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A Step towards a Social Foundation of Art”

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Lost in Contemplation of Original Artworks:  
A Step Towards a Social Foundation of Art

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## Abstract

The knowledge about authenticity, originality or genuineness determines the perception and evaluation of artworks. The present study's main objectives were to explore a social purpose of art by determining if art contemplation is based on an interaction between beholder and artist, and to investigate possible differences in the perception of genuine and original artworks compared to reproductions and non-artworks. A detailed comparison with respect to art reception, mindfulness, social connectedness and connectedness with the artist and artwork was made by collecting data of 91 participants who experienced either originals, reproductions or non-artworks. The individual contemplation was measured by observing participants' behavioral response to a background sound during viewing time and evaluating their recognition and recall performance. Results regarding art reception showed significant differences between original artworks and non-artworks, but almost no differences to reproductions. Participants were more positively attracted to original artworks, which were found to be cognitively more stimulating and of higher artistic quality. Participants indicated to feel stronger connected with the artwork as well as the artist, if it was about originals. Although all participants' response behavior to the background sound was similar, participants' in the original art condition were lost in contemplation, unable to remember having heard the sound. Further analyses revealed that the dimensions of art reception are strong predictors for connectedness with the artist and the artwork which particularly applies to self-reference. Original art contemplation is attention-capturing and highly absorbing. Evidence suggests that original art experiences reflect an interaction process caused by a closer relationship of a beholder to an artist. Findings support the assumption of an underlying social purpose of art and provide a good basis for future investigations.

*Keywords:* aesthetic experience, art appreciation, authenticity, connectedness with the artist, genuineness





## Lost in Contemplation of Original Artworks: A Step Towards a Social Foundation of Art

If you could say it in words, there'd be no reason to paint—Edward Hopper

### **Theoretical background**

Artworks are traded at large expenses and change hands for vast sums of money (Goetzmann, Renneboog, & Spaenjers, 2011). Current developments of the art market leave no doubt that in the future record prices will be reached again and again (David, Oosterlinck, & Szafarz, 2013; Spaenjers, Goetzmann, & Mamonova, 2015). Besides artistic and aesthetic aspects a crucial point in collecting artworks lies in their genuineness and authenticity. In 2010 the scam of the art forger Wolfgang Beltracchi was exposed, entailing a big scandal. He deceived the art world by infiltrating the art market with forged paintings of famous artists. Quite a few of these forged paintings remained unidentified for years, and even art experts classified them as genuine and authentic originals. But as soon as Beltracchi's fraud became known publicly, all of the identified forged paintings became more or less worthless. This raises the question why cases of art forgery such as the Beltracchi affair can cause such an outrage even far beyond the art world. Why are artworks, which were previously deemed genuine and valuable, substantially worth less overnight? A particularly interesting circumstance of the above-mentioned art forgeries is, that Beltracchi did not copy original artworks, but imitated the styles of the original artists and thus created new artworks which can not be considered reproductions or copies. Although the artworks were more or less original, the loss in value presumably emerged from the absence of the genuine artist. The question of why artworks are perceived and treated so special as well as the fact that not only the psychological fictitious but also the actual value of art is different from other objects was in the focus of this study. Furthermore, the present study emphasized on the importance of the artist concerning original artworks' huge value and the special impact on the art beholder.

Many findings have shown that the perception and the judgment of original artworks differs from copies, reproductions and altered artworks (Currie, 1985; Krentz, & Earl, 2013; Locher & Dolese, 2004; Locher, Smith, & Smith, 1999; Marshall, Shrader, Worthen, Kahlstorf,

Brant, & Pickeral, 1995). Furthermore, many findings are indicative of additional aspects regarding the special value inherent in genuine original art, beyond judgments of liking and preference or beauty (Newman, Bartels, & Smith, forthcoming; Newman & Bloom, 2014; Newman & Dhar, 2014).

However, little research has investigated the influence of the creator or artist in the perception and evaluation of genuine original artworks in comparison to reproductions or pictures without any artistic approach, and even less is known about the process of the individual contemplation of artworks. The present study aimed to fill this gap in current research by exploring whether the awareness of authenticity or genuineness of artworks influences participants' judgments as well as their relationship to the creator regardless of background information (i.e. artist's name, year of origin or title of the artwork).

Moreover, the focus of the present study was on the individual perception and evaluation of original artworks and possible differences in comparison to reproduced artworks or non-artworks. The emphasis lay on the beholder's degree of attention and how deep art recipients might be immersed in the contemplation of original artworks compared to reproductions and non-artworks. Assuming that deep contemplation of original artworks might resemble a dialogical form of communication between recipient and the artwork or artist, the connectedness to the work and in particular to the artist was taken into account.

The authenticity or genuineness and special value of artworks has been of great interest to various disciplines such as philosophy, art history, psychology, and, more recently, neuroscience. Besides general considerations in the context of art and authenticity from different angles, the present study amplifies the following issues: the underlying concepts which explain and support the presumptions of original art's special value, substantial aspects such as the process of aesthetic experiences and art appreciation, individual engagement of beholders' art contemplation, effects of the context in which art is presented, as well as the influence of art recipients' individual characteristics on aesthetic experiences of art.

### Art and Authenticity

According to the much debated transferability thesis, a perfect forgery or copy is as aesthetically valuable as the original one (Currie, 1985; Locher & Dolese, 2004). Currie (1985) argued from his philosophical point of view that the artist's skills as well as the technique are physically embodied in an artwork, but regarding the visual aesthetics of a work this must also be the case for identical copies. The aesthetic appreciation and the perceived value of a copy must be the same because the "correct copy inherits the aesthetic value of the original" (Currie, 1985, p. 160). This might be true to a certain degree, if aesthetic experiences of artworks are limited to the visual appreciation and to that which is "visible" for the perceiver.

Paul Klee (1920, p. 28) has concluded that there must be something more than the visible appearance of artworks that goes beyond their aesthetic appreciation: "Art does not reproduce the visible, rather, it makes visible." The intermediary aspect of artworks and the "plus" which is inherent in originals, is described as an additional momentum beyond the visual appearance of an artwork (Fleck, 2014). Benjamin (2012) has called this additional momentum the "aura" of an artwork, which constitutes the difference between original artworks and reproductions besides authenticity, uniqueness and genuineness. This "sphere of authenticity is outside the technical", which is lost through the copying process, and the aura is missing in even perfect reproductions of artworks (Benjamin, 2012).

In accordance with Goodman (1995), not only expertise and previous experience, but in particular the knowledge and awareness of the authenticity and genuineness of an artwork are the most important factors, which is why "the authentic and the inauthentic are aesthetically different not necessarily because they look different but because they are different things" (Sagoff, 1978). As long as inauthenticity is unknown, the difference seems to be redundant and not an issue in the context of aesthetic appreciation. The question *what is art?* is no longer important, but rather if the art world or art experts define whether *this is art* (De Duve, 1996).

As mentioned above, uniqueness plays an important role in the perception of original artworks, which are particularly considered worthwhile when only one unique piece exists (Cialdini, 1985). The more copies of an artwork, the less valuable they were perceived to be

(Cialdini, 1985). Analyses of participants' judgments identified no differences in pictorial qualities such as symmetry or complexity, for example, but significant differences in hedonic properties of original artworks compared to slide-projected and computer-generated images in the form of postcards (Locher & Dolese, 2004).

On the one hand, judgment of hedonic properties such as pleasantness or interest were higher when participants viewed original versions instead of reproduced artworks in the form of postcard images. On the other hand, the assessment of pictorial features of original artworks were similar in comparison to their postcard reproductions (Locher & Dolese, 2004). Furthermore, participants have judged original artworks to be significantly more pleasant, interesting, and surprising than slide or computer images (Locher, Smith, & Smith, 1999; Locher, Smith, & Smith, 2001). The so-called facsimile accommodation hypothesis of picture perception was introduced as a possible explanation for participants' ability to ignore or overlook the fact of viewing a facsimile instead of the original painting and nevertheless to concentrate on the art as if it would be original (Locher & Dolese, 2004).

### **Original Artworks' Special Value**

In the field of psychological aesthetics many studies have tried to explain the peculiar valuation of original artworks, why they differ from copies or other objects and how these differences are perceived. As prior research demonstrated, people attach greater importance to original artworks and ascribe a special value to art compared to duplicates "because the original thought to physically contain some part of the person who created it" (Newman & Bloom, 2012; Newman, Bartels, & Smith, forthcoming). Jackson Pollock, one of the most famous painters of the 20<sup>th</sup> century, asserted, that "[...] the painting has a life of its own. I try to let it come through" (as quoted in Frank, 1983, p. 68). In the course of the creation process (for example by touching and processing the material), the artist transfers not only mental but also physical parts of his self to the artwork. The concept of the extended self reflects that the self of a person is not limited to the body and the personality and functioned as a possible explanation for why participants treated artworks similarly to humans (Newman et al., forthcoming). Moreover, extensions of the self are, for example, one's own possession and contribute to a person's self-identity (Belk, 1988; Olson,

2011). The underlying concept of this phenomenon was described as contagion, which is the belief that a person's immaterial qualities or essence can be transmitted to an object through physical contact (Newman & Bloom, 2014).

A closer examination revealed that this belief in contagion lead consumers to view specific items as possessing more of a valued essence (Smith, Newman, & Dhar, 2015). To illustrate effects of contagion as a form of magical thinking, the subliminal activation of the concept influenced participants' willingness to purchase objects of celebrities just like the degree of physical contact the participants believed the celebrities had with the specific object (Newman, Diesendruck, & Bloom, 2011). Beyond that, studies on consumer behavior reported that participants were unwilling to buy clothes, because they were considered contaminated, if they had been worn by another person in the past (Argo, Dahl, & Morales, 2006). However, the probability of buying a T-shirt increased if the other person was perceived to be attractive (Argo, Dahl, & Morales, 2008).

Research on marketing and consumer behavior provides evidence for a positive effect on attractiveness of products which were made by hand instead of machine-made. The most recent publication on the handmade-effect summarized that the effect is driven by the perception that handmade products symbolically "contain love" or were made with love (Fuchs, Schreier, & van Osselaer, 2015). It is suspected that this might also apply to fine art, at least to artworks like paintings and sculptures, which the artist has created by using his hands. This might particularly be the case if participants get information about the artist and his background and even more if the artist is renowned or famous.

Another current publication provides a framework for object valuation in the context of human expressions (see Kreuzbauer, King, & Basu, 2015). Among other findings a decrease in the perceived value was reported when an artist made printed duplicates compared to hand-made duplicates. (Kreuzbauer et al., 2015). The authors suggest that a hand-made object is perceived to be of high value "because it is seen as the embodied representation of the creator's unique personal expression" (Kreuzbauer et al., 2015, p. 467).

Due to the fact that gestures of the artist (e.g. expressive marks on a painting or sculpture) can be visible for the perceiver, Freedberg and Gallese (2007) propose that this might cause motor

stimulation in the brain and induce engagement of the observer, which could be explained by embodiment and empathy. Moreover, the authors summarize prior neuroscientific evidence on embodiment in the context of aesthetic perception of objects and visual works of art and conclude that merely observing an artwork might evoke an empathetic response in the perceiver (Freedberg, & Gallese, 2007; Gallese, & Freedberg, 2012; Currie, 2012).

### **Aesthetic Experiences and Appreciation of Art**

Fine art is capable of conveying impressions of life, time, space and the present. Artworks can provoke feelings of being deeply touched, independent of liking, preference or beauty. Experiencing art raises questions, such as the meaning of the work or the message of the artist. The emotion along with the interaction and feelings of being deeply touched or deeply moved by an artwork was described as chills and can be both positive as well as negative (Fayn & Silvia, 2015). Fayn and Silvia (2015, p. 44) emphasized the special subject-object relationship between the art perceiver and the artwork which originated from these powerful emotional responses and pointed out the question of whether that might be the “quintessential aesthetic experience”. In this context the major focus of current research lay on the relationship between beholder and artwork, although a few studies reported that the artist (i.e. his immaterial quality or essence) seems to be transmitted in the workpiece and therefore constitutes an essential part of the work. The present study suggests that also the connection between beholder and artist should be considered in the contemplation of artworks.

The model of aesthetic appreciation and aesthetic judgments describes visual perception of art as information processing (Leder, Belke, Oeberst, & Augustin, 2004; Belke & Leder, 2006; Leder & Nadal, 2014). According to the model, the aesthetic experience of art is based on five descriptive processing mechanisms: (1) perceptual analysis, (2) implicit memory integration, (3) explicit classification, (4) cognitive mastering, and (5) evaluation (Leder et al., 2004). The art beholder acts more or less as an active recipient, who constantly absorbs and processes information. Thus, judgments and aesthetic emotions are the described outcome variables (Leder et al. 2004; Belke, Leder, & Augustin, 2006). A review of the current state of the model and a summary of findings regarding empirical aesthetics was provided by Leder and Nadal (2014).

However, Tinio (2013) proposed a mirror model of art: perception stages depend not only on the characteristics of the artwork and the individual recipient, but also on the role of the artist and the creative process in which the artwork was created. The three stages of artistic production correspond to those of experiencing art in reverse order, which means the process of experiencing art mirrors the art-making process of a particular artwork (Tinio, 2013). The stages of producing an artwork are described as (1) initialization, (2) expansion and adaptation, and (3) finalizing, whereby the three levels of the experience of an artwork reversely correspond to these stages (Tinio, 2013). The most important stage regarding the contemplation of artworks is the initialization stage, where the artist's creation process starts and the reception process of art experiences ends (Tinio, 2013).

### **Contemplation of Artworks and Art Beholder's Attention**

When one considers how much information during art perception is absorbed and processed, it seems surprising that recipients need such little time until they are able to evaluate a particular artwork. The average viewing time and the mean dwell time people spent in front of artworks which they have found interesting or pleasing varied from 17 seconds (Locher, 2012) to 27 seconds within a visitor study at the Metropolitan Museum of Art in New York (Smith & Smith, 2001). In general, most participants took 10 to 30 seconds to experience artworks, whereas the longest measured dwell time was 3.48 minutes (Smith & Smith, 2001). In comparison to the laboratory setting, participants in the museum context looked about 10 seconds longer at artworks, 38.75 seconds on average, to be exact (Brieber, Nadal, Leder, & Rosenberg, 2014).

In the attention value model of museum visitors (Bitgood, 2010), a continuum of three stages, namely (1) capture, (2) focus, and (3) engage, characterize the visitor's attention. The model includes psychological as well as physiological processes and is sensitive to variables which influence the amount of attention during the three stages (Bitgood, 2010). Among other influences, social factors like the presence of other visitors can have a strong impact on the level of attention paid as well as the type and the duration of engagement (Bitgood, 2010).

The attention of museum visitors and their engagement in exhibit material might be disrupted by sounds from other sources or loud noises, sudden movements and flashes of light, whereby ringing cellphones of other visitors were particularly mentioned in this regard (Bitgood,

2010). But as prior research demonstrated, people perceive and remember only those objects in their surroundings, if these objects or details receive focused attention (Simons & Chabris, 1999). At least visual distractions passed by unnoticed, if participants were fully concentrated on a particular visual stimulus (Simons & Chabris, 1999).

This phenomenon, so-called attentional capture or inattention blindness, was the focus of many studies (Simons & Chabris, 1999; Simons, 2000; Most, Scholl, Clifford, & Simons, 2005; Most, Simons, Scholl, Jimenez, Clifford, & Chabris, 2001), whereby most of this research was on visual attention and the attentional blink, which occurs during rapid serial visual presentations of more than two simultaneously visual target stimuli. It was suggested that the blindness regarding unexpected visual objects could be resulted in memory failure and not in perception failure or attentional capture (Horowitz, & Wolfe, 1998; Wolfe, 1999). The question arises whether the overlooking of a second target stimulus while the attention is concentrated on another stimulus can be explained through inattention blindness or whether it could be described through inattention amnesia (Simons, 2000). In order to investigate individual art contemplation, it is important to focus on the intensity of engagement with art. Due to prior findings on focused attention of visual stimuli, this study presumed that how deep participants sink into an original art experience could be operationalized via distractibility and results might correspond to the degree of the depth of contemplation. Considering art perception as a form of communication (i.e. dialogical engagement with the artist), the art recipient might be focused and fully sink into the experience of the artwork, while visual but also auditory stimuli receive no attention. However, mechanisms of attention are of particular interest because art experiences often take place in spaces which are open to the public (i.e. art museums), and individual silent art experiences are more or less impossible. Experiencing art is often accompanied by disturbances such as noise or social interactions with other people.

### **Art in Context - The Museum Effect**

One piece of art can affect differently in different surroundings and discharges new meanings depending on the spatial and ambient conditions. As prior research demonstrated, context plays an important role in art appreciation and influences aesthetic perception. Art museums as specific environments for experiencing fine art feature a particular ambience with the purpose to



allow the visitor to fully immerse himself in an aesthetic experience. Curatorial exhibition concepts as well as the architectural condition like spatial division influence how museum visitors perceive the exhibited artworks and how they move within the facilities (Tröndle, 2014). The specific environment of the art museum evokes particular affordances. Studies demonstrated that behavior patterns of museum visitors are systematically linked to spatial and curatorial characteristics and influence not only how visitors move in an exhibition setting, but also how they perceive and understand exhibitions (Wineman & Peponis, 2010; Tröndle, 2014; Kirchberg & Tröndle, 2015).

Consequently, art experiences often take place within exhibition settings accompanied by social situations. Most ways in which people experience art, either in public space, in museums or in galleries, take place in the company of family members or friends and thus are characterized by encountering or getting in contact with other people or exhibition visitors (vom Lehn, 2006). On the one hand, experiencing art can be described as an individual and personal event but rarely as an exclusive one in the sense of being alone with the artworks. Research on fine art experiences in museums identified three types of museum experiences of visitors: the contemplative, the enthusing, and the social experience (Kirchberg & Tröndle, 2015). This is in line with other findings which distinguished two types of art museum visitors, namely persons who primarily search for social interactions and want to be entertained and persons who are more interested in being merged in a contemplative art experience (Guintcheva & Passebois, 2009).

Experiencing art in a museum seems to be more intensive and sustainable than in the context of a laboratory. It has been reported that artworks in the museum were more arousing, more positive and more liked as compared to those in a laboratory (Brieber, Nadal, & Leder, 2015b). In the museum context, visitors showed more interest (Brieber et al., 2015b), along with extended viewing time (Gartus, Klemer, Leder, 2015; Brieber et al., 2014), which allows the conclusion that aesthetic experiences of artworks in a museum are “enduring and focused” (Brieber et al., 2014). Furthermore, participants remembered artworks better after a visit to the museum than they did after experiencing artworks in a laboratory context (Brieber et al., 2015b). An important fact could be that curated exhibitions usually present a number of selected artworks with the effect of an unavoidable holistic contemplation and overall experience. Nevertheless, effects of physical

context as well as effects of genuineness could not be reproduced in a study by Brieber, Leder, and Nadal (2015a). Hence, the authors conclude that in terms of art appreciation the meaningfulness of viewed art as well as its personal relevance might be essential for lay people. These preconditions would probably produce the museum context and the genuineness effects found in prior studies (Brieber et al., 2015a).

The experience of art in a museum provides thought-provoking impulses and causes self-reflection of the perceiver (Smith & Waszkielewicz, 2007; Smith, 2014b). During a museum visit exhibition visitors think more about their own lives and their relationships to others as well as about the future of society and the environment (Smith & Waszkielewicz, 2007; Smith, 2014b). One explanation is that experiencing art raises questions, such as the meaning of the work or the message of the artist. This self-reflective process was described as the *museum effect* (Smith, 2014b).

There are many reasons why art experiences in a museum are charged with individual motives and different expectations depending on the individual. Consumer research on museum-going as a common leisure activity identified two motivations for people to visit fine art museums (Guintcheva & Passebois, 2009). On the one hand there is the passive consumption of art, which describes the individual silent contemplation of artworks with perceived benefits of a feeling of belonging to a culture, for example, and on the other hand the active social art experience with interactive benefits like shared experiences with other people (Guintcheva & Passebois, 2009). Prior findings support the hypothesis that shared experiences, for example, making music together, lead to shared intentionality (Tomasello, Carpenter, Call, Behne, & Moll, 2005).

### **Individual Characteristics of the Art Recipient**

Judging artworks depends on education, individual knowledge and experience with art (Cupchik, Winston, & Herz, 1992). Studies showed that art experts differed from lay persons insofar as they showed attenuated reactions with less extreme valence ratings or liked negative art more (Leder, Gerger, Brieber, & Schwarz, 2014). Independent of expertise, emotion had a strong effect on art appreciation (Leder, Gerger, Dressler, & Schabmann, 2012), whereas art expertise

caused greater liking, which especially applied to the evaluation of modern art or artworks which are hardly comprehensible (Leder et al., 2012).

Besides prior experiences with art and the degree of expertise and art related education, individual personality characteristics influence aesthetic experiences. For example, openness to experience has been found to positively correlate with aesthetic experiences and to predict engagement in aesthetic activities (McManus, & Furnham, 2006). Openness to experience, one personality trait of the five factor model, includes facets like fantasy or active imagination, aesthetic sensitivity as well as attentiveness to inner feelings (McCrae, & Costa 1999). People who are open to experiences are, for example, more sensitive to beauty and more willing to try new things compared to people who are not. Additionally, the more open to new things people were, the more pleasurable aesthetic experiences they had (Fayn, MacCann, Tiliopoulos, & Silvia, 2015).

Another personal characteristic, which might play a role in aesthetic experiences and art appreciation, is mindfulness. Mindfulness is of particular interest to the present study because it comprises aspects like openness to experience which is already related to aesthetic experiences. In recent times, there has been a growing body of research on mindfulness relating to various contexts. Origins of the concept can be found in Buddhist meditation techniques, where it plays an important role in the cessation of personal suffering (Silananda, 1990). Mindfulness is described as “paying attention in a particular way: on purpose, in the present moment, nonjudgmentally” (Kabat-Zinn, 1994, p. 4) and is characterized by curiosity, openness and acceptance (Kabat-Zinn, 1994; Bishop, Lau, Shapiro, Carlson, Anderson, Carmody, ..., & Devins, 2004). Studies reported of health benefits and effectiveness of mindfulness trainings in the treatment of numerous diseases, particularly stress-related disorders (Hayes, Strosahl & Wilson, 1999; Linehan, 1993; Feuille & Pargament, 2013). A positive correlation between mindfulness and experiencing happiness was reported by Killingsworth and Gilbert (2010). Furthermore, dispositional and state mindfulness have been found to predict self-regulated behavior and positive emotional states and have been associated with psychological wellbeing (Brown & Ryan, 2003).

Above that, following the social type of art experiences in museums (Tröndle, 2014; Kirchberg & Tröndle, 2015), social connectedness might have been underestimated as a relevant

factor in aesthetic experiences so far. Social connectedness includes aspects of belonging, and measurements were constructed based on Kohut's (1984) self psychology theory (Lee & Robbins, 1998). Two independent scales, namely social connectedness and social assurance constitute the Social Connectedness Scale (SCS; Lee & Robbins, 1995). Persons with high values of social connectedness can easily identify with others and feel close to fellow human beings and to the social environment. Furthermore, being socially connected describes persons who perceive other people as friendly and open and who like being part of social groups and activities (Lee, Draper, & Lee, 2001). In addition, less socially connected participants did not show adequate interpersonal behavior skills to build and maintain relationships to others (Kohut, 1984) and studies reported of a correlation between social connectedness and mental balance (McWhirter, 1990; Lee & Robbins, 1995). Social connectedness seems to be relatively stable over a life span and can be seen as a trait, whereby variations of the characteristics according to the situation are possible and the measurement of social connectedness regarding a specific context concurrently expresses a current personal state.

### **Present Study**

One can assume that original art is special because it shows more than the visible, aesthetic experiences of original artworks, could only appear if the works are presented in their actual and genuine version. From the artist's point of view, also the context – where and how his work is presented – plays an important role and should be considered part of the work, even if the scope for action is often restricted and the artist is able to influence it only to a certain extent.

Indeed there is research on aesthetic experiences of art within museums and curated exhibitions (Mastandrea, Bartoli, & Bove, 2007; Mastandrea, Maricchiolo, Scopelliti, & Carrus, 2013; Smith, 2014b; Tröndle, Wintzerith, Wäspe, & Tschacher, 2012; Kirchberg & Tröndle, 2015) but many studies on aesthetic experiences of original artworks are limited to the laboratory with the effect that artworks were presented either on the computer (Locher & Dolese, 2004), projected on a screen (Hager, Hagemann, Danner, & Schankin, 2012) or handed to participants as printed versions (Locher & Dolese, 2004), regardless of exhibition or curatorial factors.

However, especially in the study of aesthetic experiences and investigating effects of original artworks, there might be a difference between presenting the genuine artwork and showing projections or prints. Hence, many aspects of the artwork defined by the artist are lost in printed pictures or digital illustrations of the originals. From the perspective of the artist, the determined size of a work might be an important or at least relevant factor and not one which he makes based on chance.

Furthermore, details such as surface finish or material characteristics and as a result spatial depth effects or an idea of weight and haptic texture are not perceivable for the viewer anymore, if the work is presented in digital format. For example, visible brushstrokes, subsurface material such as fabric, canvas or different papers or the type of paint used like oil, acrylic or watercolor become indistinct for the viewers, if they experience a painting on the computer. Following the mirror model of art, motives and particular decisions in the process of creating an artwork are of significant importance to the perceiver to fully sink into the aesthetic experience and understand the particular artwork (Tinio, 2013).

The present study had two main aims. The first aim was to explore the perception of genuine and original artworks in a recreated museum context with the advantage of controlled laboratory conditions and to investigate possible differences in the perception of reproduced artworks and non-artworks. The second aim was to examine variables which might play a role in the appreciation of original art and what makes it special.

Participants were randomly assigned to one of three experimental conditions and experienced either a set of original artworks, reproductions of these artworks or non-artworks, whereas the sets of stimuli were hanging on a wall. Within one viewing section participants were shortly disturbed by a background noise (ringing cellphone) in order to measure the absorption of the aesthetic experience and intensity of contemplation via behavioral observation of the participants' responses. After contemplation of the art, reproduction or non-art stimuli, the assessment took place on the basis of a questionnaire. Data was collected regarding the connectedness with the artists or creators, the connectedness with the artworks or workpieces,

social connectedness and mindfulness. In the end of the assessment section, the participants' memory of having recognized a background noise and their recall performance was evaluated.

Against the theoretical background of a subject-object relationship and additionally a supposed dialogical communication process during the contemplation of artworks, the overall objective was to explore a social foundation of art on the basis of including the importance of the artist. Based on the preceding discussion of previous findings, the following predictions were made:

(1) It was supposed that if the experience of art is sensitive to genuineness and originality, the experience of original art compared to reproductions and non-art would be different. An effect of genuineness or originality, such that original artworks would be appreciated the most when, compared with the other conditions, was expected. More in detail, viewing original artworks was assumed to be more cognitively stimulating and would be better judged regarding artistic quality and positive attraction. In contrast, the quality and attraction of reproductions was estimated to be evaluated less positively and the lowest for non-art pictures.

(2) Due to the approach of original art being special because of its handmade-effect and that it directly contains some physical and mental essence of the artist, participants should feel closer to the creator and consequently feel more connected to her or his artwork. Reproductions should cause less connectedness with the artist and the reproduced artwork, whereas the lowest expressions of feeling connected with the creator as well as with her or his workpiece was expected from non-artworks.

(3) Because of the estimated high cognitive stimulation and high positive attraction of originals, people might be more appropriated and sink deeper into the experience in the sense of getting lost in the contemplation of art. Participants might be more inattentive and distractible while viewing reproductions or non-artworks in comparison to genuine original art. Focused attention and an intensive dialogue with the original should be high. Participants in the original art condition might rarely respond to a background noise, and conscious recognition of the sound should be seldom. Vice versa, it was expected that participants in the reproduction and non-art

condition respond to and recognize the sound and therefore should be able to name the title or singer of the song in contrast to participants in the original art condition.

(4) Furthermore, it was hypothesized that social connectedness as well as mindfulness might be relevant factors in the context of art perception. People might indicate to be more mindful in line with the assumed engaging contemplative experience of genuine, original art. In addition to that, people might feel more socially connected to others and to the environment in general after an original art experience compared to the other conditions, which would also imply a sign of an underlying social purpose of art contemplation.

In more detail, it was assumed that social connectedness might be connected with the subscales of art reception on the one hand, while on the other participants' social connectedness during original art experiences might differ from experiences of reproduced or non-artworks. Expanding prior research which found that art experiences are accompanied by a feeling of belonging to a culture (), participants might feel more socially connected to the world after original art experiences compared to the other conditions.

## Method

### Participants

One part of the sample consisted of students from the University of Vienna and the other part was recruited online via social networks ( $N = 91$ ; 52 women); mean age was 25.93 years (range = 18 to 64 years,  $SD = 7.44$ ). Most of the participants were lay persons concerning art knowledge. Through an online registration for the study, participants were randomly assigned to one of the three conditions, either to the original art ( $N = 30$ ), the reproduction ( $N = 31$ ) or the non-art condition ( $N = 30$ ). There was no additional reward offered but students received course credit for their participation. All participants voluntarily took part in the study.

### Setting

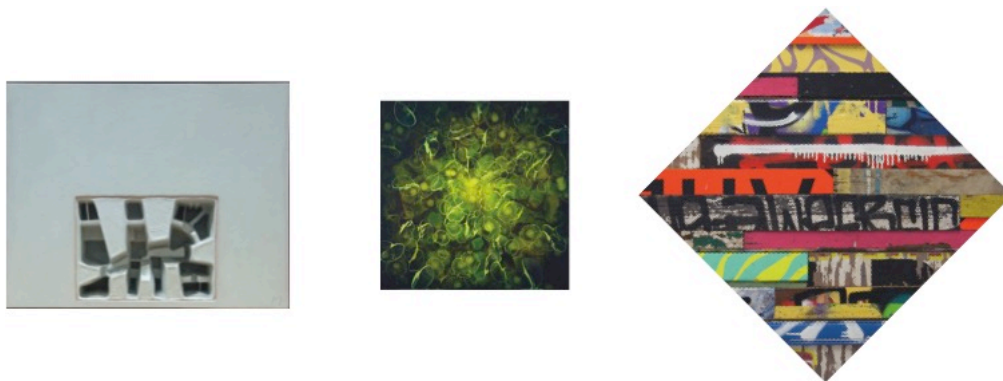
To rebuild a setting in which participants experience art as they would in museums or galleries, a room in the laboratory of the psychology department was prepared for the investigation.

The room was completely emptied out, all furniture except for seating facilities were removed to imitate a neutral and non-distractive gallery-like space.

### Materials

To mitigate potential effects of a single picture and to ensure an exhibition experience for every experimental condition a set of three stimuli was selected. Three original artworks, three reproductions of these artworks and three pictures without any artistic demand were used in the present study.

For the original art condition two private art collectors have provided three original contemporary artworks on loan. To eliminate content-related effects, abstraction served as a selection criterion. All artworks are therefore non-figurative or non-objective. The chosen artworks reflected different styles and were composed of different materials. The first artwork was an monochrome painted object, the second an abstract oil on canvas-painting and the third an assemblage of graffiti-sprayed wooden slats by an American street artist. The original artworks used in the first experimental condition are shown in Figure 1.

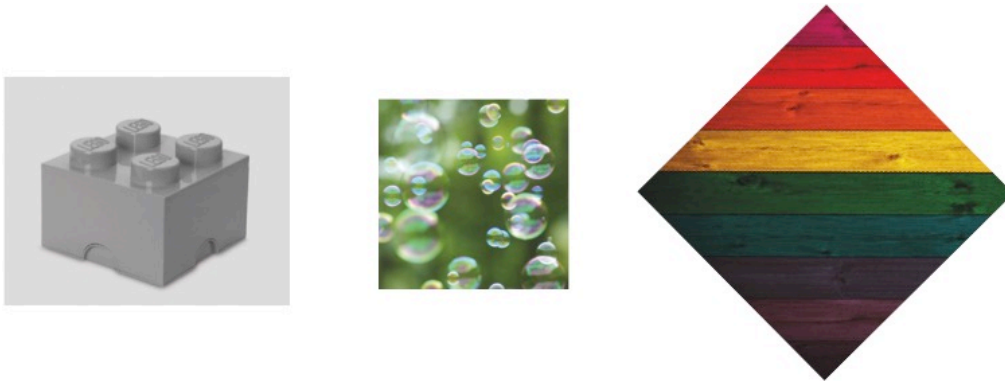


*Figure 1.* Artworks used in the original art condition and as identical prints in the reproduction condition.

For the reproduction condition three colour-fast photographs of the original artworks were reproduced and printed in the same size as the corresponding original. The three pictures used in the non-art condition were searched via ‘Google images’, which has a feature for performing reverse image searches. The found similar images were comparable in terms of size and colour of the original artworks and the reproductions respectively, though they did not have any obvious



aesthetic approach or artistic purpose. They were also printed out in the same size as the original artworks and the reproductions (see Figure 2).<sup>i</sup>



*Figure 2.* Pictures used in the non-art condition.

"Like a Virgin", a song by American singer Madonna, served as the background noise that consciously disturbed the experiment in order to assess the observed behavioral response as well as the recognition and recall performance at the end of the experiment. The song was chosen because it is one of the most famous and popular songs with an estimated high recognition value and equal opportunity of ever having heard it. Furthermore, it was particularly suitable as background noise because already the first few beats clearly indicate the melody. The ringtone was audible in a polyphonic version without lyrics in order to eliminate disruptive factors regarding content and emotions.

### **Design and Procedure**

To avoid interaction between participants, individual time slots of a maximum of 90 minutes were available per single person. Every participant was randomly assigned to one of the three experimental conditions. The original artworks were presented on a white wall in the laboratory, whereas in the other conditions the relevant set of reproductions and non-artworks were always installed exactly in the same position as the original ones. Neither background information on artists or creators and titles of the (art)work nor year of origin were provided for the participants. There was an identical procedure (in equal terms) for every condition. However, the standardized instructions differed insofar as the words "original artworks" were replaced by "reproductions" or

“pictures”. Depending on the condition, participants were told to experience either genuine original artworks or reproductions of artworks or pictures without any artistic ambition.

The procedure consisted of two successive sections: The first section contained the experience of artworks, reproductions or non-art pictures with behavioral observation by the experimenter (1). The second section served as data collection where participants had to complete a questionnaire (2).

*(1) Viewing section.* Participants were briefly instructed to imagine being in a museum or gallery space and received the task to view and experience the original artworks, reproductions or non-art-pictures. They were encouraged to let the images sink in and to dive into the experience of the original artworks, reproductions or non-art pictures. Participants were told to take in each painting in silence. The time limit was 5 minutes.

Within these 5 minutes a cellphone rang at medium volume after 2.5 minutes. In order to make it look like the experimenter forgot to mute her cellphone by mistake and inadvertently received a call, the ringtone was audible for no longer 10 seconds, thus ensuring that it was not obviously identifiable as part of the experiment. The behavior of the participants was observed and behavioral responses to the background noise noted.

*(2) Assessment section.* After experiencing and viewing the original artworks, reproductions or non-art pictures, participants rated how much they felt connected to each original artwork, reproduction or picture and how much they felt connected to the respective artist or creator of each (art)work, followed by the assessment of art reception. Furthermore, participants gave information regarding general personality variables. Mindfulness, social connectedness and sociodemographic data were assessed.

Finally, participants were asked by the experimenter (1) whether they could remember to have recognized the sound of a cellphone during the experience of the original artworks, reproductions or pictures, and (2) if they could recall the melody or know the title or singer of the song.

## Measures

A questionnaire in paper-pencil format used in the assessment section contained the following scales:

**Art Reception.** Art reception was assessed by using the German version of the Art Reception Survey (ARS) originally published by Hager et al. (2012). Art experience and judgments about art are measured by 6 independent dimensions including positive attraction (PA), artistic quality (AQ), self-reference (SR), expertise (EX), negative emotionality (NE) and cognitive stimulation (CS). Items are, for example, “I feel inspired by this painting” or “This painting is beautiful”. With respect to the comparability of results it was decided to follow the latter strategy with a 5-point answering format. Participants responded in categories from 1 (“completely disagree”) to 5 (“completely agree”). Cronbach's  $\alpha$  for the subscales of the German ARS were .85 (PA), .87 (AQ), .86 (SR), .51 (EX), .75 (NE), and .93 (CS).

**Connectedness with the Artist and Connectedness with the Artwork.** Connectedness with the artist ( $C_{Artist}$ ) was measured by using the 7-point Inclusion of Nature in the Self Scale (INS; Schultz, 2002). Participants were asked to mark one of the seven displayed graphics which represents their relationship to the artist best. Cronbach's  $\alpha$  was .61. To measure connectedness with the artwork ( $C_{Artwork}$ ) the INS following Schultz (2002) was adapted, replacing “nature” with “artwork”. Participants were asked to mark one of the seven displayed graphics which represents their relationship to the artwork best. Cronbach's  $\alpha$  was .22.

**Social Connectedness.** Social connectedness was measured by the Social Connectedness Scale (SCS; Lee & Robbins, 1995). All 20 items were translated into German and retranslated by an English native speaker to verify comparability and ensure validity of the German version. As in the original participants responded in categories from 1 (“strongly disagree”) to 6 (“strongly agree”). Items are, for example, “I am in tune with the world” or “I feel distant from people”. Items of the German scale are displayed in Appendix B.2. Cronbach's  $\alpha$  for the German SCS was .92.

**Mindfulness.** Mindfulness was assessed by the German 14-item-version of the Freiburg Mindfulness Inventory (FMI-14; Walach, Buchheld, Büttenmüller, Kleinknecht, & Schmidt, 2006) with a 4-point answering format (“rarely” to “almost always”). Items are, for example, “I am open

to the experience of the present moment” or “I accept unpleasant experiences“. Cronbach's  $\alpha$  was .79.

The behavioral aspects were measured as follows:

***Response to the Background Sound.*** While participants viewed artworks, reproductions or pictures, the experimenter observed the behavior of the participants and noted any responses to the background noise of the ringing cellphone depending on whether any response was observed or not. Response behavior included, for example, moving one's head towards the noise or turning around.

***Recognition of the Background Sound.*** Participants were asked if they could remember having heard a cellphone ringing during the first block of the experiment. Positive answers are considered conscious perception with the conclusion that participants were aware of the background noise.

***Recall of the Background Sound.*** Participants who indicated to have recognized a ringing cellphone were asked if they were able to recall the melody of the sound or if they could name the title or singer of the song.

## Results

***Art Reception.*** To test the hypothesis that the single dimensions of art reception may differ depending on the experimental condition, one-way ANOVAs for every subscale of the ARS with the experimental condition as factor were calculated. Mean ratings for each subscale of the ARS are displayed in Figure 3. Means ( $M$ ) and standard deviations ( $SD$ ) of the ARS subscales, separate for all three conditions, are displayed in Appendix A.1.

Contrary to expectations, no significant difference was found for positive attraction ( $F(2, 88) = 2.98, p = .056, \eta^2 = .064$ ) but Tukey post-hoc analysis showed a significant difference between the conditions original art and non-art ( $p < .05$ ). In line with the assumptions, participants were more positively attracted by original artworks ( $M = 2.82, SD = .56$ ) compared to non-artworks ( $M = 2.47, SD = .56$ ).

The experimental condition had a significant effect on the evaluation of the artistic quality ( $F(2, 88) = 19.22, p < .001, \eta^2 = .304$ ). Tukey post-hoc analysis showed a difference between the original artwork condition and the non-art condition ( $p < .001$ ) as well as between the reproduction and the non-art condition ( $p < .001$ ). In line with preliminary considerations, ratings regarding AQ of original artworks ( $M = 3.32, SD = .55$ ) were higher than those of the non-art pictures ( $M = 2.42, SD = .68$ ). Reproductions ( $M = 3.13, SD = .53$ ) were judged to be of higher artistic quality compared to non-art pictures.

A significant difference in self-reference was found ( $F(2, 88) = 4.03, p < .05, \eta^2 = .084$ ). Tukey post-hoc analysis showed a significant difference between the reproduction condition and the non-art condition ( $p < .05$ ). As expected, viewing original artworks ( $M = 2.06, SD = .76$ ) triggered that participants refer to themselves more than viewing reproductions of the same artworks did ( $M = 1.81, SD = .70$ ). Surprisingly, self-reference was found highest in the non-art condition ( $M = 2.36, SD = .80$ ).

The evaluation of expertise ( $F(2, 88) = 0.43, p = .653, \eta^2 = .010$ ) and negative emotionality ( $F(2, 88) = 0.41, p = .664, \eta^2 = .009$ ) did not reveal any statistically significant difference between the experimental conditions.

However, cognitive stimulation differed significantly in all conditions ( $F(2, 88) = 10.20, p < .001, \eta^2 = .188$ ). Tukey post-hoc analysis showed significant differences between the original art ( $M = 3.50, SD = .79$ ) and the non-art condition ( $M = 2.69, SD = .78, p < .001$ ) as well as between the reproduction ( $M = 3.35, SD = .64$ ) and the non-art condition ( $p < .05$ ), except for between original art and reproduction, where no significant difference could be found.

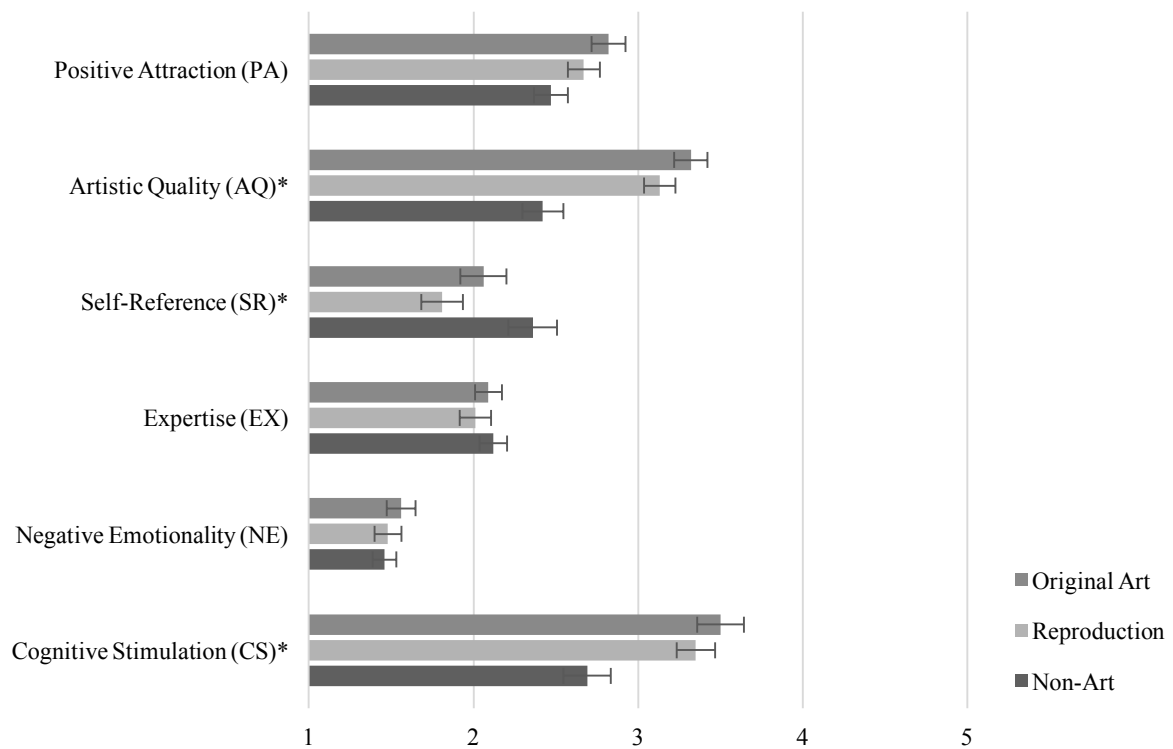


Figure 3. Mean ratings for each subscale of the ARS, separate for the three conditions of original art, reproduction and non-art. Error bars represent the standard error of the mean.

**Connectedness with the Artwork and Connectedness with the Artist.** A one-way ANOVA was conducted for the mean  $C_{Artwork}$  and the mean  $C_{Artist}$ . No significant effects of the experimental condition were found for  $C_{Artwork}$  ( $F(2, 88) = 1.74, p = .181, \eta^2 = .038$ ) as well as for  $C_{Artist}$  ( $F(2, 88) = 3.00, p = .057, \eta^2 = .063$ ). However, Tukey post-hoc analysis showed that the group of the original artwork condition did significantly differ from the group of the non-art condition regarding  $C_{Artist}$  ( $p = .050$ ). Participants who viewed the original artworks indicated feeling stronger connected to the artist ( $M = 2.03, SD = .99$ ) than participants who viewed the pictures of the non-art condition ( $M = 1.50, SD = .63$ ). Figure 4 displays the means and standard deviations of  $C_{Artwork}$  and  $C_{Artist}$ .

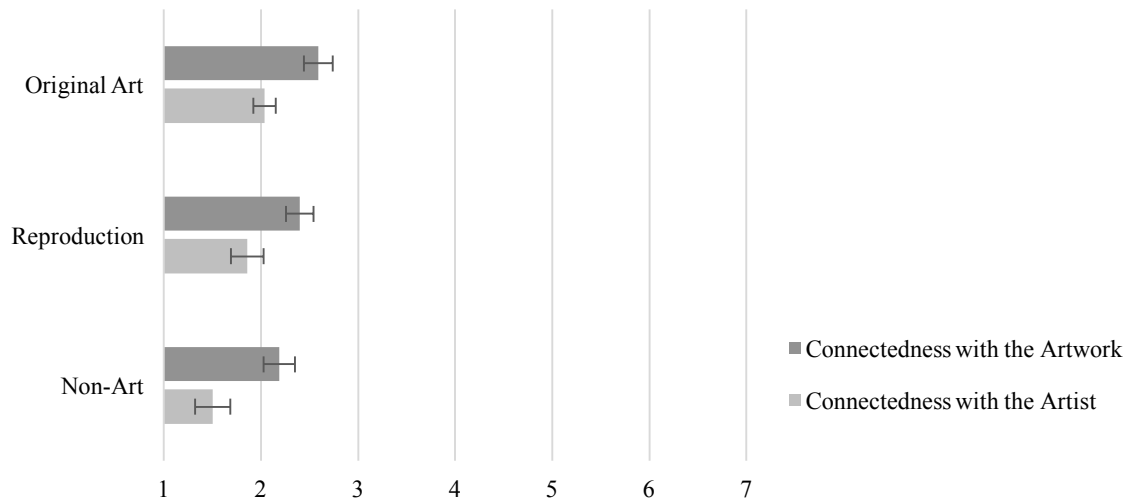


Figure 4. Means and standard deviations of connectedness with the artist ( $C_{Artist}$ ) and connectedness with the artwork ( $C_{Artwork}$ ).

Pearson's  $\chi^2$ -tests were conducted to measure focused attention and distractibility during the viewing block of the experiment by analysing the response behavior, recognition and recall performance of the participants.

**Response.** There was no significant association between the type of condition and whether or not participants would respond to the cellphone ringing ( $\chi^2(2, N = 90) = 0.09, p = .954$ ). Participants showed equally frequent response behavior independent of the condition, which is not in line with the assumed hypothesis.

**Recognition.** There was a significant association between the type of condition and whether or not participants would remember the ringtone ( $\chi^2(2, N = 86) = 14.53, p < .001$ ). Based on the odds ratio, the odds of participants who noticed the ringtone were 12 times higher in the non-art condition than in the original art condition. Yule's association coefficient indicated a high association between the two variables ( $Q = .84$ ).

A high association was also found for the non-art compared to the reproduction condition ( $OR = 5,647, p < .05, Q = .70$ ). The chance of recognizing the cellphone ringtone was about 6 times higher while viewing non-art pictures compared to reproductions. Almost no significant difference was found between the reproduction and the original art condition ( $OR = 2,125, p = .153, Q = .36$ ).

**Recall.** There was no significant association between the type of condition and whether or not participants could recall the melody of the ringtone they had heard ( $\chi^2(2, N = 87) = 0.14, p = .931$ ). An overview of the absolute frequency of participants who responded to the cellphone ringing and remembered it afterwards are displayed in Figure 5 for each three experimental conditions.

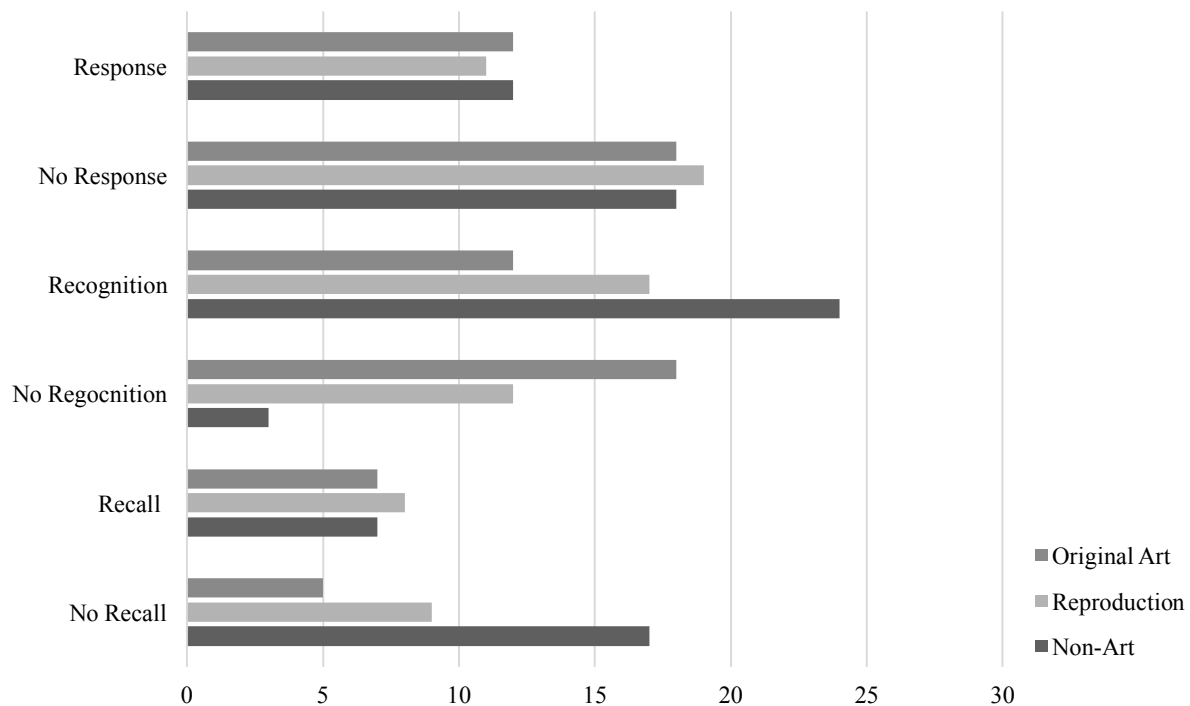


Figure 5. Absolute frequencies of observed behavioral response to background noise, recognition and recall performance for each three conditions of original art, reproduction and non-art.

**Social Connectedness.** A one-way ANOVA for mean social connectedness showed no significant effect of the experimental condition ( $F(2, 88) = 1.09, p = .340, \eta^2 = .024$ ). A presumed correlation between social connectedness and the ARS could not be found in the present study. All subscale means of the ARS did not correlate significantly with mean social connectedness.

**Mindfulness.** Contrary to the presumption, a one-way ANOVA for mean mindfulness also showed no significant effect of experimental condition ( $F(2, 88) = 0.04, p = .963, \eta^2 = .001$ ). Furthermore, significant correlations could not be found between mindfulness and the subscales of the ARS. However, additional analyses showed a significant correlation between mindfulness and



social connectedness ( $r(89) = .43, p < .001$ ). Means ( $M$ ) and standard deviations ( $SD$ ) of the SCS and FMI-14 separate for the three conditions are displayed in Appendix A.2.

### Further Analyses

Further analyses were conducted to take a closer look at variables suspected to be relevant factors regarding art perception. Especially self-reference and cognitive stimulation have been taken into account according to the current questions.

Self-reference and  $C_{Artwork}$  correlated moderately positively ( $r(89) = .47, p < .001$ ). The same applies to  $C_{Artist}$ , which also moderately correlated with self-reference ( $r(89) = .40, p < .001$ ). Cognitive stimulation and  $C_{Artist}$  showed a significant but weak to moderate correlation ( $r(89) = .36, p < .001$ ), also cognitive stimulation and  $C_{Artwork}$  correlated only moderately ( $r(89) = .39, p < .001$ ). An overview of correlations between total values of the ARS subscales and  $C_{Artist}$  or  $C_{Artwork}$  are displayed in Table 1.

Table 1  
*Spearman Rho correlations between sum scores  
of  $C_{Artist}$  or  $C_{Artwork}$  and sum scores of the ARS subscales*

	Connectedness	
	with the Artist	with the Artwork
PA	<b>.39**</b>	<b>.56**</b>
AQ	<b>.31**</b>	<b>.38**</b>
SR	<b>.40**</b>	<b>.47**</b>
EX	<b>.38**</b>	<b>.26*</b>
NE	<b>-.21*</b>	-.07
CS	<b>.36**</b>	<b>.39**</b>

Note. \*  $p < .05$ ; \*\*  $p < .001$ ;

ARS-subscales: PA = Positive Attraction, AQ = Artistic Quality,  
SR = Self-Reference, EX = Expertise, NE = Negative Emotionality,  
CS = Cognitive Stimulation.

Significant strong correlations between self-reference and  $C_{Artist}$  were found in the original art ( $r(89) = .58, p < .001$ ) and in the reproduction condition ( $r(89) = .60, p < .001$ ) but not significantly in the non-art condition ( $r(89) = .20, p = .28$ ).

Significant correlations between self-reference and  $C_{Artwork}$  were found in all conditions: a strong correlation in the original art ( $r(89) = .55, p < .001$ ), a moderately to strong correlation in the reproduction ( $r(89) = .48, p < .001$ ) and a strong correlation in the non-art condition ( $r(89) = .59, p < .001$ ). Correlations between the ARS subscales and  $C_{Artist}$  or  $C_{Artwork}$  separated for the conditions are presented in Table 2.

Table 2

*Spearman Rho correlations between ARS subscales and  $C_{Artist}$  as well as  $C_{Artwork}$  separate for every condition*

	Connectedness with the Artist			Connectedness with the Artwork		
	Original Art	Reproduction	Non-Art	Original Art	Reproduction	Non-Art
PA	.33	<b>.40*</b>	.36	.32	<b>.59**</b>	<b>.72**</b>
AQ	.16	.12	<b>.52**</b>	.22	.27	<b>.44*</b>
SR	<b>.58**</b>	<b>.60**</b>	.21	<b>.55**</b>	<b>.48**</b>	<b>.59**</b>
EX	<b>.44*</b>	<b>.61**</b>	.05	.23	.32	.19
NE	-.27	-.11	-.19	-.22	<b>.38*</b>	-.30
CS	<b>.38*</b>	<b>.39*</b>	.24	.30	<b>.41*</b>	<b>.48**</b>

Note. \*  $p < .05$ ; \*\*  $p < .001$ ;

$C_{Artist}$  = Connectedness with the Artist,  $C_{Artwork}$  = Connectedness with the Artwork, ARS-subscales: PA = Positive Attraction, AQ = Artistic Quality, SR = Self-Reference, EX = Expertise, NE = Negative Emotionality, CS = Cognitive Stimulation.

Linear regression analyses were calculated to predict  $C_{Artwork}$  or  $C_{Artist}$  depending on the ARS subscales. Results showed that the ARS subscales significantly predicted participants' ratings of both,  $C_{Artwork}$  and  $C_{Artist}$ . Hereafter, only the subscale self-reference was of interest and is described in detail.

***Self-Reference as Predictor of Connectedness with the Artist.*** Simple linear regression analyses were calculated to predict  $C_{Artist}$  depending on the ARS subscales. The results of the regression indicated the 6 predictors explained 55.6% of the variance in the original art condition ( $R^2 = .56, F(6, 23) = 4.79, p < .05$ ), with self-reference as a significant predictor of  $C_{Artist}$  ( $\beta = .50, t(22) = 2.65, p < .05, r = .67$ ). The 6 predictors explained 65.2% of the variance in the reproduction condition ( $R^2 = .65, F(6, 24) = 7.50, p < .001$ ) and 45.6% of the variance in the non-art condition ( $R^2 = .46, F(6, 23) = 3.21, p < .05$ ) but in the reproduction condition self-reference did not

significantly predict  $C_{Artist}$  ( $\beta = .26$ ,  $t(23) = 1.60$ ,  $p = .122$ ,  $r = .65$ ), whereas in the non-art condition it did ( $\beta = .60$ ,  $t(22) = 2.59$ ,  $p < .05$ ,  $r = .54$ ). Table 3 displays a summary of regression analyses for variables predicting  $C_{Artist}$ .

Table 3  
Summary of regression analyses for variables predicting  $C_{Artist}$  ( $N = 91$ )

	Original Art				Reproduction				Non-Art			
	<i>B</i>	<i>SE</i>	$\beta$	$R^2$	<i>B</i>	<i>SE</i>	$\beta$	$R^2$	<i>B</i>	<i>SE</i>	$\beta$	$R^2$
PA	0.15	0.40	.08	<b>.56*</b>	1.00	0.46	<b>.57*</b>	<b>.65**</b>	-0.15	0.31	-.14	<b>.46*</b>
AQ	0.22	0.33	.12		-0.94	0.36	<b>-.53*</b>		0.55	0.21	<b>.60*</b>	
SR	0.65	0.25	<b>.50*</b>		0.36	0.22	.27		-0.03	0.17	-.04	
EX	0.47	0.35	.22		0.52	0.33	.29		0.35	0.26	.26	
NE	-0.40	0.32	-.20		-0.24	0.29	-.12		-0.53	0.28	-.33	
CS	0.09	0.26	.08		0.19	0.26	.13		-0.08	0.21	-.09	

Note. \*  $p < .05$ , \*\*  $p < .001$ ;

$C_{Artist}$  = Connectedness with the Artist, ARS-subscale: PA = Positive Attraction, AQ = Artistic quality, SR = Self-reference, EX = Expertise, NE = Negative emotionality, CS = Cognitive stimulation.

**Self-Reference as Predictor of Connectedness with the Artwork.** The results of the regression indicated that the 6 predictors explained 46 % of the variance in the original art condition ( $R^2 = .46$ ,  $F(6, 23) = 3.27$ ,  $p < .05$ ). It was found that self-reference significantly predicted  $C_{Artwork}$  in the original art condition ( $\beta = .58$ ,  $t(22) = 2.78$ ,  $p < .05$ ,  $r = .62$ ). A similar result was found for the reproduction condition; the 6 predictors explained 54.1% of the variance ( $R^2 = .54$ ,  $F(6, 24) = 4.41$ ,  $p = .003$ ), and self-reference significantly predicted  $C_{Artwork}$  ( $\beta = .41$ ,  $t(23) = 2.19$ ,  $p < .05$ ,  $r = .41$ ). The results of the regression indicated that the 6 predictors explained 60.5% of the variance in the non-art condition ( $R^2 = .61$ ,  $F(6, 23) = 5.88$ ,  $p = .001$ ) but in this case self-reference could not be found to be a significant predictor of  $C_{Artwork}$  ( $\beta = .18$ ,  $t(22) = 0.99$ ,  $p = .334$ ,  $r = .61$ ). Table 4 displays a summary of regression analyses for variables predicting  $C_{Artwork}$ .

Table 4

Summary of regression analyses for variables predicting  $C_{Artwork}$  ( $N = 91$ )

	Original Art				Reproduction				Non-Art			
	<i>B</i>	<i>SE</i>	$\beta$	$R^2$	<i>B</i>	<i>SE</i>	$\beta$	$R^2$	<i>B</i>	<i>SE</i>	$\beta$	$R^2$
PA	-0.3	0.40	-.02	<b>.46*</b>	1.22	0.44	<b>.83*</b>	<b>.54*</b>	0.64	0.34	.44	<b>.61**</b>
AQ	0.46	0.33	.29		-0.42	0.35	-.28		-0.03	0.23	-.03	
SR	0.68	0.25	<b>.58*</b>		0.47	0.21	<b>.41*</b>		0.18	0.19	.18	
EX	0.19	0.35	.10		-0.36	0.32	-.24		0.39	0.28	.22	
NE	-0.38	0.32	-.21		0.48	0.28	.28		-0.41	0.30	-.20	
CS	-0.10	0.26	-.09		-0.16	0.25	-.13		0.08	0.23	.08	

Note. \* $p < .05$ , \*\* $p < .001$ ;

$C_{Artwork}$  = Connectedness with the Artwork, ARS subscales: PA = Positive Attraction, AQ = Artistic Quality, SR = Self-Reference, EX = Expertise, NE = Negative Emotionality, CS = Cognitive Stimulation.

## Discussion

Authenticity, genuineness and originality are important factors regarding the perception and evaluation of artworks, and the knowledge of these terms determines the impact of artworks on the perceiver (Goodman, 1995). There is much evidence of the special value ascribed to genuine and original artworks compared to reproductions or copies of art (Newman, & Bloom, 2012; Locher, & Dolese, 2004; Locher et al., 1999; Locher et al., 2001) as well as of the context effects, whether artworks were shown either in the laboratory or in a museum (Brieber et al., 2014; Brieber et al., 2015b; Tröndle, 2014; Kirchberg, & Tröndle, 2015).

To expand on prior research, the present study was conducted in order to explore differences in the perception and evaluation of original artworks in comparison to reproductions and non-artworks while presenting three sets of stimuli in an equivalent way by providing equally museum-like conditions. The objective was on examining variables which might play a role in the appreciation of original art in the course of individual art contemplation. Furthermore, it was aimed at exploring a possible social interaction between the beholder and the artist during contemplation of artworks similar to dialogical communication – an aspect which supports the hypothesis of a social value of art.

Participants experienced either three original artworks, three reproductions of these artworks or three non-artworks without aesthetic and artistic demands. Within the viewing section they were shortly disturbed by a background noise (i.e. a ringing cellphone) in order to measure the intensity of contemplation in the aesthetic experience via behavioral observation of participants' responses.

The main results of the present study can be summarized as follows: (a) Hardly any significant difference could be observed between original and reproduced artworks. In general, most dimensions of the ARS significantly differed between art and non-art but irrespective of originality. Positive attraction, cognitive stimulation and artistic quality were higher rated in the original art condition and differed significantly from the non-art condition, but not from the reproduction condition.

(b) The artist plays an important role in the perception and evaluation of original art. The results support the assumption that art contemplation resembles a dialogical communication between the beholder and the artist. Simply knowing the fact that exhibited work pieces were created by a genuine artist influenced participants' feeling of connectedness with the artist. Contrary to the presumptions, there was no significant difference between original and reproduced art. Even if the artist never came into contact with the reproduction, both, original and reproduced artworks originated from a true artist's mind and caused deeper feelings of connectedness compared to non-artworks. Furthermore, even if the artist or creator is unknown and participants have not received any background information, there was an influence of originality on how much one felt connected with the artist and the artwork.

(c) Moreover, the dimensions of the ARS have proven to be suitable variables to predict beholders' connectedness with an artist as well as connectedness with an artwork. This particularly applies to self-reference in the context of viewing original art: The more participants referred original artworks to themselves, the more they felt connected with the artist and with the artwork.

(d) Viewing original artworks was more attention-capturing than reproductions and non-artworks. Participants in the original art condition were lost in contemplation, their remembering of a distractive noise was significantly rarer than in the reproduction and non-art condition.

(e) It was hypothesized that social connectedness as well as mindfulness might be relevant factors in the context of original art perception, which could not be proved in the present study and requires further investigation. An influence of originality and genuineness of art on the beholders' social connectedness and mindfulness could not be observed. Contrary to expectations, the viewing of original artworks did not cause to feel more socially connected or to be more mindful than after the viewing of reproductions or non-artworks.

### **Art Reception**

To test the general assumption that the perception and evaluation of genuine original art is different from reproduced art and non-art, dimensions of the ARS were analyzed. To expand on prior findings regarding aesthetic experiences of original art, the two dimensions, cognitive stimulation and self-reference, were of particular interest and hence were discussed in more detail in this paper. Due to the fact that original artworks were judged as significantly more pleasant, interesting, and surprising than slide or computer images (Locher et al., 1999; Locher et al., 2001), it was hypothesized that this would also be the case in the present study and participants would rate the original artworks in a more positive way than reproductions and non-artworks.

Investigating the effects of aesthetic experiences showed that participants were more positively attracted to the originals than to the non-artworks, which is in line with the expectations. However, the positive attraction to reproductions was less than the positive attraction to the originals but contrary to presumptions it did not differ significantly. These finding may result from the sample which predominantly consisted of lay participants. Expertise was less in comparison to the sample of the study by Hager et al. (2012), which indicated that participants of the current study did not have much art knowledge. As prior studies demonstrated, lay participants seemed to be less critical compared to art experts (Leder et al., 2012; Leder et al., 2014). Moreover, a lack of individual knowledge of art and art experience was associated with less tools available for judgments and evaluations (Cupchik et al., 1992), while art experts probably view artworks more precisely in the way that they attach more importance to details. It is supposed that art experts would have evaluated the print-out reproductions of the artworks differently, while in terms of

attraction lay participants at least did not pay great attention to whether it was a print or the original.

As presumed, the experimental condition showed a significant effect on the evaluation of artistic quality. Participants judged the artistic quality of original art better when compared to reproductions and non-art. The significantly lowest artistic quality was attributed to non-artworks. Whereas the artistic quality of original artworks and reproduced artworks was overall highly valued and above average, participants ascribed poor artistic quality to non-artworks below-average, which is line with the presumptions. The evaluation of expertise as well as negative emotionality did not reveal any statistically significant difference between original art, reproduced art or non-art which might be explained by the sample composition.

Based on the model of aesthetic appreciation and aesthetic judgments (Leder et al., 2004; Leder & Nadal, 2014) differences of cognitive stimulation between viewing original artworks, reproductions or non-artworks were expected to appear. In fact, it became clear that cognitive stimulation differed significantly for each of the conditions. The aesthetic experience of original art was cognitively more stimulating than viewing reproductions or non-art. The findings support the consideration of art perception as information processing in which the beholder mainly absorbs and processes visual information (Leder et al., 2004).

In general, self-reference scored low (below-average) in all conditions, however, significant differences were found. As expected, viewing original artworks triggered participants to refer to themselves more than viewing reproductions did. One result that was not predicted was that self-reference scored highest in the non-art condition. In the present study the selection criteria of the non-artworks were the greatest possible similarity to the original artworks in regard of visual factors such as color. Unfortunately, the selected non-art pictures were more or less figurative and thus content and meaning were visible. High values of self-reference in the non-art condition could be explained by the fact that especially the image of the LEGO brick and the soap bubbles triggered awakening childhood memories and emotions of the participants. Brieber et al. (2015a) supposed that meaningfulness of viewed art as well as the personal relevance might be important preconditions for lay participants in understanding and evaluating artworks. Although the artistic

intention and aesthetic demands were missing in the images of the non-art condition, the figurative content caused the participants to feel presumably more moved because they understood what was pictured.

Studies demonstrated that perception of artworks and the impact on the viewer depends on the context in which art is shown (Brieber et al., 2014; Brieber et al., 2015b). In spite of contradictions to previous research, there is much evidence that museums as specific environments for experiencing art influence the evaluation of artworks and how people behave in front of artworks. For example, the dwell time duration (i.e. contemplation time) was longer in museum contexts, and artworks were more arousing, more positive and liked more, if they were viewed in a museum (Brieber et al., 2014). Based on these findings, it was supposed that the way of presentation (i.e. hanging all stimuli on the wall) might have an aesthetical effect on the perceiver and lead to a value appreciation of the (art)works by provoking the museum effect (Smith, 2014b).

It was assumed that it makes a difference whether a person is told to “imagine viewing an original oil-on-canvas painting with a size of 60 by 70 cm”, while it is projected on a flat 17-inch computer screen displaying probably incorrect colors. It was expected that especially for lay persons it might be difficult to imagine all these aspects which are not displayed on a computer screen or get lost in the process of screening it on a wall.

Although the participants were told whether they were going to view genuine authentic originals, printed reproductions of artworks or merely non-art without an aesthetic approach, the results suggest that participants were positively attracted by simply imagining being in a museum and behaving accordingly. It was expected that the museum-like presentation of the stimuli and showing original artworks or reproductions in reality would influence the intensity of the evaluation insofar as participants would evaluate the original artworks overall more positively compared to results of studies, which have presented original artworks screened on the wall (Hager et al., 2012). Contrary to expectations, all means of the ARS were found to be similar to the means reported by Hager et al. (2012), even if the authors in this case presented original artworks screened on the wall in contrast to the present study.



### **Connectedness with the Artist and Connectedness with the Artwork**

Although no significant differences of  $C_{Artist}$  and  $C_{Artwork}$  were observed between the conditions, post hoc analyses indicated a certain direction in line with the presumptions. As predicted, participants who viewed non-art felt less connected to its creator than participants who viewed originals. Whereas reproductions and non-artworks never were in contact with the artist, the original artworks directly contained physical and mental parts of the artist and therefore was more likely to be treated like a human being (Newman & Bloom, 2012). This would mean that the art recipient gets in touch with the artist while viewing his work and as a result probably engages in a form of communication. Nevertheless, there were no differences of  $C_{Artist}$  between participants who experienced original artworks compared to reproduced artworks. The imagination and power of empathizing might have been a bit higher than expected, and participants may have overlooked the fact that they were viewing reproductions instead of the originals, which is in line with the findings by Locher and Dolese (2004). On the other hand, even if the reproduced artworks never came into physical contact with the artist, they also contained mental parts (i.e. idea or intention) of the true artist compared to non-artworks without any artistic or aesthetic value and a lack of artistic demands.

### **Contemplation of Artworks and Art Beholder's Attention**

Prior studies have demonstrated that perceiving art in a museum is accompanied by more intense feelings (Brieber et al., 2015b), and museum visitors' attention has been described as a process of capture, focus and engagement with exhibited material, whereas noise was identified as a potential disruptive factor (Bitgood, 2010). In order to investigate possible differences in the attention of the perceiver either while viewing original artworks, reproductions or non-artworks, participants' response behavior to a background noise was observed.

Whereas the observed behavior was equally frequent in every condition, the chance to consciously notice the sound during the viewing time was much higher in the non-art condition than in the original art and reproduction condition. After the experiment significant more participants out of the non-art condition remembered to have heard the cellphone ringtone. Yet, almost no significant difference was observed between the reproduction and the original art

condition which does not underline the hypothesis of a closer relationship and stronger connectedness with the artist while viewing the original works.

These results could be explained through inattentional amnesia (Simons, 2000; Most et al., 2001; Most et al., 2005). Participants showed behavioral response to the background noise (for example turning around) and did not seem to be “blind” to the distraction. However, they might have sunken deeper into the aesthetic experience of originals and did not recognize the distractor consciously, although a behavioral response was observed. It might be possible that the state of getting lost in contemplation of original artworks effected inattentional amnesia and participants simply forgot that “something happened” during the viewing period. Future studies will be necessary to investigate these surprising findings in more detail with respect to attention processes and distractibility during art experiences. Nevertheless, an alternative explanation is that focused attention on original artworks causes inattentional blindness, which also could be an issue for future studies.

### **Social Connectedness and Mindfulness**

Investigating the effects of experimental conditions on subjective descriptions of persons' characteristics showed that participants did not feel more socially connected after experiencing original artworks, which is not in line with the preliminary considerations. It was expected that the interaction with genuine original artworks is accompanied by arising questions about the meaning of the works and the artists' intentions and that affecting a reference to oneself and to others might increase the participants' estimation of their social connectedness.

Prior findings demonstrated that openness to experience is associated with aesthetics and art (Fayn et al., 2015; Silvia et al., 2015). Therefore, it was supposed that mindfulness could also exist in association with original art experiences. Results of the present study contradict the hypothesis that mindfulness seems to play a role in the context of art perception. However, no differences could be found between the experimental conditions. Regardless of the condition, it did not influence how the participants rated their mindfulness. On the one hand, these results could be attributed to the sample and presumably differences might appear in a sample of art experts or in real museum settings. However, the means of our sample correspond to results of prior samples

(Walach et al., 2006) and does not comply with these considerations. Even if there was no evidence found for art experiences influencing peoples' mindfulness, it has not been definitely determined that would be the case, for example, in museum settings. On the other hand, in the present study participants' openness to experience was not checked, which does not allow conclusions regarding possible correlations between openness and mindfulness from the current point of view.

Additional analyses have shown that  $C_{Artist}$  as well as  $C_{Artwork}$  correlated positively in terms of positive attraction, artistic quality, self-reference, expertise and cognitive stimulation. Furthermore, calculations revealed that the dimensions of the ARS were strong predictors of both  $C_{Artist}$  and  $C_{Artwork}$ . This especially applies to self-reference, which significantly predicted  $C_{Artist}$  in the original art condition. Furthermore, self-reference significantly predicted  $C_{Artwork}$  in the original art condition and the reproduction condition. To know how strong a beholder refers the viewed original artwork to his self seems to be sufficient for estimating his relationship to the artist and to the artwork. This is in line with the assumptions reported by Hager et al. (2012), who supposed an association of self-reference and personal emotion.

## Conclusion

The emphasis of the current study was on investigating the perception and evaluation of genuine, original artworks compared to reproductions and non-artworks as well as exploring the artist's role during individual art contemplation. It was supposed that deep engagement with an artwork builds a closer relationship between the art beholder and the artist, which supports the hypothesis of a social interaction (i.e. communication) with the creator as a fundamental part of art perception.

In sum, the findings of the current study demonstrated that the evaluation of art is not sensitive to originality, if stimuli are presented in the same museum-like way. Art reception of participants differed between original artworks and non-artworks, but not between originals and reproductions. Although no significant differences between original and reproduced art regarding connectedness with the (art)works and artists could be observed, the results indicate that connectedness with an artist at least seems to be relevant in the perception of art compared to non-art without artistic demands.

Furthermore, it was demonstrated that people sink deeper into an art experience, if they know about the genuineness or originality of artworks. It was easier to distract participants who believed to view non-art than participants in the original art condition, who seemed to get lost in the contemplation of original artworks. Even if response behavior towards a background sound was observed equally frequent in every experimental condition, the memory to have recognized a sound was much more rarely triggered in the original art condition than in the non-art condition. Evidence suggests that original artworks capture beholder's attention ensuring deep involvement in the aesthetic experience.

Findings of the current study provide a strong argument for art experiences as a dialogical form of communication between recipient and artwork or artist. Connectedness with an artist was found to be stronger, if art was presented in its genuine or reproduced version, which is in line with the hypothesis of the extended self and that artworks contain physical and mental parts of the creator. Due to the fact that viewing and engaging with genuine artworks activates something in the perceiver, which is commonly described as being imposing or absorbing, it is suggested that the imagination of viewing art which was directly touched by the artist leads to a relationship of the beholder to the artist. This might be also the case for reproduced artworks, which at least contain mental parts of the artist. In sum, the findings provide strong evidence of an interactive process during art appreciation and support the assumed social purpose of art experiences in general.

### **Limitations and future research**

Although a gallery-like space served as surroundings for the experiment of the present study, it was still a laboratory space which could not imitate a real museum atmosphere. Even though several artworks were shown, it was not the same as if they had been presented at a curated art show. The effects of aesthetic experiences found in the present study might be more explicit in a real museum or gallery context. Findings of the present study are promising, and in times of permanent cellphone use and constant noise pollution through ringing phones it would be interesting if they could be reproduced on the basis of an art exhibition in a real museum context. Aside from basic research the findings provide an additional practical benefit for museum

experiences and an application dimension with regard to fostering visitors' attention by providing silent undisturbed art contemplation settings.

Additional social aspects such as influences of other museum visitors on the individual art contemplation and on the art beholder's attention should be an issue for future research. A next step would be to involve art experts for investigations in order to examine the intensity of their contemplation with artworks compared to lay participants with respect to attention processes. The role of the artist should not be underestimated and be taken into greater account. Although he might be unknown and not apparent, the artist is present in his artwork.



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<sup>i</sup> Image 1, LEGO, Retrieved from [http://roomcopenhagen.com/wp-content/uploads/2014/02/4003-LEGO-Storage-Brick-4\\_medium-stone-grey.png](http://roomcopenhagen.com/wp-content/uploads/2014/02/4003-LEGO-Storage-Brick-4_medium-stone-grey.png)

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Image 3, Rainbow wood floor, Retrieved from <http://covers8.com/wp-content/uploads/2014/09/Rainbow-Wood-Floor.jpg>



## Appendix A

**A.1** Means (*M*) and standard deviations (*SD*) of the ARS subscales, separate for the three conditions original art, reproduction and non-art

	Original Art N = 30		Reproduction N = 31		Non-Art N = 30	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
PA	2.82	.56	2.67	.53	2.47	.56
AQ	3.32	.55	3.13	.53	2.42	.68
SR	2.06	.76	1.81	.70	2.36	.80
EX	2.09	.45	2.01	.53	2.12	.46
NE	1.56	.49	1.48	.46	1.46	.40
CS	3.50	.79	3.35	.64	2.69	.78

*Note.*  $\alpha = .85$  (PA);  $\alpha = .87$  (AQ);  $\alpha = .86$  (SR);  $\alpha = .51$  (EX);  $\alpha = .75$  (NE);  $\alpha = .93$  (CS)

PA = Positive Attraction, AQ = Artistic Quality, SR = Self-Reference, EX = Expertise, NE = Negative Emotionality, CS = Cognitive Stimulation

**A.2** Means (*M*) and standard deviations (*SD*) of social connectedness (SCS) and mindfulness (FMI-14), separate for the three conditions original art, reproduction and non-art.

	Original Art N = 30		Reproduction N = 31		Non-Art N = 30	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Social Connectedness	4.56	.85	4.81	.66	4.75	.54
Mindfulness	2.80	.36	2.82	.44	2.80	.42

*Note.*  $\alpha = .92$  (SCS);  $\alpha = .79$  (FMI-14)

## Appendix B

### Material

#### **B.1 Viewing Section Instructions**

##### B.1.1 Original Art Condition

Stellen Sie sich bitte vor, Sie sind in einer Galerie oder in einem Museum!

Sie haben nun einige Minuten Zeit sich ganz in Ruhe mit drei Kunstwerken auseinanderzusetzen und die Kunstwerke auf sich wirken zu lassen.

Die Kunstwerke sind echte Originale, bitte berühren Sie diese nicht.

Lassen Sie sich bitte von mir nicht stören. Ich gebe Ihnen dann Bescheid, wenn die Zeit um ist.

##### B.1.2 Reproduction Condition

Stellen Sie sich bitte vor, Sie sind in einer Galerie oder in einem Museum!

Sie haben nun einige Minuten Zeit sich ganz in Ruhe mit drei Kunstwerken auseinanderzusetzen und die Kunstwerke auf sich wirken zu lassen. Es handelt sich hierbei um Reproduktionen von Kunstwerken, die originalgetreu ausgedruckt wurden.

Lassen Sie sich bitte von mir nicht stören. Ich gebe Ihnen dann Bescheid, wenn die Zeit um ist.

##### B.1.3 Non-Art Condition

Stellen Sie sich bitte vor, Sie sind in einer Galerie oder in einem Museum!

Sie haben nun einige Minuten Zeit sich ganz in Ruhe mit drei Bildern auseinanderzusetzen und die Bilder auf sich wirken zu lassen.

Es handelt sich hierbei um Bilder ohne künstlerischen Anspruch.

Lassen Sie sich bitte von mir nicht stören. Ich gebe Ihnen dann Bescheid, wenn die Zeit um ist.



**B.2 Assessment Section Questionnaire**

Code \_\_\_\_ \_\_\_\_ \_\_\_\_

**Fragebogen**

Sie hatten nun einige Minuten Zeit drei Kunstwerke auf sich wirken zu lassen. Wir bitten Sie nun einige Fragen zu den Kunstwerken, die sie gerade betrachtet haben, zu beantworten. Bitte füllen Sie den vorliegenden Fragebogen vollständig aus. Es gibt dabei keine „richtigen“ oder „falschen“ Antworten.

Bei Unklarheiten wenden Sie sich bitte an die Versuchsleiterin.

Wir danken Ihnen bereits jetzt für Ihre Mitarbeit und Ihre ehrliche Beantwortung der Fragen!



### Kunstwerk A

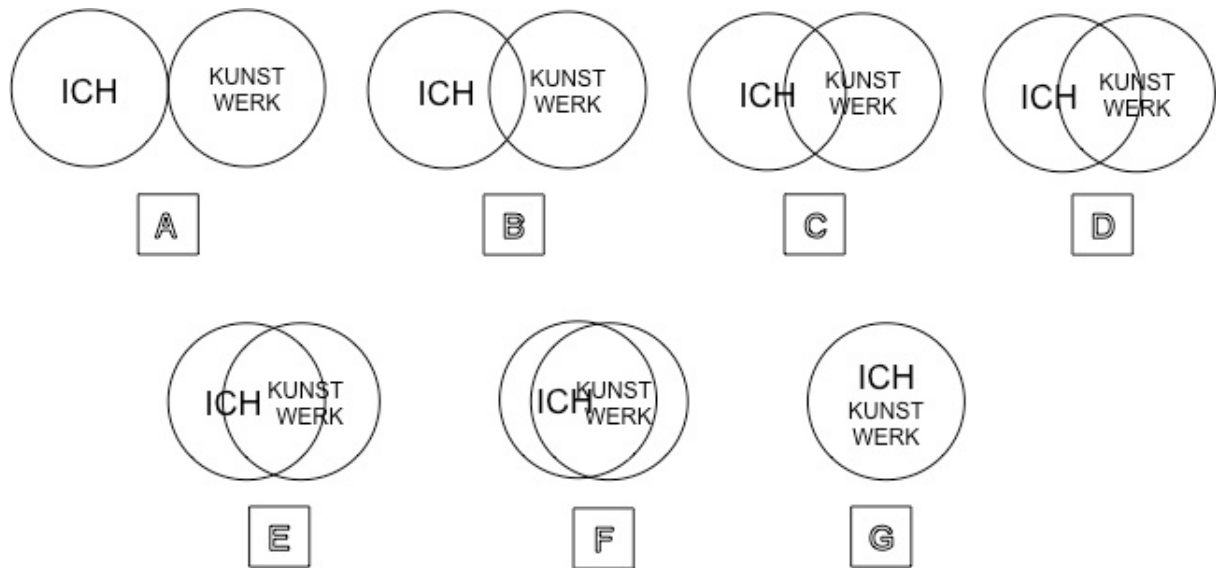
Nachfolgend sehen Sie eine Reihe von Feststellungen, die Ihre persönliche Einstellung zu dem Kunstwerk (A) beschreiben. Bitte lesen Sie sich die Aussagen aufmerksam durch und geben Sie an, in welchem Ausmaß diese auf Sie zutreffen. Wenn Sie sich nicht sicher sind, dann kreuzen Sie bitte an, was am Ehesten auf Sie zutrifft. Bitte markieren Sie Ihre Antwort durch ein Kreuz (je größer die Zahl 1-5, desto höher ist Ihre Zustimmung). Die Abstufungen reichen von **1 = Trifft gar nicht zu ... bis 5 = Trifft voll zu**.

	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
1. Ich könnte mir vorstellen eine große Geldsumme für dieses Kunstwerk zu bezahlen, um es zu kaufen.	1	2	3	4	5
2. Das Bild ist wunderschön.	1	2	3	4	5
3. Das Bild ist ansprechend.	1	2	3	4	5
4. Der Inhalt dieses Bildes bleibt mir verborgen.	1	2	3	4	5
5. Das Bild macht mir Angst.	1	2	3	4	5
6. Ich kann das Bild mit seinem kunsthistorischen Kontext in Verbindung bringen.	1	2	3	4	5
7. Die Komposition des Bildes ist von hoher Qualität.	1	2	3	4	5
8. Das Bild ist sehr innovativ.	1	2	3	4	5
9. Das Bild beunruhigt mich.	1	2	3	4	5
10. Ich kenne dieses Bild.	1	2	3	4	5
11. Das Bild spiegelt meinen emotionalen Zustand wider.	1	2	3	4	5

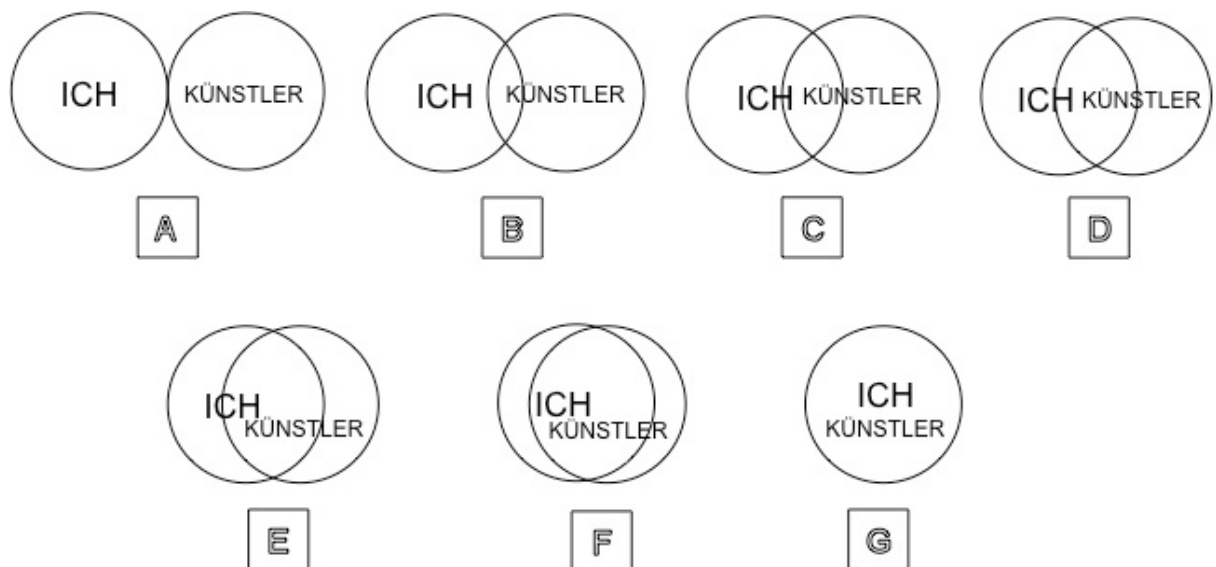
	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
12. Das Bild stößt mich ab.	1	2	3	4	5
13. Ich habe eine Vorstellung davon, was der Künstler mit dem Bild vermitteln möchte.	1	2	3	4	5
14. Das Bild zeugt von großer Kreativität.	1	2	3	4	5
15. Das Bild begeistert mich.	1	2	3	4	5
16. Das Bild inspiriert mich.	1	2	3	4	5
17. Es ist spannend, über das Bild nachzudenken.	1	2	3	4	5
18. Ich würde gerne mehr über den Hintergrund des Bildes erfahren.	1	2	3	4	5
19. Es macht Spaß, sich mit dem Bild auseinanderzusetzen.	1	2	3	4	5
20. Das Bild macht mich traurig.	1	2	3	4	5
21. Durch das Bild fühle ich mich einsam.	1	2	3	4	5
22. Ich kann das Bild einem bestimmten Künstler zuordnen.	1	2	3	4	5
23. Ich kann das Bild mit meiner eigenen Biographie in Verbindung bringen.	1	2	3	4	5
24. Die Machart dieses Bildes ist faszinierend.	1	2	3	4	5
25. Dieses Bild ist mit persönlichen Erinnerungen verknüpft.	1	2	3	4	5
26. Das Bild regt zum Nachdenken an.	1	2	3	4	5
27. Das Bild macht mich neugierig.	1	2	3	4	5
28. Das Bild regt mich an, über meine eigene Lebensgeschichte nachzudenken.	1	2	3	4	5

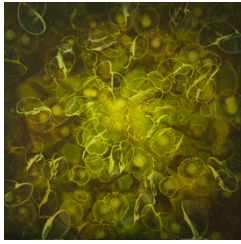
## SOCIAL FOUNDATION OF ART

Wie verbunden fühlen Sie sich mit dem **Kunstwerk**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Kunstwerk** am besten beschreibt.



Wie verbunden fühlen Sie sich mit **dem Künstler/ der Künstlerin**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Künstler/ der Künstlerin** am besten beschreibt.





### Kunstwerk B

Nachfolgend sehen Sie eine Reihe von Feststellungen, die Ihre persönliche Einstellung zu dem Kunstwerk (B) beschreiben. Bitte lesen Sie sich die Aussagen aufmerksam durch und geben Sie an, in welchem Ausmaß diese auf Sie zutreffen. Wenn Sie sich nicht sicher sind, dann kreuzen Sie bitte an, was am Ehesten auf Sie zutrifft.

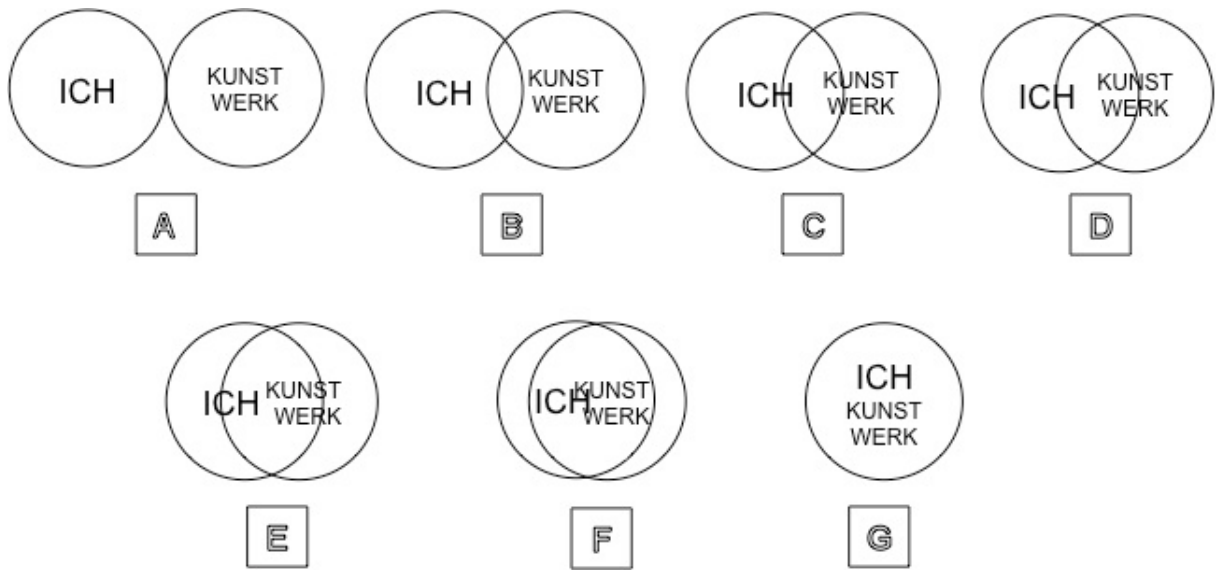
Bitte markieren Sie Ihre Antwort durch ein Kreuz (je größer die Zahl 1-5, desto höher ist Ihre Zustimmung).

Die Abstufungen reichen von **1 = Trifft gar nicht zu ... bis 5 = Trifft voll zu.**

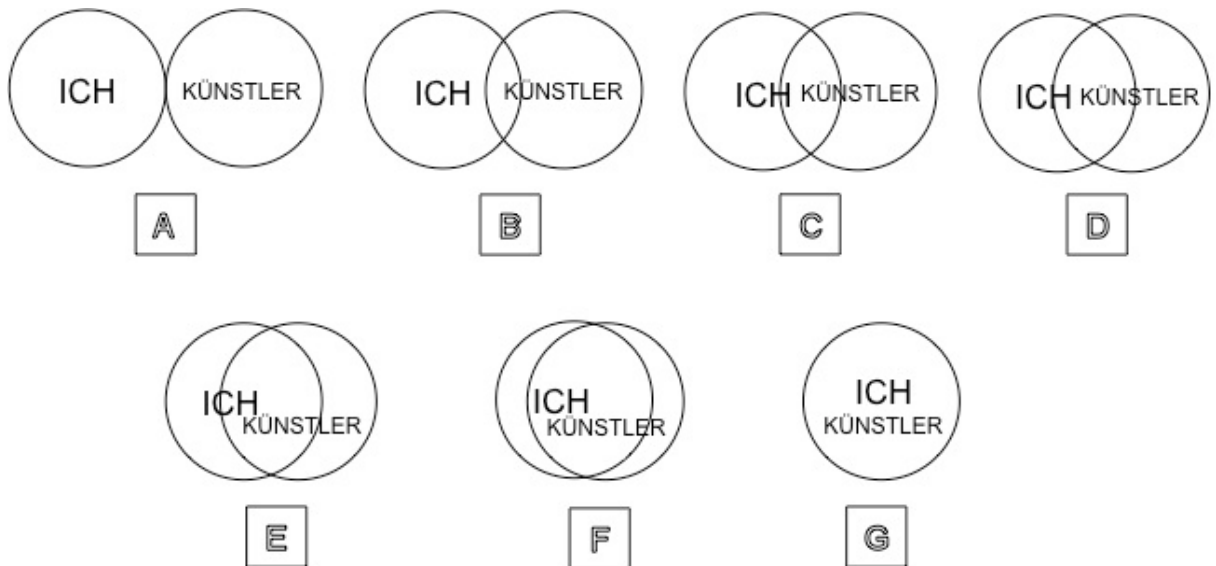
	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
1. Ich könnte mir vorstellen eine große Geldsumme für dieses Kunstwerk zu bezahlen, um es zu kaufen.	1	2	3	4	5
2. Das Bild ist wunderschön.	1	2	3	4	5
3. Das Bild ist ansprechend.	1	2	3	4	5
4. Der Inhalt dieses Bildes bleibt mir verborgen.	1	2	3	4	5
5. Das Bild macht mir Angst.	1	2	3	4	5
6. Ich kann das Bild mit seinem kunsthistorischen Kontext in Verbindung bringen.	1	2	3	4	5
7. Die Komposition des Bildes ist von hoher Qualität.	1	2	3	4	5
8. Das Bild ist sehr innovativ.	1	2	3	4	5
9. Das Bild beunruhigt mich.	1	2	3	4	5
10. Ich kenne dieses Bild.	1	2	3	4	5
11. Das Bild spiegelt meinen emotionalen Zustand wider.	1	2	3	4	5

	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
12. Das Bild stößt mich ab.	1	2	3	4	5
13. Ich habe eine Vorstellung davon, was der Künstler mit dem Bild vermitteln möchte.	1	2	3	4	5
14. Das Bild zeugt von großer Kreativität.	1	2	3	4	5
15. Das Bild begeistert mich.	1	2	3	4	5
16. Das Bild inspiriert mich.	1	2	3	4	5
17. Es ist spannend, über das Bild nachzudenken.	1	2	3	4	5
18. Ich würde gerne mehr über den Hintergrund des Bildes erfahren.	1	2	3	4	5
19. Es macht Spaß, sich mit dem Bild auseinanderzusetzen.	1	2	3	4	5
20. Das Bild macht mich traurig.	1	2	3	4	5
21. Durch das Bild fühle ich mich einsam.	1	2	3	4	5
22. Ich kann das Bild einem bestimmten Künstler zuordnen.	1	2	3	4	5
23. Ich kann das Bild mit meiner eigenen Biographie in Verbindung bringen.	1	2	3	4	5
24. Die Machart dieses Bildes ist faszinierend.	1	2	3	4	5
25. Dieses Bild ist mit persönlichen Erinnerungen verknüpft.	1	2	3	4	5
26. Das Bild regt zum Nachdenken an.	1	2	3	4	5
27. Das Bild macht mich neugierig.	1	2	3	4	5
28. Das Bild regt mich an, über meine eigene Lebensgeschichte nachzudenken.	1	2	3	4	5

Wie verbunden fühlen Sie sich mit dem **Kunstwerk**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Kunstwerk** am besten beschreibt.



Wie verbunden fühlen Sie sich mit **dem Künstler/ der Künstlerin**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Künstler/ der Künstlerin** am besten beschreibt.





### Kunstwerk C

Nachfolgend sehen Sie eine Reihe von Feststellungen, die Ihre persönliche Einstellung zu dem Kunstwerk (C) beschreiben. Bitte lesen Sie sich die Aussagen aufmerksam durch und geben Sie an, in welchem Ausmaß diese auf Sie zutreffen. Wenn Sie sich nicht sicher sind, dann kreuzen Sie bitte an, was am Ehesten auf Sie zutrifft. Bitte markieren Sie Ihre Antwort durch ein Kreuz (je größer die Zahl 1-5, desto höher ist Ihre Zustimmung). Die Abstufungen reichen von **1 = Trifft gar nicht zu ... bis 5 = Trifft voll zu**.

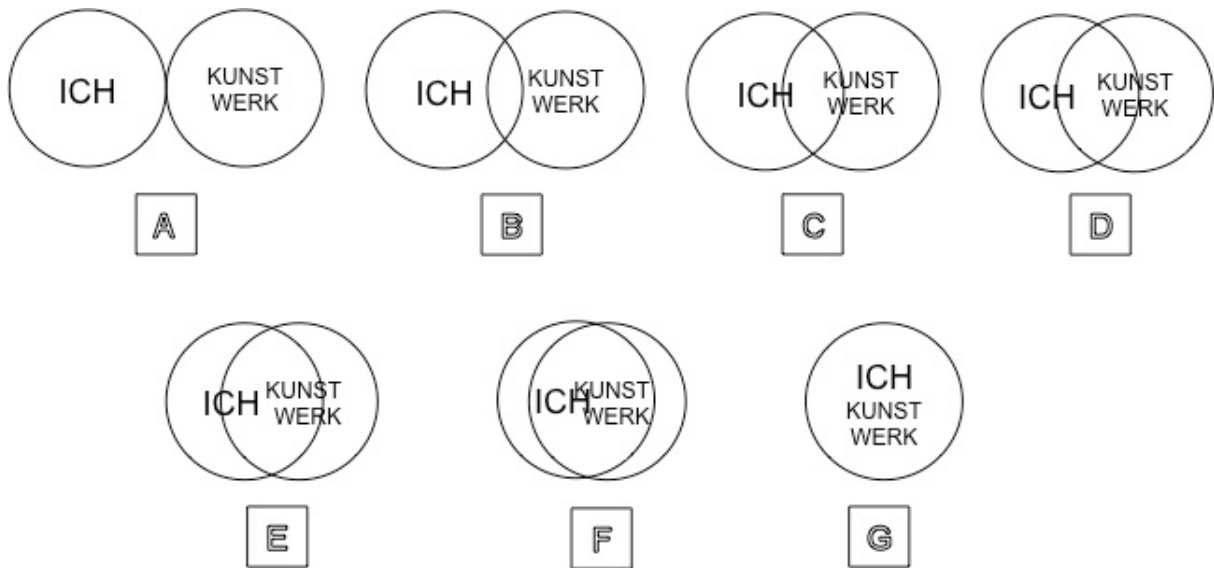
	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
1. Ich könnte mir vorstellen eine große Geldsumme für dieses Kunstwerk zu bezahlen, um es zu kaufen.	1	2	3	4	5
2. Das Bild ist wunderschön.	1	2	3	4	5
3. Das Bild ist ansprechend.	1	2	3	4	5
4. Der Inhalt dieses Bildes bleibt mir verborgen.	1	2	3	4	5
5. Das Bild macht mir Angst.	1	2	3	4	5
6. Ich kann das Bild mit seinem kunsthistorischen Kontext in Verbindung bringen.	1	2	3	4	5
7. Die Komposition des Bildes ist von hoher Qualität.	1	2	3	4	5
8. Das Bild ist sehr innovativ.	1	2	3	4	5
9. Das Bild beunruhigt mich.	1	2	3	4	5
10. Ich kenne dieses Bild.	1	2	3	4	5
11. Das Bild spiegelt meinen emotionalen Zustand wider.	1	2	3	4	5



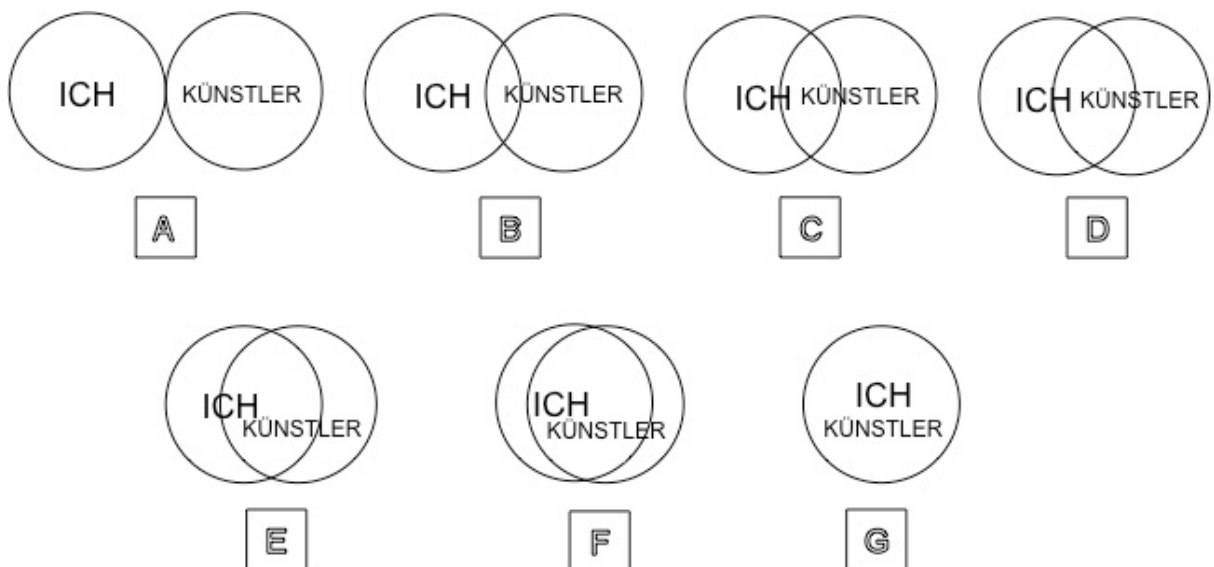
	Trifft gar nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll zu
12. Das Bild stößt mich ab.	1	2	3	4	5
13. Ich habe eine Vorstellung davon, was der Künstler mit dem Bild vermitteln möchte.	1	2	3	4	5
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18. Ich würde gerne mehr über den Hintergrund des Bildes erfahren.	1	2	3	4	5
19. Es macht Spaß, sich mit dem Bild auseinanderzusetzen.	1	2	3	4	5
20. Das Bild macht mich traurig.	1	2	3	4	5
21. Durch das Bild fühle ich mich einsam.	1	2	3	4	5
22. Ich kann das Bild einem bestimmten Künstler zuordnen.	1	2	3	4	5
23. Ich kann das Bild mit meiner eigenen Biographie in Verbindung bringen.	1	2	3	4	5
24. Die Machart dieses Bildes ist faszinierend.	1	2	3	4	5
25. Dieses Bild ist mit persönlichen Erinnerungen verknüpft.	1	2	3	4	5
26. Das Bild regt zum Nachdenken an.	1	2	3	4	5
27. Das Bild macht mich neugierig.	1	2	3	4	5
28. Das Bild regt mich an, über meine eigene Lebensgeschichte nachzudenken.	1	2	3	4	5

## SOCIAL FOUNDATION OF ART

Wie verbunden fühlen Sie sich mit dem **Kunstwerk**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Kunstwerk** am besten beschreibt.



Wie verbunden fühlen Sie sich mit **dem Künstler/ der Künstlerin**? Bitte markieren Sie die Darstellung, welche Ihre **Beziehung zu dem Künstler/ der Künstlerin** am besten beschreibt.



Nachfolgend sehen Sie eine Reihe von Aussagen, die beschreiben wie Sie sich selbst sehen. Bitte lesen Sie sich die Aussagen aufmerksam durch und geben Sie an, in welchem Ausmaß diese auf Sie zutreffen. Wenn Sie sich nicht sicher sind, dann kreuzen Sie bitte an, was am Ehesten auf Sie zutrifft und lassen Sie keine Frage aus.

**Die Abstufungen reichen von 1 = Trifft gar nicht zu ... bis 6 = Trifft voll zu.**

	Trifft gar nicht zu	Trifft nicht zu	Trifft eher nicht zu	Trifft eher zu	Trifft zu	Trifft voll zu
1. Ich fühle mich in der Anwesenheit von Fremden wohl.	1	2	3	4	5	6
2. Ich bin mit der Welt im Einklang.	1	2	3	4	5	6
3. Selbst unter meinen Freunden gibt es kein Gefühl von Brüderlichkeit.	1	2	3	4	5	6
4. Ich passe mich neuen Situationen gut an.	1	2	3	4	5	6
5. Ich fühle mich den Menschen nahe.	1	2	3	4	5	6
6. Ich fühle mich mit meiner Umwelt nicht verbunden.	1	2	3	4	5	6
7. Selbst unter Leuten, die ich kenne habe ich das Gefühl nicht wirklich dazuzugehören.	1	2	3	4	5	6
8. Ich empfinde Menschen als freundlich und zugänglich.	1	2	3	4	5	6
9. Ich fühle mich als Außenseiter.	1	2	3	4	5	6
10. Ich fühle mich verstanden von den Menschen, die ich kenne.	1	2	3	4	5	6
11. Ich fühle mich den Menschen fern.	1	2	3	4	5	6
12. Ich kann mit Kollegen/Gleichaltrigen Beziehungen aufbauen.	1	2	3	4	5	6
13. Bei meinen Kollegen/Gleichaltrigen habe ich ein geringes Zusammengehörigkeitsgefühl.	1	2	3	4	5	6
14. Ich bringe mich aktiv ins Leben anderer ein.	1	2	3	4	5	6
15. Ich ertappe mich dabei, ein Gefühl der Verbundenheit zur Gesellschaft zu verlieren.	1	2	3	4	5	6
16. Ich kann mit anderen Menschen in Beziehung treten.	1	2	3	4	5	6
17. Ich sehe mich als Einzelgänger.	1	2	3	4	5	6

	Trifft gar nicht zu	Trifft nicht zu	Trifft eher nicht zu	Trifft eher zu	Trifft zu	Trifft voll zu
18. Ich fühle mich den meisten Menschen nicht nahe.	1	2	3	4	5	6
19. Meine Freunde sind für mich wie eine Familie.	1	2	3	4	5	6
20. Ich fühle mich keiner Person oder Gruppe zugehörig.	1	2	3	4	5	6

Kreuzen Sie bitte jeweils bei jeder Frage die Antwort an, die am ehesten auf Sie zutrifft. Wenn Sie sich nicht sicher sind, dann kreuzen Sie bitte an, was am Ehesten auf Sie zutrifft und lassen Sie keine Frage aus.

**Die Abstufungen reichen von 1 = Fast nie ... bis 5 = Fast immer.**

	Fast nie	Eher selten	Manchmal	Relativ oft	Fast immer
1. Es gefällt mir, meinen Freunden/-innen und Kollegen/-innen bei ihren Tätigkeiten zu helfen.	1	2	3	4	5
2. Ich teile die Dinge, die ich habe, mit meinen Freunden.	1	2	3	4	5
3. Ich versuche, anderen zu helfen.	1	2	3	4	5
4. Ich stehe als freiwillige/-r Helfer/-in für diejenigen zur Verfügung, die hilfsbedürftig sind.	1	2	3	4	5
5. Ich fühle mit hilfsbedürftigen Menschen mit.	1	2	3	4	5
6. Leuten, die in Not sind, helfe ich sofort.	1	2	3	4	5
7. Ich tue was ich kann, um anderen dabei zu helfen, nicht in Schwierigkeiten zu geraten.	1	2	3	4	5
8. Ich fühle intensiv, was andere fühlen.	1	2	3	4	5
9. Ich bin gewillt, mein Wissen und meine Fähigkeiten anderen zur Verfügung zu stellen.	1	2	3	4	5
10. Ich versuche diejenigen zu trösten, die traurig sind.	1	2	3	4	5
11. Ich verleihe schnell Geld oder andere Sachen.	1	2	3	4	5
12. Ich versetze mich gerne in die Situation von Menschen hinein, denen es schlecht geht.	1	2	3	4	5

	Fast nie	Eher selten	Manchmal	Relativ oft	Fast immer
13. Ich versuche denen, die hilfsbedürftig sind, nahe zu stehen und mich um sie zu kümmern.	1	2	3	4	5
14. Ich lasse Freunden/-innen gerne an guten Möglichkeiten die sich mir bieten teilhaben.	1	2	3	4	5
15. Ich verbringe Zeit mit jenen Freunden/-innen, die einsam sind.	1	2	3	4	5
16. Ich erkenne es auf der Stelle, wenn es einem/einer meiner Freunde/-innen schlecht geht, auch wenn es mir nicht direkt mitgeteilt wird.	1	2	3	4	5

Der nachfolgende Fragebogen erfasst „**Achtsamkeit**“. Bitte beziehen Sie dabei die Aussagen **auf den letzten Tag**. Kreuzen Sie bitte bei jeder Frage die Antwort an, die am ehesten auf Sie zutrifft und lassen Sie keine Frage aus.

**Die Abstufungen reichen von 1 = Fast nie ... bis 4 = Fast immer.**

	Fast nie	Eher selten	Relativ oft	Fast immer
1. Ich bin offen für die Erfahrung des Augenblicks.	1	2	3	4
2. Ich spüre in meinen Körper hinein, sei es beim Essen, Kochen, Putzen, Reden.	1	2	3	4
3. Wenn ich merke, dass ich abwesend war, kehre ich sanft zur Erfahrung des Augenblicks zurück.	1	2	3	4
4. Ich kann mich selbst wertschätzen.	1	2	3	4
5. Ich achte auf die Motive meiner Handlungen.	1	2	3	4
6. Ich sehe meine Fehler und Schwierigkeiten, ohne mich zu verurteilen.	1	2	3	4
7. Ich bin in Kontakt mit meinen Erfahrungen, hier und jetzt.	1	2	3	4
8. Ich nehme unangenehme Erfahrungen an.	1	2	3	4
9. Ich bin mir selbst gegenüber freundlich, wenn Dinge schief laufen.	1	2	3	4
10. Ich beobachte meine Gefühle, ohne mich in ihnen zu verlieren.	1	2	3	4
11. In schwierigen Situationen kann ich innehalten.	1	2	3	4
12. Ich erlebe Momente innerer Ruhe und Gelassenheit, selbst wenn äußerlich Schmerzen und Unruhe da sind.	1	2	3	4
13. Ich bin ungeduldig mit mir und meinen Mitmenschen.	1	2	3	4
14. Ich kann darüber lächeln, wenn ich sehe, wie ich mir manchmal das Leben schwer mache.	1	2	3	4

Sie werden jetzt eine Reihe von Aussagen lesen, die jeweils bestimmte (verallgemeinerte) menschliche Eigenschaften oder Reaktionen beschreiben, die alle etwas mit Gefühlen zu tun haben. Bitte kennzeichnen Sie dann auf der 5-Punkte-Skala, inwieweit diese Aussage auf Sie zutrifft; je höher die Zahl, desto höher die Zustimmung. Vielleicht fällt Ihnen auch zu der einen oder anderen allgemeinen Beschreibung ein konkretes Erlebnis ein. Es gibt dabei keine richtigen oder falschen Antworten.

**Die Abstufungen reichen von 1 = Trifft gar nicht zu ... bis 5 = Trifft voll zu.**

	Trifft gar nicht zu	Trifft nicht zu	Trifft eher nicht zu	Trifft eher zu	Trifft zu
1. Ich empfinde warmherzige Gefühle für Leute, denen es weniger gut geht als mir.	1	2	3	4	5
2. Die Gefühle einer Person in einem Roman kann ich mir sehr gut vorstellen.	1	2	3	4	5
3. In Notfallsituationen fühle ich mich ängstlich und unbehaglich.	1	2	3	4	5
4. Ich versuche, bei einem Streit zuerst beide Seiten zu verstehen, bevor ich eine Entscheidung treffe.	1	2	3	4	5
5. Wenn ich sehe, wie jemand ausgenutzt wird, glaube ich, ihn schützen zu müssen.	1	2	3	4	5
6. Ich fühle mich hilflos, wenn ich inmitten einer sehr emotionsgeladenen Situation bin.	1	2	3	4	5
7. Nachdem ich einen Film gesehen habe, fühle ich mich so, als ob ich eine der Personen aus diesem Film sei.	1	2	3	4	5
8. In einer gespannten emotionalen Situation zu sein, beängstigt mich.	1	2	3	4	5
9. Ich bin oft ziemlich berührt durch Dinge, die vor meinen Augen passieren.	1	2	3	4	5
10. Ich glaube, jedes Problem hat zwei Seiten und versuche deshalb beide zu berücksichtigen.	1	2	3	4	5
11. Ich würde mich selbst als eine ziemlich weichherzige Person bezeichnen.	1	2	3	4	5
12. Wenn ich einen guten Film sehe, kann ich mich sehr leicht in die Hauptperson hineinversetzen.	1	2	3	4	5
13. In heiklen Situationen neige ich dazu, die Kontrolle über mich zu verlieren.	1	2	3	4	5
14. Wenn mir das Verhalten eines anderen komisch vorkommt, versuche ich mich für eine Weile in seine Lage zu versetzen.	1	2	3	4	5
15. Wenn ich eine interessante Geschichte oder ein gutes Buch lese, versuche ich mir vorzustellen, wie ich mich fühlen würde, wenn mir die Ereignisse passieren würden.	1	2	3	4	5
16. Bevor ich jemanden kritisiere, versuche ich mir vorzustellen, wie ich mich an seiner Stelle fühlen würde.	1	2	3	4	5

Abschließend bitten wir Sie nun noch um einige **Angaben zu Ihrer Person**:

**1. Alter in Jahren** \_\_\_\_\_

**2. Geschlecht**

☐ weiblich

☐ männlich

**3. Staatszugehörigkeit**

☐ Österreich

☐ Deutschland

☐ Andere: \_\_\_\_\_

**4. Höchster allgemeinbildender Schulabschluss**

☐ kein Abschluss

☐ Pflichtschule

☐ Berufsbildende mittlere Schule

☐ Matura/ Abitur

☐ Hochschule

**5. Gehören Sie zu einer der aufgeführten Gruppen?**

☐ SchülerInnen

☐ StudentInnen

☐ PensionistInnen/RentnerInnen

☐ Arbeitslose

☐ Erwerbsunfähige

☐ Hausmann/Hausfrau

**6. Beruf oder Studienrichtung(en)** \_\_\_\_\_

**7. Wie oft besuchen Sie eine Kunstaussstellung?**

☐ nie

☐ selten (1- bis 2-mal im Jahr)

☐ ab und zu (3- bis 6-mal im Jahr)

☐ oft (1-mal im Monat)

☐ sehr oft (mehrmals im Monat)

**8. Wann haben Sie die letzte Kunstaussstellung besucht?** ☐ länger als 3 Monate her

☐ innerhalb der letzten 3 Monate

☐ innerhalb des letzten Monats

☐ innerhalb der letzten Woche



**Was glauben Sie sollte mit diesem Experiment untersucht werden?**

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**Haben Sie noch Anmerkungen?**

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**Vielen Dank für Ihre Teilnahme!**

Alle Daten sind anonym und werden streng vertraulich behandelt und ausgewertet. Rückschlüsse auf Ihre Person sind nicht möglich.

Wenn Sie noch Fragen oder Anmerkungen zur Studie haben wenden Sie sich bitte per E-Mail an uns:

a0747451@unet.univie.ac.at

Marlene Bauer, Nicole Hynek und Laura Pirgie

## Appendix C

**C.1 Summary**

The knowledge about authenticity, originality or genuineness determines the perception and evaluation of artworks. The present study's main objectives were to explore a social purpose of art by determining if art contemplation is based on an interaction between beholder and artist, and to investigate possible differences in the perception of genuine and original artworks compared to reproductions and non-artworks. A detailed comparison with respect to art reception, mindfulness, social connectedness and connectedness with the artist and artwork was made by collecting data of 91 participants who experienced either originals, reproductions or non-artworks. The individual contemplation was measured by observing participants' behavioral response to a background sound during viewing time and evaluating their recognition and recall performance. Results regarding art reception showed significant differences between original artworks and non-artworks, but almost no differences to reproductions. Participants were more positively attracted to original artworks, which were found to be cognitively more stimulating and of higher artistic quality. Participants indicated to feel stronger connected with the artwork as well as the artist, if it was about originals. Although all participants' response behavior to the background sound was similar, participants' in the original art condition were lost in contemplation, unable to remember having heard the sound. Further analyses revealed that the dimensions of art reception are strong predictors for connectedness with the artist and the artwork which particularly applies to self-reference. Original art contemplation is attention-capturing and highly absorbing. Evidence suggests that original art experiences reflect an interaction process caused by a closer relationship of a beholder to an artist. Findings support the assumption of an underlying social purpose of art and provide a good basis for future investigations.

*Keywords:* aesthetic experience, art appreciation, authenticity, connectedness with the artist, genuineness

## C.2 Zusammenfassung

Die Wahrnehmung und Bewertung von Kunstwerken wird durch das Wissen über ihre Authentizität, Originalität und Echtheit bestimmt. Wesentliche Ziele der vorliegenden Studie waren einem sozialen Zweck von Kunst nachzuspüren indem ermittelt wurde, ob die Betrachtung von Kunst auf einer Interaktion zwischen BetrachterIn und KünstlerIn basiert, sowie zu untersuchen, ob es mögliche Unterschiede zwischen echten und originalen Kunstwerken verglichen mit Reproduktionen und Nicht-Kunstwerken gibt. Ein ausführlicher Vergleich hinsichtlich Kunstrezeption, Achtsamkeit, sozialer Verbundenheit sowie Verbundenheit zum Künstler und Kunstwerk wurde mit Hilfe der Daten von 91 StudienteilnehmerInnen, die entweder Originale, Reproduktionen oder Nicht-Kunst betrachteten, angestellt. Die individuelle Kunstbetrachtung wurde gemessen, indem das Reaktionsverhalten der StudienteilnehmerInnen auf ein Hintergrundgeräusch während der Betrachtungszeit beobachtet wurde und ihre Erinnerungs- und Wiedererkennungseistung evaluiert. Die Ergebnisse bezüglich Kunstrezeption zeigten signifikante Unterschiede zwischen originalen Kunstwerken und Nicht-Kunstwerken, jedoch kaum Unterschiede zu Reproduktionen. Die TeilnehmerInnen waren in höherem Ausmaß von originalen Kunstwerken positiv angezogen. Originale Kunstwerke wurden als kognitiv stimulierender beurteilt und deren künstlerische Qualität höher eingestuft. Die TeilnehmerInnen fühlten sich in der originalen Kunst-Bedingung stärker mit den Kunstwerken und den KünstlerInnen verbunden. Obwohl alle TeilnehmerInnen ähnlich auf das Hintergrundgeräusch reagierten, waren die TeilnehmerInnen in der originalen Kunst-Bedingung tiefer in die Kunstbetrachtung versunken und konnten sich nicht daran erinnern, ein Geräusch gehört zu haben. Weitere Analysen ergaben, dass die Dimensionen der Kunstrezeption starke Prädiktoren für die Verbundenheit zum Künstler und Kunstwerk sind, was vor allem für die Dimension Selbst-Referenz gilt. Die Betrachtung originaler Kunst vereinnahmt die Aufmerksamkeit. Die Daten lassen vermuten, dass das Erleben von originaler Kunst einen Interaktionsprozess widerspiegelt, der eine engere Beziehung zwischen BetrachterIn und KünstlerIn bewirkt. Die Erkenntnisse unterstützen die Annahme eines zugrundeliegenden sozialen Zwecks von Kunst und bieten eine gute Basis für zukünftige Untersuchungen.

*Keywords:* Ästhetisches Erleben, Authentizität, Echtheit, Kunstbetrachtung, Verbundenheit mit dem Künstler



## Appendix D

## Curriculum Vitae

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**Professional Experience**

03/ 2012 - 09/ 2015	Research fellowship at the Institute of Environmental Hygiene, Center for Public Health, Medical University of Vienna
10/2012 – 06/ 2014	Tutor Anamnesegruppen Wien, Institute for Medical Psychology, Center for Public Health, Medical University of Vienna under supervision of Prof. Dr. Klaus Spiess
12/2011 – 03/ 2012	6-week internship at the Institute of Environmental Hygiene, Center for Public Health, Medical University of Vienna
07/ 2007	Public relations work for Partnerschaft SHANTI - Bangladesch e.V., lectures at schools
10/ 2006 – 04/ 2007	Voluntary social year in Bangladesh at Aloha Social Services Bangladesh (ASSB) and DIPSHIKHA with the assistance of Partnerschaft SHANTI - Bangladesch e.V.

**Education**

Since 10/ 2013	Diploma Studies of Fine Arts at Academy of Fine Arts Vienna, Studio of Object Sculpture Univ.-Prof. Julian Göthe
Since 10/ 2007	Diploma Studies of Psychology at University of Vienna
2002-2006	Private Secondary School St.-Gotthard-Gymnasium der Benediktiner Niederaltaich
1996 – 2002	Private Secondary School St.-Michaels-Gymnasium der Benediktiner Metten
1992 – 1996	Primary School Grundschule an der Angermühle Deggendorf

**Language Skills**

German: native speaker

English: fluent

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