# Dominant men and Submissive women? The effects of camera angle and context in

Social media

By Ruud Zandbergen

Supervised by dr. Ard Heuvelman & dr. Piet Kommers

2011

Enschede

University of Twente

# Abstract

This study tried to find the influence of gender and dominance on judgment of social media profiles. Dominance was manipulated by using a high or low camera angle in photos and by putting different descriptions on the profile. The study especially focused on the influence of gender (of both the person in the photos, as the subjects) and the influence of descriptions and photos on dominance. A pilot study was done to choose the best photos for the profile and to check if the descriptions, based on five personality factors, were adequate. For the main experiment 82 subjects participated in an internet survey. In this survey the subjects filled in TIPI-tests to judge a male and a female social media profile on five personality factors. The results indicated that the man was not judged as more dominant than the woman. However, men were more extreme in judging the profiles, which confirmed the idea that men have more stereotype ideas than women. The descriptions seemed to be more influential on judgment than the photos, since the scores of the judged profiles complied with the levels of dominance that had been determined earlier for the descriptions.

#### Samenvatting (in Dutch)

Dit onderzoek probeerde de effecten te vinden van geslacht en dominantie op sociale media profielen. De dominantie werd gemanipuleerd door middel van hoog of lage camerahoek voor foto's en twee verschillende persoonsomschrijving op het profiel. Er werd in bijzonder gekeken naar de invloed van geslacht (van zowel de personen op de foto's als de proefpersonen) en de invloed van omschrijving en foto op dominantie. Een pilot onderzoek werd gedaan om te bepalen welke foto's gebruikt moesten worden en of de omschrijvingen, gebaseerd op vijf persoonlijkheidsfactoren, goed waren. Voor het hoofdexperiment deden 82 proefpersonen mee aan een internetsurvey. In deze survey vulden de proefpersonen TIPI-tests in om zo een mannelijk en een vrouwelijk sociaal mediaprofiel op vijf persoonlijkheidsfactoren te beoordelen. Volgens de resultaten werd de man niet als dominanter beschouwd dan de vrouw. Mannen waren zelf wel extremer in het beoordelen van de profielen, wat bevestigde dat mannen er meer stereotype meningen op na houden dan vrouwen. De persoonsomschrijvingen bleken de evaluatie veel meer te beïnvloeden dan de foto's, aangezien de de scores van de beoordelingen overeen kwamen met de van tevoren bepaalde niveaus in dominantie beschrijvingen. Bargh & McKenna (2004) called the Internet the latest in a series of technological breakthroughs in interpersonal communication, following the telegraph, telephone, radio, and television. It combines innovative features of its predecessors, such as bridging great distances and reaching a mass audience. The next step in this evolution seems to be the rise of web 2.0 and social media. A lot of communication in the last couple of years between people and companies has been through social media (Lenhart, Madden, Rankin Macgill & Smith, 2007; Constantinides & Fountain, 2008), through sites like 'Hyves', 'Twitter' and 'Facebook'. This growth of social media also brings new questions about the interaction between people and social media. Reeves & Nass (1996) have shown with a number of experiments that people interact with media in the same way as they do with other persons. A study by Reeves, Lobard & Melwani (1992) showed that when participants were shown persons mediated by a TV-screen, this resulted in the same physiological responses as when the persons were presented face-to-face. The attention and arousal of the participants raised when the distance between them and the screen became smaller, much like the response of people to the distance between them and a person becoming smaller. So people respond to mediated stimuli in the same manner as they do to direct stimuli. This would mean that certain variations in mediated stimuli will influence people in a similar way as direct stimuli.

An important aspect of social media sites is that you can present yourself. A social media page usually consists of a profile photo and a short description of the owner of the page (Kaplan & Haenlein, 2009). Next to using these sites to communicate, it seems that it is also a place to meet or see people for the first time, which means that first impressions are made more and more through these social media sites. First impressions are influenced by a lot of things and have been researched for a long time. For example, Jones (1954) found evidence that authoritarianism plays a systematic role in the formation of first impressions.

Even something as subtle as a name can influence a first impression. Abramowitz (1975) discusses a study by Stokes and Miller on the influence of names on elections: 'although voters knew very little about individual congressional candidates, Stokes and Miller found that the "saliency" of the candidates' names strongly influenced voting decisions. Nearly all of the voters who knew neither candidates' name or only

their party's candidate's name, voted according to their party identification. In contrast, two-fifths of the voters who knew only the other party's candidate's name defected' (Abramowitz, 1975). Another example is a study by Paludi & Strayer (1985). They found that an article which was said to be written by a someone with a male name was valued as more positive than if the author did not have a male name (a female or sexually neutral name). Paludi & Strayer (1985) also found this 'overall to be greater in males, who maintain more stereotypic values than females (Meyer & Sobieszek, 1972).' Differences in beliefs about men and women are not restricted to this topic, but occur everywhere. This is also known as gender stereotyping.

#### Gender stereotyping

Gender stereotypes are common, culture-wide beliefs about how men and women differ in personal qualities and characteristics (Geis, 1982; Ridgeway, 1988). For example, men are thought to have more of the instrumental or assertive qualities , and women to have more of the expressive or accommodating qualities (Gerber, 2009). These differences comply with differences in personality traits that men and women possess. According to Geis (1993) this belief that women and men have different personality traits can be explained by the difference in their status. The way that men and women interact seems to indicate a certain status order in which men have a higher status than women (Hollander and Offerman, 1990; Steil, 1997). The personality traits and qualities associated with status overlap with the traits associated with gender (Geis 1993; Ridgeway, 2006; Ridgeway & Correl 2004). According to Gerber (2009) status information accounts for the stereotypic belief that men and women have different personality traits, for status generally overrides gender in determining the traits attributed to male and female stimulus persons. So gender seems to be a good indicator for the status that is attributed to a person, but there are other factors that determine status or dominance. Other ways, that are also present in social media, include the use of camera angles and text.

#### **Camera angles**

A lot of folk psychology theories state that when someone is viewed from below, this person looks more dominant and when someone is viewed from above, that person looks more submissive (Kepplinger, 1987).

This is mostly based on an evolutionary view, since researchers have found proof of these kind of rules in the animal kingdom. De Waal (1989) found that subordinate chimpanzees greet dominant chimpanzees with their head almost completely bent to the ground. The dominant chimpanzees stand erect and raise their body hair when interacting with a subordinate chimpanzee. These kind of stances have also been found with other (ape-like) animals (Redican, 1982; Darwin, 1872).

Some researchers hypothesize that these findings are also true for humans (Mignault & Avi Chaudhuri, 2003) and the human world seems to show examples which support these evolutionary theories. Judges (an authoritative power) are always seated on a raised platform and speeches by presidents and such are mostly given from a platform above the audience. Henley & Harmon (1985) have studied something like this. They found that standing while talking to someone who is sitting, is viewed as a dominant gesture. As mentioned before, since people interact with media in the same manner as with other persons (Reeves & Nass, 1996), this should also work with people when mediated.

The movie world has been trying to profit from these ideas for many, many years. Rudolf Arnheim found the use of camera angles in old Russian revolution-movies by Eisenstein (Kepplinger, 1987). Another very clear example of the use of camera angles is the Nazi-propaganda by Hitler. In all the movies where Hitler gave a speech, he was filmed from below, while standing on a high stage. The audience was filmed from above, while Hitler was seen in the front, high above them.

Angles and its results have been studied in multiple ways. According to Bordwell & Thompson (2004) there are basically three different kinds of angles: high angle, eye-level angle and low angle. Kepplinger (1987) studied which angles would be the most optimal and found this to be +18 or -18 degrees. The different studies on the effects of camera angles do not seem to find the same results. The study of Henley & Harmon, which was mentioned before, found results in favour of the evolutionary theory. Mandell & Shaw (1973) also found results in this area. They found that the perceived potency of a newscaster increased as the height of the camera decreased. However, a study by van Kappas, Hess, Barr & Kleck (1994) found no significant results. They asked participants to evaluate pictures of 13 different faces, which were taken from

different angles. They did however have only 16 participants, which might be too little to rule out chance. studies such as that by Kappas, Hess, Barr & Kleck (1994) were done by isolating the camera angle. This may not apply to daily life situations, since there are a lot of different social influences and contexts which could change the evaluation of a person, besides the camera angle. It might not be enough to just study the influence of camera angle, maybe these influences have to be taken into account.

# Descriptions

As discussed before, a lot the qualities that seem to indicate dominance can be traced back to personality traits. In turn, these traits can be traced back to words that describe or correlate with the traits. Goldberg (1990) did a study in which he investigated which words correlated with certain personality traits. These traits were than linked to the 'Five Factor Model of personality' or FFM. This FFM is a hierarchical organization of personality traits in terms of five basic dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. (McCrae & Oliver, 1992). Most researchers seem to agree that Extraversion is the factor most associated with status and dominance (Goldberg, 1990; McCrae and Costa, 1989). When someone is judging a person, used words that correlate with a personality factor can give an idea of the personality the judge thinks the person has.

So the judgement of personality and dominance can be done using multiple methods, both verbal and nonverbal. It occurs everywhere, because everyone is always judging others. Since the upcoming social media is the next place where persons are judged, this study will try to see how this is done. This study will try to investigate if the perception of dominance in men and women on social media pages is influenced by different camera angles and different descriptions. This will be done by showing social media pages and making variations in camera angle, context and gender. The area in which this study will be done is relatively unknown, so this study will mostly be exploratory. The study could give insight in the consequences of certain choices on a social media page, which do not seem to matter at first sight.

The following hypotheses will be tested:

*Hypothesis 1: Male subjects show a greater difference in judgment than female subjects Hypothesis 2: Photos will be more influential for judgement than descriptions* 

Hypothesis 3: Overall, men will be evaluated as more dominant than women

# Methods

In this study the participants were shown a social network page. On this page was a profile photo and a short self-description, just like the standard social media pages. The photos were made from a high (+18 degrees) or a low angle (-18 degrees). Next to the photo, different kinds of self-descriptions were presented. A person had two different self-descriptions, of which one was presented to a participant. These two descriptions differed in that one described a typical dominant person and the other described a typical submissive person. The subjects was shown two profiles and both persons described on the profiles were said to be 20 years old, so that there was no age difference, which could affect the evaluation. One of the profiles was that of a man, the other of a woman. There also were no names on the profiles. As described earlier, names have a big influence on judgement, so to make sure they would not influence the experiment, they were left out.

# Dependent variable:

The scores on personality were measured using a Ten Item Personality Inventory, or TIPI (Gosling, Rentfrow & Swann, 2003). This is a shortened personality test based on the FFM. The subjects used this test to show what they thought the personality of the person on the profile was. Every factor generated an own score, so there were five different scores. These scores were used as a dependent variable for the study.

#### **Independent Variables:**

# Photos:

As said before, the photos on the profiles were made from either a high (+18 degrees) or a low angle (-18 degrees). Before these photos were made, a selection was made to make sure the persons on the photo were appropriate. Ten persons (six male and four female) were photographed on eye-level and instructed to have a neutral facial expression so that this would not affect the evaluation others would give them. The photos that were made can be found in Appendix A. These photos were then used in the pilot to select the right persons to photograph for the main experiment.

# **Descriptions:**

To make the descriptions, explanations of the Five factors given by McCrae & Oliver (1992) were compared with a study by Burger & Cosby (1999) to see which factors from the FFM were related to dominance. In the study by Burger & Cosby (1999), female students selected five adjectives from the Adjective Check List (ACL; Gough & Heilbrun, 1983) to describe a dominant man and a man who was an submissive individual. For a dominant man these adjectives were *aggressive, assertive, confident, demanding* and *dominant*, while for a submissive man the adjectives were *easygoing, quiet, sensitive, shy,* and *submissive*. These adjectives were compared and matched with the explanations and examples McCrae & Oliver (1992) gave in their study and a list from the study of Goldberg (1990) The analyses of the Factors led to a dominant description which featured adjectives high in Extraversion and low in Agreeableness & Neuroticism. The submissive description was the complete opposite and featured adjectives low in Extraversion and high in Agreeableness & Neuroticism. Since it wasn't clear if Openness to Experience and Conscientiousness would influence a dominant or submissive profile, they were not mentioned in the description. Both descriptions can be found in Appendix B . The descriptions were also tested in the pilot to see if they really reflected the right Factors from the FFM.

# Methods of the Pilot study:

A small group of test subjects from Enschede were used for a pilot study, to see if the materials would work

in a full scale test and make a selection for the appropriate photos. The test subjects were shown photos, made from an eye-level angle, of ten different people (six men and four women). ). None of these persons on the photos were from or near Enschede, so that it was likely that the test subjects did not know them. The subjects had to fill in a TIPI-test to show what kind of personality they thought the person on the photo had. Then they were shown a self-description and they also filled in a TIPI-test with one additional question, asking to judge the dominance of the person in the description. The TIPI used for the evaluation of the photos didn't have this question (see Appendix C for both versions of the TIPI).

The response-rate for the pilot was rather low. Due to the limited time frame it was decided to establish results after nine responses. To see which photos were most neutral, a score was calculated which depicted the absolute difference from the most neutral score. Since subjects could give scores between 1 and 7, the score of 4 was most neutral. So if the score was 4, the absolute difference score would be 0. If the score was 3 or 5, the absolute difference score was 1 and so on. These scores were used to calculate a mean score for absolute difference, the average of all scores given to a certain photo. The photos with the lowest absolute difference score were then selected and a TIPI-score was calculated. The TIPI score consisted of 5 scores between 2 and 14, each for on the Five Factors. The most neutral score was 8, so the most perfect candidate would have scores that did not significantly differed from 8. The two most neutral photos (one male and one female) would then be chosen for the main experiment. For the TIPI-scores for the descriptions, the ideal situation was of course completely the opposite of that of the photos, since the scores would have to show the affiliation with different Factors that were chosen.

#### **Results of the Pilot study**

Tables which show the results for the pilot can be found in Appendix D.

## **Results photos**

Based on the results from this pilot, two persons (a man and a woman) had to be chosen to be used in the main experiment. The woman on photo 7 and man on photo 10 had the lowest mean score.

It was then further investigated if their TIPI-scores were also adequate. A one-sample t-test was done with the test value of 8, to see if the scores on the different factors differed significantly from the neutral value of 8. The mean scores for the photo #7 #10 matched the requirements for being used in the main experiment, as the only significant differences were found on Factors that are not thought to not influence the dominance.<sup>1</sup>

# **Results Descriptions**

The aim of these tests was to make sure the descriptions reflected the right factors from the FFM. A onesample t-test was done to see if the TIPI-scores from the descriptions would reflect the chosen high or low Scores on the three factors that were deemed important for dominance. The test value was 8 again, the most neutral score which can be achieved in a TIPI-score. Table 5 in appendix D shows that in both dominant and submissive descriptions the three important factors (Extraversion, Agreeableness & Neuroticism) were significantly different in the correct direction, except for Agreeableness in the dominant description. The description was checked to see if something was wrong and a typo was then discovered in an adjective (vertrouwen) that was associated with Agreeableness. The typo was changed and was thought to account for the found anomaly. Conscientiousness had a significantly higher score for the submissive profile, but this was not seen as relevant for this particular study. The control question that was put in with descriptions, asking to score the dominance of the person between 1 and 7. The control question gave very clear results, as both of the score were highly significant.

As it was significantly proven that the descriptions match the factors chosen for the profiles, they were found to be sufficient to be used in the main experiment.

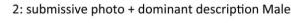
<sup>1</sup>After the main experiment had started, some extra results for the pilot came in. When taken into account, these extra results produced little changes in significance for the factors Extraversion for the woman and Neuroticism for the man. However, photos 7 and photo 10 still remained the best candidates for the main experiment.

#### Methods of the Main experiment

82 test subjects participated in an internet-survey. In this internet survey were two external URL's which led to two social media profiles. These social media profiles were from a fictional, self-made social media site called 'Smoelenboek', to make sure no preliminary judgments about the social media site existed. The internet-survey consisted of two standard TIPI-tests (the same as the one that was used in the pilot for the photos), which had to be filled in based on the social media profiles and a few questions about the

respondents themselves (age and sex). The social media profiles consisted of either a dominant or a submissive description and a low or high angle photo. There were four different combinations made and a test subject would see two of these profiles. One profile would always have a photo of a male and the other would have a photo of a female. Condition 1 (n=44) showed a dominant photo of a man combined with a submissive description on the first profile and a submissive photo of a woman combined with a dominant description on the second profile. In Condition 2 (n=38) the first profile showed a dominant photo of a man combined with a dominant description on the second profile. The photos on the profiles in condition 1 reflect the stereotypes that are given to men and women, while the photos on the profiles in condition 2 are the opposite. The profiles can be seen in figure 1.

1: dominant photo + submissive description Male







4: submissive photo + dominant description Female



3: dominant photo + submissive description Female



Figure 1. Profiles that were made for the main experiment

Although it is not possible to see the complete effects of camera angle and descriptions with these combinations, it is possible to see the differences between men and women and effects, as well as which feature (photo or description) is more influential for the evaluation of a person on a social media profile.

The 82 test subjects consisted of multiple populations between the age of 18 and 56, although the biggest part (89%) was between 18 and 28. Most of the subjects (48) were psychology-students from the University of Twente, which did this for credits. When not enough subjects were found among the psychology students, others students were asked and a request for subjects was posted on a psychology forum

(www.psychologen.net). Since it is probable that someone who has to fill in a test for their study, will fill it in differently than someone who is just asked, the two groups will also be investigated separately. The social media profile combinations that were formed can be found in Appendix B.

# Results

The results of the main experiment are shown in table 1 and figure 2. First, some general results will be discussed. Then the results will be discussed for each hypothesis.

# Table 1

# Descriptive statistics from the main experiment

	Mean scores for condition 1		Mean score for condition 2	
Personality factor				
	Male profile	Female profile	Male profile	Female profile
Extraversion	5,18	10,20	10,87	4,76
Agreeshlerees	0.77	F 10	C 10	8,13
Agreeableness	9,77	5,18	6,18	0,10
Conscientiousness	10,05	8,02	6,89	10,18
Neuroticism	9,34	6,68	6,37	8,63
Openness to new	6,84	8,70	9,74	6,34
experience				

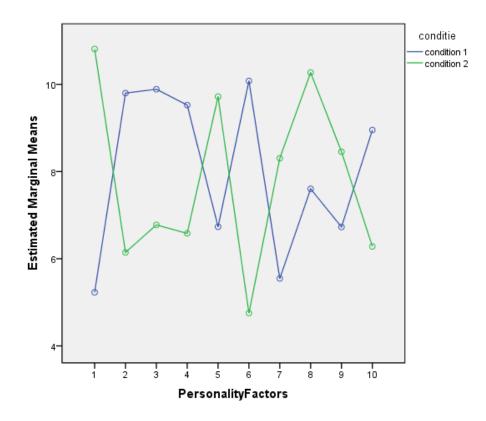


Figure 2. Estimated marginal means for TIPI scores for each Personality factor in the two conditions

It was investigated if there were any differences between the two conditions. In SPSS, ten variables were made to reflect the TIPI scores. The first five were the scores on the five factors for the profiles with a man on the photo, the second five were the scores for the profile with a woman on the photo. The other variables were age of the subject, sex of the subject, condition and population (psychology students or from other sources). A multivariate analysis of variance with repeated measures (in which the Wilks' Lambda was used as testing value) was done to see if there could be found any significant differences. The analysis showed that the Personality Factor scores differed significantly within subjects(F=4.022, p= 0.003). It also showed that there was an interaction-effect between personality factor and condition within subjects (F= 7.224, p=0.000). Both the main effect for personality factor and the interaction-effect between condition and personality factor effects can be seen in figure 2. It shows the mean scores for the five factors for the profile for the man (PersonalityFactors 1 to 5) and for the five factors for the profile for the woman (PersonalityFactors 6 to 10).

The main effect found for Personality Factor indicates that the subjects scored differently on the five personality factors, which is logical as TIPI-test is developed to generate different scores associated with different personality factors. It does not seem necessary to investigate this effect any further. No other effects were found within the subjects. No significant differences were found between subjects for the age of the subject, sex of the subject, condition and population. It was checked to see if there would be any effects between conditions in TIPI-scores and these variables. The results showed that an interaction effect between gender of the subject and personality factors existed in =condition 1 (F=10.752, p=0.000) while this was not the case for condition 2 (F=6.583, p=0.294. A visual representation of this effect can be seen in figure 3. Since the interaction effect only exists in condition 1, the effect will also only be investigated further in condition 1.

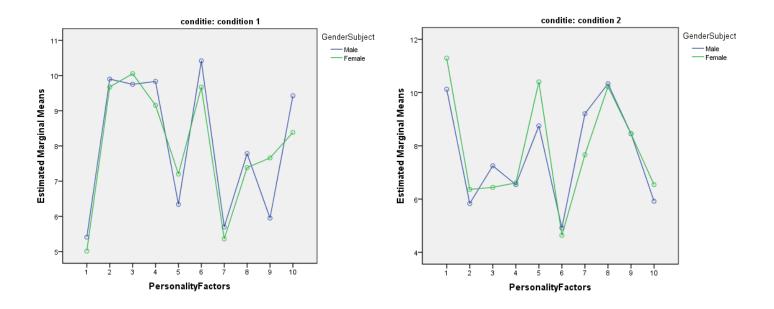


Figure 3. Estimated marginal means for TIPI scores for each Personality factor, for both sexes of the subjects. Seperate for the two conditions

Hypothesis 1: Male subjects show a greater difference in judgment than female subjects

To investigate the interaction-effect for personality factors and the sex of the subject in condition 1, multiple univariate analyses of variance were done for every separate Personality factor. Significant differences were found for Openness to Experience (F=4.778, p=0.034) in the male profile and Neuroticism (F=9.313, p=0.004) in the female profile. Separate 95% confidence intervals for the mean difference Man-Woman were made, again according to the method of Bonferonni. These confidence intervals showed that the Openness to experience score for to the male profile were lower for male subjects than for female subjects (Confidence interval: -2.267 to -0.090). The score for Neuroticism for the female profile were also lower for male subjects than for female subjects (Confidence interval: -3.598 to -0.734). Again, this can also be seen in Figure 3.

# Hypothesis 2: Photos will be more influential for judgement than descriptions

The interaction effect between personality factor and condition was investigated by multiple univariate analyses of variance for each separate personality factor. The mean differences are shown in table 2. Each personality factor displayed a significant difference, so to investigate further, 95 % confidence intervals were made according to the method of Bonferonni. The confidence intervals indicated that the scores that every personality factor had, complied with the expected effects of the descriptions and the opposite of the expected effects of the photos. For example, a dominant photo and a submissive profile led to personality scores that complied with a submissive person. The contrary between the descriptions and photos makes sense, as the photos and descriptions were chosen to be opposite in dominance. The descriptions seemed to have a greater effect on judgment than the photos.

# Table 2

Personality factor	Mean difference (condition 1 – condition 2)		
	Male Profile	Female Profile	
Extraversion	-5,687***	5,441***	
Agreeableness	3,589***	-2,950***	
Conscientiousness	3,151***	-2,161***	
Neuroticism	2,972***	-1,950***	
Openness to new	-2,896***	2,362***	
experience			

Mean differences for interaction effect between personality factor and condition

\* p < 0.05. \*\*p < 0.01. \*\*\*p < 0.001

# Hypothesis 3: Overall, men will be evaluated as more dominant than women

To investigate the difference between the male and female profiles, an independent samples T-test was done for the TIPI-scores. 38 subjects were randomly selected from condition 1, to match the number of subjects in condition 2. The two groups that were compared were matched in dominance for the photo and description, which would mean that gender was the only variable that was able to influence the results. When there was a dominant photo and a submissive description, significant differences were found for Agreeableness (t=3,232, p=0.002). A 95 % confidence interval according to the method of Bonferonni showed that the male profile scored higher on Agreeableness than the female profile. When there was a submissive photo and a dominant description, significant differences were found for Conscientiousness (t=2.163, p=0,034) and Openness to experience (t=2.953, p= 0.004). A 95 % confidence interval according to the method of Bonferonni showed that the female profile scored higher on Openness to experience.

# Discussion

The results and their meaning will be discussed separate for each hypothesis. After that the limitations will be discussed and a conclusion will follow.

#### Hypothesis 1: Male subjects show a greater difference in judgment than female subjects.

It seemed there was some kind of effect for the sex of the subject. A difference was found for two personality factors (Openness to Experience for the male profile and Neuroticism for the female profile) in condition 1 between male and female subjects, while no difference was found in condition 2. In both personality factors, men were more extreme in their judgment than women, confirming the hypothesis that men have more stereotypes and have a greater difference in judgment, which was also found by Meyer & Sobieszek (1972). It is of course striking that these differences were found in the cases were compliant with the stereotype rolls of dominant men and submissive women on the photos. It could be possible that these photos, were more stimulating to the gender stereotypes and caused these effects, but this is of course not clear. No results were found that indicate that Extraversion was more of influence on dominance than other personality traits. Conscientiousness and Openness to experience were hypothesized to have no influence on dominance, but it seems the factors interact more than foreseen, as significant results were also found for these factors.

## Hypothesis 2: Photos will be more influential for judgement than descriptions.

The data indicated that there is a difference in influence between a profile photo and a description on the evaluation of personality. When the photo and description were opposites of each other in dominance (and matching personality factors), the observed scores on personality reflected the personality scores of the description, which meant off course the exact opposite of the photo. This was true for both conditions, showing that there was a connection between condition and personality factors, probably caused by the descriptions. This means that the hypothesis that photos would be more influential than descriptions, was falsified. Based on the found results, descriptions would be more influential than photos in a social media profile.

#### Hypothesis 3: Overall, men will be evaluated as more dominant than women.

There also were some differences found between the evaluation of a male and a female profile. For a dominant photo and a submissive description, the male profile scored higher on agreeableness than the female profile. When there was a submissive photo and a dominant description, the male profile scored higher on Openness to experience, but lower on Conscientiousness than the female profile. Only Agreeableness of these three personality factors was thought to influence dominance and it was thought that a dominant person would score lower on this factor than a submissive person. This means the results go against the hypothesis that the male profile would be evaluated as more dominant than the female profile if the other conditions would be the same. It must be said that this study only used one man and one woman for the photos. The differences that were found could also be caused by the person, rather than by gender.

There were no effects found between the subjects in age or population (subject pool vs. external). As noted in the results section, there was very little distribution for age, so the collected data is probably inappropriate for really investigating these differences.

#### Limitations of the study

This study started out searching for the influence of camera angle in a certain context, which was chosen to be a social media page. However, the focus of this study changed (unconsciously) along the way, into a study that was aimed more and more on the interaction of people with social media. The camera angle was still a part of the study, but it was not the main focus anymore. Since it was not really a conscious decision, the realisation of this shift came rather late, even after the results were collected. The conditions that were created were not correctly formed, which meant that the statistical results were incompatible with the main hypothesis and could not answer it correctly. These limitations were of such great consequence, that it was decided to redo the theoretical part of the study and use the data that was already collected for a 'new' study. This 'new' study is the one that is discussed in this article.

As this study was to explore this area of psychology, not all possible combinations between photo and descriptions were made. To see the complete effects of this phenomenon, further research is necessary,

focusing more on all the possible combinations. This will also show the complete effect of differences between men and women, which can also be different in completely dominant or completely submissive condition. It might be possible that gender stereotypes are even more present with these kind of conditions. For better results it is also necessary to use multiple different man and woman as stimuli, so the effects of a person can be filtered out.

The camera angles of +18 degrees and -18 degrees that were used in this study were based on the findings of Kepplinger (1987), but not all researchers agree that these angles are optimal. Meyers-Levy & Peracchio (1992) used angles of +40 degrees and -40 degrees in their study on the effects of camera angle on the evaluation of products. For further research it may be good to also try other angles such as those used in the mentioned study by Meyers-Levy & Peracchio (1992).

It is very difficult to find perfect candidates for this type of study, as someone would have to be judged completely neutral. The persons on photo 7 and photo 10 were not completely neutral, but they were the best candidates from the sample. For a more clear view of the effects on evaluation, better candidates will have to be found.

# Conclusion

This study has shown that on a social media page, descriptions are more influential on judgment then photos. There did not seem to be a difference in influence on dominance for the different factors. There was no real difference found between the judgment of a man or a woman, but men did have more extreme judgments when evaluating social media profiles.

Results found seem to comply with the ideas of Geis (1982) that men and women are evaluated differently due to gender stereotypes and the results of Meyer & Sobieszek (1972), who found that men are more extreme in their gender stereotyping than women. There could not be a real factor found that was mostly associated with dominance, while some researchers believed that Extraversion would be that factor (Goldberg, 1990; McCrae and Costa, 1989). Although there were some results, this study has opened up an extra number of question. This is not a bad thing, as this was an exploratory study. Hopefully, more people will see the relevance of researches like this, as the social networks keep growing and growing. To make the right impression, there are probably a lot more things to account for then people realize. However after this study it is important to remember, that a picture does not always say more than a thousand words.

# References

- Abramowitz, A. I. (1975). Name Familiarity, Reputation, and the Incumbency Effect in a Congressional Election. *The Western Political Quarterly*, 28, p. 668-684
- Bargh, J. A., & K.Y.A. McKenna, K. Y. A. (2004) The Internet and social life. *Annual Review* of Psychology, 55, p. 573–590.

Bordwell, D., & Thompson, K. (2004). Film art: An introduction. New York: McGraw-Hill.

- Burger, J. M., & Cosby, M. (1999). Do women prefer dominant men? The case of the missing control condition. *Journal of Research in Personality*, 33, p. 358–368.
- Constantinides, E., & Fountain S. (2008): Web 2.0: Conceptual Foundations and Marketing Issues, *Journal of Direct, Data and Digital Marketing Practice*, 9, p. 231-244.
- Geis, F. L. (1982). *Research on seeing and evaluating people*. Newark: Office of Women's Affairs, University of Delaware.
- Geis, F. L. (1993). Self-fulfilling prophecies: a social psychological view of gender. In A. E. Beall & R. J. Sternberg (Eds.), The psychology of gender (pp. 9–54). New York: Guilford.
- Gerber, G. L. (2009). Status and the gender stereotyped personality traits: Toward an integration. *Sex Roles,* 61, p. 297–316.
- Goldberg, L. R. (1990). An alternative "description of personality": the Big-Five factor structure, *Journal of Personality and Social Psychology*, 59, p. 1216-1229
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. Jr. (2003). A very brief measure of the Big-Five personality domains, *Journal of Research in Personality*, 37, p. 504–528.

Gough, H.G., & Heilbrun, A. B., Jr. (1983). Adjective Check List manual. Palo Alto,

CA: Consulting Psychologists Press.

Darwin, C. 1872. *The expression of emotions in man and animals*, New York: Philosophical Library. de Waal, F. (1989). *Peacemaking among primates*. Cambridge, MA: Harvard University Press.

- Harris, C. R., & Pashler, H. E. (2004). Attention and the processing of emotional words and names: Not so special after all, *Psychological Science*, 15, p. 171–178.
- Henley, N. M., & Harmon, S. (1985). The nonverbal semantics of power and gender: A perceptual study. In S.
  L. Ellyson & J. F.Dovidio (Eds.), *Power, dominance, and nonverbal behavior*, p 151–164. New York:
  Springer-Verlag.
- Hollander, E. P., & Offermann, L. R. (1990). Power and leadership in organizations: Relationships in transition. *American Psychologist*, 45, p. 179-189.
- Jones, E. E. (1954), Authoritarianism as a Determinant of First-Impression Formation, *Journal of Personality*, 23, p. 107–127.
- Kepplinger, H. M. (1987). Darstellungseffekte: Experimentelle Untersuchungen zur Wirkung von Pressefotos und Fernsehfilmen, Freiburg: Karl Alber
- A.M. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media, *Business Horizons*, 53 1, p. 59–68.
- A. Kappas, A., Hess, U., Barr, C.L., Kleck R.E. (1994). Angle of regard: The effect of vertical viewing angle on the perception of facial expressions, *Journal of Nonverbal Behavior*, 18, p. 263–280.
- Lenhart, A., Madden, M., Rankin, M., A., & Smith, A. (2007). *Teens and social media*. Pew Internet & American Life Project Report. Retrieved February 23, 2011, from www.pewinternet.org

Mandell, L.M., & Shaw, D.L. (1973). Judging people in the news-Unconsciously: Effect of camera angle

and bodily activity. Journal of Broadcasting, 17, p. 353-362.

- McCrae. R. R., & Costa, P. T., Jr. (1989). The structure of interpersonal traits: Wiggins's circumplex and the five-factor model. *Journal of PersonaUty and Social Psychology*, 56, p. 586-595.
- McCrae, R. R. and John, O. P. (1992), An Introduction to the Five-Factor Model and Its Applications. Journal of Personality, 60, p. 175–215.
- Meyer, J., & Sobieszek, B. (1972). Effect of a child's sex on adult interpretations of its behavior. *Development Psychology*, 6, p. 42-48.
- Meyers-Levy, J., Peracchio, L. A. (1992). Getting an Angle in Advertising: The Effect of Camera Angle on Product Evaluations. *Journal of Marketing Research*, 29, p. 454-461
- Mignault, A. & Chaudhuri, A. (2003). The Many Faces of a Neutral Face: Head Tilt and Perception of Dominance and emotion, *Journal of Nonverbal Behavior*, 27, p. 111-132.
- Paludi, M. A., & Strayer, L. A. (1985). What's in an author's name? Differential evaluations of performance as a function of author's name, *Sex Roles*, 12, p. 353-360.
- Redican W.K.(1982). An evolutionary perspective on human facial displays. In Ekman P. (Ed.), *Emotion in the human face,* p. 212-280. New York: Cambridge University Press.
- Reeves, B., & Nass, C. (1996). *The media equation: How people treat computers, television, and new media like real people and places*. New York: Cambridge University Press.
- Reeves, B., Lombard, M., & Melwani, G. (1992). Faces on the screen: Pictures or natural experience? Paper presented to the Mass Communication Division at the annual conference of the International Communication Association, Miami , FL .
- Ridgeway, C. L. (1988). Gender differences in task groups: a status and legitimacy account. In M. Webster Jr.
  & M. Foschi (Eds.), *Status generalization: New theory and research*, p. 188–206. Stanford, CA:
  Stanford University Press.

- Ridgeway, C. L. (2006). Gender as an organizing force in social relations: implications for the future of inequality. In F. D. Blau, M. C. Brinton, & D. B. Grusky (Eds.), *The declining significance of gender?*, p. 265–288. New York: Russell Sage Foundation.
- Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the gender system: a theoretical perspective on gender beliefs and social relations, *Gender & Society*, 18, p. 510–531.
- Steil, J. M. (1997). *Marital equality: Its relationship to the well-being of husbands and wives,* Thousand Oaks, CA: Sage.

# Appendix

Appendix A: Photos for the Pilot





















## **Appendix B: Descriptions for the pilot**

#### Dominant description (in dutch):

Ik ben 20 jaar oud, een levendig(E+) persoon en trots(E+) op wie ik ben. Ik leg heel makkelijk contact met anderen(E+), maar ben wel iemand die niet altijd te vertrouwen is (A-) en soms onredelijk doe tegen anderen (A-). Ik ben graag de baas in groepen(A-) en als dingen niet gaan zoals ik verwacht, dan blijf ik gewoon kalm(N-). Ik ben wel koppig (A-)en wil ik het dan zelf oplossen. Ik heb behoorlijk veel zelfvertrouwen(N-), dus als er iets is wat ik wil, dan ga ik er recht op af (E+). Ik ben een erg zelfstandig persoon(N-) en ben iemand die niet snel zijn gevoelens laat zien(N-).

## Submissive description (in dutch):

Ik ben 20 jaar oud, een rustig(E-) en bescheiden(E-) persoon. Ik leg niet makkelijk contact met anderen(E-), maar ik ben iemand die zeker te vertrouwen is (A+) en altijd tegen anderen aardig probeert te doen(A+). Ik ben het gemakkelijk eens in groepen (A+), al kan ik af en toe wel wat nerveus zijn (N+) als dingen niet helemaal gaan zoals ik dat had verwacht. Ik werk dan graag samen met anderen aan een oplossing(A+). Ik heb niet altijd even veel zelfvertrouwen (N+) en ga dus niet snel op iets af (E-). Ik denk dat ik wel veel afhankelijk ben van anderen (N+) en ben wel iemand ben die graag over zijn gevoelens praat(N+).

# Appendix C: Ten Item Personality Inventory, or TIPI (translated to Dutch by Sander Koole and further adapted)

Hieronder staat een aantal eigenschappen die al dan niet op de persoon op het sociale netwerkprofiel van toepassing kunnen zijn. Noteer alsjeblieft naast elke bewering in hoeverre je het met de bewering eens bent. Beoordeel steeds in hoeverre <u>beide</u> eigenschappen op de persoon van toepassing zijn, zelfs wanneer één eigenschap meer van toepassing is dan de andere eigenschap.

- 1 = sterk oneens
- 2 = enigszins oneens
- 3 = klein beetje oneens
- 4 = niet oneens, niet eens
- 5 = klein beetje eens
- 6 = enigszins eens
- 7 = sterk eens

# Ik zie de persoon als

 1. \_\_\_\_\_
 Extravert, enthousiast

 2. \_\_\_\_\_
 Kritisch, strijdzuchtig

 3. \_\_\_\_\_
 Betrouwbaar, gedisciplineerd

 4. \_\_\_\_\_
 Angstig, snel overstuur

 5. \_\_\_\_\_
 Open voor nieuwe ervaringen, complex

 6. \_\_\_\_\_
 Gereserveerd, stil

 7. \_\_\_\_\_
 Sympathiek, warm

 8. \_\_\_\_\_
 Slordig, achteloos

9. \_\_\_\_\_ Kalm, emotioneel stabiel

10. \_\_\_\_\_ Behoudend, niet creatief.

Optional extra question for descriptions in the Pilot:

11. ----- Geef ook aan op een schaal van 1 tot 7 hoe dominant je deze persoon vindt.

# Appendix D: Tables for results pilot

Table 3

# Absolute difference mean scores for photos from pilot

Photo number	Sex	Mean score
1	Male	13,6667
2	Female	12,0000
3	Male	13,3333
4	Female	14,1111
5	Male	12,7778
6	Male	11,6667
7	Female	11,4444
8	Male	11,2222
9	Female	13,5556
10	Male	10,3333

# Table 4

	Mean score		
Personality factor	Photo #7	Photo #10	
Extraversion	9,5556	8,7778	
Agreeableness	7,7778	8,2222	
Conscientiousness	9,5556*	7,1111	
Neuroticism	7,6667	6,5556	
Openness to new	9,7778*	8,1111	
experience			

# TIPI mean scores & significance for photos from pilot

\* p < 0.05. \*\*p<0.01. \*\*\*p < 0.001

# Table 5

# TIPI mean scores & significance for descriptions from pilot

Dominant	
	Submissive
profile	profile
12,5556***	4,3333***
6,2222	10,4444**
6,2222	10,3333*
5,1111**	10,4444*
9,2222	6,4444
6,5556***	2,0000***
	12,5556*** 6,2222 6,2222 5,1111** 9,2222