onderzoek met eetmaten. De smaaktest in dit onderzoek is een pilot naar diverse voedingsmiddelen. De uitkomsten hiervan kunnen gebruikt worden in toekomstige onderzoeken. Voor deze smaaktest is het erg belangrijk dat je minimaal 2 uur van tevoren niet eet. Het totale onderzoek zal ongeveer 1 uur duren, je krijgt hiervoor 1 proefpersoonuur of vijf euro.

Appendix B

Instructies controle conditie:

Welkom bij dit onderzoek!

Je gaat nu een kort filmfragment bekijken. Het is hierbij belangrijk dat je steeds naar het filmpje blijft kijken en goed oplet. Wanneer het te verontrustend is mag je wel even wegstijgen. Er zullen ook opnames van jou gemaakt worden wanneer je het filmpje aan het bekijken bent zodat we je reacties kunnen coderen.

Heb je nog vragen?

Je mag nu het filmfragment bekijken, je mag zelf op “play” drukken!

Wanneer je klaar bent met kijken, sla dan de bladzijde om, om een vragenlijst in te vullen.

Instructies herwaardenen conditie:

Welkom bij dit onderzoek!

Je gaat zo een kort filmfragment bekijken. Het is hierbij belangrijk dat je steeds naar het filmpje blijft kijken en goed oplet. Wanneer het te verontrustend is mag je wel even wegstijgen. Tijdens het kijken is het belangrijk dat je een afstandelijk en objectief perspectief inneemt. Bedenk tijdens het filmfragment bijvoorbeeld dat het allemaal nep is, en dat je slechts acteurs ziet spelen. Je kunt ook kijken naar de technische aspecten van het filmpje, bijvoorbeeld wat voor positie de camera heeft. Er zullen ook opnames van jou gemaakt worden wanneer je het filmpje aan het kijken bent zodat we je reacties kunnen coderen.

Heb je nog vragen?

Je mag nu het filmfragment bekijken, je mag zelf op “play” drukken!

Wanneer je klaar bent met kijken, sla dan de bladzijde om, om een vragenlijst in te vullen.