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“Subjective effects in the context of sexual objectification
of women within the Empathy for Pain paradigm“

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Please note that this thesis is part of the same topic tackled in the master's thesis "Behavioral effects in the context of sexual objectification of women within the Pain vs. Gain paradigm" written by the colleagues Katharina Reigbert and Fides Heimkes. We conducted an experiment together, which was a combination of the Pain vs. Gain paradigm and the Empathy for Pain paradigm under the supervision of Ass. Prof. Giorgia Silani, PhD. The colleagues, Reigbert & Heimkes (2018) tackled the Pain vs. Gain paradigm to investigate the behavioral effects of empathy, while I focused on the Empathy for Pain paradigm to investigate the subjective effects of empathy, both in the context of sexual objectification of women. Therefore, there would be similarities in both manuscripts especially the theoretical background and the methodology.

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1 Introduction

According to the United Nations Organization for Women (2017), every third woman worldwide goes through either sexual or physical violence by men at least once in her lifetime (UN Women, 2017; Reigbert & Heimkes, 2018). The World Health Organization (2007) stated that sexual violence against women is considered to be a vital problem that has serious consequences on women's physical, mental, sexual and reproductive health (World Health Organization, 2007). The phenomenon of sexual violence against women is being internationally focused on in order to prevent it, as it is perceived as a violation of their human rights (World Health Organization, 2007).

Reduced empathy is one of the factors that increase violent behavior. To understand the diminished empathy the offender experiences towards the victim of violence, it is important to know which attribute of the offender evokes it. One of the reasons for the diminished empathy experienced towards victimized women is sexual objectification of women (Cogoni, Carnaghi, & Silani, 2018).

Philosopher Kant tackled the concept of objectification for the first time in 1785 and stated that people are objectified if not perceived as a person but rather as instruments for sexual gratification of others (Papadaki, 2010; Reigbert & Heimkes, 2018).

The American Psychological Association (2007) mentioned that *sexualized* pictures of girls and young women in the media are harmful to girls' self image and healthy development. Media such as music videos, songs' lyrics and movies present girls and women in an objectified manner, which leads to sexual objectification as well as self-objectification (American Psychological Association, 2007).

Pornography is a relevant central type of female objectification. In pornography, women are shifted to sex objects, which men can easily access and benefit from (Reigbert & Heimkes, 2018). According to Wright & Tokunaga (2016), the more men are exposed to objectifying portrayals of women especially pornography, the more they will perceive women as sexual objects (Wright & Tokunaga, 2016). This objectified attitude towards women leads to increased sexual violence against them (Wright & Tokunaga, 2016; Reigbert & Heimkes, 2018).

The proposed study examines how subjective empathy responses in an interpersonal situation would differ, while directed towards a *sexualized* versus a non-sexualized woman undergoing physical pain (Reigbert & Heimkes, 2018). Alongside the findings of the recent

study by Cogoni, Carnaghi & Silani (2018) that empathic responses were reduced for sexually objectified women in the context of a cyber ball tossing game investigating empathy for social pain, this study aims to extend the same observation to physical pain in addition to investigating the correlation between reduced empathy and high pornography consumption (Cogoni et al., 2018). An experimental paradigm of one male participant and two female confederates aims to reveal that (Reigbert & Heimkes, 2018).

2 Theoretical Background

2.1 Empathy for Physical Pain

Before revealing the path on which sexual objectification of women leads to decreased empathy, the importance of empathy will be introduced. It is important to comprehend empathy, as its reduction is one of the factors that increase violent behavior (Cogoni et al., 2018). According to Cogoni et al. (2018), “Empathy has been defined as a social emotion triggered by the perception or imagination of someone else’s emotional state” (Cogoni et al., 2018). “It was mostly described as the similarity between oneself and other’s emotions ‘representations in terms of described subjective feelings and shared neural activations” (De Vignemont & Singer, 2006; Cogoni et al., 2018).

According to De Vignemont & Singer (2006), “Empathy is when 1. One is in an affective state; 2. This state is isomorphic to another person’s affective state; 3. This state is elicited by the observation or imagination of another person’s affective state; 4. One knows that the other person is the source of one’s own affective state” (De Vignemont & Singer, 2006). The authors acknowledged how the ability to share other people’s emotional experiences might facilitate social communication as well as coherence (De Vignemont & Singer, 2006).

Moreover, to support the argument of facilitating social communication, Hayashi & Tobin (2011) discovered in their research about Japanese children that teachers’ goals for children in preschool is not just education, but primarily how to be part of a team as well as how to empathize and have a connection with others (Hayashi & Tobin, 2011). This suggests the significance of empathy among people, as it enables social connection and therefore social communication.

What's more, Reniers, Corcoran, Drake, Shyrane, & Völlm (2011) proposed that the general agreement on defining empathy is to include a comprehension of other people's experience (cognitive empathy) as well as the ability to vicariously experience the emotional experience of others (affective empathy) (Reniers, Corcoran, Drake, Shyrane, & Völlm 2011).

Reniers et al. (2011) suggested two different empathy components that were used in the present study, namely cognitive and affective empathy (Reniers et al., 2011). They created the "Questionnaire of Cognitive and Affective Empathy" to measure both components (Reniers et al., 2011). Cognitive empathy is the ability to build a working model (mental representations) of the emotional states of others, while affective empathy is the ability to be sensitive and experience the feelings of others (Reniers et al., 2011; Reigbert & Heimkes, 2018).

Cognitive empathy is a person's ability to keep information in their mind and manipulate it (Reniers et al., 2011). It is the comprehension of other people's experience and the ability to construct a working model of the emotional states of others that involve cognitive processes, which would take time (Reniers et al., 2011; Reigbert & Heimkes, 2018). In other words, cognitive empathy is creating a presentation of another person's cognitive or emotional state, which can be compared to one's own (Reniers et al., 2011). The cognitive component of empathy is comprised of two different facets; one of which is perspective taking, which is intuitively putting oneself in another person's shoes to see things from their perspective (Reniers et al., 2011; Reigbert & Heimkes, 2018). The other facet is online simulation, which is the attempt to imagine what the other is feeling in order to put oneself in their position (Reniers et al., 2011; Reigbert & Heimkes, 2018).

Affective empathy, on the other hand, is the ability to vicariously experience the emotional experience of others (Reniers et al., 2011). It involves sensitivity to and experience of the other person's feelings rather than sharing or being aware of another's feelings (Reniers et al., 2011). The affective component of empathy is comprised of three different facets, one of which is emotional contagion, which is the tendency to automatically mirror someone else's feelings (Reniers et al., 2011). Another facet is proximal responsivity, which is responding affectively when observing another person's mood in a close social context (Reniers et al., 2011). The third facet is peripheral responsivity, which refers to an affective reaction to another person's mood in a detached social context such as watching an emotional movie scene (Reniers et al., 2011; Reigbert & Heimkes, 2018).

Both empathy components were used to measure empathy levels in two ways (state empathy & trait empathy) in the experiment conducted in the present study (Empathy for

Pain) explained in the Methodology section.

Empathy for pain, which is the experimental design used in our study, is a valuable and a commonly used approach to explore empathy in experimental studies, since experiencing someone else in pain induces intense empathic feelings (Cogoni et al., 2018; Reigbert & Heimkes, 2018). The results of several studies showed that perceiving or imagining another person experiencing pain, activated the same neural networks being activated when the person is feeling pain himself or herself, just as if they sensed the pain themselves (Singer & Lamm, 2009). For example, Singer & Lamm (2009) confirmed that observing or imagining another person undergoing physical pain, activates the same brain parts that are activated when the person experiences physical pain themselves (Singer & Lamm, 2009). Furthermore, De Vignemont and Singer (2006) found out that empathy induced common neural networks activated by the perception of pain, regardless if the individual is empathizing with loved ones in pain or with strangers in pain (De Vignemont & Singer, 2006).

The high intensity of empathic responses to pain is one reason why in the current study empathy will be examined in the context of physical pain (Reigbert & Heimkes, 2018). The present study would extend the findings of Cogoni et al. (2018) about reduced empathy towards sexually objectified women for social pain to physical pain (Cogoni et al., 2018).

The outcomes of Cogoni et al. (2018) demonstrated reduced empathic feelings towards sexually objectified women as compared to non-objectified (personalized) women when observing their participation in a cyber ball tossing game. Particularly, such reduced empathy towards *sexualized* women (woman confederate wearing revealing clothes) as compared to personalized ones (woman confederate wearing more conservative clothes) was observed. Precisely, positive emotions during the inclusion of the sexually objectified women in the game were perceived as less intense than for the non-sexualized ones (Cogoni et al., 2018).

2.2 Sexual Objectification

To understand the diminished empathy the offender experiences towards the victim of violence, it is vital to examine which specific attribute of the target is responsible. Sexual objectification is one of the possible reasons for the reduction of empathic feelings towards victimized women (Cogoni et al., 2018).

In the following, the definition and the different features of sexual objectification will be presented.

Objectification is defined as perceiving and/or treating a person, as a tool to fulfill one's specific purposes (Papadaki, 2010; Reigbert & Heimkes, 2018). The main focus of the present study is the specific form of objectification, namely sexual objectification. Sexual objectification of women is the psychological process that occurs when women are perceived and treated as bodies or body parts that exist and are valued mainly for the use and pleasure of others (Fredrickson & Roberts, 1997; Reigbert & Heimkes, 2018). When a person is a target of sexual objectification, the judgment of such target is mainly motivated by the target's physical appearance with a denial of their mental capacity (American Psychological Association, 2007). Sexual objectification takes place when perceivers are exposed to women that are portrayed in a *sexualized* manner such as wearing revealing clothes, but also when perceivers shift the focus of their attention from the target's mind to their physical attributes (Cogoni et al., 2018). Consequently, *sexualized* targets are judged to be less human (dehumanized), as having less mind (dementalized) and are considered less worthy of moral concern than non-sexualized targets (Loughnan, Pina, Vasquez, & Puvia, 2013; Cogoni et al., 2018). Moreover, their entire being would be identified with her body (Moradi & Huang, 2008) and their personhood denied (Loughnan et al., 2010).

Sexual objectification often occurs towards women, who display their appealing body parts, like hips and breasts, in a *sexualized* manner by wearing revealing clothes (Gray, Knobe, Sheskin, Bloom, & Barrett, 2011; Reigbert & Heimkes, 2018). This could be the reason why in literature, the word "objectification" is sometimes used to describe women's appearance (Reigbert & Heimkes, 2018). However, the main focus here is not women's physical appearance but rather other people's perception of it, as indicated by the definition by Fredrickson and Roberts (1997) (Fredrickson & Roberts, 1997).

Sexual objectification takes place when perceivers are exposed to women that are portrayed in a *sexualized* manner such as wearing revealing clothes (Gray et al., 2011). The American Psychological Association (2007) mentioned that media such as music videos, music lyrics and movies present girls and women in an objectified manner, which leads to sexual objectification and as a consequence to self-objectification (The American Psychological Association, 2007). In line with the American Psychological Association (2007), Bernard, Gervais, Allen, Delmée, & Klein (2015) argue that women are sexually objectified all over the media, which reduces them to a body or body parts presented for satisfying the sexual needs and desires of other people rather than being a person with

thoughts, feelings and needs (Bernard, Gervais, Allen, Delmée, & Klein, 2015). Moreover, pornography and advertising present objectified depictions of women in a way that people are directly encouraged to focus on them (Fredrickson & Roberts, 1997; Papadaki, 2010).

By sexually objectifying women, one is not only evaluating their person based on their physical appearance, one is also rejecting their mental capacity (Cogoni et al., 2018). It was proven that depicting women in less humanizing ways led to objectifying them more (Haslam & Stratemeyer, 2016). Haslam (2006) introduced the concept of dehumanization, which perceives others in comparison to either lifeless objects or to animals (Haslam, 2006). One of the dehumanization attributes is the Uniquely Human attribute (UH), which distinguishes humans from animals, referring to characteristics such as maturity, morality and responsibility (Gwinn, Judd, & Park, 2013). As for the Human Nature attribute (HN), it distinguishes humans from machines, referring to characteristics such as emotionality and depth of character (Gwinn et al., 2013). Gwinn, Judd & Park (2013) discovered that sexually objectified women were compared more with animals than with lifeless objects in comparison to their non-objectified counterparts (Gwinn et al., 2013). Thus, reducing their mental capacity (Gwinn et al., 2013). Mechanistic forms of dehumanization involving perceptions of others as object-like are different than the more studied animalistic dehumanization where people are seen as uncivilized and animal like (Haslam & Stratemeyer, 2016).

Moreover, Bernard et al. (2015) exposed in their experiments that analytic processing of women's bodies is a sign of sexual objectification at a basic cognitive level (Bernard et al., 2015; Reigbert & Heimkes, 2018). Using a body inversion recognition task they examined whether participants would recognize *sexualized* versus non-sexualized inverted and upright pictures more analytically (Bernard et al., 2015; Reigbert & Heimkes, 2018). They discovered that *sexualized* bodies were processed more analytically, thus similar to objects than non-sexualized men and women who were processed more configural (Bernard et al., 2015; Reigbert & Heimkes, 2018). The results applied to both men and women, but rather to an increased extent to women (Bernard et al., 2015).

Interestingly, Gray et al. (2011) suggested that the real conflict is between mind and body (Agency & Experience) rather than between physical object and living soul (Gray, Gray & Wegner, 2007; Gray et al., 2011). Gray, Gray & Wegner (2007) initiated a two dimensional redistribution of the mind (Gray et al., 2007). One dimension is Agency, which refers to planning, self-control and acting morally, and the other dimension is Experience, which refers to pleasure, desire, pain sensitivity and emotions (Gray et al., 2007). Agency could be described as "moral agent" thus referring to more responsibility (Gray et al., 2007). However,

Experience is “moral patiency”, which refers to more rights and privileges (Gray et al., 2007). The Uniquely Human (UH) attributes in the aforementioned dehumanization concept, are very much linked to the Agency mind dimension by Gray et al. (2007), just as the Human Nature (HN) attributes are linked to the Experience mind dimension (Gray et al., 2007; Gwinn et al., 2013). Nonetheless, contradicting previous research which suggested a unidimensional mind distribution, Gray et al. (2011) did not completely demoralize objectified targets but rather proved how the redistribution of the mind (bidimension) decreases Agency characteristics and increases Experience ones (Gray et al., 2011; Reigbert & Heimkes, 2018). Their findings revealed how perceiving someone as a body leads to ascribing them more Experience and less Agency (Gray et al., 2011). In 5 of 6 of their experiments, increased perceptions of Experience and an increased perceived capacity for harm was observed in objectified men and women (Gray et al., 2011). This contradicts the objectification theory which explains how a body focus leads to harm of the target (Reigbert & Heimkes, 2018). In their experiments, they used pictures displaying skin, sexual suggestiveness and focusing attention on physical versus mental characteristics (Gray et al., 2011). Hence, perceiving people as a body leads to a reduction of their moral agency and an enhancement of their moral patiency (Gray et al., 2011). In other words, according to Gray et al. (2007), objectifying people whether females or males, removes the moral responsibility from them and provides them with moral rights and privileges instead (Gray et al., 2007).

In line with Cogoni et al. (2018), Loughnan et al. (2013) claimed how empathy towards women considerably decreases with an increasing extent of *sexualization* (Loughnan et al., 2013; Cogoni et al., 2018). Results in the study by Loughnan et al. (2013) proved the reduction of moral concern for objectified men and women (Loughnan et al., 2013). Provocatively dressed women were objectified and therefore seen as degraded victims when being sexually assaulted than non-objectified women (Loughnan et al., 2013). The responsibility for sexual assault is no more the offender's but blamed on the victim (Loughnan et al., 2013). An objectified woman wearing a bikini is blamed more for being raped than the non-objectified victim wearing less revealing clothes (Loughnan et al., 2013).

2.3 Pornography Consumption

As mentioned above, pornography plays a vital role in offering objectifying depictions of women. Several feminists identified pornography as the main reason for sexual objectification, whilst others perceived gender inequality as the main issue, including parental

pressure, television, music videos, fashion as well as pornography (Papadaki, 2010). Still, others suppose soap operas and commercials are the central reason for sexual objectification (Papadaki, 2010).

Papadaki (2010) as well as Wright & Tokunaga (2016) mentioned that men, who are exposed to objectifying representations of women such as pornography, are more likely to sexually objectify them (Papadaki, 2010; Wright & Tokunaga, 2016).

Zimbardo indicated in his book “Man (Dis) connected” that pornography consumption distorts one’s thoughts and subsequently men are disabled to have normal conversations with women (Zimbardo & Coulombe, 2015). Such indication suggests the jeopardy of cross sex relationships as a result of pornography consumption and therefore sexual objectification. More importantly, it has been proven that pornography consumption leads to an increase in sexual aggression (Malamuth, Adison, & Koss, 2000; Malamuth, Hald, & Koss, 2011). Thus, the objectified perspective on women leads to increased sexual violence against them (Wright & Tokunaga, 2016; Reigbert & Heimkes, 2018).

In other words, extensive pornography consumption leads to an increased sexual objectification of women and is associated with an increased likelihood of sexual aggression (Wright & Tokunaga, 2016).

2.4 Relevance

By shedding light on how sexual objectification is associated with empathy directed towards women, the current study aims to gain insight into how sexual objectification in an interpersonal real-life empathy observation scenario manifests on a subjective level within the empathy for pain experimental paradigm. When answering this question, the association between state empathy and trait empathy would be investigated, as well as the role of past pornography consumption. In addition, a manipulation check for distinguishing between *sexualized* and personalized women will be explored in the pre and post confederate ratings (Reigbert & Heimkes, 2018).

We aim to gain insight in a socially relevant topic by conducting this experiment. In order to promote women’s rights as well as to prevent women from victimization, it is vital to comprehend the psychological processes for reduced empathy towards victims of violence to get to the bottom of the problem (Reigbert & Heimkes, 2018).

The aims of the study (N=40) are

- (1) Extending the observation of Cogoni et al. (2018) of diminished empathy ratings towards sexually objectified women for social pain to physical pain
- (2) Investigating the correlation between low empathy ratings towards women and high pornography consumption

3 Hypotheses

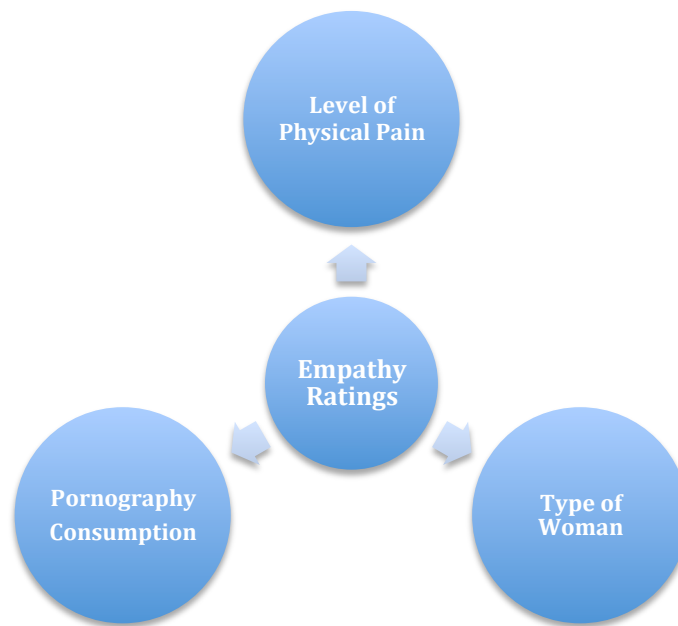


Figure 1. Conceptual Framework; Empathy is the outcome variable surrounded by all independent variables, indicating higher empathy with high-level vs. low-level physical pain, higher empathy with personalized women vs. *sexualized* women and a negative correlation between low empathy ratings and high pornography consumption.

3.1 Effect of Pain-Level

Hypothesis 1: Enhanced state empathic ratings (cognitive & affective) are shown in the high versus low pain trials.

The first hypothesis suggested that participants would have more empathic feelings towards both women confederates while watching them undergo high-level physical pain versus low-level physical pain. As in the study of Cogoni et al (2018), the game managed to

provoke different emotions in the inclusion as compared to the exclusion condition (Cogoni et al., 2018).

3.2 Effect of Type of Confederate

Hypothesis 2: Reduced state empathic ratings (cognitive & affective) are shown towards the *sexualized* than towards the non-sexualized woman.

The second hypothesis proposed that participants would empathize less with the *sexualized* woman confederate than with the personalized woman confederate while observing both undergo physical pain. This hypothesis tends to extend the observation of Cogoni et al (2018) on social pain to physical pain (Cogoni et al., 2018). Their findings demonstrated reduced empathic feelings toward sexually objectified women as compared to non-sexualized (personalized) women when observing their participation in a cyber ball-tossing game (Cogoni et al., 2018). Specifically, positive emotions during the inclusion of the sexually objectified women in the game were perceived as less intense than for the non-sexualized (personalized) ones (Cogoni et al., 2018).

3.3 Interaction Pain-Level by Confederate

Hypothesis 3: Reduced state empathic ratings (cognitive & affective) are shown towards the *sexualized* than towards the non-sexualized woman in the high versus low pain trials.

The third hypothesis combines the first two hypotheses, suggesting that participants would empathize less with the *sexualized* versus the personalized woman confederate, while observing her undergo high-level versus low-level physical pain.

3.4 Correlations

Hypothesis 4: There is a positive correlation between state empathic ratings (cognitive & affective) and trait empathy.

The forth hypothesis proposed that the higher the state empathic ratings, the higher the score on the trait empathy questionnaire would be.

Hypothesis 5: There is a negative correlation between pornography consumption and state empathic ratings (cognitive & affective).

The fifth hypothesis proposed that the higher participants score on the pornography consumption questionnaire, the less their state empathic ratings (cognitive & affective) would be towards both women confederates. This suggested that high pornography consumption would lead to diminished empathy.

4 Methodology

4.1 Ethics

The Study Protocol was written by Reigbert & Heimkes (2018) with the requirements of Good Clinical Practice of the European Union, in accordance with the Declaration of Helsinki (Reigbert & Heimkes, 2018). Ass. Prof. Giorgia Silani, PhD supervised the study. All participants read the informed consent form and signed it for participation in the study, which allowed the processing of personal data in an anonymous way, in accordance with Privacy Rules (Reigbert & Heimkes, 2018). All information collected during the study remained absolutely confidential.

It was originally planned to perform the experiment as an fMRI study (Functional magnetic resonance imaging) to be able to measure the empathic reactions on a neurological level. However, due to practicality issues it was conducted in the SCAN-Unit, Department of Basic Psychological Research and Research Methods, University of Vienna, Liebiggasse 5. Thus, the study focused on measuring the subjective and behavioral empathic reactions.

4.2 Participants

All participants had to be male heterosexual students, 18-30 years and fluent in the German language, as the experiment was conducted in German. To avoid participants' familiarity with the study design or the Milgram experiment and to gain a sample that is as

naïve as possible to the concepts under exploration, psychology students/psychologists, psychotherapists/psychotherapists in training and former/current medical students were excluded (Reigbert & Heimkes, 2018).

A total of 83 potential male participants were contacted, out of which 40 male students, with a mean age of 24.6 years ($SD = 2.58$ range 18-28 years) were recruited via online recruitment, social media platforms, as well as flyers distributed in Universities in Vienna, Austria (Reigbert & Heimkes, 2018).

43 of the 83 male participants were excluded before taking part in the experiment due to the exclusion criteria that was set when participants were going to be part of an fMRI examination as well as due to disinterest to participate in the experiment after being contacted.

From the 40 male student participants, 62.5 % were Austrians, 30 % Germans and 7.5 % from other countries. 5 % worked full time, 22.5 % part-time, 5 % worked 10 weekly hours, 2.5 % were postgraduates and 2.5 % were self-employed, and the remaining 62.5% were unemployed (Reigbert & Heimkes, 2018).

All participants received 20 Euros for participation; in addition to an extra 40 Euros that depended on how much they would choose to contribute (of the received 40 Euros) during one of the experimental tasks investigated by Reigbert & Heimkes (2018) using the Pain vs. Gain paradigm (FeldmanHall et al., 2015; Reigbert & Heimkes, 2018). Whatever would be left after their contribution during the task would be theirs (Reigbert & Heimkes, 2018). All participants signed the informed consent form for their participation in the study.

4.3 Empathy for Pain paradigm

We implemented a successfully applied paradigm to measure empathy for physical pain. This paradigm measured both components of empathy (cognitive & affective) (Lamm Nusbaum, Meltzoff, & Decety, 2007; Lamm & Decety, 2008). Each male participant would observe two different types of women confederates each depicted separately in prerecorded 2-second video while receiving computer generated pseudo shocks (high and low) along with a picture (Reigbert & Heimkes, 2018). The women confederates were dressed differently, one in a “*sexualized*” and the other in a “*personalized*” manner (Reigbert & Heimkes, 2018). The different “outfits” of the confederates were our experimental manipulation (see *Figure 3*). Participants had to rate the level of unpleasantness experienced by themselves answering the question “*How did you feel when the receiver was shocked?*” using a Likert-type rating scale

from -10 = ‘very unpleasant’ over 0 to $+10$ = ‘very pleasant’ (Cogoni et al., 2018; Reigbert & Heimkes, 2018). This question would measure the affective empathy component. Subsequently they would rate the level of unpleasantness experienced by the confederate from their perspective answering the question *“How did the receiver feel when he/she was shocked?”* using the same scale, after watching the images of the confederate once the physical pain was induced (Rütgen et al., 2015; Reigbert & Heimkes, 2018). This question would measure the cognitive empathy component. Both questions would participants’ state empathy (see *Figure 4*) (Rütgen et al., 2015).

General Linear Model framework was used in the inferential statistical analysis after a descriptive analysis of means & standard deviations (Reigbert & Heimkes, 2018). The study was a two by two within factorial design with the following within-subject factors: 2 type of confederate (*sexualized/personalized*) by 2 pain-level (high/low), which were the independent variables (Reigbert & Heimkes, 2018). Our manipulation was presenting participants with different physical appearances of both women confederates, either *sexualized* or non-sexualized (*personalized*) (Reigbert & Heimkes, 2018). State empathic response (cognitive & affective) was regarded as the dependent variable (Reigbert & Heimkes, 2018).

4.4 Procedure

Data collection took place in two sessions and was collected in German. A brief schedule for both sessions each participant would undergo is shown in *Figure 2*.

4.4.1 Online Questionnaire

After ensuring the inclusion criteria via a ten-minute telephone interview, participants were required to fill in an online questionnaire (Session 1) to measure socio-demographic data and personality traits (empathic concern, alexithymia, agreeableness, honesty-humility, self-objectification, psychopathy and sadism) (Reigbert & Heimkes, 2018). In addition, the Brief Symptom Inventory-53 was measured to identify self-reported clinically relevant psychological symptoms (Reigbert & Heimkes, 2018). During the telephone interview, an appointment for Session Two (participation in the laboratory experiment) was given. Each participant was given a separate appointment (Reigbert & Heimkes, 2018).

4.4.2 Measures

Within the observe part of the empathy for pain paradigm, the aforementioned two items referring to state cognitive empathy and state affective empathy were rated (Rütgen et al., 2015). The item “*How did you feel when the receiver was shocked?*” measured the affective empathy component, while the item “*How did the receiver feel when he/she was shocked?*” measured the state cognitive empathy (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

All of the following measures were included in the online questionnaire and were mainly implemented by the colleagues Reigbert & Heimkes (2018). The two major measurements of interest for the current study were the **Questionnaire of Cognitive and Affective Empathy** to measure trait empathy and the **Pornography Consumption Questionnaire** to measure the frequency of pornography consumption.

Participants were asked to provide socio-demographic data on the following variables: age, gender, sexual orientation, education, current occupation, monthly available amount of money, as well as relationship and migration status (Reigbert & Heimkes, 2018).

The **Questionnaire of Cognitive and Affective Empathy** (QCAE; Reniers, Corcoran, Drake, Shryane, & Völlm, 2011) was used in order to measure trait empathic concern (Reigbert & Heimkes, 2018). The 31-item questionnaire measures the cognitive and affective components of empathy (Reniers et al., 2011). The scale for cognitive empathy includes the ability to construct a working model of the emotional states of others, while affective empathy measures the ability to be sensitive to the feelings of others and to also experience their feelings (Reigbert & Heimkes, 2018).

Participants rated the statements on a four point Likert scale ranging from 1 “strong disagreement” to 4 “strong agreement” (Reigbert & Heimkes, 2018).

An example item for cognitive empathy is: “I can easily tell if someone else wants to enter a conversation” (Reniers et al., 2011).

An example item for the affective empathy is: “I am inclined to get nervous when others around me seem to be nervous” (Reniers et al., 2011). The sum of cognitive and affective empathy scores provides the cumulative total empathy score. Internal consistency estimates for the QCAE subscales show a Cronbach’s $\alpha = .87$ for cognitive empathy subscale and for the affective empathy subscale $\alpha = .88$ (Reniers et al., 2011; Reigbert & Heimkes, 2018).

The **Toronto Alexithymia Scale** (TAS; Bagby, Parker, & Taylor, 1994) (Kupfer, Brosig, & Brähler, 2001) was used to measure alexithymia (Reigbert & Heimkes, 2018). Alexithymia is a sub-clinical construct related to social and affective malfunctioning (Reigbert & Heimkes, 2018). It is characterized by experiencing difficulty in identifying and describing emotions (Bagby et al., 1994). The German 26 item version of the TAS was applied (Reigbert & Heimkes, 2018). Participants rated the statements from 1 “strongly disagree” to 5 “strongly agree” on a five-point Likert scale (Reigbert & Heimkes, 2018). *An example item is: “When I cry I always know why”* (Kupfer et al., 2001). *Another example item is: “It is difficult for me to find the right words for my feelings”* (Kupfer et al., 2001).

For measuring personality traits of agreeableness and honesty- humility, the **HEXACO Personality Scale** (HEXACO-PI-R-60; German Version; Lee & Ashton, 2009) was implemented (Reigbert & Heimkes, 2018). It is a personality inventory as an alternative to the established Five Factor Model (Costa & McCrae, 1992; Reigbert & Heimkes, 2018). It contains six subscales, two of which were used to measure the traits agreeableness (16 items) and honesty-humility (16 items) (Reigbert & Heimkes, 2018). Participants rated the statements from 1 “strongly disagree” to 5 “strongly agree” on a five-point Likert scale (Reigbert & Heimkes, 2018). *An example item for agreeableness is: “Others sometimes tell me that I am too critical towards others”* (Lee & Ashton, 2009). *An example item for honesty humility is: “I am a normal person who is not better than others”*(Lee & Ashton, 2009).

In the **Self-Objectification Questionnaire** (SOQ; Noll & Fredrickson, 1998) participants rated a list of 10 body attributes in their order of importance to their physical self-concept (from the most impact = 10, to least impact = 1) in order to measure self-objectification (Noll & Fredrickson, 1998; Reigbert & Heimkes, 2018). *Example: physical attractiveness, weight, muscular strength and physical coordination* (Noll & Fredrickson, 1998).

The **Levenson Self-Report Psychopathy Scale** (Levenson, Kiehl, & Fitzpatrick, 1995), was presented in the 19-item version as suggested by Brinkley, Diamond, Magaletta and Heigel (2008) to assess participants’ psychopathic traits (Reigbert & Heimkes, 2018).

Participants indicated their agreement with the 19 statements on a six-point Likert scale 1 “strongly disagree” to 6 “strongly agree” (Reigbert & Heimkes, 2018).

An example item is: “In today’s world, I feel justified in doing anything I can get away with to succeed” (Levenson et al., 1995).

Another example item is: “For me, what’s right is whatever I can get away with” (Levenson et al., 1995).

Sadistic traits were assessed by means of the 10-item **Short Sadistic Impulse Scale** (SSIS; O’meara, Davies, & Hammond, 2011) on a 4 point Likert scale from 1 “strongly disagree: to 4 “strongly agree” (Reigbert & Heimkes, 2018). The score of this scale was used to control for a potentially influential factor of sadism (Reigbert & Heimkes, 2018).

An example item is: “I enjoy seeing people hurt” (O’meara et al., 2011). Another example item is: “Hurting people would be exciting” (O’meara, et al., 2011).

To screen for somatization, obsessive-compulsive disorders, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation as well as for psychoticism and to assess the global psychic distress level, the **Brief-Symptom-Inventory** (BSI-53; Derogatis, 1993) was administered with 53 items (Derogatis, 1993; Reigbert & Heimkes, 2018). Participants were asked to rate 53 symptoms on a 5-point Likert scale from 1 “not at all” to 5 “very strong” (Reigbert & Heimkes, 2018). Participants’ rating with a T-Value ≥ 63 in 2 out of 9 subscales or in the global scale would be excluded (Reigbert & Heimkes, 2018). However, participants with T-Values below this cutoff would be excluded anyways if they indicated a psychiatric diagnosis or psycho-pharmaceutical therapy (Reigbert & Heimkes, 2018).

An example item from the anxiety scale is: “Nervousness or inner tremor” (Derogatis, 1993).

An example item from the paranoid ideation scale is: “The feeling that others are watching or talking about you” (Derogatis, 1993).

4.4.3 Laboratory Experiment

In the following, the laboratory session (Session 2) at the University followed by post experiment confederate ratings as well as questionnaires about pornography consumption and social desirability were conducted (Reigbert & Heimkes, 2018). Data collection took place for a period of one month from mid June to mid July 2018. Myself, Ghobrial (2018), together

with the two colleagues Reigbert & Heimkes (2018) gathered the data. This was done in pairs or individually at other occasions. One appointment lasted approximately 2.5 hours after having submitted the online questionnaire 24 to 48 hours beforehand (Reigbert & Heimkes, 2018).

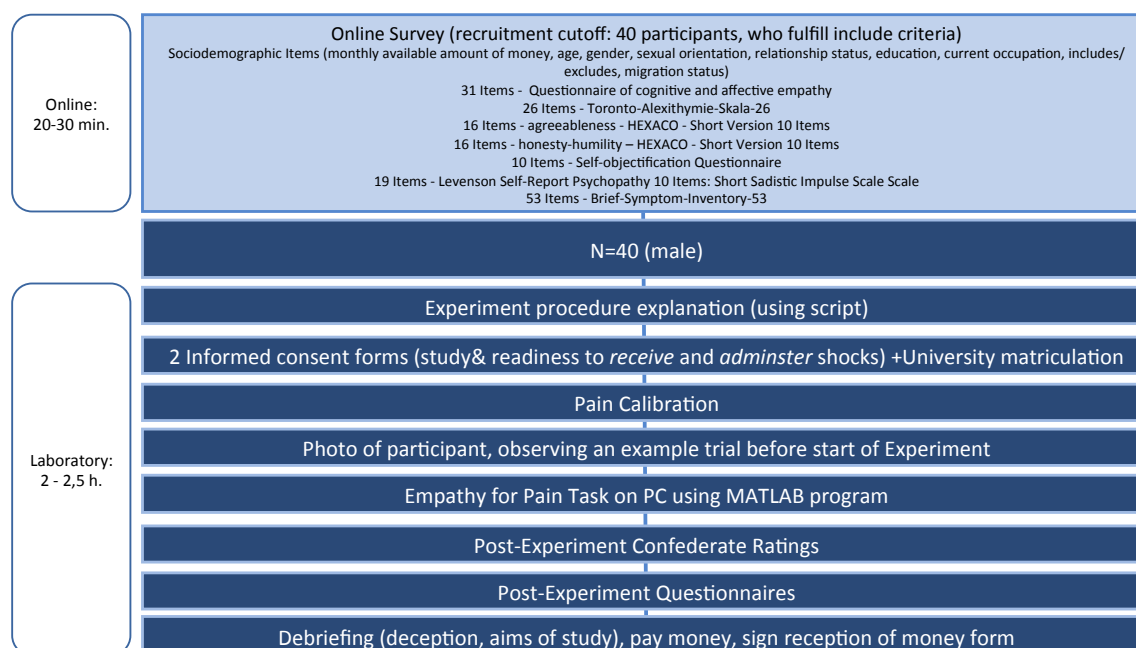


Figure 2. Participants' schedule during both sessions (online Survey and laboratory session) (Reigbert & Heimkes, 2018).

This experimental set-up follows, to a large degree, the paradigm developed by FeldmanHall, Dalgleish & Mobbs (2015) (Reigbert & Heimkes, 2018). Within the laboratory session, 80 trials, each with a combination of the Empathy for Pain paradigm and the Pain versus Gain paradigm was conducted (Reigbert & Heimkes, 2018). In the present study by Ghobrial (2018), the main focus was only on the Empathy for Pain paradigm to investigate the subjective effects of empathy, as both colleagues Reigbert & Heimkes (2018) tackled the Pain versus Gain paradigm to investigate the behavioral effects of empathy (Reigbert & Heimkes, 2018).

In the beginning, the participant was informed about the cover purposes of the study, one of which was the different reactions people have towards pain. The other was the question regarding the way in which people make financial decisions in stressful social situations (Reigbert & Heimkes, 2018).

The participant was told there would be two different roles for him to undergo during the experiment. He would start with the decider's role while two participants (in reality the

two women confederates) would be receivers. Afterwards, he would undergo the role of the receiver and new participants would be deciders. He was informed that one of the receivers would be stimulated and that the intensity of the shock administered was computer generated. Stimulations would be applied through the Digitimer DS5 Isolated Bipolar Constant Current Stimulator (Digitimer Ltd, Clinical & Biomedical Research Instruments) via electrodes attached to the back of the confederate's left hand. The Digitimer was provided by Ass. Prof. Giorgia Silani, PhD (Reigbert & Heimkes, 2018).

To let the participant know, who of the two confederates would be stimulated in the subsequent trial, he watched a short (2 sec.) pre-recorded video sequence of the confederate connected to the stimulator in a different room (suggesting live broadcasting). While the stimulations were being pseudo delivered, the participant watched a picture of the confederate in combination with a visualization of the shock level induced (high or low) and rated his level of unpleasantness and the level of unpleasantness of the confederate from his perspective, which were the state cognitive and state affective empathy components (see *Figure 4*) (Reigbert & Heimkes, 2018).

Before the experiment began, the participant's individual pain threshold was detected. Therefore, the participant underwent a psychophysical pain calibration procedure at the very beginning, as proposed in a previous study (Rütgen et al., 2015; Reigbert & Heimkes, 2018). The reason for the pain calibration was to decide the threshold the participant was able to endure for the bogus receiver's role later on. The Digitimer administered the physical pain and the threshold was measured on a scale from 1 to 6, with 1 being "perceptible, but clearly not painful" and 6 being "extremely painful but bearable". The participant's pain threshold was registered on the computer, only for him to believe he would be in the receiver's role afterwards, although in reality this would not be the case. Afterwards, a picture of the participant was taken, being under the same conditions as the confederates in *Figure 3*. The purpose of this was to "make belief" of the pseudo procedure he was told (Reigbert & Heimkes, 2018).

The two confederates differed in their physical appearance: one was presented in a *sexualized* fashion (open long hair, heavy make-up, deep neckline, above knee skirt and high heels; *sexualized* confederate), while the other was shown in a non-sexualized manner (tied back hair, trousers, blouse, light make up and less high heels; *personalized* confederate) (see *Figure 3*) (Reigbert & Heimkes, 2018).

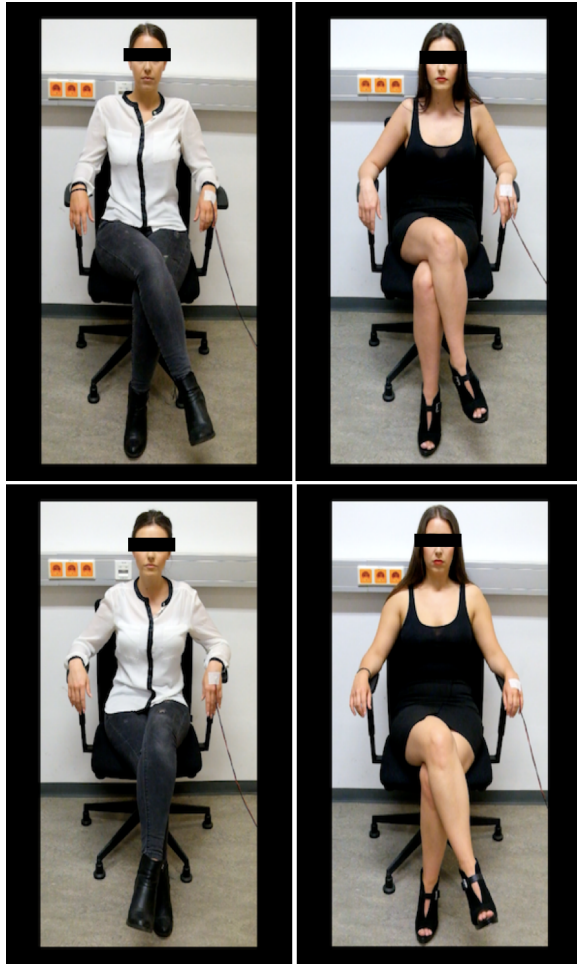


Figure 3: Confederates; Confederate A, first row left column: personalized and second row right column: sexualized ; Confederate B, first row right column: sexualized and second row left column: personalized (Reigbert & Heimkes, 2018).

Before the empathy for pain paradigm, we showed a PowerPoint presentation and an example trial to the participant in order to be familiar with the procedure before starting the task (see *Figure 4*) (Reigbert & Heimkes, 2018).

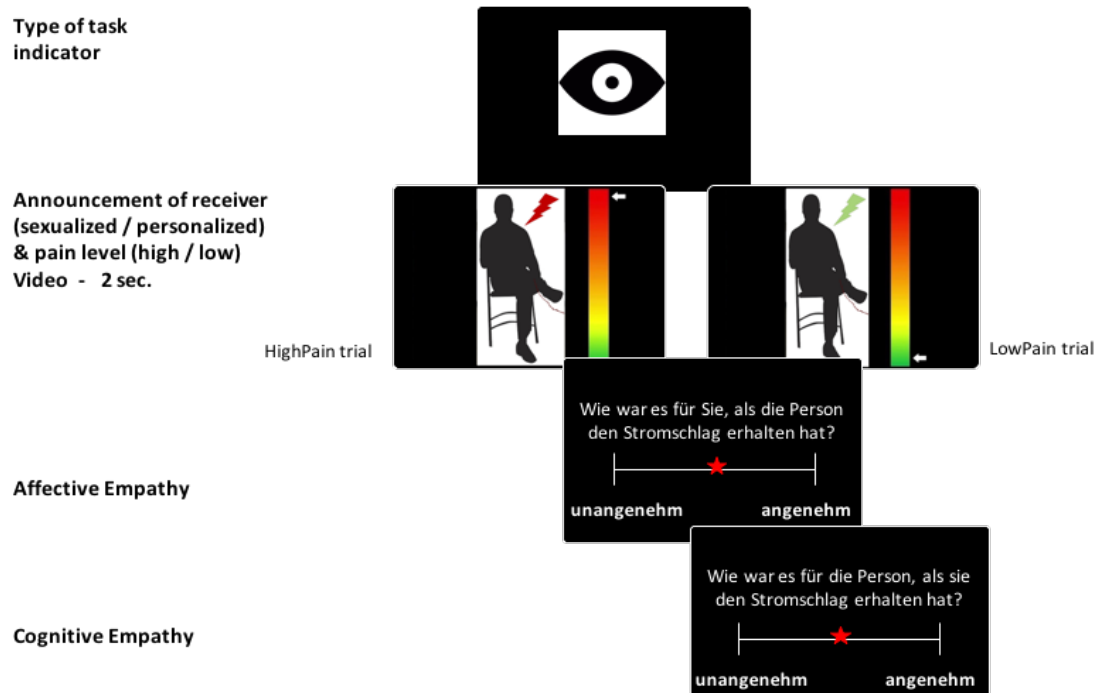


Figure 4. Single trial within the Empathy for Pain task (= observer task). The 2 sec video is followed by a 1 sec picture with the same conditions (Reigbert & Heimkes, 2018).

The participant was informed that one of the confederates was stimulated and that the intensity of the shock administered was computer generated (Reigbert & Heimkes, 2018).

During the empathy for pain paradigm in each trial, participant's subjective experience (cognitive & affective empathy) was assessed using two questions (Reigbert & Heimkes, 2018).

To measure the affective empathy component, the participant was asked:

“How did you feel when the receiver was shocked?” (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

The participant was to rate how unpleasant they felt when observing the confederate undergo the physical pain on a Likert-type rating scale on the computer screen going from -10 = ‘very unpleasant’ over 0 to $+10$ = ‘very pleasant’ (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

To measure the cognitive empathy component, he was asked:

“How did the receiver feel when he/she was shocked?” (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

The participant was to rate how unpleasant the woman confederate felt when observing her undergo physical pain on a Likert-type rating scale on the computer screen going from -10 =

‘very unpleasant’ over 0 to +10 = ‘very pleasant’ (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

With a trial duration of 35 seconds (see *Figure 5*), participants were asked to sit in front of the computer in the laboratory and complete the empathy for pain task in approximately 47 minutes. In 80 trials, 40 shocks (20 for each confederate) with high intensity (threshold 6 = extremely painful, but bearable) and 40 shocks (20 for each confederate) with low intensity (threshold 1 = perceptible, but clearly not painful sensation) were announced in random order (Reigbert & Heimkes, 2018).

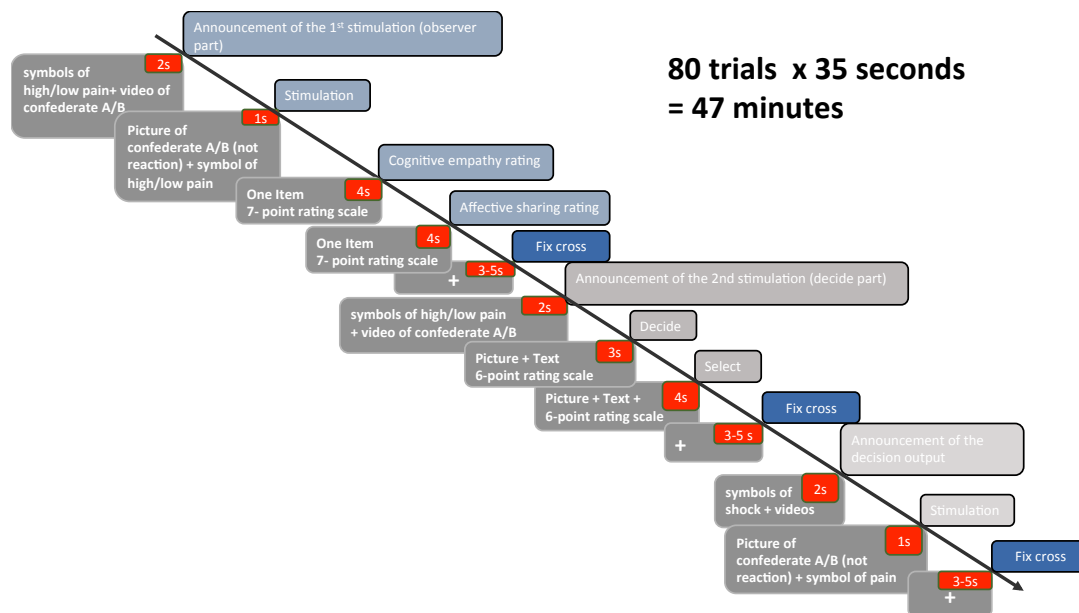


Figure 5. Timeline – One trial (=35 Seconds)

The empathy for pain paradigm, which is the focus of the present study, goes only until the first Fix cross (Reigbert & Heimkes, 2018).

4.4.4 Post Task Confederate Ratings

After the empathy for pain task before extensive debriefing, the participant rated the confederates on the computer. First, he saw a picture of each confederate (*sexualized/personalized*) and rated each in terms of several inventories (Reigbert & Heimkes, 2018). In summary, the confederates were rated with regards to the following attributes:

Agency& Experience, Physical & Mental Appearance, Dehumanization and Similarities

Agency and Experience

Gray et al. (2011) proposed a structure of the human mind, which are the two dimensions **Agency** and **Experience**. The capacities in terms of **Agency** are *planning*, *self control* and *acting morally*, while the capacities in terms of **Experience** are *pleasure*, *desire* and *hunger* (Gray et al., 2011; Reigbert & Heimkes, 2018).

Each attribute was asked separately in all of the following:

Agency:

*“In comparison to an average person, how capable is this person to **self-control**, **planning** and **acting morally**”, on a five-point Likert scale from 1 “Much Less Capable” to 5 “Much more Capable”, with 3 “Equally as Capable” (Gray et al., 2007; Gray et al., 2011; Reigbert & Heimkes, 2018).*

Experience:

*“In comparison to an average person, how capable is this person to experiencing **pleasure**, **hunger** and **desire**”, on a five-point Likert scale from 1 “Much Less Capable” to 5 “Much more Capable”, with 3 “Equally as Capable” (Gray et al., 2007; Gray et al., 2011; Reigbert & Heimkes, 2018).*

Physical and Mental appearance

Furthermore, the items of Cogoni et al. (2018) were used for **Physical Appearance: sexiness & attractiveness** and for **Mental Appearance: intelligence & familiarity** on a 6 point scale from 1 “not at all” to 6 “completely” (Cogoni, et al., 2018; Reigbert & Heimkes, 2018).

*“In comparison to an average person, how **sexy**, **attractive**, **intelligent** and **familiar** is this person?” (Cogoni, et al., 2018; Reigbert & Heimkes, 2018).*

Dehumanization

The third inventory was the 40 items concerning **Dehumanization**. Dehumanization is denying the humanly attributes of people and perceiving them as less human (Haslam & Stratemeyer, 2016).

The participant answered a statement on a five-point Likert scale from 1 “not at all” to 5 “completely”: *“To what extent do the following characteristics describe the person shown”* (Haslam & Bain, 2007; Reigbert & Heimkes, 2018). *Example items are sexy polite, passionate, friendly* (Haslam & Bain, 2007).

Similarities

The participant answered two statements about similarity on an 8-point scale from 1 “strongly disagree” to 8 “strongly agree”: “*The person and I seem to have a lot in common*” (Tidwell, Eastwick, & Finkel, 2012; Reigbert & Heimkes, 2018) and “*The person and I seem to have a similar character*” (Tidwell et al., 2012; Reigbert & Heimkes, 2018).

Afterwards, 18 items about similarity were rated on the same 8-point scale from 1 “strongly disagree” to 8 “strongly agree” by the participant in relation to the two following statements:

“*To what extent do the following characteristics apply to the person?*” (Tidwell et al., 2012; Reigbert & Heimkes, 2018) for each confederate (*sexualized/personalized*) and also “*To what extent do the following characteristics apply to you?*” (Tidwell et al., 2012; Reigbert & Heimkes, 2018).

Example items are sexy, funny, self confident and friendly (Tidwell et al., 2012; Reigbert & Heimkes, 2018).

4.4.5 Post Questionnaires

After rating each confederate, the participant answered 17 items of the short German version of the **Social Desirability Scale** (SES-17, Stoeber, 1999) as well as a questionnaire on his consumer behavior. The **Social Desirability Scale** reveals how participants behave in social contexts (Stoeber, 1999). It was used to expose whether participants treated both women similarly because of the social context they were in and not according to their authentic empathic emotions (Reigbert & Heimkes, 2018). Participants had to tick right or wrong.

Two example items are: “I sometimes just throw garbage in the countryside or on the street” (Stoeber, 1999) and “*I always admit my own mistakes openly and tolerate any negative consequences*” (Stoeber, 1999).

In the **Pornography Consumption Questionnaire**, the participant had to indicate his consumer behavior (if at all, age of first use and frequency) of several different services or products. The 48 items referred to pornography consumption, alcohol, cigarettes, theatre/cinema, museum/exhibitions and restaurant visits. The items on pornography consumption were solely of interest, while other product services were intended to cover our interest in pornography consumption. Participants were to enter the number of days per month they consumed pornography as well as the number of days per month they consumed any of

the cover items (Reigbert & Heimkes, 2018).

An example item to measure pornography is: “On how many days did you consume pornography in the last month?” (Reigbert & Heimkes, 2018).

An example item of the cover items, not of interest for the study is: “How many times have you visited a theater or cinema in the last month?” (Reigbert & Heimkes, 2018).

After concluding the post experiment questionnaires, the cover story was disclosed to the participant and the real purpose of the study was revealed. The following information was also disclosed:

- The two women confederates who were thought to be participants being present in the same building at the time of the experiment
- The videos, which were thought to be a real life event and taking place simultaneously in a room nearby in the same building
- The bogus pictures of the confederates receiving the shocks

5 Results

5.1 Manipulation Check

5.1.1 Pilot Test on the Pictures

Before my involvement in the experiment, the two colleagues Reigbert & Heimkes (2018) conducted an online pilot test on rating the pictures of the two confederates in the *sexualized* and *personalized* outfit (see *Figure 6*). Pictures were rated according to **Mental Appearance** (*intelligence & familiarity*) and **Physical Appearance** (*sexiness & attractiveness*), as well as on **Agency** (*self-control, planning & morality*) and **Experience** (*desire, pleasure & hunger*) (Gray et al., 2011; Cogoni et al., 2018; Reigbert & Heimkes, 2018).

The pilot test was conducted in order to measure the effectiveness of the experimental manipulation of the *sexualization* of the confederates. The sample consisted of young adults, who identified as being heterosexual or bisexual and had no background in psychology. $N = 99$ was considered, mean age of 24.1 (SD = 3.29, range 18-30 years), 36.4 % were male participants (Reigbert & Heimkes, 2018).

A mixed two by two Analysis of Variance was conducted for all dependent

dimensions, with the raters' gender (male/female) as between subject factor and type of confederate (*sexualized*/personalized) as within subject factor (Reigbert & Heimkes, 2018).

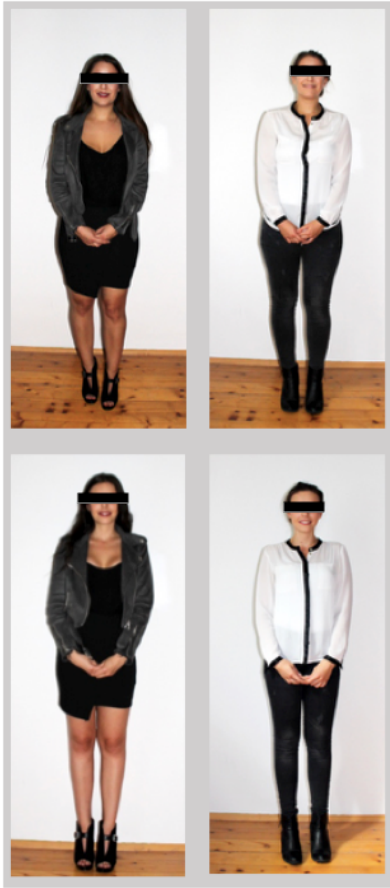


Figure 6. Confederates in pilot test; First row: confederate A, left column: *sexualized*, right column: personalized; Second row: confederate B, left column: *sexualized*, right column: personalized (Reigbert & Heimkes, 2018).

While no significant effect of the raters' *gender* was revealed, main effects reached significance for *intelligence*. The *sexualized* confederate was rated as less intelligent ($M = 3.7$, $SD = .99$), than the personalized confederate ($M = 4.47$, $SD = .97$); $F(1,97) = 36.22$; $p < .001$; $\eta_p^2 = .27$).

For *sexiness*: the *sexualized* was rated more ($M = 3.9$, $SD = 1.39$) than the personalized ($M = 3.22$, $SD = 1.16$); $F(1,97) = 10.81$; $p = .001$; $\eta_p^2 = .10$).

For *pleasure*: the *sexualized* was rated higher ($M = 3.92$, $SD = .68$), than the personalized ($M = 3.44$, $SD = .81$); $F(1,97) = 17.42$; $p < .001$; $\eta_p^2 = .15$).

For *desire*: the *sexualized* was rated more ($M = 3.67$, $SD = .73$), than the personalized ($M = 3.14$, $SD = .62$); $F(1,97) = 37.99$; $p < .001$; $\eta_p^2 = .28$).

For **morality**: a lower rate was shown for the *sexualized* ($M = 3.23$, $SD = .65$), than the personalized ($M = 3.68$, $SD = .73$); $F(1,97) = 20.23$; $p < .001$; $\eta^2_p = .17$).

For **planning**: the *sexualized* was rated less ($M = 2.94$, $SD = .77$), than the personalized ($M = 3.78$, $SD = .84$); $F(1,97) = 59.11$; $p < .001$; $\eta^2_p = .38$).

For **self-control**: the *sexualized* was less ($M = 3.08$, $SD = .71$), than the personalized ($M = 3.6$, $SD = .74$); $F(1,97) = 25.12$; $p < .001$; $\eta^2_p = .21$).

However, there was *no significant effects* for the three attributes **hunger**, **attractiveness** and **familiarity**.

For the **Agency** and **Experience** indices, a two (capacity: **Agency**, **Experience**) by two (receiver's appearance: *sexualized*, personalized) by two (*sexualized* target: **A**, **B**) mixed factorial repeated measures Analysis of Variance was conducted.

The analysis revealed a significant capacity by appearance interaction $F(1,97) = 85.32$; $p < .001$. Lower agentic (**Agency** attribute) and higher **Experience** capacities were attributed to *sexualized* women in comparison to personalized women, but there was no significant effect in terms of which one of the two targets was portrayed in a *sexualized* manner.

In sum, we considered the manipulation as effective as *sexualized* women were perceived less **intelligent** and **sexier** than their personalized counterparts as in line with Cogoni et al. (2018). Lower **Agency** and higher **Experience** capacities were attributed to *sexualized* women in comparison to personalized women, which confirm the findings of Gray et al. (2011) (Gray et al., 2011; Cogoni et al., 2018; Reigbert & Heimkes, 2018).

5.1.2 Post Task Confederate Ratings

Equally to the pilot test on the pictures' ratings of both confederates, there was a post task confederate rating for the *sexualized* and personalized outfit on **Mental Appearance (intelligence & familiarity)** and **Physical Appearance (sexiness & attractiveness)**, as well as for the **Agency (self-control, planning & morality)** and **Experience (desire, pleasure & hunger)** (Gray et al., 2011; Cogoni et al., 2018; Reigbert & Heimkes, 2018).

Further ratings were added to the 10 main attributes of Gray et al. (2007) and Cogoni, et al. (2018) as mentioned in the Methodology section:

16 **Similarity** items, two statements about similarity

"The person and I seem to have a lot common" (Tidwell et al., 2012)" and

“*The person and I seem to have a similar character*” (Tidwell et al., 2012), as well as the 40 items for **Dehumanization** (Tidwell et al., 2012 ; Haslam & Bain, 2017).

The outfits used during the experiment (see *Figure 3*) were not the same as the ones in the pilot test (see *Figure 6*).

Paired T-tests were conducted for all above-mentioned attributes comparing the rating of the *sexualized* with the personalized outfits.

There was a significant difference in the ratings for the **intelligence** attribute: the *sexualized* was rated as less intelligent ($M = 3.75$, $SD = 1.17$) than the personalized ($M = 4.58$, $SD = .84$), $t(39) = -4.62$, $p < .001$.

For **planning**: the *sexualized* was rated less ($M = 3.13$, $SD = .85$) than the personalized ($M = 3.83$, $SD = .71$), $t(39) = -3.89$, $p < .001$.

For **attractiveness**: the *sexualized* confederate was rated less ($M = 3.55$, $SD = 1.48$) than the personalized ($M = 4.33$, $SD = 1.30$), $t(39) = -2.29$, $p = .028$.

From the previous 10 main attributes, which were conducted in the pilot test, the following were not significant: **desire, sexiness, self-control, morality, pleasure, hunger, and familiarity**.

There was a significant difference in the scores for the **similarity** statement: “*The person and I seem to have a lot in common*” (Tidwell et al., 2012), for the *sexualized* less ($M = 3.65$, $SD = 1.85$) than the personalized ($M = 4.53$, $SD = 2.09$), $t(39) = -2.38$, $p = .022$. For the other **similarity** statement: “*The person and I seem to have a similar character*” (Tidwell et al., 2012), for the *sexualized* less ($M = 3.63$, $SD = 1.85$) than the personalized ($M = 4.68$, $SD = 1.97$), $t(39) = -2.59$, $p = .013$.

For the **Similarity** items of Tidwell et al. (2012) such as “friendly” (Tidwell et al., 2012): the *sexualized* was rated higher ($M = 16.38$, $SD = 17.67$) than the personalized ($M = 3.73$, $SD = 13.57$), $t(39) = 4.86$, $p < .001$.

As for the **Dehumanization** items, there was no significance found.

A two by two within subjects factorial design; 2 sexualization (*sexualized*, personalized) by 2 capacity (**Agency, Experience**) repeated measure Analysis of Variance was conducted (see *Figure 7*) (Reigbert & Heimkes, 2018).

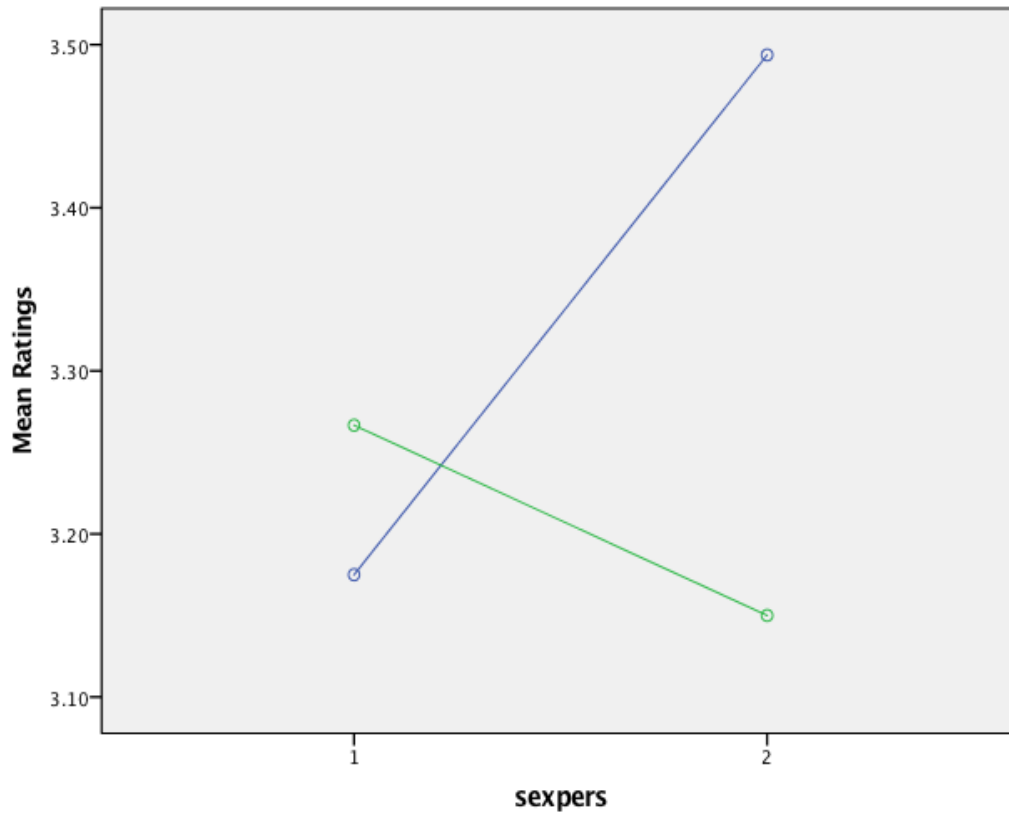


Figure 7. Perceptions of the two dimensions of mind (**Agency & Experience**) for receivers depicted either in a *sexualized* or in a personalized fashion, blue for **Agency**, green for **Experience** (Reigbert & Heimkes, 2018).

Results showed there was only a significant main effect for the *interaction* between both factors, $F(1,39) = 7.80$, $p = .008$, $\eta_p^2 = .17$, whilst main effects of capacity $F(1,39) = 2.59$, $p = .12$ and *sexualization* $F(1,39) = 2.20$, $p = .15$ were not significant. Simple effects analysis showed that higher **Agency** capacities were ascribed to personalized women in comparison to *sexualized* women $F(1,39) = 13.48$; $p = .001$, $\eta_p^2 = .26$. As for the **Experience** capacities, no significant difference was found $F(1,39) = 0.98$; $p = .33$, $\eta_p^2 = .03$ (Reigbert & Heimkes, 2018).

Another two by two within subjects factorial design was conducted. 2 *sexualization* (*sexualized*, *personalized*) by 2 capacity (**intelligence**, **familiarity**) repeated measure Analysis of Variance. Results showed there was a significant main effect for *sexualization* (*sexualized*, *personalized*) $F(1,39) = 21.85$, $p < .001$, $\eta_p^2 = .36$. Thus, participants rated the *sexualized* as less intelligent and familiar ($M = 2.69$, $SE = .14$) than the *personalized* confederate ($M = 3.25$, $SE = .14$). There was also a main significant effect for capacity (**intelligence**, **familiarity**) $F(1,39) = 128.42$, $p < .001$, $\eta_p^2 = .77$, suggesting that **intelligence** ($M = 4.16$, $SE = .13$) was

rated higher than **familiarity** ($M = 1.78$, $SE = .19$). However, no interaction was found between sexualization and capacity.

An additional two by two within subjects factorial design was conducted 2 *sexualization* (*sexualized*, *personalized*) by 2 capacity (**sexiness**, **attractiveness**). Results showed there was a significant main effect for *sexualization* (*sexualized*, *personalized*) $F(1,39) = 4.61$, $p = .038$, $\eta_p^2 = .02$. Participants rated the *sexualized* as less sexy and attractive ($M = 3.41$, $SE = .23$) than the *personalized* confederate ($M = 4.13$, $SE = .20$). There was also a significant main effect for the capacity (**sexiness**, **attractiveness**) $F(1,39) = 12.98$, $p = .001$, $\eta_p^2 = .25$. However, no interaction was found between sexualization and capacity.

5.2 Empathy for Pain paradigm

5.2.1 Effect of Physical Pain on Empathy

For all statistical analysis the program SPSS 24.0 was used. For the first three hypotheses, a two way repeated Analysis of Variance was conducted. 2 pain-level (high, low) by 2 *sexualization* (*sexualized*, *personalized*) repeated measure Analysis of Variance.

The first hypothesis was supported: Enhanced state empathic ratings (cognitive & affective) are shown in the high versus low pain trials.

Results showed there was a significant main effect for the level of pain on empathy for both cognitive state empathy $F(1,39) = 221.01$, $p < .001$, $\eta_p^2 = .85$ and affective state empathy $F(1,39) = 107.39$, $p < .001$, $\eta_p^2 = .73$. Thus, participants empathized more when higher shocks were induced in comparison to lower ones. The cognitive empathy was higher during the high shocks ($M = -7.15$, $SE = .36$) than the low ones ($M = 5.46$, $SE = .64$), as well as for the affective empathy ($M = -3.95$, $SE = .52$) than ($M = 5.24$, $SE = .65$).

Tables 1 and 2 as well as *Figure 8* show how state empathy rates (cognitive & affective) were higher when the level of pain was higher, regardless of the type of confederate (*sexualized*/*personalized*).

Table 1

Means and standard deviations COG

	Mean	Std. Deviation
COG_1_Empathy_Score	-7.2852	2.26537
COG_2_Empathy_Score	5.3631	4.00125
COG_3_Empathy_Score	-7.0183	2.41435
COG_4_Empathy_Score	5.5633	4.11936

Note. 4 Conditions for the cognitive empathy (COG);

Each condition contained the type of confederate (*sexualized/personalized*) and the level of pain (high/low).

COG_1: **sexualized** confederate with **high** pain level, COG_2 **sexualized** confederate with **low** pain level,

COG_3 **personalized** confederate with **high** pain level, COG_4 **personalized** confederate with **low** pain level.

Table 2

Means and standard deviations AFF

	Mean	Std. Deviation
AFF_1_Empathy_Score	-3.8832	3.31840
AFF_2_Empathy_Score	5.1661	4.02252
AFF_3_Empathy_Score	-4.0221	3.33530
AFF_4_Empathy_Score	5.3067	4.17619

Note. 4 Conditions for the affective empathy (AFF);

Each condition contained the type of confederate (*sexualized/personalized*) and the level of pain (high/low).

AFF_1: **sexualized** confederate with **high** pain level, AFF_2 **sexualized** confederate with **low** pain level,

AFF_3 **personalized** confederate with **high** pain level, AFF_4 **personalized** confederate with **low** pain level.

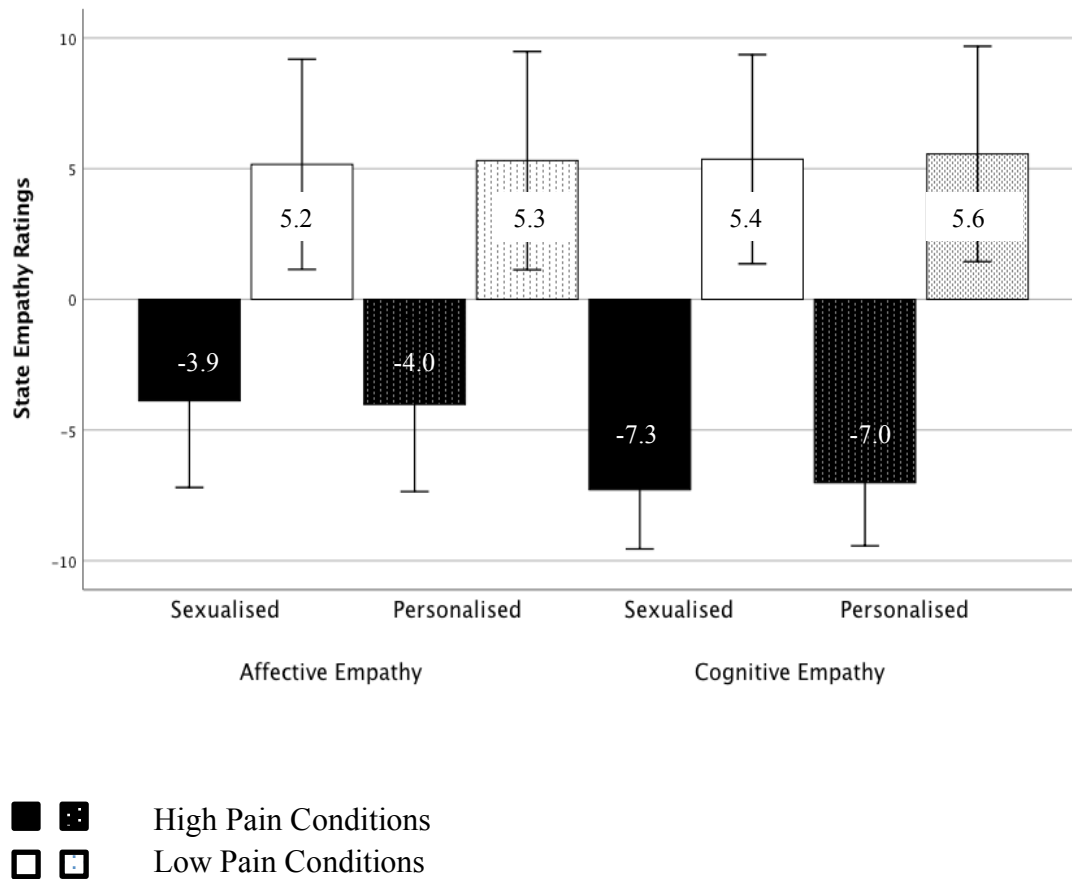


Figure 8. State empathy ratings; Means and standard deviations ($\pm 1 SD$) separated by conditions. In high pain trials lower values indicate increased state empathy. In low pain trials higher values indicate increased state empathy (Reigbert & Heimkes, 2018)¹¹

The second hypothesis was rejected: Reduced state empathic ratings (cognitive & affective) are shown towards the *sexualized* than towards the non-sexualized woman.

Results were different for cognitive empathy than affective empathy. For the cognitive empathy, results showed there was a significant main effect of the type of confederate $F(1,39) = 6.56, p = .014, \eta_p^2 = .14$, which means participants empathized more with the *sexualized* confederate ($M = -.96, SE = .30$) than with the personalized confederate ($M = -.73, SE = .31$). As for the affective empathy, there was no significant main effect of the type of confederate.

The third hypothesis was rejected: Reduced state empathic ratings (cognitive & affective) are shown towards the *sexualized* than towards the non-sexualized woman in the high versus low pain trials.

Results showed there was no significant interaction between type of confederate and the pain-level on state empathic ratings (cognitive & affective).

Correlational analyses were conducted for the following hypotheses:

The fourth hypothesis was rejected: There is a positive correlation between state empathic ratings (cognitive & affective) and trait empathy.

There was no correlation between state empathic ratings (cognitive & affective) and trait empathy.

5.2.2 Effect of Pornography Consumption on Empathy

The fifth hypothesis was rejected: There is a negative correlation between pornography consumption and state empathic ratings (cognitive & affective).

There was no correlation between pornography consumption and state empathic ratings (cognitive & affective) towards *sexualized* and non-sexualized women.

6 Discussion

6.1 Summary

The goal of the present study was to investigate the effect of perceived sexual objectification on the subjective empathy responses for physical pain. The role of past pornography consumption was also taken into consideration. To this aim, the empathy for pain paradigm was implemented, which was a part of the experiment using the modified version of the pain versus gain paradigm that my colleagues and I conducted under the supervision of Ass. Prof. Giorgia Silani, PhD (Feldmanhal et al., 2013; Reigbert & Heimkes, 2018). Both colleagues focused on the behavioral effects of empathy using the pain versus gain paradigm, while I focused on the subjective effects of empathy using the empathy for pain paradigm (Reigbert & Heimkes, 2018). The significant result was the effect of the physical pain level on empathy, which suggested that high-level physical pain versus low-level physical pain would provoke more empathy. Another finding was the effect of *sexualization* on cognitive empathy, which opposed the expected results. It implied that more empathy would be directed towards *sexualized* than personalized women undergoing physical pain concerning the cognitive empathy component. However, this result had to be dismissed in regard to the insignificance of the affective empathy component (Reigbert & Heimkes,

2018). Results showed absence of significant interaction between the type of confederate and the pain-level on the state empathic ratings (cognitive & affective). Correlational analyses were conducted with the self-report questionnaires of pornography consumption and trait empathy, nonetheless were not significant.

6.2 Interpretation of Results

6.2.1 Pilot Test on the Pictures

In line with previous research, *sexualized* women were perceived as less intelligent and less agentic as compared to the personalized women (Gray et al., 2011; Cogoni et al., 2018; Reigbert & Heimkes, 2018). As expected, results indicated that a *sexualized* woman is perceived *less intelligent* and *sexier* than her personalized counterpart. *Sexualized* confederates were attributed *reduced planning*, *self-control* and *moral capacity* but *higher* capacity to experience *pleasure* and *desire*. The insignificance of the *hunger* attribute could be explained by the fact that it is obviously experienced by all human beings and would seem irrational for participants to attribute humans different hunger capacity. Since *sexiness* ratings differed significantly between the two conditions, we considered the manipulation as effective. Other than *sexiness*, *attractiveness* is not necessarily a function of *sexualization*. Therefore, we disregarded the insignificance of participants' ratings for the *attractiveness* attribute (Reigbert & Heimkes, 2018).

In sum, we considered the manipulation to be effective, since *sexualized* women were perceived *less intelligent* and *sexier* than their personalized counterparts as in line with Cogoni et al. (2018) (Cogoni et al., 2018). *Lower Agency* and *higher Experience* capacities were attributed to *sexualized* women in comparison to personalized women, which confirm the findings of Gray et al. (2011) (Gray et al., 2011; Reigbert & Heimkes, 2018).

6.2.2 Empathy for Pain paradigm

One of the findings suggested that one would empathize more when observing high-level physical pain in comparison to low-level physical pain being administered to others, indicating that the level of pain induced was able to elicit different levels of emotions. Thus, high-level physical pain was able to elicit more empathy than did low-level physical pain. As mentioned in the study of Cogoni et al. (2018) on social pain, the exclusion from the game

was able to elicit different emotional intensities as compared to the inclusion. Hence, exclusion from the game produced higher intensities of emotions than the inclusion (Cogoni et al., 2018; Reigbert & Heimkes, 2018). Equally in the present study, the perception of high-level physical pain elicited more empathic feelings than low-level physical pain, which proposed the effectiveness of our empathy for pain paradigm (Cogoni et al., 2018; Reigbert & Heimkes, 2018). Furthermore, to support the effective use of the paradigm, studies suggested that such successfully used empathy for pain paradigm was able to induce intense empathic feelings while perceiving or imagining a person in pain (Signer & Lamm, 2009). Specifically, Singer & Lamm (2009) confirmed that perceiving or imagining someone undergo physical pain, activates the same brain parts activated when the person experiences physical pain themselves (Singer & Lamm, 2009). In addition, De Vignemont and Singer (2006) proved that feelings of empathy would be experienced towards loved ones undergoing pain as well as towards strangers going through pain (De Vignemont & Singer, 2006).

To sum up, these findings confirmed the effectiveness of the implemented empathy for pain paradigm as it managed to induce more intense feelings of empathy when perceiving a stranger undergoing high-level physical pain.

Surprisingly, the effect of *sexualization* on empathy was only significant for the cognitive component (versus the affective component). This opposed our expectations as it implies that *sexualized* women would be empathized with more than with personalized women undergoing physical pain. The originally proposed hypothesis proposed that participants would empathize (cognitive & affective) less with the *sexualized* woman confederate than with her personalized counterpart while observing both undergo physical pain. This result had to be dismissed with regard to affective empathy, which was not significant (Reigbert & Heimkes, 2018). Additionally, it should be considered that cognitive and affective state empathy were captured by only one item measures from Rütgen et al., (2015), which are still in the validation process (Rütgen et al., 2015; Reigbert & Heimkes, 2018).

There was no correlation between state empathy ratings (cognitive & affective) and trait empathy. These findings were interpreted by the limitations of the experimental design.

Surprisingly, there was no correlation between past pornography consumption and the level of empathy while perceiving women undergo physical pain. This result implied that pornography consumption does not have an effect on the empathy level experienced towards women undergoing physical pain, whether *sexualized* or personalized.

Additionally, the previously mentioned findings of the effect of perceived *sexualization* (or sexual objectification) as well as the absence of a correlation between pornography consumption and trait empathy with state empathy ratings (cognitive & affective) are due to the limitations of our study design.

The primary limitation of the study design was our *sample*; it was not representative of the population. The sample consisted of only 40 participants, which was considered too small to represent the population. Moreover, the homogeneity of the sample was a limitation, as all participants were highly educated students aging only from 18-28. Participants were mostly from Germany and Austria, which did not suggest diversity of the sample, 92.5% were Germans and Austrians, with only 7.5% from other countries. With all migrants and refugees living in Vienna nowadays, the diversity of the sample would have most likely led to different results. Participants' cultures and life experiences possibly had an influence on how they perceived *sexualized* vs. non-sexualized women (Reigbert & Heimkes, 2018).

6.2.3 Post Task Confederate Ratings

Furthermore, the partial effectiveness of the *manipulation* in the experiment was a further limitation of our study design. Consequently, such partial effectiveness was an interpretation of the unexpected findings. The outfit of the *sexualized* confederate differed in the experiment from the outfit in the pilot test. (see *Figure 6* for the pilot test and *Figure 3* for the post confederate rating). This was due to the attempt to making the *sexualized* seem *sexier* and by removing the jacket worn in the pilot test. Results of the post confederate ratings, as opposed to the pilot test, were only partially effective (Reigbert & Heimkes, 2018). It suggested that *sexualized* women were perceived as less *intelligent* and less capable of *planning* than the personalized ones, which is in line with Gray et al. (2011) and Cogoni et al. (2018) to some extent (Grey et al., 2011; Cogoni et al., 2018). On the contrary, *sexualized* women were perceived as less *attractive* than the personalized, which does not support the assumption of the **Physical Appearance** attributes leaning more towards *sexualized* women (Cogoni et al., 2018).

Participants had less in common with the *sexualized* than with the personalized woman and could relate less to their character when answering these statements “*The person and I seem to have a lot in common*” (Tidwell et al., 2012) and “*The person and I seem to have a similar character*” (Tidwell et al., 2012). Such findings were in line with our predictions (Reigbert & Heimkes, 2018). Nevertheless, participants had more *similarity* with

the *sexualized* than with the personalized women, which at the same time opposed our predictions. Such characteristics were sexy, funny, self confident and friendly when answering such statements “*To what extent do the following characteristics apply to the person?*” (Tidwell et al., 2012) and “*To what extent do the following characteristics apply to you?*” (Tidwell et al., 2012). Accordingly, the similarity attributes were only partially effective.

In terms of *sexiness*, participants rated the personalized sexier, which was not in line with our expectations. Thus, the partial effectiveness of the manipulation could have been due to participants’ perceptions that the *sexualized* outfit is not at all *sexy* as compared to the non-sexualized outfit. Consequently, the manipulation did not to its full extend function as expected (Reigbert & Heimkes, 2018).

A further limitation of the study design during the laboratory session was the probability of *participants’ disbelief* of the cover story. Participants might have seen through that our confederates were actors and did not receive shocks in reality and therefore did not take their pain seriously. This could be due to the unprofessional videos that were prerecorded and possibly did not manage to portrait confederates as sincerely experiencing physical pain or suffering. In addition, participants could have noticed the uncommon *sexualized* outfit, since it is unusual for participants to go to a University with high heels to participate in a study. Besides, watching the confederates receive hypothetical shocks for 80 trials could have been extremely intense, which could have affected participants’ concentration level and therefore led to disorganized clicking on the empathic rating buttons.

6.3 Conclusion and Future Research Recommendation

In conclusion, this study represented the first attempt to extend the observation of Cogoni et al. (2018) on social pain to physical pain (Cogoni et al., 2018). It investigated whether sexual objectification of women influenced the empathy level of the observer within the empathy for pain paradigm. Results showed that the pain-level managed to induce different levels of empathy. Specifically, when perceiving high pain-level, the observer would empathize more regardless of the physical appearance of the women (*sexualized* or *personalized*).

We concluded that the manipulation had the partial effectiveness on participants’ different perception of *sexualized* vs. *personalized* women, therefore considered the study qualified for further investigation (Reigbert & Heimkes, 2018).

Future studies should address the same issue by changing various details concerning the study design. The most important factor is to have a larger and more heterogeneous *sample* that is consisted of more diversity. As Austria, especially Vienna contains a large amount of migrants and refugees; it would be of interest to include such groups in the experiment. Participants should not only be students, but of older age as well as owning jobs.

A further factor is changing the *manipulation of sexualization* to more revealing clothes, for example with more skin shown, like the stomach. A personal example would be, as an Egyptian and having lived my entire life in Cairo, I realize how such different culture with a religious, hierarchical and patriarchal mindset, would most likely respond differently to such experiment.

The *disbelief* of participants of the cover story should be completely avoided by having the confederates be present in reality in a room nearby in the same building after having had a short meeting with the participant. This would be more time consuming and inconvenient, however, it would eliminate doubts of seeing through the cover story (Reigbert & Heimkes, 2018).

Furthermore, it is inevitable to stress the importance of further investigating objectifying consequences such as self-objectification when tackling sexual objectification (American Psychology Association, 2007; Reigbert & Heimkes, 2018). Self-objectification leads women to treating themselves as sexual objects to be perceived and judged by physical appearance (Friedrickson & Roberts, 1997; Moradi & Huang, 2008). Women often adopt an observer's perspective on their physical selves (Friedrickson & Roberts, 1997). Sexually objectifying gazes lead the target to have shameful feelings, which lead to performing poorly on cognitive tasks and limiting their presence in social settings (Bernard et al., 2015). Self-objectification as well as objectification of another person are positively correlated. This suggests how perceiving one's own body as an object of others' sexual gratification would make one view other people's bodies as objects as well. Such matter explains sexual objectification and self-objectification to be a vicious circle (Loughnan et al., 2010). Zimbardo (2015) stated: "In today's world, a woman who appears in the media is expected to willingly objectify herself to stay relevant." (Zimbardo & Coulombe, 2015). Thus, capturing our attention to further investigate the matter of sexual objectification.

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10 Appendix

10.1 English Abstract

Sexual objectification of women is a scientifically relevant phenomenon characterized by the focus on women's physical appearance. Accordingly, showing less empathy towards women if they wear less is an implication of sexual objectification. The recent study about reduced empathic responses towards sexually objectified women in the context of empathy for social pain was successfully conducted. Hence, the present study aimed at extending the same subjective observation on social pain to physical pain as well as at investigating the correlation between reduced empathy and high pornography consumption. The experiment conducted relied on the previously implemented empathy for pain paradigm. It contained 40 male student participants, aging 18-28. Participants had to rate their own empathy level while observing prerecorded videos and photos of two women confederates undergoing physical pain by being pseudo stimulated via electrodes attached to the back of their hands. Both women differed in their physical appearance; one was presented in a *sexualized* fashion with a revealing outfit, while the other was presented in a non-sexualized manner with a more conservative outfit. The empathic ratings of the participants measured cognitive and affective empathy. Results proposed that perceiving high physical pain leads to more empathy, which was according to the expected. Whereas another result suggested that sexual appearance leads to more empathy, which was contrary to the expected, however was dismissed as it was solely according to one empathy component (cognitive empathy). Further insignificant results were interpreted by the limitations of the study design, suggesting a repetition of the experiment by changing primarily the sample.

Keywords: sexual objectification, sexualization, pornography consumption, empathy for pain paradigm, dehumanization

10.2 German Abstract

Die sexuelle Objektifizierung von Frauen ist ein wissenschaftlich relevantes Phänomen, das durch den Fokus auf das körperliche Auftreten von Frauen charakterisiert wird. Dementsprechend drückt weniger Empathie gegenüber Frauen, die weniger anziehen, sexuelle Objektivierung aus. Die neue Studie über die reduzierten empathischen Reaktionen gegenüber sexuell objektifizierenden Frauen im Kontext der Empathie für sozialen Schmerz wurde erfolgreich durchgeführt. Infolgedessen zielte die vorliegende Studie darauf ab, die gleiche Beobachtung auf den physischen Schmerz zu erweitern. Der Zusammenhang zwischen reduzierter Empathie und hohem Pornographiekonsum wurde ebenfalls untersucht. Das durchgeführte Experiment beruhte auf der zuvor implementierten Empathie für das Schmerzparadigma. Die Teilnehmer waren 40 männliche Studenten im Alter zwischen 18 und 28 Jahren. Sie mussten ihr eigenes Empathie-Niveau bewerten, während sie aufgezeichnete Videos und Fotos von zwei Schauspielerinnen beobachteten, die physische Schmerzen erlitten, indem sie über Elektroden, die an ihren Handrücken befestigt waren, pseudo stimuliert wurden. Beide Frauen unterschieden sich in ihrem äußeren Auftreten; eine wurde mit einem sexualisierten Outfit präsentiert, während sich die andere auf eine nicht-sexualisierte Weise mit einem eher konservativen Outfit präsentierte. Die empathischen Bewertungen der Teilnehmer maßen die kognitiven und affektiven Empathie-Komponente. Die Ergebnisse zeigten, dass die Wahrnehmung eines erhöhten physischen Schmerzes zu mehr Empathie führte. Das war zu erwarten. Ein anderes Ergebnis zeigte, dass das sexuelle Auftreten zu mehr Empathie führte, was nicht zu erwarten war. Dies wurde jedoch abgelehnt, da es lediglich eine der beiden Empathie-Komponente erfüllte. Weitere nicht signifikante Ergebnisse wurden durch die Einschränkungen des Studiendesigns interpretiert, was eine Wiederholung des Experiments nahelegt, indem primär die Stichprobe verändert sein soll.

Schlüsselbegriffe: sexuelle Objektifizierung, Sexualisierung, Pornographiekonsum, Empathie für Schmerzparadigma, Dehumanisierung

10.3 Experiment Flyer



ACHTUNG: Es werden noch männliche Teilnehmer an bezahlter Studie gesucht!

Das Institut für Angewandte Psychologie: Gesundheit, Entwicklung und Förderung der **Fakultät für Psychologie der Universität Wien** lädt zur Teilnahme an der folgenden Studie ein:

„Entscheidungsverhalten in zwischenmenschlichen Situationen“

Der Zweck dieser Studie ist es, die Auswirkungen von finanziellen Entscheidungssituationen auf das menschliche Verhalten zu untersuchen. Durch strukturierte Befragung und ein experimentelles Design sollen neue Erkenntnisse zu menschlichem Entscheidungsverhalten in zwischenmenschlichen Situationen gewonnen werden. Das genaue Studienziel kann aus Gründen des Studiendesigns erst nach Studienteilnahme erklärt werden. Mit Ihrer Teilnahme können Sie zum Erkenntnisgewinn in der Forschung beitragen.

Hierzu werden noch Versuchspersonen gesucht, die den **folgenden Kriterien** entsprechen:

- Sie identifizieren sich als männlich.
- Sie sind zwischen 18 und 30 Jahren alt.
- Sie sind an einer österreichischen Hochschule eingeschrieben.
- Sie verfügen über sehr gute Deutschkenntnisse

Eine Teilnahme ist **nicht möglich**, wenn Sie

- **Psychologie** studieren oder abgeschlossen haben.
- **Medizin** studieren oder abgeschlossen haben.
- **Psychotherapiewissenschaft** studieren oder abgeschlossen haben.

Ihre Teilnahme erstreckt sich über zwei Termine:

1. **Termin:** Online-Fragebogen (max. 20-30 Minuten – von zuhause aus)
2. **Termin:** Vororttermin an der Fakultät für Psychologie der Universität Wien (ca. 2,5 Stunden - Liebiggasse 5, 1010 Wien)

Es handelt sich um eine bezahlte Studienteilnahme. Die Bezahlung erfolgt beim Vororttermin. Genauere Informationen zur Höhe des Betrages erhalten Sie beim Erstkontakt.

Für **weitere Informationen** sowie **Ihre Anmeldung** schreiben Sie uns eine Email!

entscheidung.fmrt.uniwien@gmail.com

[Bitte nennen Sie in der Email auch Ihre Telefonnummer.]

Wir freuen uns über Ihr Interesse und Ihre Teilnahme!

Amira Ghobrial BSc, Fides Sophia Heimkes BSc & Katharina Reigbert BSc

10.4 University Enrollment Form



Studienleiterin: Giorgia Silani PhD
Stand: 23.05.2018

„Entscheidungsverhalten in zwischenmenschlichen Situationen“

Hiermit bestätige ich, dass ich gegenwärtig an einer Österreichischen Hochschule immatrikuliert bin.



Ort, Datum
Name, Unterschrift

Studienleiterin: Giorgia Silani PhD
Stand: 23.05.2018

10.5 Experiment Informed Consent



Studienleiterin: Giorgia Silani PhD
Stand: 05.06.2018

„Entscheidungsverhalten in zwischenmenschlichen Situationen“

Sehr geehrte Teilnehmerin, sehr geehrter Teilnehmer!

Wir laden Sie ein an der oben genannten Studie teilzunehmen. Die Aufklärung darüber erfolgt in einem ausführlichen Gespräch.

Ihre Teilnahme an dieser Studie erfolgt freiwillig. Sie können jederzeit ohne Angabe von Gründen aus der Studie ausscheiden. Die Ablehnung der Teilnahme oder ein vorzeitiges Ausscheiden aus dieser Studie hat keine nachteiligen Folgen für Sie.

Studien sind notwendig, um verlässliche neue Forschungsergebnisse zu gewinnen. Unverzichtbare Voraussetzung für die Durchführung einer Studie ist jedoch, dass Sie Ihr Einverständnis zur Teilnahme an dieser Studie schriftlich erklären. Bitte lesen Sie den folgenden Text als Ergänzung zum Informationsgespräch mit dem Studienleiter sorgfältig durch und zögern Sie nicht Fragen zu stellen. Das genaue Studienziel kann Ihnen aus Gründen des Studiendesigns erst nach Studienteilnahme erklärt werden.

Bitte unterschreiben Sie die Einwilligungserklärung nur

- wenn Sie Art und Ablauf der Studie vollständig verstanden haben,
- wenn Sie bereit sind, der Teilnahme zuzustimmen und
- wenn Sie sich über Ihre Rechte als TeilnehmerIn an dieser Studie im Klaren sind.

Zu dieser Studie, sowie zur ProbandInneninformation und Einwilligungserklärung wurde von der zuständigen Ethikkommission der Medizinischen Universität eine befürwortende Stellungnahme abgegeben.

1. Was ist der Zweck der Studie?

Der Zweck dieser Studie ist es, die Auswirkungen von finanziellen Entscheidungen in zwischenmenschlichen Situationen auf das Emotionsempfinden zu untersuchen. Es soll also erhoben werden, wie sich verschiedene finanzielle Entscheidungen auf der Emotionsebene äußern. Ihre Antworten, bzw. Entscheidungen lassen Rückschlüsse auf die Grundlagen von finanziellen Entscheidungssituationen und Entscheidungsverhalten zu. Das genaue Studienziel kann Ihnen aus Gründen des Studiendesigns erst nach Studienteilnahme erklärt werden.

2. Wie läuft die Studie ab?

Diese Studie wird an der Universität Wien (Psychologische Fakultät) durchgeführt, und es werden insgesamt 40 Personen daran teilnehmen.

Vor der Aufnahme in diese Studie wurden Sie bereits einer Voruntersuchung unterzogen, bei der Sie auf das Zutreffen aller Einschlusskriterien und das Fehlen aller Ausschlusskriterien hin überprüft wurden. Sie haben außerdem bereits eine Onlinebefragung zur Erfassung einiger demographischen, sowie persönlichkeitsbezogenen Merkmalen ausgefüllt.

Im Einzelnen wird die Studie ab diesem Zeitpunkt wie folgt ablaufen:

(1) Zu Beginn wurde bereits eine **Schmerz-Kalibrierung** vorgenommen.

(2) Sie werden im Folgenden zuerst einen Teil durchlaufen, in dem Sie die Entscheider_innen-Rolle einnehmen:

- **Entscheider_innen**

In der Entscheider-Rolle verwalten Sie elektrische Impulse an eine/n andere/n Teilnehmer_in. Sie werden gebeten in 80 Runden je eine Entscheidung zu treffen. Dabei haben Sie pro Runde 50 cent zur Verfügung. Es steht Ihnen frei pro Runde zwischen 0 und 50 cent zu zahlen oder für sich zu behalten. Die Stimulation, die der/die andere Teilnehmer_in erfährt, wird mit Höhe des Betrages reduziert. Wenn Sie also 50 cent zahlen, wird eine „nur merkbare, jedoch nicht schmerzhaft“ elektrische Stimulation durchgeführt. Abhängig von dem Geldbetrag, den Sie einsetzten, wird die andere Person einer unterschiedlich intensiven elektrischen Stimulation ausgesetzt. Dabei richtet sich die Höhe danach, was die andere Person in der Schmerz-Kalibrierung als schmerzhaft (noch aushaltbar) angegeben hat. Je weniger Geld Sie einsetzen, desto schmerzhafter wird die Stimulation. Die stärkste Stufe der elektrischen Stimulation wird von der Empfängerin oder dem Empfänger als unangenehm empfunden, bringt jedoch keine körperliche Gefährdung oder bleibenden Schäden für die Empfängerin oder den Empfänger mit sich.

Jeder dieser Entscheidungsdurchgänge geht eine computergenerierte Stimulation voraus, auf welche Sie keinen Einfluss haben. Nach jedem dieser computergenerierten Stimulationen werden Sie gebeten zwei kurze Fragen zu beantworten.

(3) Im Anschluss daran werden Sie gebeten einen Fragebogen zu ihrem Konsumverhalten, Persönlichkeitseigenschaften, sowie zu Eigenheiten dieser Studie auszufüllen.

(4) Daraufhin durchlaufen Sie den Teil, in dem Sie die Empfänger_innen-Rolle einnehmen:

- **Empfänger_innen**

Sie empfangen insgesamt 80 elektrische Stimulationen (je 500ms) an der linken Hand. Die Stimulation erfolgt über den „Digitimer DS7A Constant Current Stimulator“ (Digitimer Ltd, Clinical & Biomedical Research Instruments), der bereits vielfach in der Forschung eingesetzt wurde. Die elektrischen Stimulationen können unangenehm sein, es besteht jedoch kein Gesundheitsrisiko bzw. Verletzungsrisiko. Möglich sind vorübergehende Hautreaktionen. Auch ist eine akute Schreckreaktion wie z.B. ein Zusammenzucken wahrscheinlich. Bei dem Stimulator handelt es sich um ein CE-zertifiziertes Medizinprodukt, das der Europäischen Medizinprodukteverordnung entspricht.

Die Einhaltung der Anweisungen des Studienleiters und seiner MitarbeiterInnen ist während der Testung von entscheidender Bedeutung für den Erfolg dieser Studie.

Die Dauer Ihrer gesamten Teilnahme an dem Vororttermin beträgt insgesamt circa 2,5 Stunden.

3. Worin liegt der Nutzen einer Teilnahme an der Studie?

Die Ergebnisse dieser Studie sollen zeigen, welche finanziellen Entscheidungen in unterschiedlichen sozialen Situationen getroffen werden. Das genaue Studienziel kann aus Gründen des Studiendesigns erst nach Studienteilnahme erklärt werden kann.

4. Gibt es Risiken, Beschwerden und Begleiterscheinungen?

(1) Elektrostimulation

Alle StudienteilnehmerInnen erfahren Elektrostimulationen an der linken Hand. Diese könnten sie zwar als unangenehm empfinden, gesundheitliche Gefahren sind damit jedoch nicht verbunden. Vorrübergehend kann es an der zu Rötungen der Haut kommen. Typischerweise wird eine Schreckreaktion, Zusammenzucken etc. hervorgerufen.

Die TeilnehmerInnen werden maximal 80 elektrischen Stimulationen an der linken Hand ausgesetzt.

(2) Zusätzliche Einnahme von Arzneimitteln?

Es müssen keine zusätzlichen Arzneimittel eingenommen werden (auch keinerlei Kontrastmittel). Sie dürfen nicht unter Einfluss von Psychopharmaka stehen. Bitte teilen Sie jegliche Art von Medikamenten, welche Sie momentan einnehmen, dem Studienleiter oder seinen MitarbeiterInnen zur Abklärung mit.

5. Hat die Teilnahme an der Studie sonstige Auswirkungen auf die Lebensführung und welche Verpflichtungen ergeben sich daraus?

Sie dürfen im Zeitraum von **24 Stunden** vor den Sitzungen **keinen Alkohol und keinerlei Medikamente** zu sich nehmen.

6. Was ist zu tun beim Auftreten von Symptomen, Begleiterscheinungen und/oder Verletzungen?

Sollten im Verlauf der Studie irgendwelche beschwerlichen Symptome, Begleiterscheinungen, Krankheiten oder Verletzungen auftreten, müssen Sie diese dem Studienleiter und/oder seinen MitarbeiterInnen mitteilen, bei schwerwiegenden Begleiterscheinungen umgehend.

7. Wann wird die Studie vorzeitig beendet?

Sie können jederzeit, auch ohne Angabe von Gründen, Ihre Teilnahmebereitschaft widerrufen und aus der Studie ausscheiden ohne dass Ihnen dadurch irgendwelche Nachteile entstehen.

Ihre Studienleiter Dr. Giorgia Silani (oder von ihr dazu beauftragte Personen) werden Sie über alle neuen Erkenntnisse, die in Bezug auf diese Studie bekannt werden, und für Sie wesentlich werden könnten, umgehend informieren. Auf dieser Basis können Sie dann Ihre Entscheidung zur weiteren Teilnahme an dieser Studie neu überdenken.

Es ist aber auch möglich, dass Ihr Studienleiter entscheidet, Ihre Teilnahme an der Studie vorzeitig zu beenden, ohne vorher Ihr Einverständnis einzuholen.

Die Gründe hierfür können sein:

- a) Sie können den Erfordernissen der Studie nicht entsprechen.
- b) Der Studienleiter hat den Eindruck, dass eine weitere Teilnahme an der Studie nicht in Ihrem Interesse ist.

8. In welcher Weise werden die im Rahmen dieser Studie gesammelten Daten verwendet?

Bei der Teilnahme erhalten Sie einen persönlichen Code, unter dem Ihre jeweiligen Informationen gespeichert werden. Auf diese Weise wird Ihr Name oder Geburtsdatum nicht gemeinsam mit

Ihren angegebenen Daten oder individuellen Ergebnissen gespeichert, wodurch ihre Daten anonym bleiben. Sofern gesetzlich nicht etwas Anderes vorgesehen ist, haben nur die PrüferInnen und deren MitarbeiterInnen Zugang zu ihren individuellen Daten. Diese Personen unterliegen der Schweigepflicht.

Die Weitergabe der Daten erfolgt ausschließlich zu statistischen Zwecken und Sie werden ausnahmslos nicht mit ihnen individuell in Verbindung gebracht. Auch in etwaigen Veröffentlichungen der Daten dieser Studie werden Sie nicht namentlich genannt.

9. Entstehen für die Teilnehmer Kosten? Gibt es einen Kostenersatz oder eine Vergütung?

Durch Ihre Teilnahme an dieser Studie entstehen für Sie keine zusätzlichen Kosten. Als Dankeschön für Ihren Zeitaufwand erhalten einen Betrag in Höhe von € 20,- (zwanzig Euro).

Zusätzlich können Sie einen **Betrag bis zu 40,- Euro erhalten**. Die Höhe dieses Betrages hängt von Ihren Entscheidungen im Experiment ab. Insgesamt können Sie also zwischen 20,- und 60,- Euro erhalten.

Der Betrag wird Vorort Bar bezahlt.

10. Möglichkeit zur Diskussion weiterer Fragen

Für weitere Fragen im Zusammenhang mit dieser Studie stehen Ihnen Ihre Studienleiterin und ihre MitarbeiterInnen gerne zur Verfügung. Auch Fragen, die Ihre Rechte als ProbandIn in dieser Studie betreffen, werden Ihnen gerne beantwortet.

Name der Kontaktperson: **Dr.ⁱⁿ Giorgia Silani**

Erreichbar unter (Bürozeiten): +43 1 4277 47223

Name der Kontaktperson: **Fides Sophia Heimkes BSc**

Erreichbar unter (Bürozeiten): +43 699 19263224 oder E-Mail: entscheidung.fmrt.uniwien@gmail.com

Name der Kontaktperson: **Katharina Reigbert BSc**

Erreichbar unter (Bürozeiten): +43 660 3855368 oder E-Mail: entscheidung.fmrt.uniwien@gmail.com

11. Sollten andere behandelnde Ärzte von der Teilnahme an der Studie informiert werden?

Eine Information der behandelnden Ärzte über die Teilnahme an der Studie ist nicht notwendig, bitte informieren Sie uns jedoch über alle aktuellen ärztlichen Behandlungen vor Studienbeginn bzw. sobald diese beginnen.

12. Einwilligungserklärung

Vor- und Zunahme des/der ProbandIn in Druckbuchstaben:

Geburtsdatum: Ihr Code:

☐ Ich erkläre mich bereit, an der Studie „*Entscheidungsverhalten in zwischenmenschlichen Situationen*“ teilzunehmen.

☐ Ich bin von Herrn/Frau ausführlich über den Ablauf der Studie informiert worden. Ich bin über mögliche Belastungen und Risiken, sowie über Wesen, Bedeutung und Tragweite der Studie, sich für mich daraus ergebenden Anforderungen aufgeklärt worden. Ich habe darüber hinaus den Text dieser ProbandInnenaufklärung und Einwilligungserklärung, die insgesamt 5 Seiten umfasst, sorgfältig gelesen. Aufgetretene Fragen wurden mir vom Studienleiter oder seinen MitarbeiterInnen verständlich und genügend beantwortet. Ich hatte ausreichend Zeit, mich zu entscheiden. Ich habe im Moment keine weiteren Fragen mehr.

☐ Ich werde den Anordnungen, die für die Durchführung der Studie erforderlich sind, Folge leisten, behalte mir jedoch das Recht vor, meine freiwillige Mitwirkung jederzeit zu beenden, ohne dass mir daraus Nachteile entstehen.

☐ Ich bin zugleich damit einverstanden, dass meine im Rahmen dieser Studie ermittelten Daten aufgezeichnet werden. Um die Richtigkeit der Datenaufzeichnung zu überprüfen, dürfen Beauftragte des Auftraggebers und der zuständigen Behörden beim Studienleiter Einblick in meine personenbezogenen Daten nehmen. Beim Umgang mit den Daten werden die Bestimmungen des Datenschutzgesetzes beachtet.

☐ Eine Kopie dieser ProbandInneninformation und Einwilligungserklärung habe ich erhalten. Das Original verbleibt beim Studienleiter.

.....
(Datum und Unterschrift des Probanden/der Probandin)

.....
(Datum, Name und Unterschrift des verantwortlichen Studienleiters)

(Der/die ProbandIn erhält eine unterschriebene Kopie der ProbandInneninformation und Einwilligungserklärung, das Original verbleibt im Studienordner des Studienleiters)

10.6 Pain Calibration Informed Consent



Studienleiterin: Giorgia Silani PhD
Stand: 05.06.2018

Einverständniserklärung zur Schmerz-Kalibrierung im Rahmen der Studie zu „Entscheidungsverhalten in zwischenmenschlichen Situationen“

Ihre Teilnahme an dieser Studie erfolgt freiwillig. Sie können jederzeit ohne Angabe von Gründen aus der Studie ausscheiden. Die Ablehnung der Teilnahme oder ein vorzeitiges Ausscheiden aus dieser Studie hat keine nachteiligen Folgen für Sie.

Bei der Schmerz-Kalibrierung geht es darum herauszufinden, welche elektrische Stimulation-Stromstärke Sie als (1) „merkbar, aber eindeutig nicht schmerzhaft“, (2) „deutlich spürbar“, (3) „unangenehm“, (4) „sehr unangenehm“, (5) „schmerzhaft“ bzw. (6) „sehr schmerzhaft, aber noch aushaltbar“ empfinden.

Sie wird wie folgt ablaufen:

Es erfolgen Stimulationen für 500ms über den „Digitimer DS7A Constant Current Stimulator“ (Digitimer Ltd, Clinical & Biomedical Research Instruments), der bereits vielfach in der Forschung eingesetzt wurde. Die elektrischen Stimulationen beginnen bei sehr geringer Intensität, sodass sie kaum wahrgenommen werden können und steigern sich in kleinen Schritten bis hin zu einer Intensität, die sehr schmerzhaft empfunden wird. Auch wenn die Stimulationen unangenehm sein werden, besteht kein Gesundheitsrisiko bzw. Verletzungsrisiko. Möglich sind vorübergehende Hautreaktionen. Auch ist eine akute Schreckreaktion wie z.B. ein Zusammenzucken wahrscheinlich. Bei dem Gerät, das zur Stimulation eingesetzt wird, handelt es sich um ein CE-zertifiziertes Medizinprodukt, das der Europäischen Medizinprodukteverordnung entspricht.

Für die Zuordnung der Angaben sowie für die anonyme Auswertung ist es wichtig, dass Sie immer Ihren persönlichen Code angeben. Dieser Code setzt sich wie folgt zusammen:

- Die ersten beiden Buchstaben des Vornamens Ihrer Mutter (bei Johanna → JO)
- Der Tag Ihres Geburtstags – zweistellig (bei 07.03.1988 → 07)
- Der erste Buchstabe Ihres Geburtsortes (bei Salzburg → S)
- Der Geburtstag Ihrer Mutter – zweistellig (bei 26.05.1960 → 26)

Bitte tragen Sie Ihren persönlichen Code ein:

	<i>Zwei erste Buchstaben Vorname Mutter</i>	<i>Ihr Geburtstag (zweistellig)</i>	<i>Erster Buchstabe eigener Geburtsort</i>	<i>Der Geburtstag ihrer Mutter (zweistellig)</i>
Beispielcode	JO	07	S	26
Ihr Code	--	--	–	--

Um die Vertraulichkeit Ihrer Daten zu schützen, werden Sie im weiteren Verlauf der Studie (Experiment & Fragebögen) nicht mehr nach Ihrem Namen gefragt, sondern nach Ihrem persönlichen Code.

Vor- und Zunahme des/der ProbandIn in Druckbuchstaben:

Geburtsdatumdatum: Ihr Code:

☐ Ich erkläre mich bereit, an der Schmerz-Kalibrierung im Rahmen der Studie „Entscheidungsverhalten in zwischenmenschlichen Situationen“ teilzunehmen.

☐ Ich bin von Herrn/Frau ausführlich über den Ablauf der Kalibrierung informiert worden. Ich bin über mögliche Belastungen und Risiken, sowie über Wesen, Bedeutung und Tragweite der Kalibrierung, sich für mich daraus ergebenden Anforderungen aufgeklärt worden. Ich habe darüber hinaus den Text dieser ProbandInnenaufklärung und Einwilligungserklärung, die insgesamt 2 Seiten umfasst, sorgfältig gelesen. Aufgetretene Fragen wurden mir vom Studienleiter oder seinen MitarbeiterInnen verständlich und genügend beantwortet. Ich hatte ausreichend Zeit, mich zu entscheiden. Ich habe im Moment keine weiteren Fragen mehr.

☐ Ich bin zugleich damit einverstanden, dass meine im Rahmen dieser Kalibrierung ermittelten Daten aufgezeichnet werden. Beim Umgang mit den Daten werden die Bestimmungen des Datenschutzgesetzes beachtet.

☐ Eine Kopie dieser ProbandInneninformation und Einwilligungserklärung habe ich erhalten. Das Original verbleibt beim Studienleiter.

.....
(Datum und Unterschrift des Probanden/der Probandin)

.....
(Datum, Name und Unterschrift des Studienleiters)

10.7 Experiment Fee Note

Fakultät für Psychologie

Institut für Angewandte Psychologie:
Gesundheit, Entwicklung, Förderung

Priv. Soz. Giorgia Silani PhD
Liebiggasse 5
A- 1010 Wien

T +43 (1) 4277-472 23

Hiermit bestätige ich, im Rahmen der Studie „Entscheidungsverhalten in zwischenmenschlichen Situationen – KlinPsych_SS18_PvG“ an der Labortestung teilgenommen zu haben und einen Betrag von € _____ als Dankeschön für die Teilnahme erhalten zu haben.

Für die etwaige Versteuerung dieser Aufwandsentschädigung erkläre ich mich selbst verantwortlich.

Name: _____

Datum: _____

Unterschrift der Versuchsperson

Unterschrift des Versuchsleiters

10.8 Pornography Consumption Questionnaire

Konsumitems:

Für jede der 6 Kategorien bis zu 8 items (je nach Antwort) zu

1. Theater- und Kinobesuche
2. Zigarettenkonsum
3. Museums- und Ausstellungsbesuche
4. Alkoholkonsum
5. Pornographiekonsum
6. Restaurantbesuche

1. Theater- und Kinobesuche

a) Haben Sie jemals ein Theater oder Kino besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren haben Sie das erste Mal ein Theater oder Kino besucht?

Mit _____ Jahren

c) Haben Sie im letzten Jahr ein Theater oder Kino besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Haben Sie im letzten Monat ein Theater oder Kino besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft haben Sie im letzten Monat ein Theater oder Kino besucht?

_____ mal

f) Haben Sie wöchentlich ein Theater oder Kino besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft haben Sie wöchentlich ein Theater oder Kino besucht?

_____ mal

h) Haben Sie täglich ein Theater oder Kino besucht?

☐ Nein

☐ Ja

→ *nächste Kategorie*

2. Zigarett Konsum

a) Haben Sie jemals eine Zigarette geraucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren haben Sie das erste Mal eine Zigarette geraucht?

Mit _____ Jahren

c) Haben Sie im letzten Jahr eine Zigarette geraucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Haben Sie im letzten Monat eine Zigarette geraucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft haben Sie im letzten Monat eine Zigarette geraucht?

_____ mal

f) Haben Sie wöchentlich eine Zigarette geraucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft haben Sie wöchentlich eine Zigarette geraucht?

_____ mal

h) Haben Sie täglich eine Zigarette geraucht?

☐ Nein

☐ Ja

→ *nächste Kategorie*

3. Museums- oder Ausstellungsbesuche

a) Haben Sie jemals ein Museum oder eine Ausstellung besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren haben Sie das erste Mal ein Museum oder eine Ausstellung besucht?

Mit _____ Jahren

c) Haben Sie im letzten Jahr ein Museum oder eine Ausstellung besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Haben Sie im letzten Monat ein Museum oder eine Ausstellung besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft haben Sie im letzten Monat ein Museum oder eine Ausstellung besucht?

_____ mal

f) Haben Sie wöchentlich ein Museum oder eine Ausstellung besucht?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft haben Sie wöchentlich ein Museum oder eine Ausstellung besucht?

_____ mal

h) Haben Sie täglich ein Museum oder eine Ausstellung besucht?

☐ Nein

☐ Ja

→ *nächste Kategorie*

4. Alkoholkonsum

a) Haben Sie jemals Alkohol konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren haben Sie das erste Mal Alkohol konsumiert?

Mit _____ Jahren

c) Haben Sie im letzten Jahr Alkohol konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Haben Sie im letzten Monat Alkohol konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft haben Sie im letzten Monat Alkohol konsumiert?

_____ mal

f) Haben Sie wöchentlich Alkohol konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft haben Sie wöchentlich Alkohol konsumiert?

_____ mal

h) Haben Sie täglich Alkohol konsumiert?

☐ Nein

☐ Ja

→ *nächste Kategorie*

5. Pornographiekonsum

a) Haben Sie jemals Pornographie konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren haben Sie das erste Mal Pornographie konsumiert?

Mit _____ Jahren

c) Haben Sie im letzten Jahr Pornographie konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Haben Sie im letzten Monat Pornographie konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft haben Sie im letzten Monat Pornographie konsumiert?

_____ mal

f) Haben Sie wöchentlich Pornographie konsumiert?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft haben Sie wöchentlich Pornographie konsumiert?

_____ mal

e) Haben Sie täglich Pornographie konsumiert?

☐ Nein

☐ Ja

→ *nächste Kategorie*

6. Restaurantbesuche

a) Waren Sie jemals in einem Restaurant Essen gehen?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

b) Mit wie vielen Jahren waren Sie das erste Mal in einem Restaurant Essen gehen?

Mit _____ Jahren

c) Waren Sie im letzten Jahr in einem Restaurant Essen gehen?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

d) Waren Sie im letzten Monat in einem Restaurant Essen gehen?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

BEI ALLEN WEITEREN FRAGEN DENKEN SIE BITTE AN DEN LETZTEN MONAT!

e) Wie oft waren Sie im letzten Monat in einem Restaurant Essen gehen?

_____ mal

f) Waren Sie wöchentlich in einem Restaurant Essen gehen?

☐ Nein → *nächste Kategorie*

☐ Ja

Wenn ja,

g) Wie oft waren Sie wöchentlich in einem Restaurant Essen gehen?

_____ mal

h) Waren Sie täglich in einem Restaurant Essen gehen?

☐ Nein

☐ Ja

→ *nächste Kategorie*