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Eidesstaatliche Erklärung

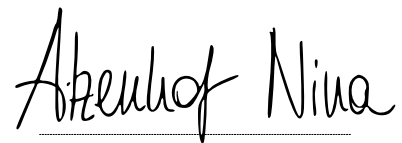
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Wien, am 09.09.2016

A handwritten signature in black ink, reading "Akenhof Nina". The signature is written in a cursive style with a horizontal line underneath.

(Unterschrift)

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Abstract

The Internet and the number of new technologies coming along with this phenomenon are rising every day. Millions of people are users of so-called social networks and consequently connected with each other. Studies have shown that there are relations between the using-behavior on the Internet and the peoples' personality traits. Characteristics like extraversion, emotional stability, agreeableness, conscientiousness and openness for new experiences ("The Big Five") are connected with various social online activities. A not new attraction, but rapidly gaining in popularity is "selfies" – self-portraits made by the users themselves.

By using a sample of students in Vienna, this study explored the relation of the Big Five personality traits (using the 10-item inventory according to Gosling et al. 2003) and the observers' tolerance concerning others' selfie-posts. It also examined how the personality traits influence their perception of appropriateness concerning others' selfies and their willingness to post various selfies. Results found that while extraversion was negatively related to the observers' level of tolerance, the other four traits did not show significant connections. Research also revealed a positively significant relation between the users' level of appropriateness in positive selfie-contexts and the personality trait conscientiousness. Furthermore, no statistically significant correlation could be found between posting-willingness, social media use intensity as well as posting intensity to the users' level of tolerance. Also, no connections between the gender of poser on the selfie and the level of tolerance, perception of appropriateness and posting-willingness for various selfie contexts were discovered.

Key words: tolerance, personality traits, Big Five, social media, appropriateness, social media use intensity, posting intensity, gender of poser, selfie

Kurzfassung

Das Internet und die Anzahl der damit einhergehenden neuen Technologien wachsen täglich. Millionen von Menschen sind Benutzer von sogenannten sozialen Netzwerken und somit miteinander verbunden. Studien haben gezeigt, dass es Zusammenhänge zwischen der Persönlichkeit der Nutzer und deren Verhalten im Internet gibt. Charaktereigenschaften wie Extraversion, emotionale Stabilität, Verträglichkeit, Gewissenhaftigkeit und Offenheit für neue Erfahrungen („The Big Five“) stehen in Verbindung mit diversen sozialen Online-Aktivitäten. Eine nicht neue, aber eine zunehmend beliebtere Attraktion sind „Selfies“ – ein Selbstportrait, welches von den Nutzern selbst gemacht wird.

Anhand einer Stichprobe von Studenten aus Wien erforschte diese Studie die Beziehung der großen fünf Persönlichkeitseigenschaften (unter Verwendung des „10-item inventory“ nach Gosling et al. 2003) und der Toleranz der Betrachter gegenüber Selfie-Posts von anderen. Außerdem wurde der Einfluss der Persönlichkeitseigenschaften auf die Einschätzung der Angemessenheit gegenüber Selfie-Posts von anderen, und auf die Bereitschaft selbst diverse Selfies zu posten geprüft. Die Ergebnisse zeigten, dass das Persönlichkeitsmerkmal Extraversion in einer negativen Relation zum Toleranzlevel des Betrachters steht; die anderen vier Charaktereigenschaften zeigten in dieser Hinsicht keine signifikanten Verbindungen.

Eine weitere positiv signifikante Beziehung konnte zwischen der Angemessenheits-Einschätzung der Betrachter und der Persönlichkeitsausprägung Gewissenhaftigkeit dargelegt werden. Darüber hinaus konnten keine statistisch signifikanten Korrelationen zwischen der Posting-Bereitschaft, der Nutzungsintensität sozialer Medien als auch der Intensität des Posting-Verhaltens zum Toleranzlevel der Nutzer gefunden werden. Auch das Geschlecht der Selfie-Models stand in keiner Verbindung zum Toleranzlevel, zur Einschätzung der Angemessenheit oder zur Posting-Bereitschaft von diversen Selfies.

Schlüsselbegriffe: Toleranz, Persönlichkeitseigenschaften, Big Five, soziale Medien, Angemessenheit, Nutzungsintensität, Posting-Intensität, Geschlecht des Bildmodels, Selfie

1 Introduction

The use of the Internet has turned into a daily routine for many people. People go online for many different reasons – e.g. shopping, information seeking or communicating with other users. The Internet is present in nearly every area of life (cf. Amichai-Hamburger/Ben-Artzi, 2003: 71f.). Studies revealed the following three segments of Internet services; information services (seeking information related to work or to studies), social services (chatting, discussion groups or people-address seeking) and leisure services (sex websites or random surfing). Also, they have examined how personality traits are related to peoples' Internet usage (cf. Hamburger/Ben-Artzi, 2000) and in particular how they are related to peoples' social network use and behavior (cf. Correa et al., 2009; Seidman, 2013; Nadkarni/Hofmann, 2012).

Another study (Kraut et al., 1998: 1017) found that there is a positive relation between the Internet use and the loneliness among users. Greater Internet use was associated to a decline in social relationships (family members, friends) and simultaneously leads to an increase in their feelings of depression and loneliness.

That there is an affect of the Internet on the people concerning their way of interacting, communicating and gathering information is an indisputable fact (cf. Amiel/Sargent, 2004: 712). We are now living in an era where interaction and communication have changed a lot. It is a period ruled and characterized by the terms “*contemporary, post-everything, ironic domination*” (Goldsworthy, 2013: 47). People are flooded by data overload across countries. They are using the Internet for different purposes – communication is one. Interaction and communication occurs between people with a screen-addiction – be their computer, their tablet or their Smartphone (cf. Goldsworthy, 2013: 50).

For this reason people are attracted to social media since it was introduced. It offers a large range of activities, in an active as well as in a passive way (cf. Boyd/Ellison, 2007).

The behavior on social media is affected by different parameters. *Self-esteem, age, gender, self-presentation* and *personality traits* are influencing factors in determining social media behavior and usage (cf. Amichai-Hamburger, 2002; Correa et al., 2009; Hamburger/Ben-Artzi, 2000; Seidman, 2013; Nadkarni/Hofmann, 2012; Steinfield et. al, 2008; Jackson et al., 2001; Warren et al., 2012: 9; Bem, 1981; Duggan, 2015).

A common way nowadays to fulfill the need for self-presentation is to post a self-picture – or in other words *a selfie*.

Oxford Dictionaries' word of the year 2013 was "selfie" (cf. The Guardian):

"Ubiquitous noun for social media self-portraits faces down newly discovered cute mammal the olinguito in annual contest." (The Guardian)

During the last years the range of selfie contexts rose immensely. People are taking selfies in every imaginable situation – no matter who, no matter where, no matter when. The range of contexts reached immeasurable dimensions (cf. Mazza et al., 2014: 2f.).

"There was shown to be an increase in extrinsic motivators such as fame and recognition and a decrease in intrinsic motivators such as self-assurance and concern for others. This suggests that members of this younger generation have become more self-oriented and less empathic as seen with many modern trends like the 'selfie' (a selfie is self-photo which is then shared with others on the internet) and a variety of celebrity influences." (Barry, 2014: 5)

It seems like the users do not draw a line anymore for what is personal/intimate or what is immoral/unethical. There are pictures online on social media that show people "posing" at a funeral, when they are giving birth, when they are not wearing adequate garments, when they are at a concentration camp or right after they had sex...the list of strange contexts is long. Everybody is making selfies – even the pope (cf. Huffingtonpost) and U.S. president Barack Obama. Obama was caught taking a selfie on Nelson Mandela's Memorial Service (cf. abcnews).

The current research integrates literature and researches done on social media and personality traits to examine how those traits influence the level of perception of appropriateness and tolerance concerning other peoples' selfie posts and their willingness to post such a photo.

Due to lack of research from academic studies of the users level of tolerance on social media, it is the intent of this study to provide a starting point for such a topic.

2 Theoretical Part

2.1 The Role of Social Media (SM) and Social Network Sites (SNS)

Numerous studies on different types of social media have already been done. Different forms of social media are for example blogs, social networks, photo and video sharing communities, social bookmarking sites, question and answering portals, newsgroups and chat forums (cf. Xu et al., 2012: 546; Amichai-Hamburger/Vinitzky, 2010: 1289). One of the most popular and fastest growing type of social media is the social network (cf. Amichai-Hamburger/Vinitzky, 2010: 1289). The use of social network sites (SNS) has become a daily routine for millions of people and social media allows them to communicate with people they already know. Furthermore, users of SNS can “meet” strangers and initiate a relation to those they feel they may share a connection with – in other words they can network. In addition, their social networks can be illustrated by showing their connections (friend/follower) to other individuals (cf. Boyd/Ellison, 2007: 210f.).

Social network sites are “*web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.*” (ibid. 2007: 211)

Classic SNS where individuals can present themselves, establish and maintain offline connections and articulate their social circle can be oriented towards work-related networks (e.g. *LinkedIn.com*), sites with romantic relationship initiations (the original goal of *Friendster.com*, and now many more like e.g. the Austrian dating platform *Parship.at*) and sites with interest-based contexts, such as music or politics (e.g. *MySpace*) (cf. Ellison et al., 2007: 1143).

One of the most popular SNS is *Facebook*, founded on February 4th 2004. Its mission is “*to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what’s going on in the world, and to share and express what matters to them.*” (Facebook Mission, 2016)

Further to the features mentioned, Facebook provides instruments for the users to post information about themselves – either categories for users’ textual self-descriptions, or a photograph of themselves, occupying a dominant space of the profile (cf. Tong et al., 2008: 533). Also, users can accumulate “friends” who can view each other’s Facebook-pages and post comments. They can also join virtual groups based on common interests (hobbies, musical tastes

etc.) (cf. Ellison et al., 2007: 1143). One of the most popular features on the SNS Facebook is a *status update*. It allows users to share their feelings, activities and thoughts with their friends, who are then able to *like* and *comment* in return (cf. Marshall et al., 2015: 35). Additionally to this, Facebook enhanced everyone's *Like* with *Love*, *Haha*, *Wow*, *Sad* and *Angry* Buttons (cf. Techcrunch, 2016)

SNS have combined the separate activities of emailing, messaging, website creation, multimedia content sharing (music, video and photo albums) (cf. Livingstone, 2008: 394).

A relatively new form of communication is the social network *Instagram*: It is a mobile photo and video capturing and sharing service, which has experienced rapid growth since it was launched in October 2010. (cf. Hu et al., 2014:1)

Instagram describes itself as a “*fun and quirky way to share your life with friends through a series of pictures. Snap a photo with your mobile phone, then choose a filter to transform the image into a memory to keep around forever. We're building Instagram to allow you to experience moments in your friends' lives through pictures as they happen. We imagine a world more connected through photos.*” (Instagram FAQ, 2016)

Or in other words: profiles on various SNS “*can be seen as a form of digital body where individuals must write themselves into being.*” (Boyd, 2007: 129).

2.2 Social Media Behavior and Usage

Correa et al. (2009, 1f.) define social media use “*as the particular consumption of digital media or Internet that has little to do with traditional informational media use. Rather, it provides a mechanism for the audience to connect, communicate, and interact with each other and their mutual friends through instant messaging or social networking sites.*”

Because of the benefits mentioned above, people are driven by different motivators to use SNS. The section below further examines the literature on motives that are linked with social media use.

2.2.1 Age

Duggan et al. (2015) did an update on existing studies on social media and found that 81% of all American adults are Internet users at the age of 18+. Among them, 58% use Facebook, 23% use LinkedIn, 21% use Instagram and only 19% use Twitter. Moreover, they discovered that for the first time, more than half of all online adults at the age of 65 and older are users of Facebook.

2.2.2 Personality Traits

A body of research shows that *personality traits* are important and have a crucial impact in determining Internet and social media behavior and usage (cf. Amichai-Hamburger, 2002; Correa et al., 2009; Hamburger/Ben-Artzi, 2000; Seidman, 2013; Nadkarni/Hofmann, 2012). There is one method considered as the best to explain personality traits among a significant number of researchers – The “Five-Factor-Model” (cf. McCrae/Costa, 1997). Further literature with regards to this method is going to be explained in the chapter 2.5 Personality Traits as Influencing Factor for Internet and Social Media Use.

2.2.3 Gender

Specific Internet and social media behavior or usage can also be driven by the users’ gender. For example, while males use the web more, females are more likely to write e-mails. Additionally, females reported higher computer anxiety, less computer self-efficacy, and less favorable and stereotypic computer attitudes (cf. Jackson et. al, 2001: 363). Male persons are more likely to use the Internet for entertainment and recreation, whereas female individuals use the Internet to communicate with others and therefore to expand their social circle (cf. Leung, 2001 as cited in Warren et al., 2012: 9).

Gender-specific differences in behavior can be explained by the “gender schema theory” (cf. Bem, 1981). This theory suggests that people are taught how the roles of men and women are

defined within the society and culture. As this knowledge is internalized, individuals adopt traits they expect as suitable for their gender. Due to those formulated roles, gender-specific styles of communication and behavior found in real life were also applied to online communication and behavior (cf. Gefen/Ridings, 2005 as cited in Warren et al., 2012: 9).

“According to sociolinguistics, in oral discourse men communicate to establish superior social standing, while women communicate with the undertone of rapport, compassion, and empathy (...) these differences carry over to the asynchronous written environment of virtual communities and affect men’s and women’s respective perceptions of community quality.” (Gefen/Ridings, 2005: 78)

Due to the findings of Gefen and Ridings (2005: 78) women join virtual communities to give and also to receive social support.

Specific gender differences, according to Mehdizadeh (2010: 360), were also found regarding the individuals self-promotional content. Males displayed higher self-promotion in “about me” and “notes”, whereas females displayed more self-promotional content in the “main photo section”.

These results indicate that male people prefer the descriptive way of self-promotion (presentation) and female persons prefer the superficial way of self-promotion.

2.2.4 Self-Esteem

Another indicator for the peoples’ social media use is *self-esteem*.

“Self-esteem is viewed as a sense of personal worth that depends on one’s confidence in the validity of one’s cultural worldview and the belief that one is living up to the standards prescribed by that worldview.” (Weiten, 2007: 497)

Steinfeld et al. (2008: 441) found that a relation exists between the use of social media (in this case with Facebook) and the users’ level of self-esteem. Facebook-users with lower self-esteem gain more from the platform in the context of bridging social capital than those with higher self-esteem.

Additionally, research on Facebook (cf. Mehdizadeh, 2010: 357ff.) found that individuals with a lower level of self-esteem and a higher level of narcissism were related to greater online activity as well as some self-promotional content.

“We suggest that Facebook affordances help reduce barriers that lower self-esteem students might experience in forming the kinds of large, heterogeneous networks that are sources of bridging social capital.” (Steinfeld et al., 2008: 343)

According to Schlenker (1980, 88 as cited in Krämer/Winter, 2008: 107) humans have a *“need for self-esteem”* and *“it is vital to maintain and/or raise self-esteem”*. (Schlenker, 1985; Steele, 1988 as cited in Krämer/Winter, 2008: 107)

Due to this, Krämer and Winter (2008: 107) expect people to strive for positive self-presentation by presenting them in a positive light; e.g. *“by presenting large numbers of friends, by displaying celebrities, or by putting great effort into designing their profiles.”* (Krämer/Winter, 2008: 107) (see chapter 2.2.5 Self-Presentation)

2.2.5 Self-Presentation

Another term that may influence the using behavior on social media, and is therefore important to be considered, is *self-presentation*.

It can be defined as *“any behaviour that is designed to convey an image about ourselves to other people. This explains why our behavior can change if we notice we are being watched.”* (Psychology Dictionary, 2016)

Self-presentation is one of the major motivations for the usage of the SNS Facebook. Activities on Facebook, which achieve self-presentational goals, are amongst others posting of profile pictures, profile information and wall content (cf. Zhao/Grasmuck/Martin, 2008 as cited in Seidman, 2013: 402).

Seidman (2013, 404f.) computed six scales to facilitate self-presentation. Two of those were created in consideration of the self-presentational behavior - *general self-disclosure* (changing status, updating profile, posting about special events, posting about daily events, posting photographs of special events, and posting photographs of daily events) and *emotional disclosure* (posting about “drama in my life” and venting frustrations). Another scale was computed to evaluate the extent of different expressions of self-aspects, which are *presentation of actual* (frequency of posting status updates, posting photographs, updating their profile, and generally using Facebook to express “who I really am”), *ideal* (the way I would ideally like to be), and *hidden self-aspects* (aspects of myself that I do not feel comfortable expressing offline). Last but not least a motivation for self-presentation is *attention-seeking*, namely the need to show-off and gain attention.

Another model concerning Facebook-use was proposed by Nadkarni and Hofmann (2012, 1ff.) who suggested that social media usage is primarily motivated by two basic social needs: (1) the need to belong and (2) the need for self-presentation. In this case demographic and cultural factors contribute to the need to belong, whereas neuroticism, narcissism, shyness, self-esteem and self-worth are responsible for the need for self-presentation.

It can be seen that individuals are concerned about their self-image online, and because of that they are motivated to use impression management strategies. They manipulate, or in other words self-promote, their own person's presentation on social media to have a socially desirable image (cf. Mehdizadeh, 2010; Lin et al., 2014).

One important part of this online social experience is photo sharing (cf. Duggan, 2013:2) (see chapter 2.3 Photo Posting on SNS).

2.3 Photo Posting on SNS

A new survey conducted by the Pew Research Center's Internet Project (cf. Duggan, 2013: 2ff.) proves that photos and videos have become an integral part of the so-called online social experience. More than half (54%) of the adult Internet users in the U.S. post photos (or videos) online that they have taken themselves.

According to Weiser (2015: 477) this phenomenon might come along with the rapid increase of smartphones (climbing from a median of 21% in 2013 to 37% in 2015 in emerging and developing nations (cf. Poushter, 2016: 5)), which simplify photo sharing through social media by allowing the users to take photos and post them on SNS directly. This function is enabled by photo-sharing sites, such as Instagram and various other SNS that allow the users to post photographs, such as Facebook and Twitter.

Instagram hosts more than 40 billion photos, and on average over 80 million photographs are posted per day from its more than 400 million monthly active users (cf. Instagram Press, 2016). Facebook has 1.09 billion daily active users on average (for March 2016), whereof 989 million are mobile daily users (cf. Facebook Newsroom 1, 2016). With over 350 million photographs uploaded every day, Facebook is the most popular place to share photos (cf. Facebook Newsroom 2, 2016).

Among Internet users there are differences in picture posting behaviors. Young adults aged 18-29 are particularly likely to post photos they take of themselves online; so do women compared to men (cf. Duggan, 2013: 4).

“The rise in photo sharing has helped spark a precipitous new social phenomenon: the snapping and sending of amateur self-portrait photographs – known as selfies – to SNSs.” (Weiser, 2015: 477)

2.4 Selfie

“We are surrounded by an army of kids and young adults absorbed in Facebook, Twitter, Instagram, Vine, Viber, WhatsApp. Within these realms we see the rise of super-narcissism and the phenomena of “selfie porn”, the constant need to post pictures of oneself in admirable poses online for your friends/family/amires/stalkers/neighbours and all those secret trackers out there who want to track your grazing habits. “ (Goldsworthy, 2013: 50)

A selfie is *“a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media.”* (Oxford dictionary)

Or in other words a self-portrait uploaded on social media platforms (cf. Carmean/Morris, no year: 1).

Selfie has been officially nominated as the word of the year 2013 by the editors of Oxford Dictionaries, due to the immense rise of the frequency of its usage within the year 2013 by 17,000% (cf. The Guardian). The term can be attributed to a post on an Australian online forum in the year 2002:

"Um, drunk at a mates 21st, I tripped ofer [sic] and landed lip first (with front teeth coming a very close second) on a set of steps. I had a hole about 1cm long right through my bottom lip. And sorry about the focus, it was a selfie." (The Guardian)

Selfies are not a new attraction but within the last few years they gained fame. The number of people who are posting selfies is rising every day. Even the contexts in which the pictures are taken offer a wide range. You can take a self-portrait very spontaneously in basically every situation and directly upload the photo online on social network sites (cf. Mazza et al., 2014: 2f.).

As the name selfie reveals, the term self-presentation (as mentioned above) seems to enjoy great importance.

“Although self-presentation is inherently a selective process, these two features of CMC (computer-mediated communication) allow users to exercise much more control over their self-presentation than they would in face-to-face environments, and hence their online self-

presentation is ‘selective’ above and beyond what it would normally be face-to-face.” (Walther, 1992: 1996 as cited in Hancock/Toma, 2009: 369)

Carmean and Morris (no year: 1ff.) conducted a research where they identified selfies and examined them as a form of emotional expression. Although most of the selfies within this study indicate positive terms, the study shows that about 20% of the self-portraits are added with negative emotional wording, with reflecting isolation, disengagement and despair. As a selfie is a portrait someone took by him/herself, it implies aloneness. The main reason of tagging selfies is to attract viewers, regardless of the content of the picture.

“The appeal of selecting any image and allowing the user to display how they want to be identified with a characteristic or personality fulfills a gratifying need to be liked.” (Lin & Lu, 2011 as cited in Nguyen, 2014: 9)

Since personality expressions differ in heterogeneous contexts (cf. Gosling et al., 2002) it has to be mentioned that personality expressions in selfies tend to vary from the expression in other types of pictures. Selfies give individuals more freedom of controlling their face visibility, emotional expression and camera position. They allow them to have full control of their appearance where e.g. their facial expression and eye contact can be easily manipulated to appear different from how they normally look. Furthermore, they are often taken for sharing on SNS. Thus, it is possible that selfies are manipulated to present a positive image, so that typical associations can become invalid (cf. Qiu et al., 2015: 444ff.)

Nevertheless Qiu et al. (2015: 443f.) found that selfies reflect their owners’ personality traits. Selfies may provide a better view of their subject’s personality than other pictures as they contain new cues, for example the “duckface” – a facial expression made by pushing the lips outward and forward to illustrate full lips that is often seen in selfies but not in other pictures – or emotional positivity, which may reveal new personality expressions that are not available in other types of the person’s photos (see more in chapter 2.5 Personality Traits as Influencing Factor for Internet and Social Media Use).

Sorokowska et al. (2016, 119) did research involving a total of 1296 men and women to find out more about the predictions of selfie sharing on various online social network sites (ONS). Results showed that participants share between 0 to 650 selfies per month on various ONS sites, where they were found to post, on average, 2.9 selfies of themselves, 1.4 selfies with a romantic partner, and 2.2 group selfies to Facebook each month. Concerning gender differences, women posted more selfies of each type than did men. Moreover, men’s vanity-, leadership- and admiration demand predicted the posting of one or more types of selfies. Also, their narcissism

scores were found to be positively related to their selfie posting behavior (own selfies, selfies with a partner as well as group selfies) whereas women's were not (cf. Sorokowski et al., 2015: 123f.).

But, as mentioned above, there are other predictors than gender (or self-esteem and age), for the users' Internet and SNS behavior. Significant influencing factors are the peoples' personalities. Characteristics and personality traits are highly linked with social media use. Further examination about personality traits can be seen in the next chapter.

2.5 Personality Traits as Influencing Factor for Internet and Social Media Use

Numerous researchers agree, that the best method to explain human personality traits in general is the "Five-Factor-Model", as it is cross-cultural (cf. McCrae/Costa, 1997: 509 ff.).

The five dimensions of personality are the following (cf. McCrae/Costa, 1987):

- extraversion (or surgency)
- neuroticism (vs. emotional stability)
- openness (to experience)
- agreeableness (vs. antagonism)
- conscientiousness (vs. undirectedness)

The "Big Five" model has been used to explore different topics, e.g. how traces of peoples' personality can be found in their environments and belongings (cf. Gosling et al., 2002; Gillath et al., 2012). A significant amount of research has been done to find out how personality traits are related to the usage of the Internet and social media (cf. Correa et al., 2009; Hamburger/Ben-Artzi, 2000; Seidman, 2013; Nadkarni/Hofmann, 2012).

Those findings point out that personality has a high impact on peoples' behavior on the Internet – in a positive or in a negative way.

Those analyses showed that personality traits can also be reflected in photos that owners post on social media (cf. Naumann et al., 2009; Eftekhari et al., 2014). For example by identifying the personality-related cue "emotional positivity", the traits agreeableness and openness can be predicted. The cue "duckface" indicates neuroticism, and a private location in the background indicates less conscientiousness (Qiu et al., 2015). Furthermore, several cues were found to be related to personality judgment. For example the duckface tends to be judged with a higher factor of conscientiousness and neuroticism, pressed lips were associated with the judgment of

extraversion and openness, being alone on the picture was related to neuroticism and showing a public relation in the background was related to the judgment of conscientiousness. More detailed information on the above mentioned dimensions will be revealed in the following section.

2.5.1 Extraversion (or Surgency)

Extraversion can be defined by the terms sociable, fun loving, affectionate, friendly, spontaneous, talkative, active, passionate, warm, not lonely, people-oriented, dominant and bold (cf. McCrae/Costa, 1987: 85). This description implies a person who is able to experience positive emotions (cf. Amichai-Hamburger/Vinitzky, 2010: 1290).

Research concerning peoples' environment found that e.g. extraverts' offices are warm, decorated and inviting (cf. Gosling et al., 2002: 387). According to research on photos the most valid features for extraverted people involved soft-lineaments, curls and attractiveness. However, it has to be mentioned that obviously there are facial features that cannot be changed by the user when taking the picture (cf. Nestler et al., 2012: 700f.) which suggest that the above-mentioned statements cannot be applied to 100% of cases. Other research using spontaneous portraits found that extraverts correlate with cheerfulness of facial expression (cf. Borkenau et al., 2009: 705) and with an energetic stance and smiling (cf. Naumann et al., 2009: 7).

Extraversion and Online Activities

Research based on the Five-Factor-Model found that there is a positive relation between extraversion and online activities. This personality trait is positively related to the use of leisure services of the Internet (e.g. sex websites or random surfing) (cf. Hamburger/Ben-Artzi, 2000: 445f.) and to the use of social media (cf. Correa et al., 2009: 250). Studies based on the SNS Facebook discovered that highly extroverted people have a significantly higher number of friends than less extroverted people (cf. Hall/Pennington, 2013: 1560; Amichai-Hamburger/Vinitzky, 2010: 1291). Additionally, people in the highly extraverted group show a lower use of the feature *personal information*, which includes activities, interests, favorite music, favorite TV shows, favorite movies, favorite books, favorite quotations and about me (cf. Amichai-Hamburger/Vinitzky, 2010: 1291). Instead more extraverted people use Facebook to communicate with others actively to maintain offline relationships (cf. Seidman, 2013: 405). Contrary to Amichai-Hamburger & Vinitzkys' results (2010, 1291), Seidman (2013, 405) found that people with a high level of extraversion tend to express their actual self more than people with a low level of extraversion by posting status updates, posting photographs, updating their profile, and generally using Facebook to express who they really are. Furthermore, in total,

extraverts upload more pictures in total on Facebook, select more photos as their profile cover (cf. Eftekhar et al., 2014: 166) and have more people in profile pictures (cf. Hall/Pennington, 2013: 1560). Thus, consistent with Seidman's research, it appears highly extraverted Facebook users satisfy their self-presentation and communication needs by an intensive projection of Facebook imagery (cf. Eftekhar et al., 2014: 167).

Due to Hall and Pennington (2013, 1560) extraverts' status updates and wall posts employ a more positive effect, and they use more emoticons and an extended use of words.

With regards to gender specific questions, research has found that male test persons show a positive relation between extraversion and the use of leisure services. For women the research showed that the personality trait extraversion is negatively related to social services (cf. Hamburger/Ben-Artzi, 2000: 445).

2.5.2 Neuroticism (vs. Emotional Stability)

A neurotic person shows aspects of worrying, nervous and being nervous, high strung, emotional, temperamental, insecure, self-pitying, impatient, jealous, self-conscious, impulse-ridden, vulnerable and subjective (cf. McCrae/Costa, 1987: 85). A high level of those traits mirrors a person with psychological distress and sensitivity to danger (cf. Amichai-Hamburger/Vinitzky, 2010: 1290). In addition, Nestler et al. (2012: 700f.) found that facial features like soft-lineaments, dark hair and trimness are associated with neurotic people.

Neuroticism and Online Activities

Diversity can be found concerning the relation of extraversion and neuroticism with regards to the specific use of different Internet services. Whereas extraversion in general (as mentioned above) is positively related to the use of leisure services, neuroticism is negatively related to the utilization of information services (like work-related information) (cf. Hamburger/Ben-Artzi, 2000: 445f.). Contrary to this, a study limited on the SNS Facebook showed a positive relation between neuroticism and information-seeking. The results also reflected a positive relation to communication. Consequently, it can be suggested that people high in neuroticism use the platform Facebook (or large social media sites) to get information about others in a passive way (cf. Seidman, 2013: 405).

In general a negative relation between emotional stability and social media usage can be expected (cf. Correa et al., 2009: 250).

Studies on the specific SNS Facebook demonstrated that neuroticism was predictive of uploading significantly more photos on Facebook (cf. Eftekhar et al., 2014: 167). This finding is

consistent with Amichai-Hamburger & Vinitzkys' (2010: 1292) findings. People with a high level of neuroticism prefer to post self-pictures (*their* photos) on their Facebook profile more than the people in the least neurotic group. Moreover, the high neurotic group tends less to post *other* pictures than the least neurotic group. Furthermore, highly neurotic users do have more photos per album (cf. Eftekhari et al., 2014: 167; Amichai-Hamburger/Vinitzky, 2010: 1292).

Concerning basic information, which includes information about gender, home town, birthday, family members, family status, political and religious views and also the type of relationship the user is searching for, both groups – the highest and the least neurotic – tend to share more of this type of information in comparison with people with a moderate level of neuroticism (cf. Amichai-Hamburger/Vinitzky, 2010: 1292).

Seidman (2013, 404f.) found that neuroticism shows a positive association with general self-disclosure (changing status, updating profile etc.), emotional disclosure (posting about “drama in my life” and venting frustrations), and the presentation of actual self-aspects (use Facebook to express “who I really am”), ideal self-aspects (the way I would ideally like to be), and hidden self-aspects (aspects of myself that I do not feel comfortable expressing offline). Those results, according to Seidman, suggest that they use the online platform Facebook as a safe place to express self-aspects, to present different facets of themselves and to satisfy their need to belong, which is not sufficiently fulfilled offline.

In view of gender aspects, differences within this personality trait can be described as follows:

For men, the relation between neuroticism and the use of information services is negative. For women, the personality trait neuroticism is positively related to social services (cf. Hamburger/Ben-Artzi, 2000: 445).

There are two possible ways to interpret the female phenomenon. First, according to Kraut et al. (1998), the increase in loneliness and depression is the result of high Internet usage. Secondly, based on Amichai-Hamburger & Ben-Artzi (2003, 76), it can be seen in the opposite way – that because of an increase in loneliness and depression women raise their use of social services on the Internet.

In contrast, men with higher emotional stability are more likely to use social media – maybe to strengthen and intensify their feelings about themselves by publishing themselves online (cf. Correa/Willard/Gil de Zúñiga, 2009: 252).

2.5.3 Openness (to Experience)

Openness (to experience) reflects the dimensions original, imaginative, creative, broad interests, complex, curious, daring, prefer variety, independent, analytical, liberal, untraditional and artistic (cf. McCrae/Costa, 1987: 85). As the name of the trait reveals, a person with a high level of those attributes is willing to think about alternative input and shows intellectual curiosity (cf. Amichai-Hamburger/Vinitzky, 2010: 1290). Research, which includes facial features, found that people who are open to experience are linked with the volume of mouth, stylishness and trimness (cf. Nestler et al., 2012: 700f.). Also, they tend to have a great variety of books and magazines in their bedrooms (cf. Gosling et al., 2002: 386).

Openness and Online Activities

In general a positive relation between openness to experience and the use of social media was found (cf. Correa et al., 2009: 250). People who have a high level of openness and additionally show a high tendency in neuroticism are likely to be bloggers (cf. Guadagno et al., 2008: 1993). It also has to be mentioned that differences in gender were found. For women, those with a high level of neuroticism are more likely to blog than those with a low level of neuroticism. For men, the result shows no difference in blogging based on their level of neuroticism (cf. Guadagno et al., 2008: 2001).

Individuals with a higher level of openness to experience use more personal information features than those low in openness to experience. This indicates a higher expression on profiles of people (cf. Amichai-Hamburger/Vinitzky, 2010: 1294).

Due to personality-related cues on selfies it has to be mentioned that ‘emotional positivity’ reflects the owners’ openness. Furthermore, the selfie owners’ degree of openness was the only personality trait that could be accurately judged by the observer (cf. Qiu et al., 2015: 447).

2.5.4 Agreeableness (vs. Antagonism)

Agreeableness can be delineated by the terms good natured, soft hearted, courteous, selfless, helpful, sympathetic, trusting, generous, acquiescent, lenient, forgiving, open-minded, agreeable, flexible, cheerful, gullible, straightforward and humble (cf. McCrae/Costa, 1987: 85). It also reflects trust and cooperation (cf. Amichai-Hamburger/Vinitzky, 2010: 1290). Smoothness of skin, volume of mouth and soft-lineaments are valid facial features for agreeable people (cf. Nestler et al., 2012: 700f.)

Agreeableness and Online Activities

Agreeable people do not use the Internet to seek information but they use it to communicate with others. They also use Facebook to seek acceptance and maintain connections, as they actively want to supplement real-life relationships via this platform (cf. Seidman, 2013: 405).

Amichai-Hamburger/Vinitzky (2010, 1292) found that agreeableness is related to features of Facebook use: people with a high, as well as with a low level of agreeableness, tend to upload more pictures and contact information on the SNS Facebook than people with a moderate level of agreeableness. In addition, they reflect a shorter use of page features. This is similar to Seidman's research concerning self-presentation that showed the following: actual self-presentation is positively related to agreeableness. This means that people high in agreeableness express and describe themselves more often by posting status updates, photographs, updating their profile, and generally using Facebook to express who they really are, than people low in agreeableness (cf. Seidman, 2013: 405). Additionally, they receive more 'likes' and comments on their profile pictures (cf. Eftekhar et al., 2014: 167)

2.5.5 Conscientiousness (vs. Undirectedness)

The fifth trait is conscientiousness – characterized by the attributes careful, conscientious, reliable, hardworking, well organized, scrupulous, self-disciplined, neat, punctual, practical, deliberate, ambitious, emotionally stable, self-reliant, businesslike, energetic, knowledgeable, persevering, intelligent, fair, perceptive, cultured and diligent (cf. McCrae/Costa, 1987: 85; Amichai-Hamburger/Vinitzky, 2010: 1290f). Concerning their environments and belongings, conscientious individuals have neat and well-organized bedrooms (cf. Gosling et al., 2002: 378). A valid facial feature for conscious people is trimness (cf. Nestler et al., 2012: 700f.).

Conscientiousness and Online Activities

Studies' results show that individuals with a high level of conscientiousness have a greater number of friends on the SNS Facebook than those with a low level. Additionally, high scorers of this personality trait were found to upload fewer pictures than the group with a low level (cf. Amichai-Hamburger/Vinitzky, 2010: 1290ff.; Seidman, 2013: 405). Even so, highly conscious people prefer to create new albums on Facebook and organize their photos properly in diverse folders rather than leaving them in default albums or accumulate new photos in existing folders (cf. Eftekhar et al., 2014: 168).

Moreover, there is a negative relation between conscientiousness and the belongingness need, to connect with others and to seek acceptance. Another negative association was found with self-presentation-oriented behaviors and motivations. The higher the level of conscientiousness, the

lower the need to seek attention or to express his/her hidden and ideal feelings concerning self-presentation. Conscientious people are careful in their online-presentations (cf. Seidman, 2013: 405f.). Nevertheless, they tend to have more friendly looking profiles (cf. Hall et al., 2013: 1561). In the context of online dating, conscientiousness is negatively associated to the misrepresentation for personal assets, relationship goals and personal interest (cf. Hall et al., 2010: 130). This study implies that conscious people will be honest or authentic more often.

As can be seen from the sections above, extensive research has already been done on the people who post selfies. Nonetheless, current investigations lack findings concerning those who observe other peoples' selfies. It is questionable whether they even want to see or can tolerate selfies (see chapter 2.7 Tolerance). Furthermore, one does not even know what they think of the concept selfie or more importantly of the people who post them (see chapter 2.6 Person Perception). Consequently, this paper and its corresponding studies will show a new perspective of the topic social media and social networking.

2.6 Person Perception

An accumulated body of research shows that personality can be judged by unfamiliar others with reasonable accuracy (cf. Qiu et al., 2015: 444). When the perceiver and the target are unacquainted, it means that there has not been yet an opportunity given for them to interact, this is a so-called zero-acquaintance judgment. In this case the perceivers use the information available to them (physical appearance) to make personality judgments. If personality-related cues, such as facial characteristics (cf. Albright et al., 1988: 387f.), choices of footwear (cf. Gillath et al., 2012) or living environment (cf. Gosling et al. 2002) are present, zero-acquaintance judgments can be made and influence the observer's perception of a person.

"Person perception" can be described as the processes, which lead to the formation of an opinion and/or a judgment of another person. Such processes are relatively frequent and of great importance. On account of perceived (or often merely assumed) statements or actions of a person one forms an opinion about their current state of mind, intentions, attitudes and characteristics. Those distinct opinions that one has reached about another person form the basis for the judgment of him/her. (cf. Herkner, 1983: 311)

Furthermore, pictures of persons generate different perceptions due to their permanent personality characteristics (cf. Kepplinger, 2010: 105). In this research, to avoid individual-related ratings within the groups, the persons shown on the various selfies within this experiment are going to be the same – this means in group A the same male performer in all various

contexts, in Group B the same female performer in the various contexts, and also in Group C&D the same male and female performers.

Therefore, a pre-test has to be done to make sure that there are no inherent differences in the judgment of the people pictured, as it is possible that there could be different perceptions, which can falsify the findings of the study (see more in chapter 3.2.1 Pre-Test).

2.7 Tolerance

As mentioned above, a significant amount of research has been done on the people who post selfies. But how about the people who observe the selfies? Do they want to see them? What do they think about selfies? Or do they even tolerate them?

When searching for a brief definition of ‘tolerance’ one will firstly encounter an answer in the sector of engineering, where it signifies the ‘highest permissible deviation of a given target value’. When conducting measurements the “nominal dimension” determines a norm and in the past experienced values aid in defining the “dimension tolerance”. This tolerance illustrates the highest possible difference between upper and lower limits that are acceptable in order not to have a negative impact on an entire system. The attempt to define “tolerance” under the aspect of interpersonal relations is highly difficult in practice, since one of the main factors – determining a target value – is problematic. Does such a value even exist and is tolerance especially important when it does not, as the target is subjectively defined according to the individual or group and their respective ideals? (cf. Forst, 2000:7)

Despite the theory of Forst, other researchers found the following:

“Tolerance implies a willingness to ‘put up with’ those things one rejects or opposes (...) In a narrower sense, tolerance is closely associated with the idea of procedural fairness.” (Sullivan et al., 1993:2)

The term tolerance is often found in combination with religion and/or politics. Politically, tolerance refers to a willingness to permit the expressions of ideas or interests of the opposition (cf. Sullivan et al., 1993: 2).

“The idea of religious tolerance was promoted as a mechanism to allow religions to ‘put up with’, or tolerate, other religions that they disliked or even hated vehemently. So too did the concept of political tolerance evolve as a way to live with one’s ideological and political enemies. Political opponents need not be eliminated physically or even politically. One need not like or support one’s opponents and their ideas, but one ought at least to put up with, or

tolerate, them. We were urged to learn to agree about how to disagree.” (Sullivan/Transue 1999: 630)

But the term tolerance is no longer reserved for religious or political issues/subjects. It applies to ethnic and racial diversity, gender issues, homosexuality, abortion and so forth. In the main, tolerance comes into play *“only when matters are controversial and intergroup relations conflictual.” (Doorn, 2012: 4)*

As mentioned above, tolerance refers to the willingness to put up with something one rejects.

Therefore, it presupposes disagreement: *“The problem of tolerance arises when there are grounds for real disagreement.” (cf. Sullivan et al., 1993:4)*

But being tolerant does not mean to have no prejudices. Sometimes a person with no prejudices is seen as very tolerant; but this cannot be generalized. A prejudiced person can in fact be highly tolerant, when he/she understands his/her prejudices and still continues to permit the expressions of those things he/she rejects and is prejudiced (cf. Sullivan et al., 1993:4).

“Upholding a tolerant attitude, therefore, requires establishing grounds for distinguishing acceptable from unacceptable dissent.” (Wainryb et al., 1998: 1541)

One of the first studies in this topic was conducted by Samuel Stouffer (1955). His approach to measuring tolerance implicates asking people whether a communist, a socialist or an atheist should be allowed to hold a speech, to have a book placed in a public library or to teach in college or university. In 1978 Nunn et al. updated Stouffer’s analysis, using the same questions. Sullivan et al. (1993: 248) summarized the body of research on political tolerance (cf. Stouffer (1955); Nunn et al. (1978)) to the following:

- The educated are significantly more tolerant than the uneducated.
- The active participant in politics is more tolerant than the inactive and apathetic.
- Politic leaders are far more tolerant than the public at large.
- The public was intolerant, especially members of dissident groups in the left political corner, such as communists and socialists; they now tend to be tolerant.
- In advanced societies processes are at work that will eventually produce more tolerant citizens; this has already taken place to a significant degree.

Research shows that the political tolerance (of citizens) is strongly influenced by the depth of their commitment to democratic values, by the degree to which they perceive others as a threat

and by their personality (cf. Sullivan et al., 1999: 625). Concerning personality characteristics and tolerance the following important factors have been identified:

Marcus (1995: 169) did research on contemporary tolerance judgments and found that people high in neuroticism and extraversion are less tolerant, whereas people high in openness to experience are more tolerant. Also, self-esteem was found to correlate positively with tolerance (cf. McClosky et al., 1983: 367f.)

3 Empirical Part

This chapter presents the empirical part of this thesis. It demonstrates the research questions, the hypotheses and the research methodologies, including online-based pre-test, online-based survey and statistical analysis of the quantitative survey.

3.1 Research Questions and Hypotheses

The review of literature is summarized with the following four broad research questions, and a series of hypotheses that are proposed by prior research and findings.

The main research question of this master's-thesis is the following:

RQ 1: How do personality traits influence the users' level of tolerance concerning others' selfie posts?

Based on earlier work relating to personality traits on social media (e.g. McCrae/Costa, 1997; Gosling et al., 2003; Correa et al., 2009; Amichai-Hamburger/Vinitzky, 2010) and tolerance (Marcus, 1995) the author hypothesizes the following:

Hypothesis 1.1: There is a negative relation between the personality trait extraversion and the level of tolerance concerning others' selfie posts on SNS.

Hypothesis 1.2: There is a negative relation between the personality trait neuroticism and the level of tolerance concerning others' selfie posts on SNS.

Hypothesis 1.3: Openness to experience and the level of tolerance concerning selfie posts of others' on SNS are positively related.

Hypothesis 1.4: There is a positive relation between agreeableness and the level of tolerance concerning others' selfie posts on SNS.

Hypothesis 1.5: There is a negative relation between the personality trait conscientiousness and the level of tolerance concerning selfie posts of others' on SNS.

RQ 2: How do personality traits influence the users' level of perception of appropriateness concerning others' selfie posts in various contexts?

As it is the aim of the pre-test to find a positive situation a vast majority of the participants is of the opinion that taking a selfie within this situation is absolutely appropriate, and opposed a negative situation within which taking a selfie is totally not appropriate. Taking into account earlier research (Amichai-Hamburger/Vinitzky, 2010; McCrae/Costa, 1987) the following hypotheses are proposed.

Hypothesis 2.1: There is a positive relation between the personality trait extraversion and the observers' perception of appropriateness concerning others' selfie posts in positive situations on SNS.

Hypothesis 2.2: There is a negative relation between the personality trait emotional stability and the observers' perception of appropriateness of others' selfie posts in negative situations on SNS.

Hypothesis 2.3: Openness to experience and the observers' perception of appropriateness of others' selfie posts in positive situations on SNS are positively related.

Hypothesis 2.4: There is a positive relation between agreeableness and the observers' perception of appropriateness concerning others' selfie posts in positive situations on SNS.

Hypothesis 2.5: There is a negative relation between the personality trait conscientiousness and the observers' perception of appropriateness concerning selfie posts of others' in negative situations on SNS.

RQ 3: How does the intensity of social media usage and the posting frequency influence the observers' levels of tolerance concerning others' selfie posts?

Based on prior work conceptualizing intensity of social media usage and of posting frequencies (cf. Seidman, 2013; Hall/Pennington, 2013; Amichai-Hamburger/Vinitzky, 2010; Eftekhari et al., 2014; Correa et al., 2009) and tolerance (cf. Sullivan et al., 1993) the following hypotheses are proposed:

Hypothesis 3.1: There is a positive relation between the users' social media use (includes friends/followers on SM and their time spent on SM) and their level of tolerance.

Hypothesis 3.2: There is a positive relation between the users' posting intensity (includes status updates, comments, links, photos and selfies) and their level of tolerance.

RQ4: How does the gender of poser influence the observers' level of tolerance, their perception of appropriateness and their willingness to post a selfie in various contexts?

To make sure that there is no inherent difference in the judgment of the people shown within the various situations (positive and negative), they need to run through a pre-test. This has to be done due to the fact that appearances can vastly influence the respondents' perceptions concerning the models' personalities and also, to avoid differences in tolerance due to the gender of the poser, as people might have internalized knowledge about socially constructed roles (cf. Bem, 1981). Within the pre-test a male and a female person were found with similar ratings of judgments by the observers. Based on those findings the following is hypothesized:

Hypothesis 4.1: There is no difference in the observers' level of tolerance concerning others' selfie posts (in positive and negative situation) in dependency of the gender of poser.

Hypothesis 4.2: There is no difference in the observers' perception of appropriateness of both selfie situations (positive and negative) in dependency of the gender of poser.

Hypothesis 4.3: There is no difference in the observers' willingness to post a selfie in both situations (positive and negative) in dependency of the gender of poser.

In the process of analyzing and answering this main questions, we will also gain information about other relations like e.g. age and tolerance, gender and tolerance, education and tolerance etc.

3.2 Method

3.2.1 Pre-Test

First of all a pre-test had to be done to be provided an insight, concerning what picture is seen as *appropriate* in which context and which as *not appropriate*. It is important to get an “appropriateness-ranking” of pictures, so that they can be used in the correct rank order in the next step. Otherwise the effect on the response cannot be measured.

Therefore, a number of 33 people (students of the University in Vienna) constitute the sample for the pre-test. The subjects see different selfies in various contexts that should be judged on a Likert-Scale from 1 (I strongly agree) to 10 (I strongly disagree).

To find an exact level of appropriateness the term “appropriate” has to be operationalized:

- adequate
- suitable
- acceptable
- decent
- reasonable

In addition, the term “not appropriate” also has to be operationalized:

- inadequate
- unsuitable
- unacceptable
- indecent
- unreasonable

As the pre-test is performed in the German language, the single terms of the operationalization have been double blind translated, to make sure that there is no language-difference in the meaning of the words.

The results of the double check are the following:

adequate	adäquat
suitable	passend
acceptable	annehmbar/akzeptabel
decent	anständig
reasonable	angemessen
inadequate	nicht adäquat
unsuitable	unpassend

inacceptable	unannehmbar/inakzeptabel
indecent	unanständig
unreasonable	unangemessen

The terms used to discover the level of appropriateness of each selfie situation are the following: acceptable, unsuitable, decent, unreasonable and adequate.

The main focus of attention at this stage of the research is on the context and situation of the picture and not on the person pictured. Hence, participants are invited to pay more attention to and judge the given situation and not the person. Contexts to be judged are the following: posing after-sex, posing with a baby on one's arm, posing at a funeral, posing in front of the mirror to present one's entire body, posing when being drunk, posing in front of an ongoing catastrophe in the background, posing in front of a sight/tourist attraction and posing while doing sport.

To ensure that the respondents correctly understand the situation the respective "hashtag" is added to the picture:

#AfterSexSelfie

#BabySelfie

#FuneralSelfie

#MirrorSelfie

#DrunkSelfie

#CatastropheSelfie

#SightseeingSelfie

#SportSelfie

It has to be mentioned, that the influence of text and/or a hashtag added to a picture is not part of this master thesis.

On account of the fact that within the actual experiment the most *appropriate* and the most *not appropriate* situations are reenacted, subjects have to be found to be pictured. To make sure that there is no inherent difference in the judgment of those people shown within the various situations, they need to run through a pre-test. This has to be done due to the fact that appearances can vastly influence the respondents' perceptions concerning the models' personalities.

Also, to avoid differences in tolerance due to the gender of the poser, as people might have internalized knowledge about socially constructed roles (cf. Bem, 1981), a male and a female person are going to be “judged”.

Within this pre-test the respondents have to rate both (male and female) on a semantic differential of personality traits. The model used is the following (cf. Kepplinger, 2010) (see Table 1).

Table 1. Semantic differential of personality traits

	English	English	German	German
Range of Scale (1-7)	1	7	1	7
Social behavior	good-natured	vicious/malicious	gutmütig	bösartig
	inspiring confidence	sly/deceitful	vertrauenerweckend	hinterlistig
	considerate	reckless/inconsiderate	rücksichtsvoll	rücksichtslos
	likeable/pleasant	unlikable/unpleasant	sympathisch	unsympathisch
	sentimental/sensitive	callous/insensitive	gefühlvoll/sensibel	gefühllos
	honest	dishonest	ehrlich	unehrlich
	friendly	unfriendly	freundlich	unfreundlich
	calm/peaceful	belligerent	friedlich	angriffslustig
	credible	implausible	glaubwürdig	unglaubwürdig
	familiar	unfamiliar/foreign	vertraut	fremd
Assertiveness/ Ability to assert oneself	open/frank	withdrawn	offen	verschlossen
	confident	insecure	selbstsicher	unsicher
	superior	inferior	überlegen	unterlegen
	active	passive	aktiv	passiv
	successful	unsuccessful	erfolgreich	erfolglos
Mood	energetic	tentative	energisch	zaghaf
	imperious/authoritative	submissive	herrisch	unterwürfig
	jolly	saddened	heiter	betrübt
	vigorous	calm	lebhaft	ruhig
	optimistic	pessimistic	optimistisch	pessimistisch

Participants have to judge the male and the female person on a scale from 1 to 7 due to their social behavior (e.g. if they think the person in the picture is good-natured, or friendly and honest), to their ability to assert themselves (e.g. if they think the person in the picture is confident or successful) and to their mood (e.g. if they think the person in the photo is jolly, calm or pessimistic). As the scale is originally in German, the terms are double-checked to make sure that no linguistic error has been made.

Another important factor that might influence the judgment concerning person perception is interpersonal attraction. This construct concerns “judgments about whether we ‘like’ another person” (cf. McCroskey, Larsen, Knapp, 1971 as cited in McCroskey et al., 1974: 1)

Based on research in this field, McCroskey et al. (1974: 3f.) generated three principal dimensions for their construct: social attraction, physical attraction and task attraction. As task attraction is not significant in this case, the pictured people are only being judged based on the social and physical dimensions. (on a 1 to 7 Likert-scale, where 1 means I strongly agree and 7 signifies I strongly disagree) (see Table 2).

Table 2. Interpersonal attraction

English	German
Social attraction	Soziale/gesellschaftliche Attraktivität
1. I think he (she) could be a friend of mine.	Ich denke, dass er (sie) ein(e) Freund(in) von mir sein könnte.
2. It would be difficult to meet and talk with him (her).	Es wäre schwierig, sich mit ihm (ihr) zu treffen und ein Gespräch zu führen.
3. He (she) just wouldn't fit into my circle of friends.	Er (Sie) würde nicht in meinen Freundeskreis passen.
4. We could never establish a personal friendship with each other.	Wir könnten nie eine enge Freundschaft schließen.
5. I would like to have a friendly chat with him (her).	Ich hätte gerne einen netten Plausch mit ihm (ihr).
Physical attraction	Körperliche Attraktivität
6. I think he (she) is quite handsome (pretty).	Ich finde, dass er (sie) ziemlich hübsch ist.
7. He (she) is very sexy looking.	Er (sie) sieht sehr sexy aus.
8. I find him (her) very attractive physically.	Ich finde ihn (sie) körperlich sehr attraktiv.
9. I don't like the way he (she) looks.	Ich mag sein (ihr) Aussehen nicht.
10. He (she) is somewhat ugly.	Er (sie) ist irgendwie hässlich.

3.2.2 Results Pre-Test

Of the total sample (n=33), where 63.6% were female and 36.4% were male where 100% use social media.

The analyses that have been done in order to establish the scale consistency of the five items concerning appropriateness demonstrated a high dependability for all of the different selfie situations. Again, the rating was done according to the Likert-scale, which consists of 10 stages (see Table 3).

Table 3. Internal consistency of selfie situations

Selfie situation	Mean (SD)	Cronbach's α
#AfterSexSelfie	3.23 (1.69)	.606
#BabySelfie	7.23 (2.35)	.900
#FuneralSelfie	2.02 (2.25)	.925
#MirrorSelfie	8.10 (1.52)	.836
#DrunkSelfie	4.30 (1.99)	.857
#CatastropheSelfie	1.59 (1.16)	.758
#SightseeingSelfie	9.38 (1.07)	.719
#SportSelfie	8.82 (1.88)	.887

All situations, except for the #AfterSexSelfie, showed an acceptable value for Cronbach's α ; which was a value of .7 to .8 and higher (cf. Field, 2009: 675).

The mean scores for the various selfie situations (in consideration of the 80% rule, meaning that the mean score is only generated when the respondents replied to a minimum 4 of the 5 given items; $n=31$) were the following (see Figure 1):

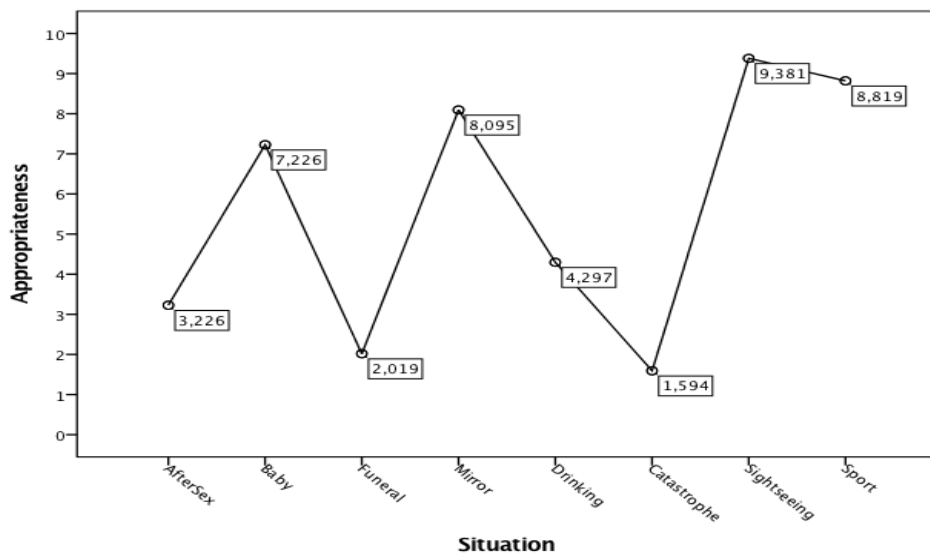


Figure 1. Mean scores of the different selfie situations

Notes: after recoding the items the appropriateness scale ranges from 1 = not appropriate to 10 = appropriate

In order to test the difference of those ratings a single factor variance analysis with one-way repeated measurement was used. The sphericity, which was examined via the Mauchly-test was violated ($p < .001$) and thus a correction according to Greenhouse-Geisser ($\epsilon = .652$) was necessary. The results of the tested quantities were significant with $F(4.57, 136.97) = 101.61, p < .001$ ($\eta^2 = .772$). Hence, one can assume clear deviations in the ratings of the appropriateness score. In order to be able to evaluate these 8 ratings in a differentiated manner, post hoc pairwise comparisons were made according to Bonferroni.

Based on those analyses it could be seen that the highest dissimilarity of means exists between the situations #SightseeingSelfie and #CatastropheSelfie (mean difference 7.79, $p < .001$).

Then, with those underlying results, the *appropriate* and *the not appropriate* selfie situations were determined for the actual experiment. A vast majority of the participants was of the opinion that taking a selfie while sightseeing is absolutely acceptable (appropriateness = 9.38, $SD = 1.07$) as opposed to when a catastrophe is happening is the background (appropriateness = 1.59, $SD =$

1.16). In addition, those two situations showed the smallest variance of the respondents' opinions, so judging from these results, the level of appropriateness is crystal-clear.

To make sure that there is no inherent difference in the judgment of the people pictured in the actual experiment, the pre-test showed the following:

By using T-tests for paired samples the ratings for the male and female portraits were comparatively analyzed, where a total of 30 person-perception distinctions were judged. In order to preventively counteract the accumulation of the type 1 error (alpha error), an adjustment of α had to be done accordingly (corrected α via the Bonferroni method was $0.05/30 = 0.00167$ (0.167%)). The consideration of this new criterion leads to solely distinction 5 (gefühlvoll/gefühllos = sentimental/sensitive & callous/insensitive) being significant with $t(31) = -4.46$, $p > 0.001$. The female portrait was experienced as more sensitive (2.13, $SD = 1.07$) than the male one (2.94, $SD = 1.05$). All the other comparisons did not show significant results, which leads to the conclusion that the pictures of the male and female model were judged rather similarly with regards to the perception of the individual him/herself (see Figure 2, Figure 3, Figure 4).

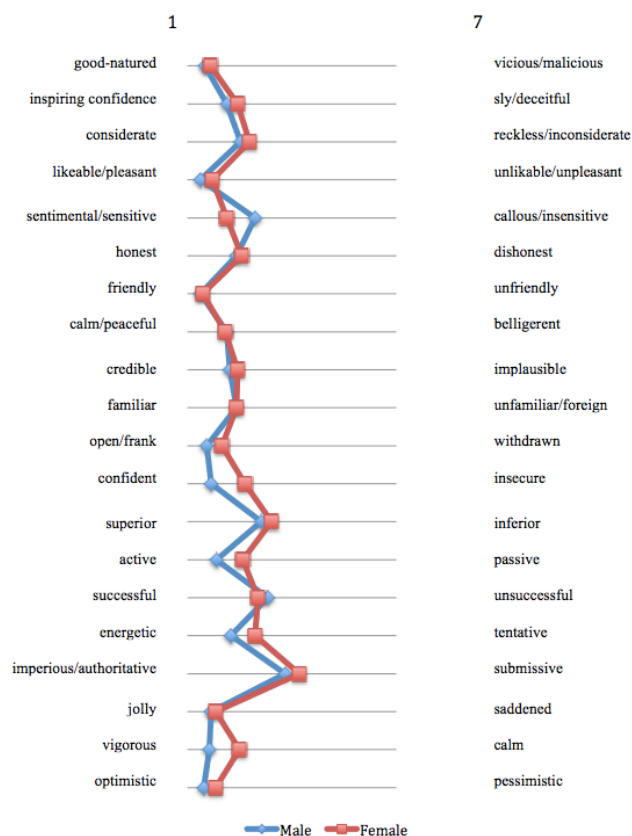


Figure 2. Person perception of male and female models

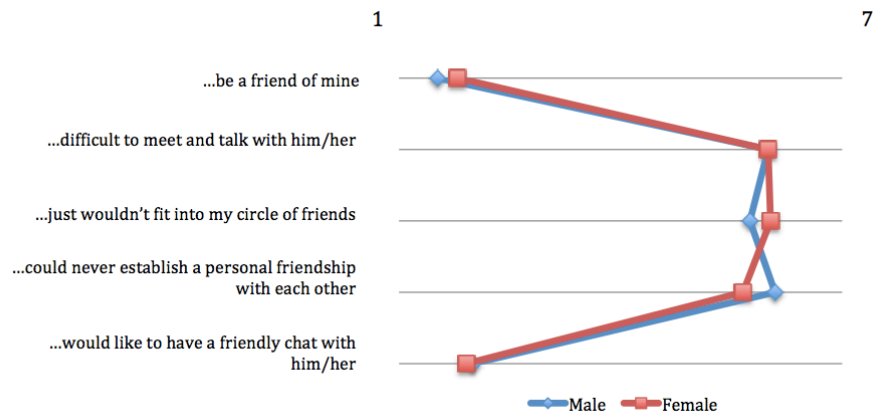


Figure 3. Social attraction of male and female models

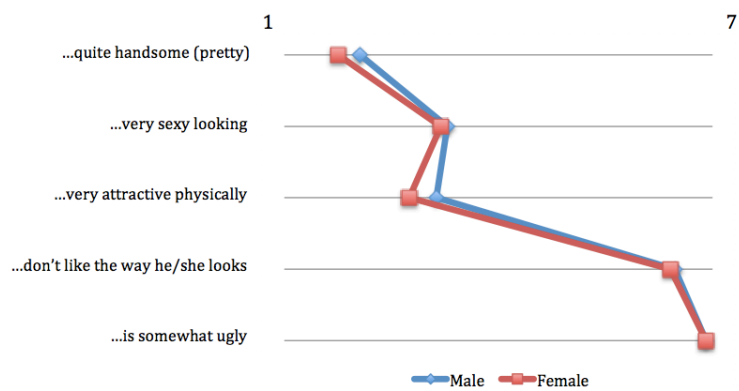


Figure 4. Physical attraction of male and female models

3.2.3 Quantitative Survey

As there are no given resources for national data, the proposed hypotheses is being tested on an experimental base.

There might be differences in tolerance due to the gender of the person pictured (or gender of poser), as people might have internalized knowledge about socially constructed roles (cf. Bem, 1981). Therefore, it has to be ensured that every second survey shows rotational male and female selfies (Group A: male performer – Group B: female performer). In order to check the gender-specific bias, two control groups (Group C & D) are handed the same material, but in gender-mixed sequences. Thus, a randomization of the sample can be guaranteed and the effect of the manipulation can be checked.

In the next step a number of students in Vienna are sent an email invitation of the author, with a short overview and description of the study, information about confidentiality and of course the link to the study. Also, the Link of the survey is being posted on various Facebook-pages of diverse universities in Vienna (e.g. University of Vienna, Vienna University of Economics and Business). The survey is hosted on an online hosting site, called *soscisurvey.de*, with a fielding period from August 9, 2016 till August 26, 2016.

3.3 Measures

The instrument uses four broad types of measures, which are discussed in more detail below. First measures include the peoples' personality traits, social media usage and their level of tolerance/acceptance for various selfies. Information about demographic variables, including gender, age, nationality and so on are collected in the last part of the survey.

3.3.1 Measures of Personality Traits

To measure the personality traits the 10-item inventory (cf. Gosling et al., 2003: 504ff.) is used. This method is a very brief measure of the Big-Five personality domains and shows adequate levels of convergence across measures, test-retest reliability and external correlates. Each of the five personality traits is measured within this study by two items. Each item consists of two descriptors, separated by a comma, using the common phrase "I see myself as:" Extraversion (extraverted, enthusiastic; reserved, quiet), Agreeableness (sympathetic, warm; critical, quarrelsome), Conscientiousness (dependable, self-disciplined; disorganized, careless), Emotional Stability (calm, emotionally stable; anxious, easily upset) and Openness (open to new experiences, complex; conventional, uncreative). The subjects are asked to rate their level of

agreement on a scale from 1 (I strongly disagree) to 10 (I strongly agree), contrary to Gosling et al. (2003), which used a 1 to 7 scale (see Table 4).

Table 4. The Big Five personality traits according to Gosling et al.'s 10-item inventory

Personality Trait (PT)	English	German
Extraversion (E)	extraverted, enthusiastic	extrovertiert, enthusiastisch
	reserved, quiet	reserviert, ruhig
Agreeableness (AG)	sympathetic, warm	mitfühlend, warmherzig
	critical, quarrelsome	kritisch, streitsüchtig
Conscientiousness (C)	dependable, self-disciplined	zuverlässig, diszipliniert
	disorganized, careless	unorganisiert, unvorsichtig
Emotional stability (ES)	calm, emotionally stable	ruhig, emotional stabil
	anxious, easily upset	ängstlich, leicht aufgebracht
Openness (O)	open to new experiences, complex	offen für neue Erfahrungen, komplex
	conventional, uncreative	konventionell, unkreativ

3.3.2 Measures of Social Media Usage

First, participants respond to the following question: “Do you use social media?” Those who indicate “No” are excluded from the survey, as they are no appropriate respondents. The others are branched to further questions concerning der SM use.

Social media usage measures are: the time spent on social media, the number of friends on the subjects' personally most frequently used social media and the frequency of posting personal status updates/other pictures/self-pictures.

Social Media Intensity (cf. Ellison et al., 2007:1150)

- About how many total friends/follower do you have at Facebook, Instagram, Twitter or on your personally most frequently used social media?
 - 0 = 10 or less, 1 = 11-50, 2 = 51-100, 3 = 101-150, 4 = 151-200, 5 = 201-250, 6 = 251-300, 7 = 301-400, 8 = more than 400
- In the past week, on average, approximately how many minutes per day have you spent on Facebook, Instagram, or on your personally most frequently used social media?
 - 0 = less than 10, 1 = 10-30, 2 = 31-60, 3 = 1-2 hours, 4 = 2-3 hours, 5 = more than 3 hours

Posting Frequency (cf. Weiser, 2015: 478):

- status updates
- comments
- pictures
- links

The posting frequency is determined by using the following response scale (see Table 5).

Table 5. Range of scale: posting frequencies status updates, comments, pictures, links

1	Less than once a year
2	Once a year
3	More than once a year but less than once a month
4	Once a month
5	More than once a month but less than once a week
6	Once a week
7	Several times a week
8	Once a day
9	Several times a day

Selfie-posting frequency (cf. Weiser, 2015: 478f.):

In this part, respondents are at first asked “Do you know what a selfie is?”

Those who replied with “No” are transmitted to a brief formal definition of a *selfie*. To make sure that there is a similar understanding for all participants, those who indicate “Yes” do also get a definition of a selfie in the next step, but beginning with “As you know, a selfie is...”

The next question is “Have you ever shared a selfie on social media (Facebook, Instagram etc.)?” Those who say “No” are branched to the next section of the survey. Those who say “Yes” do have to respond to the following question: “How often would you say that you share selfies on social media?”

Again the posting frequency is determined by using a response scale, where the value 0 has been added due to the fact that the answer “never” was a decisive aspect in the branching of the participants during the experiment (see Table 6).

Table 6. Range of scale: posting frequencies selfies

0	Never
1	Less than once a year
2	Once a year
3	More than once a year but less than once a month
4	Once a month
5	More than once a month but less than once a week
6	Once a week
7	Several times a week
8	Once a day
9	Several times a day

There is the need to control the fact that a study participant might have a different level of tolerance, if he/she is used to posting a lot of selfies. A possible correlation between the tolerance level and the usage of social media sites can be checked by statistically determining their dependability.

3.3.3 Appropriateness – Tolerance – Willingness for Selfie-Posts

Within this stage of the research the subjects are shown selfies in various contexts – those figured out within the pre-test. Depending on the group the persons rate pictures with either a male or female performer. Each selfie has to be rated concerning the subjects' tolerance and willingness to post such a picture. Also, they have to give information whether they find this situation appropriate or not.

Concerning the measurement of tolerance the following has to be recorded: one of the first studies in this topic was conducted by Samuel Stouffer in 1955 (see chapter 2.7 Tolerance). His pioneering work based on widely used measures of tolerance (cf. Bobo et al., 1989: 286). Samuel Stouffer's approach to measuring tolerance implicates asking people whether an communist, a socialist or an atheist should be allowed to make a speech, to have a book placed in a public library or to teach in a college or university.

Stouffer's approach was constructed by a modification of what is known as the Guttman scaling procedure (cf. Stouffer, 1955:262f.). The basic idea of this procedure is very simple and can be illustrated with three words:

Catastrophe

Cattle

Cat

Guttman remarks that if a person is able to spell the hardest word, he also is very likely to be able to spell the other (easier words). Stouffer developed the scales and established the following:

The scale is based on 15 items from the questionnaire – with five sets of three items each. Every set can be seen as a sub-test. From the five groups (of three questions) he ranks people in six groups.

Group 5: The most tolerant of all – tend to be tolerant on all five sub-tests.

Group 4: The next most tolerant – are tolerant in all sub-tests except of the hardest.

...etc.

Group 0: the least tolerant – are tolerant on none.

For this study the questions and the answer options used to measure the level of tolerance, were adapted by the author to the following (see Table 7):

Table 7. Measurement of tolerance

Samuel Stouffer (1955)	Adapted questions
If a person wanted to make a speech in your community favoring (...) should he/she be allowed to speak or not? + Yes - No - Don't know	If a person in your community/circle of friends wants to post this selfie, should he/she be allowed to do that? Likert-scale from 1 to 6 (where 1 means I strongly disagree and 6 means I strongly agree)
If some people in your community suggested that a book he/she wrote favoring (...) should be taken out of your public library, would you favor removing the book or not? - Favor + Not favor - Don't know	If your friends suggested this selfie should be taken off of social media, would you favor removing the selfie? Likert-scale from 1 to 6 (where 1 means I strongly disagree and 6 means I strongly agree)
Suppose he/she is teaching in a college or a university. Should he/she be fired, or not? - Yes + No - Don't know	Suppose he/she is teaching in a college or a university. Should he/she be fired? Likert-scale from 1 to 6 (where 1 means I strongly disagree and 6 means I strongly agree)

According to Stouffer, to be seen as tolerant one has to make + answers to at least two out of the three questions.

To rank the level of tolerance in this study, the following method of analysis was/is adapted (see Table 8):

Table 8. Adapted measurement of tolerance

TOLERANCE	1 <i>I strongly disagree</i>	6 <i>I strongly agree</i>
If a person in your community/circle of friends wants to post this selfie, should he/she be allowed to do that?	-	+
If your friends suggested this selfie should be taken off of social media, would you favor removing the selfie?	+	-
Suppose he/she is teaching in a college or a university. Should he/she be fired?	+	-

As ”–“ means that the person is *not tolerant* and “+” that the person is *tolerant*, the variables have to be recoded, so that a valid mean score can be built. This means that with a score 1 is not tolerant and 6 is tolerant.

In the next step they are asked about their willingness to post a selfie in the given context – on a 1-10 Likert-Scale (*1 = I would not post a picture within this context – 10 = I would post a*

picture within this context). It is possible that when people are more open to experience or more extraverted they would rather be willing to post a selfie within the given context.

Next question is due to *appropriateness*. The terms used to discover the level of appropriateness of each selfie situation are the same as in the pre-test, and therefore the following: adequate, unsuitable, acceptable, decent and unreasonable.

3.3.4 Socio-Demographics

Age, sex, nationality, and education level are the socio-demographic characteristics that are asked, as the level of tolerance may differ according to those variables.

4 Results & Discussion

Data Management

The survey was conducted with “soscisurvey” (<http://www.soscisurvey.de>) and the data was then converted into a SPSS matrix for further analyses.

The link for the questionnaire was accessed 265 times, where 25 participants finished prematurely (9.4% dropout rate). Thus, at the moment there are 240 data sets at disposal, which can be analysed. Further, 15 people had to be excluded, as their level of education did not meet the requirements that were specified. In addition, 3 individuals are no users of social networks, which resulted in an automatic end of the survey. Consequently, there are 222 valid cases, which can be analysed.

Sample Description

Sex: of the 222 valid cases 169 (76.1%) were female and 53 (23.9%) were male. These numbers are comparable to the University of Vienna’s student base in the wintersemester 2010/11, with 65.5% female and 34.4% male students (Bachelor and Master) (cf. Gender im Fokus).

Age: The mean age at the time of inquiry was 27.09 years (standard deviation SD 6.35) (see Table 9).

Table 9. Descriptive parameter in dependency of sex

Gender	n	Mean	Std. deviation	Min.	Max.	Median
Male	53	28.23	6.43	22	61	27.0
Female	169	26.73	6.31	18	60	25.0
Total	222	27.09	6.35	18	61	25.5

The age of female and male participants was comparable. The student’s T-test for independent samples (variance homogeneity, verified via Levene-test, can be assumed with $p=.709$) showed that the differences in the means with $t(220) = 1.503$, $p=.134$ are not statistically significant. This indicates that the ages of females and males did not differ greatly.

Education: In order to screen the level of education in dependency of sex, the corresponding cross tables were examined via Chi-squared test (χ^2). Table 10 shows the frequencies and percentages.

Table 10. Frequencies and percentages in dependency of sex

Gender	Educational qualification		Total
	Graduation from high-school	University/college	
Male	count	15	38
	%	28.3%	71.7%
Female	count	41	128
	%	24.3%	75.7%
Total	count	56	166
	%	25.2%	74.8%

The value amounted to $\chi^2(1)=.349$, $p=.554$, which is not significant. This means that no difference in distribution could be determined concerning the dependency of the level of education of sex.

All in all, 166 (74.8%) participants indicated having a university education.

Another factor included in the study is the origin of the participants, which can be seen in Table 11.

Table 11. Frequencies and percentages of the participants' origins

Country of origin	Frequency	Percent %
Austria	191	86,0
Germany	21	9,5
Other	10	4,5
Total	222	100,0

86.0% of the respondents are from Austria. It can be suggested that the other 14% (from Germany or other) are in Austria, strictly speaking in Vienna for studying.

The processing time was recorded automatically for every participant and is illustrated in Table 12.

Table 12. Processing time

Total processing time	Seconds	Std. error
Mean	273.53	4.07
Median	271.50	
Std. deviation	60.63	
Minimum	154	
Maximum	459	
Range	305	
Interquartile range	84	
Skewness	.39	.16
Kurtosis	-.04	.33

The mean processing time per participant amounts to 4:34 minutes. The fastest respondent did the survey within 2:34 minutes, and the slowest within 7:39.

To prevent differences in judgment of the person pictured, the sample was apportioned to 4 groups. Group A: male performer in both selfie situations (positive and negative), Group B: female performer in both selfie situations (positive and negative), and two control groups to check gender-specific bias; Group C: male performer in the positive selfie situation & female performer in the negative selfie situation, Group D: female performer in the positive selfie situation & male performer in the negative selfie situation) (see Table 13).

Table 13. Frequencies and percentages of the gender of poser in the positive and the negative selfie situation

Gender of poser		Negative selfie situation		Total	
		Male	Female		
Positive selfie situation	Male	Count	46	56	102
		%	45,1%	54,9%	100,0%
	Female	Count	66	54	120
		%	55,0%	45,0%	100,0%
Total		Count	112	110	222
		%	50,5%	49,5%	100,0%

Parameters

The intensity of the participants' usage of social media and posting frequencies was determined according to various aspects and can be found in the following tables (Table 14, Table 15, Table 16, Table 17, Table 18, Table 19, Table 20).

For social media intensity the respondents were asked about the amount of friends/followers and their time spent on their most-used social media site.

Table 14. Frequencies and percentages of social media intensity (friends/followers)

Friends/followers	Frequency	Valid percentage	Cumulative percentage
10 or less	3	1.4	1.4
11-50	2	.9	2.3
51-100	12	5.4	7.7
101-150	13	5.9	13.5
151-200	14	6.3	19.8
201-250	22	9.9	29.7
251-300	25	11.3	41.0
301-400	40	18.0	59.0
More than 400	91	41.0	100.0
Total	222	100.0	

The above shown results imply that for example 70.3% of participants have more than 250 friends/followers on their most-used social media site, whereas only 7.7% have less than 100 friends. Most of the participants (41%) quoted that they belong to the group “more than 400” friends/followers.

Table 15. Frequencies and percentages (times per week on social media)

Time per week on social media	Frequency	Valid percentage	Cumulative percentage
Less than 10 minutes	3	1.4	1.4
10-30 minutes	9	4.1	5.4
31-60 minutes	27	12.2	17.6
1-2 hours	38	17.2	34.8
2-3 hours	56	25.3	60.2
More than 3 hours	88	39.8	100.0
Total	221	100.0	
Not answered	1		
Total	222		

Similarly, it is shown that 82.3% of the questioned people spend more than one hour per week on their most-used social media site. Only three (1.4%) of the respondents use their most-used social media platform less than 10 minutes per week. Table 15 also shows that most of the participants (39.8%) are about to use social media “more than 3 hours” per week.

Concerning posting frequencies of status updates, comments, photos, links and selfies within this sample, the following results were determined:

Table 16. Posting frequencies and percentages of status updates

Status updates	Frequency	Valid percentage	Cumulative percentage
Less than once a year	32	14.4	14.4
Once a year	30	13.5	27.9
More than once a year but less than once a month	58	26.1	54.1
Once a month	24	10.8	64.9
More than once a month but less than once a week	34	15.3	80.2
Once a week	22	9.9	90.1
Several times a week	19	8.6	98.6
Once a day	2	.9	99.5
Several times a day	1	.5	100.0
Total	222	100.0	

With regards to status updates it can be said that 19.9% of participants update/change their status at least once a week, but more than a half (54.1%) less than once a month. The largest group

concerning the posting of status updates is “more than once a year but less than once a month”; 26.1% of the respondents affiliate themselves with this group.

Table 17. Posting frequencies and percentages of comments

Comments	Frequency	Valid percentage	Cumulative percentage
Less than once a year	9	4.2	4.2
Once a year	8	3.7	7.9
More than once a year but less than once a month	53	24.7	32.6
Once a month	29	13.5	46.0
More than once a month but less than once a week	51	23.7	69.8
Once a week	25	11.6	81.4
Several times a week	32	14.9	96.3
Once a day	6	2.8	99.1
Several times a day	2	.9	100.0
Total	215	100.0	
Not answered	7		
Total	222		

Concerning comments it can be said that 30.2% claim to use this function at least once a week, but nearly half of them (46%) only use it once a month or less.

Table 18. Posting frequencies and percentages of photos

Photos	Frequency	Valid percentage	Cumulative percentage
Less than once a year	25	11.4	11.4
Once a year	18	8.2	19.6
More than once a year but less than once a month	71	32.4	52.1
Once a month	27	12.3	64.4
More than once a month but less than once a week	30	13.7	78.1
Once a week	22	10.0	88.1
Several times a week	23	10.5	98.6
Once a day	2	.9	99.5
Several times a day	1	.5	100.0
Total	219	100.0	
Not answered	3		
Total	222		

It can be seen in Table 18 that 21.9% of participants state that they upload a photo on their most-used social media site at least once a week, but 64.4% of the entire informants post a picture once a month or even less.

Table 19. Posting frequencies and percentages of links

Links	Frequency	Valid percentage	Cumulative percentage
Less than once a year	44	20.0	20.0
Once a year	34	15.5	35.5
More than once a year but less than once a month	81	36.8	72.3
Once a month	26	11.8	84.1
More than once a month but less than once a week	17	7.7	91.8
Once a week	12	5.5	97.3
Several times a week	3	1.4	98.6
Once a day	3	1.4	100.0
Total	220	100.0	
Not answered	2		
Total	222		

With regards to Table 19 it can be specified that 8.3% post a link on their most-used social media site at least once a week, but about three-quarter (72.3%) less than once a month. Nevertheless, it is shown that most of the informants (36.8%) post links more than once a year but less than once a month.

The level of awareness of selfies of the entire sample was 100%. 26.1% of those have never posted a selfie before (which is indeed a high number compared to the following options), whereas 18.5% upload one at least once a month. Table 20 illustrates the corresponding upload frequencies.

Table 20. Posting frequencies and percentages of selfies

Selfies	Frequency	Valid percentage	Cumulative percentage
Never	58	26.1	26.1
Less than once a year	33	14.9	41.0
Once a year	35	15.8	56.8
More than once a year but less than once a month	55	24.8	81.5
Once a month	20	9.0	90.5
More than once a month but less than once a week	13	5.9	96.4
Once a week	4	1.8	98.2
Several times a week	4	1.8	100.0
Total	222	100.0	

Main part of this research was peoples' personality traits and the influence of these on various variables. Therefore, the personality traits of the participants were determined according to a brief measure of the Big-Five personality traits according to Gosling et al. (2003). Two self-rating statements were examined on a 1-10 Likert scale (1=*I strongly disagree*, 10=*I strongly agree*) and transformed into the five personality traits, while simultaneously taking into account

the positive or negative direction of the scale (see 3.3.1 Measures of Personality Traits). Table 21 demonstrates the corresponding values per personality trait.

Table 21. Descriptive statistical parameter of the Big-Five personality trait (cf. Gosling's 10-items inventory, 2003) n=221 (valid cases)

Personality trait	Mean	Std. deviation
Extraversion	6.24	2.11
Agreeableness	6.94	1.54
Conscientiousness	7.33	1.80
Emotional stability	6.77	1.67
Openness	7.58	1.62

On average, the respondents tended to rate themselves in the middle of the scale of each personality trait. The consistently highest rated trait was openness to experience.

In order to discover and show possible connections between the five personality traits, the product-moment-correlation according to Pearson was applied. The summed up results can be seen in the inter-correlation matrix (Table 22).

Table 22. Coefficient of the product-moment-correlation r for the connection between the five personality traits (n=221 valid cases, 2-tailed)

Personality traits	1	2	3	4	5
1 Extraversion	-	.080	.037	.047	.405**
2 Agreeableness		-	.311**	.228**	.207**
3 Conscientiousness			-	.070	.203**
4 Emotional stability				-	.253**
5 Openness					-

** $p < 0.01$ level

These results indicate that the five personality traits of Gosling's theory do not demonstrate a high correlation, but as expected in literature (cf. Gosling et al., 2003) the five personality traits were significantly positively correlated to each other. The most noticeable correlation was found between extraversion and openness ($r = .405$), which is consistent with results of Correa et al. (cf. 2009: 4).

Even if the remaining results only indicate a marked tendency of independency of the examined factors, the following can be determined for this sample: highly extraverted people tend to be more open to experience; the more agreeable a person is, the more conscientious, the more emotionally stable and the more open he/she is. Also, if a person is open for new experiences, he/she is also likely to be more conscientious and more emotionally stable.

The other results are an indication of a widespread independence of the personality traits.

In order to calculate the reliability of the personality traits with the Spearman-Brown Coefficient ($2*r/(1+r)$ cf. Rost, 2004: 383), one requires the correlation of the two items (of the corresponding personality trait (PT)) e.g. extraversion: extraverted, enthusiastic vs. reserved, quiet...etc. (see 3.3.1 Measures of Personality Traits)

Table 23. Reliability of the Big Five personality traits according to Spearman-Brown

Personality trait	n	r	Spearman-Brown-Coefficient
Extraversion	220	.692	.818
Agreeableness	221	.154	.267
Conscientiousness	221	.435	.606
Emotional stability	220	.359	.528
Openness	221	.347	.515

All PTs, except for “agreeableness”, show a good (extraversion) or an acceptable (conscientiousness, emotional stability and openness) reliability (see Table 23). This extremely low reliability of agreeableness has to be kept in mind, as it may distort the results of any correlations with the individual personality traits.

Since literature states the variable gender to be found of great importance when it comes to personality traits and social media usage, the following analyses have been done:

In order to investigate the diversity of PTs in dependency of gender a student’s t-test was applied for each independent sample. The homogeneity of variances was determined via Levene-test, where group C (conscientiousness) showed heterogeneous variances. Hence, a Welch test was done (see Table 24).

Table 24. Descriptive characteristic values and quantities of PTs in dependency of gender

PT	Gender	M	SD	t(df)	p (2-tailed)
E	Male (n=53)	5.63	2.19	-2.437 (219)	.016
	Female (n=168)	6.43	2.06		
A	Male (n=53)	6.44	1.57	-2.745 (219)	.007
	Female (n=168)	7.10	1.50		
C	Male (n=53)	6.94	1.31	-2.189 (127.97)	.030
	Female (n=168)	7.45	1.91		
ES	Male (n=53)	7.43	1.49	3.405 (219)	.001
	Female (n=168)	6.56	1.67		
O	male (n=53)	7.51	1.60	-0.371 (219)	.711
	female (n=168)	7.60	1.63		

Three PTs show that women submitted higher valued judgments than men (extraversion, agreeableness and conscientiousness), whereas males had higher levels of emotional stability. The trait openness could not raise significant results, which means that men and women are

absolutely comparable. In short, females that were part of this sample see themselves as more extroverted, more agreeable, more conscientious and more neurotic than men.

In order to analyze personality features in connection with social media intensity and posting frequency, the following analysis was done (see Table 25):

Table 25. Coefficient of Spearman's rank correlations to find the connection between personality traits and social media intensity/posting intensity (2-tailed, n=209 valid cases)

Social media & posting intensity	E	AG	C	ES	O
Intensity friends/follower	.296**	.074	.076	.123	.180**
Intensity time	.066	-.070	-.014	-.217**	.029
Posting frequency status update	.105	-.115	.132	-.113	-.007
Posting frequency comments	.105	-.023	.094	-.098	-.055
Posting frequency photos	.127	-.027	.156*	-.103	-.013
Posting frequency links	.076	-.124	.078	-.034	.013
Posting frequency selfies	.142*	-.063	-.013	-.141*	-.031

** $p < .01$, * $p < .05$

The correlations that were found imply only moderate relations (cf. Bortz/Döring, 2006: 606). The strongest connection could be found between extraversion and the number of friends/followers the questioned people had. With $r_s = .296$ it could be seen that with a higher level of extraversion people tend to have more friends/followers, which is consistent with several other studies (cf. Hall/Pennington, 2013: 1560; Amichai-Hamburger/Vinitzky, 2010: 1291). In contrast, emotional stability and time intensity illustrated a negative correlation. The value $r_s = -.217$ demonstrates that people high in neuroticism spend more time on social media. Furthermore, slightly positive correlations could be found between emotional stability and selfie posting, openness to experience and the number of friends/followers and with conscientiousness and the frequency of posting photos. The latter poses a contrast to earlier research (cf. Amichai-Hamburger/Vinitzky, 2010: 1290ff.; Seidman, 2013: 405), which found highly conscientious people to upload fewer pictures on social media.

Moreover, a faintly negative connection could be found between emotional stability and selfies posting, which is consistent with Amichai-Hamburger/Vinitzky's findings (2010,1292) that neurotic people prefer to post self-pictures.

To measure the tolerance of the respondents, the following analysis was done:

The individual analyses for the positive and the negative selfie situations were transformed by recoding them in a manner so that high values demonstrate high tolerance. Then, the three

tolerance-items were submitted to a consistency analysis in order to find the lower limit of measurement accuracy according to Cronbach's coefficient α (cf. Rost, 2004: 379).

Concerning tolerance for the positive selfie situation (male and female) an only minimal reliability with $\alpha = .360$ could be determined, whereas the reliability for the negative selfie situation (male and female) illustrated a satisfactory accuracy of measurement with $\alpha = .679$. Hence, the distribution of the single items to the corresponding tolerance scores was of no use. Consequently, groups were built according to Stouffer (1955) by taking into account the peoples' criteria-orientation for tolerance: the three tolerance items were on a six point scale (1 – *I strongly disagree*, 6 – *I strongly agree*) and if there were at least two items with a value of ≥ 5 then the questioned person was classified as tolerant. The combination of the two categories of tolerance concerning selfie situations (positive and negative) resulted in the following formation of groups (see Table 26):

Table 26. Frequencies and percentages of the 2x2 combination concerning tolerance

Selfie situations		Negative		Total
Positive	Not tolerant	Count	18	1
		%	8.1%	0.5%
	Tolerant	Count	174	29
		%	78.4%	13.1%
Total	Count	192	30	222
	%	86.5%	13.5%	100.0%

Group 3: the (most) tolerant – tolerant in both selfie situations (positive and negative)

Group 2: the mid tolerant – tolerant regarding the positive selfie situation, not tolerant regarding the negative selfie situation

Group 1: the least (or not) tolerant – not tolerant in both selfie situations (positive and negative)

The combination of both selfie situations showed that 13.1% of questioned people were tolerant towards both, the positive and the negative situation; 78.4% were tolerant towards the positive situation but not the negative one and 8.1% were tolerant neither to the positive nor the negative one. One tested person could not be assigned to any group, as he/she was tolerant to the negative selfie situation, but not to the positive selfie situation.

Another important factor is answering the research question 1 and the testing of its corresponding hypotheses, which questions the fact of whether personality traits and levels of tolerance are connected. Thus, a multivariate analysis of variance (MANOVA) was done.

The prerequisite of homogeneity of the covariance matrices was tested by doing a box test and amounted to $p = .518$, which means that homogeneity can be confirmed. Analogous to this, the homogeneity of the variances could be verified via Levene test ($ps > .05$). Hence, the analysis of diversity via MANOVA is permissible (see Table 27).

Table 27. Descriptive statistical characteristic values of PTs in dependency of tolerance levels

PT	Level of tolerance	n	M	SD	95% CI		min	max
					Lower Bound	Upper Bound		
E	Least tolerant	18	6.69	2.09	5.66	7.73	3.50	10.00
	Mid tolerant	174	6.39	2.02	6.09	6.69	1.00	10.00
	Most tolerant	28	5.02	2.38	4.10	5.94	1.00	8.50
	Total	220	6.24	2.12	5.96	6.52	1.00	10.00
AG	Least tolerant	18	7.11	1.55	6.34	7.88	3.00	9.50
	Mid tolerant	174	6.95	1.57	6.71	7.18	2.00	9.50
	Most tolerant	28	6.75	1.36	6.22	7.28	3.50	9.50
	Total	220	6.94	1.54	6.73	7.14	2.00	9.50
C	Least tolerant	18	7.44	1.85	6.53	8.36	3.50	10.00
	Mid tolerant	174	7.33	1.79	7.06	7.59	1.00	10.00
	Most tolerant	28	7.34	1.90	6.60	8.08	4.00	10.00
	Total	220	7.34	1.80	7.10	7.58	1.00	10.00
ES	Least tolerant	18	6.89	1.09	6.35	7.43	4.50	8.50
	Mid tolerant	174	6.75	1.71	6.49	7.00	1.50	10.00
	Most tolerant	28	6.80	1.76	6.12	7.49	2.50	9.50
	Total	220	6.77	1.67	6.54	6.99	1.50	10.00
O	Least tolerant	18	7.44	1.76	6.57	8.32	4.00	10.00
	Mid tolerant	174	7.60	1.65	7.36	7.85	2.00	10.00
	Most tolerant	28	7.48	1.35	6.96	8.00	2.50	9.50
	Total	220	7.58	1.62	7.36	7.79	2.00	10.00

The corresponding value for extraversion was significant and amounted to $F(2,217) = 5.758$, $p=.004$, which indicates that a difference between the tolerance groups and levels can be assumed. Via pairwise comparisons post hoc after Bonferroni it could be demonstrated that tolerant group significantly differs from the mid tolerant group ($p=.004$) as well as the non-tolerant group ($p=.024$).

Concerning agreeableness with $F(2, 217) = 0.325$, $p = .723$, conscientiousness with $F(2, 217) = 0.034$, $p = .966$, emotional stability with $F(2, 217) = 0.066$, $p = .936$ and openness with $F(2, 217) = 0.130$, $p = .878$, no significant differences of personality traits in dependency of tolerance could be determined. Consequently, a negative coincidence of extraversion with tolerance could be observed, which is consistent to Marcus' findings (1995: 169) on contemporary tolerance judgments that found that people high in extraversion are less tolerant.

Therefore, H1.1 “*There is a negative relation between the personality trait extraversion and the level of tolerance concerning others’ selfie posts on SNS.*” is supported, whereas the Hypotheses H1.2, H1.3, H1.4 and H1.5 cannot.

Further tests were done in order to demonstrate other eventual connections between tolerances.

Tolerance & Age: The tested quantity for the comparison of age between the tolerance groups was not significant according to a single factor variance analysis via Welch-test ($F(2, 31.79) = 1.837, p = .176$). The homogeneity of variances was tested by a Levene-test.

The three groups showed a similar age, which means that this parameter does not affect the level of tolerance. One person could not be clearly assigned to one group (see Table 28).

Table 28. Characteristic values of age of the three tolerance-groups (n=221 valid cases)

Tolerance group	N	Mean	Std. Deviation	Minimum	Maximum	Median
Least tolerant	18	27.83	8.33	19	51	26,0
Mid tolerant	174	26.53	5.66	18	61	25,0
Most tolerant	29	29.17	7.29	22	51	27,0
Total	221	26.98	6.18	18	61	25,0

Tolerance & Education: Regarding these parameters the highest completed degree of the participants was used in order to test education’s connection to tolerance. Table 29 shows the distribution, where again one person could not be assigned to one group according to his/her disclosure concerning tolerance.

Table 29. Frequencies and percentages of levels of tolerance in accordance with the level of education (n=221 valid cases)

Education level		Tolerance group			Total
		Least tolerant	Mid tolerant	Most tolerant	
Graduation from high school	Count	6	41	9	56
	%	10.7%	73,2%	16.1%	100.0%
University/college	Count	12	133	20	165
	%	7.3%	80,6%	12.1%	100.0%
Total	Count	18	174	29	221
	%	8.1%	78.7%	13.1%	100.0%

The test was not significant with $\chi^2 (2) = 1.395, p = .498$, which means no differences in distribution of tolerance according to education could be validated. This was to be expected on account of the fact that a prerequisite of participating in the study was to have at least finished high school. Nevertheless, this test had to be done since Sullivan et al. (1993: 248), Stouffer (1955) and Nunn et al. (1978) found that educated people are more tolerant than the uneducated.

Regarding research question 2, whether personality traits correlate with the users' perception of appropriateness concerning others' selfie posts, the following analyses were done:

The individual analyses of appropriateness for the positive and the negative selfie situations were transformed by recoding them in a manner so that high values demonstrate high appropriateness. Then, the five items of appropriateness were submitted to a consistency analysis in order to find the lower limit of measurement accuracy according to Cronbach's coefficient α (cf. Rost, 2004: 379).

Concerning appropriateness for the positive selfie situation (male and female) an acceptable reliability with $\alpha = .894$ ($n=217$) could be determined, which was similar to the reliability for the negative selfie situation (male and female), that illustrated a satisfactory accuracy of measurement with $\alpha = .848$ ($n=216$). Hence, the distribution of the single items to the corresponding appropriateness scores was of use. In order to discover and show possible connections between the personality traits and the given appropriateness of the positive and negative situation, the product-moment-correlation according to Pearson was applied (see Table 30).

Table 30. Product-moment-correlation r for the correlation between the PTs and the level of appropriateness ($n=221$, 2-tailed)

Personality trait	Appropriateness positive selfie situation	Appropriateness negative selfie situation
Extraversion	.071	-.050
Agreeableness	.033	-.017
Conscientiousness	.146*	-.033
Emotional Stability	-.121	.051
Openness	.065	-.033

** $p < .01$, * $p < .05$

A positive and significant relation can be observed between appropriateness and conscientiousness ($p = .030$) for the positive selfie situation, whereas a negative tendency can be seen regarding emotional stability ($p = .074$) for the positive selfie situation. Concerning the other personality traits no significant differences in dependencies of perception of appropriateness could be determined.

With regards to those findings, all proposed hypotheses for this research question cannot be supported. Nonetheless, it has to be mentioned that there was an unexpected significant correlation between the personality trait conscientiousness and the level of appropriateness – high conscientious people tend to rate selfies in positive situations more appropriate than less conscientious people.

In order to discover the relation between the willingness to post a selfie (in various contexts) and the personality traits, the following test according to Spearman was done (see Table 31).

Table 31. Coefficient of Spearman's rank correlation of PTs and willingness to post selfies with either positive or negative motives (2-tailed, n=221 valid cases)

PT	Posting willingness of negative selfie situation	Posting willingness of positive selfie situation
E	-.117	.099
AG	-.012	.056
C	.022	.104
ES	.005	-.129
O	-.109	-.021

The strength and directions that were observed for the relevant connections indicate that willingness to post selfies in a positive or a negative situation are independent from the personality traits.

Regarding research question 3, whether the users' intensity of social media use and posting frequencies influence their level of tolerance, the following could be determined:

Here the number of friends/followers and its connection to levels of tolerance were examined (see Table 32).

Table 32. Frequencies and percentages of number of friends/followers (in categories) in dependency of the tolerance groups (n=221 valid cases)

Tolerance group		Intensity friends/follower									Total
		10 or less	11-50	51-100	101-150	151-200	201-250	251-300	301-400	More than 400	
Least tolerant	Count	0	0	0	2	0	3	1	2	10	18
	%	0.0%	0.0%	0.0%	11.1%	0.0%	16.7%	5.6%	11.1%	55.6%	100.0%
Mid tolerant	Count	2	1	9	9	13	14	21	34	71	174
	%	1.1%	0.6%	5.2%	5.2%	7.5%	8.0%	12.1%	19.5%	40.8%	100.0%
Most tolerant	Count	1	1	3	2	1	5	3	4	9	29
	%	3.4%	3.4%	10.3%	6.9%	3.4%	17.2%	10.3%	13.8%	31.0%	100.0%
Total	Count	3	2	12	13	14	22	25	40	90	221
	%	1.4%	0.9%	5.4%	5.9%	6.3%	10.0%	11.3%	18.1%	40.7%	100.0%

The tested quantity was not significant with χ^2 (corrected with Fisher's Exact Test)= 14.956, $p=.425$. Thus, no difference in distribution regarding the number of friends/followers in dependency of levels of tolerance could be observed.

Nonetheless, an interesting fact could be witnessed within this sample, namely that the least tolerant people claimed to have a higher number of friends/followers than the more tolerant ones.

Regarding the connection between the time spent on social media and the users' level of tolerance the following could be discovered (see Table 33).

Table 33. Frequencies and percentages of the time intensity spent on social media in dependency of tolerance (n=220 valid cases)

Tolerance group		Time spent on social media						Total
		Less than 10 minutes	10-30 minutes	31-60 minutes	1-2 hours	2-3 hours	More than 3 hours	
Least tolerant	Count	0	1	3	2	6	5	17
	%	0.0%	5.9%	17.6%	11.8%	35.3%	29.4%	100.0%
Mid tolerant	Count	3	6	22	28	45	70	174
	%	1.7%	3.4%	12.6%	16.1%	25.9%	40.2%	100.0%
Most	Count	0	2	2	8	5	12	29
	%	0.0%	6.9%	6.9%	27.6%	17.2%	41.4%	100.0%
Total	Count	3	9	27	38	56	87	220
	%	1.4%	4.1%	12.3%	17.3%	25.5%	39.5%	100.0%

The tested quantity resulted to being not significant with χ^2 (corrected with Fisher's Exact Test)=7.135, $p=.665$. No interconnection of tolerance and the time spent on social media could be determined. They were absolutely comparable regarding their intensity of time.

This result is not consistent with Sullivan et al.'s findings (1993: 248), that the active participant (in politics) is more tolerant than the inactive and apathetic.

Therefore, hypothesis 3.1 – that there is a positive relation between the users' intensity of social media use and their level of tolerance – is not supported.

Turning to hypothesis 3.2 the following results could be found, by again using the following range of scale (see Table 5).

The following tables illustrate the connections between various posting intensities and the observers' level of tolerance (see Table 34 Table 35, Table 36, Table 37, Table 38).

Table 34. Frequencies and percentages of the posting frequency of status updates in dependency of tolerance

Tolerance group		Posting frequency status updates									Total
		1	2	3	4	5	6	7	8	9	
Least tolerant	Count	2	3	3	0	4	4	1	1	0	18
	%	11.1%	16.7%	16.7%	0.0%	22.2%	22.2%	5.6%	5.6%	0,0%	100.0%
	Stand. Residual	-.4	.4	-.8	-1.4	.7	1.6	-.4	2.1	-,3	
Mid tolerant	Count	27	25	48	22	21	14	16	1	0	174
	%	15.5%	14.4%	27.6%	12.6%	12.1%	8.0%	9.2%	0.6%	0,0%	100.0%
	Stand. Residual	.4	.3	.3	.7	-1.1	-.8	.5	-.5	-,9	
Most tolerant	Count	3	2	7	2	9	4	1	0	1	29
	%	10.3%	6.9%	24.1%	6.9%	31.0%	13.8%	3.4%	0.0%	3,4%	100.0%
	Stand. Residual	-.6	-1.0	-.2	-.6	2.1	.7	-.9	-.5	2,4	
Total	Count	32	30	58	24	34	22	18	2	1	221
	%	14.5%	13.6%	26.2%	10.9%	15.4%	10.0%	8.1%	0.9%	0,5%	100.0%

When taking residuals > 1.96 into account it can be seen that “tolerant” people are rather situated in the mid-section with regards to posting status updates (category 5 – more than once a month but less than once a week). In contrast, mid- and not tolerant people had a rather evenly or slightly broad distribution with regards to their posting frequency.

Table 35. Frequencies and percentages of the posting frequency of comments in dependency of tolerance

Tolerance group		Posting frequency comments									Total
		1	2	3	4	5	6	7	8	9	
Least tolerant	Count	0	1	4	1	3	3	4	1	0	17
	%	0.0%	5.9%	23.5%	5.9%	17.6%	17.6%	23.5%	5.9%	0.0%	100.0%
Mid tolerant	Count	8	7	40	23	42	21	24	2	1	168
	%	4.8%	4.2%	23.8%	13.7%	25.0%	12.5%	14.3%	1.2%	0.6%	100.0%
Most tolerant	Count	1	0	9	5	6	1	4	2	1	29
	%	3.4%	0.0%	31.0%	17.2%	20.7%	3.4%	13.8%	6.9%	3.4%	100.0%
Total	Count	9	8	53	29	51	25	32	5	2	214
	%	4.2%	3.7%	24.8%	13.6%	23.8%	11.7%	15.0%	2.3%	0.9%	100.0%

Table 36. Frequencies and percentages of the posting frequency of photos in dependency of tolerance

Tolerance group		Posting frequency photos									Total
		1	2	3	4	5	6	7	8	9	
Least tolerant	Count	3	1	6	1	4	2	1	0	0	18
	%	16.7%	5.6%	33.3%	5.6%	22.2%	11.1%	5.6%	0.0%	0.0%	100.0%
Mid tolerant	Count	19	15	56	24	21	16	18	2	0	171
	%	11.1%	8.8%	32.7%	14.0%	12.3%	9.4%	10.5%	1.2%	0.0%	100.0%
Most tolerant	Count	3	2	9	2	5	4	3	0	1	29
	%	10.3%	6.9%	31.0%	6.9%	17.2%	13.8%	10.3%	0.0%	3.4%	100.0%
Total	Count	25	18	71	27	30	22	22	2	1	218
	%	11.5%	8.3%	32.6%	12.4%	13.8%	10.1%	10.1%	0.9%	0.5%	100.0%

Table 37. Frequencies and percentages of the posting frequency of links in dependency of tolerance

Tolerance group		Posting frequency links								Total
		1	2	3	4	5	6	7	8	
Least tolerant	Count	2	2	8	1	2	2	0	1	18
	%	11.1%	11.1%	44.4%	5.6%	11.1%	11.1%	0.0%	5.6%	100.0%
Mid tolerant	Count	39	28	57	23	14	7	2	2	172
	%	22.7%	16.3%	33.1%	13.4%	8.1%	4.1%	1.2%	1.2%	100.0%
Most tolerant	Count	3	4	16	2	1	2	1	0	29
	%	10.3%	13.8%	55.2%	6.9%	3.4%	6.9%	3.4%	0.0%	100.0%
Total	Count	44	34	81	26	17	11	3	3	219
	%	20.1%	15.5%	37.0%	11.9%	7.8%	5.0%	1.4%	1.4%	100.0%

When regarding these posting frequencies (comments, photos, links) no comparable pattern could be observed and no differences in distribution could be witnessed

Again, another scale had to be used for the evaluation of posting frequencies of selfies (see Table 6).

Table 38. Frequencies and percentages of the posting frequency of selfies in dependency of tolerance

Tolerance group		Posting frequency selfie								Total
		0	1	2	3	4	5	6	7	
Least tolerant	Count	7	2	0	7	1	1	0	0	18
	%	38.9%	11.1%	0.0%	38.9%	5.6%	5.6%	0.0%	0.0%	100.0%
	Stand. Residual	1.0	-.4	-1.7	1.2	-.4	-.1	-.6	-.6	
Mid tolerant	Count	45	26	31	39	17	11	1	4	174
	%	25.9%	14.9%	17.8%	22.4%	9.8%	6.3%	0.6%	2.3%	100.0%
	Stand. Residual	-.1	.0	.7	-.7	.5	.2	-1.2	.5	
Most tolerant	Count	6	5	4	9	1	1	3	0	29
	%	20.7%	17.2%	13.8%	31.0%	3.4%	3.4%	10.3%	0.0%	100.0%
	Stand. Residual	-.6	.3	-.3	.7	-.9	-.5	3.4	-.7	
Total	Count	58	33	35	55	19	13	4	4	221
	%	26.2%	14.9%	15.8%	24.9%	8.6%	5.9%	1.8%	1.8%	100.0%

There is one particularly marked aspect that can be said about category 6 (>1.96), which is that tolerant people post a selfie once a week on social media, where mid- and not tolerant people have basically no affiliation at all.

In conclusion, the above results demonstrate that there is no positive relation between posting intensity and tolerance and hence, hypothesis 3.2 cannot be supported.

Research question 4 regards the “gender of poser” and its effects on tolerance, appropriateness and the willingness to post a selfie in various contexts. The following tests were done in order to investigate the hypotheses reached in the pre-test that no dependency exists between the posers’ genders and tolerance, appropriateness and willingness to post a selfie.

A non-parametric U-test according to Mann & Whitney was done in order to test the diversity of willingness to post a positive selfie in dependency of gender of poser (GOP) and the appropriateness of a selfie in a positive situation and its dependency of gender of poser. Both variables were not normally distributed with regards to the GOP (see Table 39).

Table 39. Descriptive statistics regarding willingness to post a selfie and appropriateness in a positive context in dependency of the gender of poser

Gender of poser	Positive selfie situation	
	Willingness to post a selfie	Level of appropriateness
Male	N	102
	Mean	6.30
	Std. Deviation	3.24
	Median	7.00
	Mean Rank	111.30
Female	N	120
	Mean	6.32
	Std. Deviation	3.25
	Median	7.00
	Mean Rank	111.67
Total	N	222
	Mean	6.31
	Std. Deviation	3.24
	Median	7.00

The table above shows the tested quantity for posting willingness have been $U=6100.0$ ($z=-0.042$), $p = .966$ (2-tailed), which was a not significant result and indicates that there is no difference of preferences for a certain gender when measuring willingness to post such a selfie in a positive situation. Similarly, the results for appropriateness concerning the selfie in the positive context were not significant with $U=5718.5$ ($z=-0.853$), $p = .394$ (2-tailed), which means that there was also no difference in preferences concerning gender within the positive context.

Analogous to the positive selfie situation, a non-parametric U-test according to Mann & Whitney was done in order to test the diversity of willingness to post a negative selfie in dependency of gender of poser (gop) and the appropriateness of a selfie in a negative situation and its dependency of gender of poser. Both variables were not normally distributed with regards to the GOP (Table 40).

Table 40. Descriptive statistics regarding willingness to post a selfie and appropriateness in a negative context in dependency of the gender of poser

Gender of poser	Negative selfie situation	
	Willingness to post a selfie	Level of appropriateness
Male	N	112
	Mean	1.23
	Std. Deviation	.986
	Median	1.00
	Mean Rank	111.39
Female	N	110
	Mean	1.28
	Std. Deviation	1.220
	Median	1.00
	Mean Rank	111.61
Total	N	222
	Mean	1.26
	Std. Deviation	1.106
	Median	1.00

The results illustrated above are absolutely comparable to the ones of the selfie in a positive situation. Again, no significant outcome could be found for neither willingness nor appropriateness, with their respective quantities tested of $U=6.148$ ($z=-0.053$), $p = .958$ (2-tailed) and $U=5880.0$ ($z=-0.491$), $p = .623$ (2-tailed). Thus, it can be stated that in both variables no differences could be found regarding preferences for the gender of the poser within the negative selfie context.

Differences with regards to tolerance in dependency of gender of poser are demonstrated below in Table 41.

Table 41. Frequency and percentages of tolerance in dependency of gender of poser in a positive context

Tolerance group	Gender of poser in positive situation		
	Male	Female	Total
Least tolerant	Count	10	8
	%	9.8%	6.7%
Mid tolerant	Count	77	97
	%	75.5%	81.5%
Most tolerant	Count	15	14
	%	14.7%	11.8%
Total	Count	102	119
	%	100.0%	100.0%

The tested quantity that is shown in the above table of contingency did not show significant results with $\chi^2(2)=1.255$, $p = .534$. Consequently, tolerance was not found to be dependent of the gender of poser when investigating positive-context selfies.

The same test has been done in order to analyze this dependency with regards to a negative selfie situation (see Table 42).

Table 42. Frequency and percentages of tolerance in dependency of gender of poser in a negative context

Tolerance group	Gender of poser in negative situation		
		Male	Female
Least tolerant	Count	7	11
	%	6.3%	100%
Mid tolerant	Count	92	82
	%	82.9%	74.5%
Most tolerant	Count	12	17
	%	10.8%	15.5%
Total	Count	111	110
	%	100.0%	100.0%

The tested quantity that is shown in the above table of contingency did not show significant results with $\chi^2(2) = 2.321$, $p = .313$. Consequently, tolerance was not found to be dependent of the gender of poser when investigating negative-context selfies either.

Regarding to the results above (see Table 39, Table 40, Table 41, Table 42) all hypotheses (H 4.1, H 4.2, H 4.3) for research question 4, proposing that no dependency exists between the posers' genders and tolerance, appropriateness and willingness to post a selfie (independent of positive or negative context), can be supported.

5 Conclusion & Future Research

This chapter offers a conclusion of this thesis and proposes areas and suggestions for improvement for future research.

As the use of the Internet has turned into a daily routine for many people, they go online for many different reasons; amongst them for communicating with others (cf. Amichai-Hamburger/Ben-Artzi, 2003: 71f.). Therefore, people use social media, and especially social networks, which are one of the most popular and fastest growing types of social media (cf. Amichai-Hamburger/Vinitzky, 2010: 1289). As the Internet is present in nearly every aspect of life (cf. Amichai-Hamburger/Ben-Artzi, 2003: 71f.) it is important to know who the people really are that are using the Internet, social media and/or social networks.

The above-mentioned necessity to really know who is using the Internet was partially investigated by analyzing personality traits on social media and on SNS. Numerous studies have been done in order to find out which personality characteristics are influencing factors for e.g. the users' social media use intensity or their posting intensity of comments, status updates, links and photos (cf. Seidman, 2013; Hall/Pennington, 2013; Amichai-Hamburger/Vinitzky, 2010; Eftekhar et al., 2014; Correa et al., 2009). This is an important field of research and gained a lot of attention during the last years.

Another phenomenon, not new but rapidly gaining in popularity is “selfies”. The inviting features of taking a self-portrait are that one can do it very spontaneously and in basically every situation. It can then be uploaded directly on social media, which makes it accessible to chosen people and hence a rather attractive feature. It has lead people to rise the number as well as the contexts of selfies every day (cf. Mazza et al., 2014: 2f.).

Research has already been done on selfies and the users' personality traits (e.g. Eftekhar et al., 2014; Amichai-Hamburger/Vinitzky, 2010), but up until now this has been limited to the selfie-posters and did not take the personality traits of the observers into account. What do the people who observe selfies in various contexts think about others' photo posts? As already mentioned, the list of selfie contexts is long and offers a wide range – from sport, to sightseeing, to right after sex, to “posing” at a funeral or in front of a catastrophe that is going on behind. Do the observers tolerate such selfies?

The aim of this master's thesis was to discover which personality traits influence the observers' levels of tolerance concerning others' selfie posts in various contexts. Furthermore, it was

examined how they influence their perception of what is appropriate and what is not appropriate, and what characteristics lead people to be willing to post selfies in various situations.

The method used for this research was a combination of the results of a pre-test with a quantitative survey on an experimental basis.

Two selfie situations (an appropriate and a not appropriate) as well as two persons (or posers; male and female) with no differences in person perception were found within the pre-test stage, which then were used in the online-based experiment.

Finding enough people of the target group (students in Vienna) for the experiment was challenging as the fielding period was during the summer break (from August 9, 2016 till August 26, 2016). Nonetheless, with the help of social networks 222 valid datasets were gathered.

Concerning research question 1, whether personality traits influence the observers' level of tolerance, the following can be determined: consistent with hypothesis 1.1, the results of this study show a negative relation between the personality trait extraversion and the level of tolerance concerning others' selfie posts on SNS. Consequently, the more extraverted the people, the less tolerant they are with regards to others' selfie posts. This finding is similar to Marcus' findings (1995: 169) on contemporary tolerance judgments that found that people high in extraversion are less tolerant. For the other personality traits no significant relations to the level of tolerance were found.

Regarding research question 2, whether personality traits do influence the observers' perception of appropriateness and their willingness to post selfies in various situations, another positively significant relation was observed between appropriateness and conscientiousness for the positive context. In addition, a negative tendency could be seen regarding emotional stability for the positive selfie situation. Thus, the corresponding proposed hypotheses could not be supported.

Another factor, which was investigated within the experiment was formulated in research question 3, namely if there is a connection between the users' social media use- and posting intensities and their level of tolerance.

In general it was found that regarding the relation between the intensity of social media use and various posting activities there was no interconnection with the users' level of tolerance. Hence, hypothesis 3.1 and 3.2 cannot be supported.

This means that neither the time spent on social media, nor the number of friends/followers on social media, nor posting behavior have an impact on one's level of tolerance. Research question

3 only showed two significant outcomes, namely that people with a low level of tolerance tend to have a higher number of friends than those with a higher level of tolerance, and that tolerant people tend to post a selfie once a week on social media, where mid- and not tolerant people do not show this particular tendency.

To answer research question 4, if the gender of the poser influences the observers' level of tolerance, their perception of appropriateness or their posting willingness of selfies in various contexts, the following could be determined:

There were no significant results for neither the level of tolerance, nor the perception of appropriateness, nor the willingness to post selfies in positive as well as in negative situations. This indicates that no dependent gender-specific differences were found.

This result was hypothesized, as the aim of the pre-test was amongst others to find a male and a female person, who do not cause differences in person- or gender-specific perceptions.

Factors that have to be considered for future research are the following:

“In an ideal world, personality researchers would have sufficient time and resources to exploit the superior content validity and reliability of well-established multi-item instruments.”
(Gosling et al., 2003: 505)

As most of the time the circumstances of researches do not allow this, researchers have to use brief instruments (cf. Gosling et al., 2003:505). Within this study Goslings' 10-item inventory was used to measure the personality traits of the participants. In fact this concise measure shows adequate levels of convergence across measures, test-retest reliability and external correlates. Still, there was a clear lack of reliability regarding the personality trait “agreeableness”.

Since agreeableness was not reliable enough it can be said that future research should investigate this trait more accurately with NEO-PI-R or NEO-FFI (cf. Costa/McCrae, 1992). This indicates asking a higher number of questions and considering the negations more precisely. This suggestion should be incorporated for all PTs.

In addition, as the observers' level of tolerance, their perception of appropriateness and their posting willingness were measured only in two situations – a highly positive and a profoundly negative one – the phases in-between were not taken into account. In future research one could test more contexts, to see if there are differences within those. It will probably draw a more detailed picture when not solely taken extreme situations into consideration.

6 References

- Abcnews: <http://abcnews.go.com/Politics/president-obama-poses-selfie-nelson-mandelas-memorial-service/story?id=21162957>. Status 15.11.2014.
- Albright, L./Kenny, D. A./Malloy, T. E. (1988): Consensus in personality judgments at zero acquaintance. *Journal of personality and social psychology*, 55(3), 387.
- Amiel, T./ Sargent, S. L. (2004): Individual differences in Internet usage motives. *Computers in Human Behavior*, 20(6), 711-726. doi:10.1016/j.chb.2004.09.002
- Amichai-Hamburger, Y. (2002): Internet and personality. *Computers in Human Behavior*, 18(1), 1-10.
- Amichai-Hamburger, Y./Ben-Artzi, E. (2003): Loneliness and Internet use. *Computers in human behavior*, 19(1), 71-80.
- Amichai-Hamburger, Y./Vinitzky, G. (2010): Social network use and personality. *Computers in Human Behavior*, 26(6), 1289-1295.
- Barry, E. (2014): Narcissism: exploring narcissism, age, fragility of self-esteem, and verbal aggression in Irish university students.
- Bem, S. L. (1981): Gender schema theory: A cognitive account of sex typing. *Psychological review*, 88(4), 354.
- Bobo, L./Licari, F. C. (1989): Education and political tolerance testing the effects of cognitive sophistication and target group affect. *Public Opinion Quarterly*, 53(3), 285-308.
- Borkenau, P./Brecke, S./Möttig, C./Paelecke, M. (2009): Extraversion is accurately perceived after a 50-ms exposure to a face. *Journal of Research in Personality*, 43(4), 703-706.
- Jürgen, B./Döring, N. (2006): Forschungsmethoden und Evaluation für Human und Sozialwissenschaftler, 4. überarb. Aufl.
- Boyd, D. (2007): Why youth (heart) Social Network Sites: The role of networked publics in teenage social life. *MacArthur foundation series on digital learning—Youth, identity, and digital media volume*, 119-142.
- Boyd, D. M./Ellison, N. B. (2007): Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230. doi: 10.1111/j.1083-6101.2007.00393.x
- Carmean, D. M./Morris, M. E. (year not reported): Selfie examinations: Applying computer vision, hashtag scraping and sentiment analysis to finding and interpreting selfies. Status: 14.11.2014
- Correa, T./Hinsley, A. W./De Zuniga, H. G. (2009): Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253.
- Costa, P. T./MacCrae, R. R. (1992): Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory (NEO FFI): Professional manual. Psychological Assessment Resources.
- Dictionary 1: <http://dictionary.reference.com/browse/acceptance?s=t>. Status: 28.01.2015

- Dictionary 2: <http://dictionary.reference.com/browse/tolerance?s=t>. Status: 28.01.2015
- Doorn, M. V. (2012). Tolerance.
- Duggan, M. (2013): Photo and video sharing grow online. *Pew Research Internet Project*.
- Duggan, M./Ellison, N. B./Lampe, C./Lenhart, A./Madden, M. (2015): Social media update 2014. *Pew Research Center*, 19.
- Eftekhari, A./Fullwood, C./Morris, N. (2014): Capturing personality from Facebook photos and photo-related activities: How much exposure do you need?. *Computers in Human Behavior*, 37, 162-170.
- Ellison, N. B./Steinfeld, C./Lampe, C. (2007): The benefits of Facebook “friends:” Social capital and college students’ use of online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- Facebook Mission: https://www.facebook.com/facebook/info?tab=page_info. Status: 25.7.2016)
- Facebook Newsroom 1: <http://newsroom.fb.com/company-info/>. Status 19.5.2016
- Facebook Newsroom 2: <http://newsroom.fb.com/products/>. Status: 19.5.2016
- Field, A. (2009): *Discovering statistics using SPSS*. Sage publications.
- Forst, R. (2000): Toleranz: philosophische Grundlagen und gesellschaftliche Praxis einer umstrittenen Tugend (Vol. 48). Campus Verlag.
- Gillath, O./Bahns, A. J./Ge, F./Crandall, C. S. (2012): Shoes as a source of first impressions. *Journal of Research in Personality*, 46(4), 423-430.
- Gefen, D./Ridings, C. M. (2005): If you spoke as she does, sir, instead of the way you do: a sociolinguistics perspective of gender differences in virtual communities. *ACM SIGMIS Database*, 36(2), 78-92.
- Gender im Fokus: Frauen und Männer an der Universität Wien. https://personalwesen.univie.ac.at/fileadmin/user_upload/personalwesen/pers_frauen/05_gender_im_fokus_kern_homepage.pdf. Status: 08.09.2016
- Goldsworthy, R. (2013): selfie Porn: Is the „personal“ still political? The role of the contemporary socio-mediashare in collaboration and non-collaboration in the arts. In: School of visual Arts 27th annual national conference on liberal arts and the education of artists: collaboration in the arts, October 16-18, 45-51.
- Gosling, S. D./Ko, S. J./Mannarelli, T./Morris, M. E. (2002): A room with a cue: personality judgments based on offices and bedrooms. *Journal of personality and social psychology*, 82(3), 379.
- Gosling, S. D./Rentfrow, P. J./Swann Jr, W. B. (2003): A very brief measure of the Big-Five personality domains. *Journal of Research in personality*, 37(6), 504-528.
- Guadagno, R. E./Okdie, B. M./Eno, C. A. (2008): Who blogs? Personality predictors of blogging. *Computers in Human Behavior*, 24(5), 1993-2004.
- Hall, J. A./Park, N./Song, H./Cody, M. J. (2010): Strategic misrepresentation in online dating: The effects of gender, self-monitoring, and personality traits. *Journal of Social and Personal Relationships*, 27(1), 117-135.

- Hall, J. A./Pennington, N. (2013): Self-monitoring, honesty, and cue use on Facebook: The relationship with user extraversion and conscientiousness. *Computers in Human Behavior*, 29(4), 1556-1564.
- Hamburger, Y. A./Ben-Artzi, E. (2000): The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior*, 16(4), 441-449.
- Hancock, J. T./Toma, C. L. (2009): Putting Your Best Face Forward: The Accuracy of Online Dating Photographs. *Journal of Communication*, 59: 367–386. doi: 10.1111/j.1460-2466.2009.01420.x
- Herkner, W. (1983): Einführung in die Sozialpsychologie. 3. unveränd. Aufl. Bern, Stuttgart, Wien: Huber.
- Holicki, S. (1993): Pressefoto und Presstext im Wirkungsvergleich. Eine experimentelle Untersuchung am Beispiel von Politikerdarstellungen. Verlag Reinhard Fischer: München.
- Hu, Y./Manikonda, L./Kambhampati, S. (2014): What We Instagram: A First Analysis of Instagram Photo Content and User Types. In *ICWSM*.
- Huffingtonpost: http://www.huffingtonpost.com/2014/04/13/pope-francis-selfie_n_5143566.html. Status 15.11.2014
- Instagram Press: <https://www.instagram.com/press/>. Status: 12.05.2016
- Instagram FAQ: <https://www.instagram.com/about/faq/> Status: 25.7.2016
- Jackson, L. A./Ervin, K. S./Gardner, P. D./Schmitt, N. (2001): Gender and the Internet: Women communicating and men searching. *Sex roles*, 44(5-6), 363-379.
- Kepplinger, Hans Mathias (2010): Identitätsprobleme der Personenwahrnehmung anhand von Fotos. In: *Nonverbale Medienkommunikation*. VS Verlag für Sozialwissenschaften. p. 105-122.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukhopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being?. *American psychologist*, 53(9), 1017-1030.
- Krämer, N. C./Winter, S. (2008): Impression management 2.0: The relationship of self-esteem, extraversion, self-efficacy, and self-presentation within social networking sites. *Journal of Media Psychology*, 20(3), 106-116.
- Lin, H./Tov, W./Qiu, L. (2014): Emotional disclosure on social networking sites: The role of network structure and psychological needs. *Computers in Human Behavior*, 41, 342-350.
- Livingstone, S. (2008): Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. *New media & society*, 10(3), 393-411.
- Marcus, G. E. (1995). *With malice toward some: How people make civil liberties judgments*. Cambridge University Press.
- Marshall, T. C./Lefringhausen, K./Ferenczi, N. (2015): The Big Five, self-esteem, and narcissism as predictors of the topics people write about in Facebook status updates. *Personality and Individual Differences*, 85, 35-40.

- Mazza F./Perreira Da Silva M./Le Callet P. (2014): Would you hire me? Selfie portrait images perception in a recruitment context.
- McCrae, R. R./Costa, P. T. (1987): Validation of the five-factor model of personality across instruments and observers. *Journal of personality and social psychology*, 52(1), 81–90.
- McCrae, R. R./Costa Jr, P. T. (1997): Personality trait structure as a human universal. *American psychologist*, 52(5), 509-516.
- McCroskey, J. C./McCain, T. A. (1974): The measurement of interpersonal attraction.
- McClosky, H., & Brill, A. (1983). The dimensions of tolerance: What Americans believe about civil liberties. Russell Sage Foundation.
- Merriam Webster: <http://www.merriam-webster.com/dictionary/tolerance>. Status: 28.01.2015
- Mehdizadeh, S. (2010): Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychology, behavior, and Social Networking*, 13(4), 357-364.
- Nadkarni, A./Hofmann, S. G. (2012): Why Do People Use Facebook? *Personality and Individual Differences*, 52(3), 243–249. doi:10.1016/j.paid.2011.11.007
- Naumann, L. P./Vazire, S./Rentfrow, P. J./Gosling, S. D. (2009): Personality judgments based on physical appearance. *Personality and Social Psychology Bulletin*.
- Nestler, S./Egloff, B./Küfner, A. C./Back, M. D. (2012): An integrative lens model approach to bias and accuracy in human inferences: hindsight effects and knowledge updating in personality judgments. *Journal of personality and social psychology*, 103(4), 689.
- Nguyen, A. J. (2014): *Exploring the selfie phenomenon: the idea of self-preservation and its implications among young women* (Doctoral dissertation).
- Nunn, C. Z./Crockett, H. J./Williams, J. A. (1978): *Tolerance for nonconformity*. Jossey-Bass Incorporated Pub.
- Oxford dictionary: <http://www.oxforddictionaries.com/definition/english/selfie>, Status 14.11.2014
- Poushter, J. (2016): Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies. *Pew Research Center: Global Attitudes & Trends*
- Psychology Dictionary: <http://psychologydictionary.org/self-presentation/>, Status: 25.8.2016.
- Rhodes, G. (2006): The evolutionary psychology of facial beauty. *Annu. Rev. Psychol.*, 57, 199-226.
- Rost, J. (2004): Lehrbuch Testtheorie-Testkonstruktion (2., vollständig überarbeitete und erweiterte Aufl.). *Bern: Huber*.
- Seidman, G. (2013): Self-presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54(3), 402-407.
- Sorokowska, A./Oleszkiewicz, A./Frackowiak, T./Pisanski, K./Chmiel, A./Sorokowski, P. (2016): Selfies and personality: Who posts self-portrait photographs?. *Personality and Individual Differences*, 90, 119-123.

- Sorokowski, P./Sorokowska, A./Oleszkiewicz, A./Frackowiak, T./Huk, A./Pisanski, K. (2015): Selfie posting behaviors are associated with narcissism among men. *Personality and Individual Differences*, 85, 123-127.
- Steinfield, C./Ellison, N. B./Lampe, C. (2008): Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29(6), 434-445.
- Sullivan, J. L./Piereson, J./Marcus, G. E. (1993): *Political tolerance and American democracy*. University of Chicago Press.
- Sullivan, J. L./Transue, J. E. (1999): The psychological underpinnings of democracy: A selective review of research on political tolerance, interpersonal trust, and social capital. *Annual review of psychology*, 50, 625.
- Stouffer, S. A. (1955): *Communism, conformity, and civil liberties: A cross-section of the nation speaks its mind*. Transaction Publishers.
- Techcrunch: <https://techcrunch.com/2016/02/24/facebook-reactions/>. Status: 26.05.2016.
- The Free Dictionary: <http://www.thefreedictionary.com/acceptance>. Status: 28.01.2015
- The Guardian: Selfie is Oxford Dictionaries' word of the year <http://www.theguardian.com/books/2013/nov/19/selfie-word-of-the-year-oed-olinguo-twerk>. Status: 30.01.2015.
- Tong, S. T./Van Der Heide, B./Langwell, L./Walther, J. B. (2008): Too much of a good thing? The relationship between number of friends and interpersonal impressions on Facebook. *Journal of Computer-Mediated Communication*, 13(3), 531-549.
- Wainryb, C./Shaw, L. A./Maianu, C. (1998): Tolerance and intolerance: Children's and adolescents' judgments of dissenting beliefs, speech, persons, and conduct. *Child Development*, 69(6), 1541-1555.
- Warren, J./Stoerger, S./Kelley, K. (2012): Longitudinal gender and age bias in a prominent amateur new media community. *new media & society*, 14(1), 7-27.
- Weiser, E. B. (2015): #Me: Narcissism and its facets as predictors of selfie-posting frequency. *Personality and Individual Differences*, 86, 477-481.
- Weiten, W. (2007): *Psychology: Themes and Variations: Themes And Variations*. Cengage Learning.
- Qiu, L./Lu, J./Yang, S./Qu, W./Zhu, T. (2015): What does your selfie say about you?. *Computers in Human Behavior*, 52, 443-449.
- Xu, Z./Zhang, Y./Wu, Y./Yang, Q. (2012): Modeling user posting behavior on social media. In *Proceedings of the 35th international ACM SIGIR conference on Research and development in information retrieval* (pp. 545-554). ACM.
- #AfterSexSelfie: <https://www.instagram.com/p/4cgOGon9B3/?taken-by=markjgoode>. Status: 17.04.2016
- #BabySelfie: <http://images.agoramedia.com/ugcphotoservice/100/58233848/9c7efd77-c856-4075-8afe-babfd22dea16.jpg>. Status: 17.04.2016
- #CatastropheSelfie http://www.spass.net/wp-content/uploads/2014/11/pleated-jeans_selfie_brennendes_auto-650x405.jpg

- #DrunkSelfie: https://scontent.cdninstagram.com/hphotos-xaf1/t51.2885-15/e15/11325946_1040621335950745_901751365_n.jpg. Status: Status: 17.04.2016
- #FuneralSelfie: <https://www.funeralwise.com/digital-dying/wp-content/uploads/sites/4/2015/01/funeral-selfie.jpg>. Status: 17.04.2016
- #MirrorSelfie: http://66.media.tumblr.com/6aa089068daa454d789993d029723593/tumblr_nrjyt7iW8R1s5oqxgo1_1280.jpg. Status: 17.04.2016
- #SightseeingSelfie: <http://ruthlesseditor.com/wp-content/uploads/selfie.jpg>. Status: 17.04.2016
- #SportSelfie: <https://www.instagram.com/p/BEirJt1PWEO/?taken-by=danielazidek>. Status: 17.04.2016

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Appendix A: Pre-Test

1. Do you use Social Media (like Facebook, Twitter, Instagram etc.)
 - a. Yes
 - b. No
2. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 5. #AfterSexSelfie

I think the situation pictured is...

- a. acceptable
 - b. unsuitable
 - c. decent
 - d. unreasonable
 - e. adequate
3. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 6. #BabySelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

4. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 7. #FuneralSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

5. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 8. #MirrorSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

6. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 9. #DrunkSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

7. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 10. #CatastropheSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

8. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 11. #SightseeingSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

9. Please rate the following selfie situation (independent/irrespective of the person pictured) whereas 1 is *I strongly agree* and 10 *I strongly disagree*.



Figure 12. #SportSelfie

I think the situation pictured is...

- a. acceptable
- b. unsuitable
- c. decent
- d. unreasonable
- e. adequate

10. What impression do you have of the person pictured? (semantic differential from 1 to 7)



Figure 13. Female model

- | | |
|----------------------------|------------------------|
| 1 | 7 |
| a. good-natured | vicious/malicious |
| b. inspiring confidence | sly/deceitful |
| c. considerate | reckless/inconsiderate |
| d. likeable/pleasant | unlikable/unpleasant |
| e. sentimental/sensitive | callous/insensitive |
| f. honest | dishonest |
| g. friendly | unfriendly |
| h. calm/peaceful | belligerent |
| i. credible | implausible |
| j. familiar | unfamiliar/foreign |
| k. open/frank | withdrawn |
| l. confident | insecure |
| m. superior | inferior |
| n. active | passive |
| o. successful | unsuccessful |
| p. energetic | tentative |
| q. imperious/authoritative | submissive |
| r. jolly | saddened |
| s. vigorous | calm |
| t. optimistic | pessimistic |

11. Please assess the following statements about the person pictured (1 I strongly agree; 7 I strongly disagree)



- a. I think he (she) could be a friend of mine.
- b. It would be difficult to meet and talk with him (her).
- c. He (she) just wouldn't fit into my circle of friends.
- d. We could never establish a personal friendship with each other.
- e. I would like to have a friendly chat with him (her).
- f. I think he (she) is quite handsome (pretty).
- g. He (she) is very sexy looking.
- h. I find him (her) very attractive physically.
- i. I don't like the way he (she) looks.
- j. He (she) is somewhat ugly.

12. What impression do you have of the person pictured? (semantic differential from 1 to 7)



Figure 14. Male model

1	7
a. good-natured	vicious/malicious
b. inspiring confidence	sly/deceitful
c. considerate	reckless/inconsiderate
d. likeable/pleasant	unlikable/unpleasant
e. sentimental/sensitive	callous/insensitive
f. honest	dishonest
g. friendly	unfriendly
h. calm/peaceful	belligerent
i. credible	implausible
j. familiar	unfamiliar/foreign
k. open/frank	withdrawn
l. confident	insecure
m. superior	inferior
n. active	passive
o. successful	unsuccessful
p. energetic	tentative
q. imperious/authoritative	submissive
r. jolly	saddened
s. vigorous	calm
t. optimistic	pessimistic

13. Please assess the following statements about the person pictured (1 I strongly agree; 7 I strongly disagree)



- a. I think he (she) could be a friend of mine.
- b. It would be difficult to meet and talk with him (her).
- c. He (she) just wouldn't fit into my circle of friends.
- d. We could never establish a personal friendship with each other.
- e. I would like to have a friendly chat with him (her).
- f. I think he (she) is quite handsome (pretty).
- g. He (she) is very sexy looking.
- h. I find him (her) very attractive physically.
- i. I don't like the way he (she) looks.
- j. He (she) is somewhat ugly.

14. Gender

- a. Female
- b. Male

Appendix B: Experiment – Online-Survey

1. I see myself as: (whereas 1 is *I strongly agree* and 10 *I strongly disagree*)
 - extraverted, enthusiastic
 - reserved, quiet
 - sympathetic, warm
 - critical, quarrelsome
 - dependable, self-disciplined
 - disorganized, careless
 - calm, emotionally stable
 - anxious, easily upset
 - open to new experiences, complex
 - conventional, uncreative
2. Do you use social media?
 - yes
 - no (Those who indicate “no” are going to be excluded from the survey, as they are no appropriate respondents. The others are branched to further questions concerning der SM use.)
3. About how many total friends/follower do you have on Facebook, Instagram, Twitter or on your personally most frequently used social media?
1 = 10 or less, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 301-400, 9 = more than 400
4. In the past week, on average, approximately how many minutes per day have you spent on Facebook, Instagram, or on your personally most frequently used social media?
1 = less than 10, 2 = 10-30, 3 = 31-60, 4 = 1-2 hours, 5 = 2-3 hours, 6 = more than 3 hours
5. How often do you post status updates?
1 = less than once a year; 2 = once a year; 3 = several times per year; but less than once a month; 4 = once a month; 5 = a few times a month, but less than once a week; 6 = once a week; 7 = a few times per week; 8 = once a day; 9 = more than once a day
6. How often do you post comments?
1 = less than once a year; 2 = once a year; 3 = several times per year; but less than once a month; 4 = once a month; 5 = a few times a month, but less than once a week; 6 = once a week; 7 = a few times per week; 8 = once a day; 9 = more than once a day
7. How often do you post pictures?
1 = less than once a year; 2 = once a year; 3 = several times per year; but less than once a month; 4 = once a month; 5 = a few times a month, but less than once a week; 6 = once a week; 7 = a few times per week; 8 = once a day; 9 = more than once a day
8. How often do you post links?

1 = less than once a year; 2 = once a year; 3 = several times per year; but less than once a month; 4 = once a month; 5 = a few times a month, but less than once a week; 6 = once a week; 7 = a few times per week; 8 = once a day; 9 = more than once a day

9. Do you know what a selfie is?

- yes
- no

10. Those who replied 9.a.: As you know, a selfie is a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media)...Have you ever shared a selfie on social media (Facebook, Instagram etc.)?

11. yes

12. no

13. Those who replied 9.b.: A selfie is a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media) ...Have you ever shared a selfie on social media (Facebook, Instagram etc.)?

- Yes
- No

14. Those who replied 10.a/11.a.: How often would you say that you share selfies on social media?

1 = less than once a year; 2 = once a year; 3 = several times per year; but less than once a month; 4 = once a month; 5 = a few times a month, but less than once a week; 6 = once a week; 7 = a few times per week; 8 = once a day; 9 = more than once a day

Those who reply 10.b/11.b are going to be branched to the next section of the survey (question 13)

15. Please answer the following questions to the shown picture (questions 13 to 17):

depending on group A, B, C or D
either female person or male person



Figure 15. Female model positive selfie situation



Figure 16. Male model positive selfie situation

16. If a person in your community/circle of friends wants to post this selfie, should he/she be allowed to do that or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
17. If your friends suggested this selfie should be taken out of social media, would you favor removing the selfie or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
18. Suppose he/she is teaching in a college or a university. Should he/she be fired, or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
19. What is your point of view concerning this statement? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
- I would post a picture in this context.
20. What impression do you have of this photograph? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
- adequate
 - unsuitable
 - acceptable
 - unreasonable
 - decent

21. Please answer the following questions to the shown picture (questions 18 to 22):

depending on group A, B, C or D
either female person or male person



Figure 17. Female model negative selfie situation

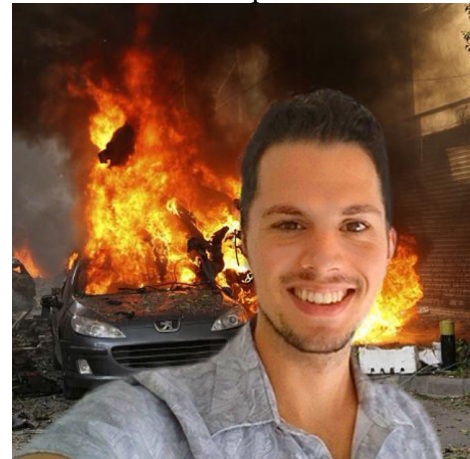


Figure 18. Male model negative selfie situation

22. If a person in your community/circle of friends wants to post this selfie, should he/she be allowed to do that or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
23. if your friends suggested this selfie should be taken out of social media, would you favor removing the selfie or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
24. Suppose he/she is teaching in a college or a university. Should he/she be fired, or not? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
25. What is your point of view concerning this statement? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
- I would post a picture in this context.
26. What impression do you have of this photograph? (whereas 1 is *I strongly disagree* and 10 *I strongly agree*)
- adequate
 - unsuitable
 - acceptable
 - unreasonable
 - decent

27. How old are you?

- XX years

28. What is your nationality?

- Austria
- Germany
- Other

29. Your highest educational qualification is...

- compulsory school
- apprenticeship
- middle school
- graduation from high-school
- university/college

30. Gender

- Male
- Female

Curriculum Vitae

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PERSONAL DETAILS

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EDUCATION

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