TWO SIDES OF THE SAME MIND: HOW OUR BELIEFS ABOUT THE ARTIST'S MORAL MIND INFLUENCE THE WAY WE RESPOND TO THE ARTISTIC MIND

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TWO SIDES OF THE SAME MIND:
HOW OUR BELIEFS ABOUT THE ARTIST'S MORAL MIND INFLUENCE THE WAY WE RESPOND TO THE ARTISTIC MIND

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For My Parents

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ABSTRACT

In two studies I examine how contextual information about the moral mind of the artist affects both children's and adults' response to works of art. Study 1 examined liking ratings of artworks as well as utilitarian objects. Factors varied were whether the items were said to have been made vs. owned by people of negative vs. positive moral character. Forty adults, 20 7-8-year-olds, and 23 4-5-year-olds were shown 12 artworks and 12 utilitarian objects and were asked to indicate on a 7-point scale how much they liked each one. Each item was presented as either owned or made by a person of positive or negative moral character. Moral character was predicted to affect liking ratings, with artworks expected to be affected more by the moral character of the maker than the owner, and utilitarian objects expected to be affected more by the moral character of the owner than the maker. Moral character had a significant effect on liking ratings: both artworks and utilitarian objects were liked less when believed to have been owned or made by someone of negative rather than positive moral character, demonstrating a moral contagion effect. Contrary to prediction, believing that an artwork was made by a person of negative moral character did not depress liking ratings more than believing that the artwork was owned by an artist of negative character. But consistent with prediction, believing that a utilitarian object was owned by a person of negative moral character depressed liking ratings more than believing that the object was made by someone of negative character. These findings held for all three age groups.

Study 2 examined both liking and evaluative judgment ratings for two kinds of artworks: those whose content is related to the artist's moral character and those whose

content is unrelated to the artist's character. Sixty-seven adults, 24 7-8 year-olds, and 23 4-5-year-olds were shown 12 representational paintings and were asked to indicate on a 7-point scale how much they liked each one and how good they thought each one was. Moral character was expected to affect both liking and evaluative judgment ratings, and content-related works were expected to be liked less than content unrelated works for artists of negative moral character; no effect of content-relatedness was expected for the putatively more objective evaluative judgments. Results replicated the moral contagion effect found in Study 1 for liking as well as judgment ratings with negative moral character linked to lower ratings than positive moral character. As predicted, liking ratings were lower for related than unrelated content for works by artists of negative moral character. Contrary to prediction, the same result held for works by artists of positive moral character. Evaluative judgment ratings were not affected by whether the content was related or unrelated in the case of artists of negative character (as predicted), but for artists of positive character, unrelated images were judged better. Children ages 7-8 behaved like adults for both liking and judgment ratings. Children ages 4-5 liked *and judged as better* the images with unrelated content for both mean and nice artists. Thus, adults and children ages 7-8-years old liked images more when the artist's moral mind was not visibly displayed but judged the related/unrelated images as equally good—indicating that the artistic mind (displayed through the arrangement of the composition, colors etc.) was more important for evaluations than was the moral mind. For 4-5-year-olds, preferences did not diverge from evaluative judgments. Thus, what they liked was what they thought was good, and moral "right" was equivalent to aesthetic "right".

Taken together, results lead to the conclusion that artworks are affected by moral contagion, but moral contagion affects liking more strongly than it affects evaluative judgment.

CHAPTER 1:

INTRODUCTION

The study of aesthetic preferences has a long history beginning in the late 19th century with the first experimental psychologists (Birkhoff, 1933; Fechner, 1876; Guilford, 1934). During this time a great deal was revealed about the psychophysical properties that individuals find pleasing in artworks. For example, brighter hues are preferred to duller ones (Guilford, 1934), contrasting color combinations are preferred over non-contrasting ones (Granger, 1955), and harmonious and symmetrical patterns are preferred to asymmetrical forms (Birkhoff, 1933). While these studies revealed many facts about what people do and do not prefer, the studies were not theoretically motivated. The studies provided a compilation of likes and dislikes without illuminating the principles behind these preferences.

In contrast to the atheoretical beginnings of experimental aesthetics, the "new experimental" aesthetics, founded by Daniel Berlyne, was based on a theory of two kinds of aesthetic response (e.g., Berylne, 1970, 1971, 1974; Eysenck, Götz, Long, Nias, & Ross, 1984; Fechner, 1876; Götz, Borisy, Lynn, & Eysenck, 1979; Iwawaki, Eysenck, & Götz, 1979). (For reviews, see Kreitler and Kreitler [1972] and Winner [1982].) Berlyne noted that the first experimental aestheticians focused on how the psychophysical properties of art (i.e., formal properties such as size and brightness) affect arousal, while Freud and his followers focused on how the ecological properties of art (i.e., content related to experiences that are harmful, such as war, or beneficial, such as love or food) affect arousal. In contrast, Berlyne focused on "collative" variables (i.e., novelty, surprise, complexity, irregularity or asymmetry of elements) and examined how these affect

arousal and thereby cause pleasure. These variables were called collative because in order to evaluate how complex or how novel a work of art is, one must "collate" (compare) the work of art to others that one has experienced. A work of art is novel in relation to familiar works, complex in relation to simpler works, and surprising in relation to expected works. It was the collative variables that Berlyne found most important in terms of acting on arousal and leading to pleasure.

Berlyne's arousal theory (1970, 1971, 1974) led to experiments demonstrating that art yields pleasure by acting on our arousal system in two very different ways. Simple, regular forms in art lead to an arousal "boost"—a gradual increase in arousal which is experienced as pleasure. More complex, difficult to understand works lead to an arousal "jag"—a sharp increase in arousal that is experienced as tension, followed by a decrease in arousal once we have made sense of the work of art. It is the arousal *decrease* that is experienced as pleasure. In short, Berlyne presented experimental evidence to support his theory that artists manipulate collative variables to yield two kinds of pleasure: an arousal boost from familiar, regular patterns; and an arousal "jag" from patterns high in novelty or complexity.

Studies in the tradition of the old and new experimental aesthetics are similar in one important respect: they all focus on people's responses to what can be seen within the confines of an image, its visible properties. They leave entirely unexamined how our *beliefs* about the image affect our response to that image. When responding to artworks, we are not only influenced by their visible properties but also by beliefs that we bring to the artwork that are independent of the artwork's visible properties – such as beliefs about the artist's character and about the process by which the work was created. I refer

to this kind of non-visible information as "contextual" information. Looking at an artwork involves a discourse between the viewer, the work of art and the creator (the artist). Contextual information is non-visual information that is associated with the artist and the art work and that may affect our response to the artwork.

In everyday life, across numerous social situations, we try to figure out what other people are thinking. We try to read people's facial expressions in social situations, interpret the body language of a significant other in a romantic relationship, and analyze the behavioral habits of a child at school. In such situations, context can provide invaluable information. The context in which someone smiles is crucial to our understanding the meaning behind it. A smile in response to someone falling down a flight of stairs is malicious. But that same smile in response to someone crossing the finish line in a race is generous, kind, positive. Just as context affects our interpretation of the meaning of someone's behavior, context about a work of art (i.e., our knowledge about the artist who made it) may affect how we interpret (e.g., our liking and our evaluation) the work of art. In short, we may look to the story behind an artwork to help us understand its significance.

Researchers have recently begun to consider how contextual information affects our response to artworks. I make a distinction here between two forms of contextual information that can affect a viewer's understanding and experience of an artwork: contextual information that *directly* supplements the visible content in the work itself (i.e., descriptions and titles (Leder, Carbon & Ripsas, 2005; Millis, 2001; Russell 2003); and contextual information that *indirectly* supplements the content of an artwork by providing clues about the process of creation (how the work was created and the kind of person who

created it) (Bloom, 1996; 2004; Dutton, 2009; Gelman & Ebeling, 1998; Hawley-Dolan & Winner, 2011; Nemeroff & Rozin, 2000; Newman & Bloom, 2011). The studies reported here examine the influence of *indirect contextual* information on people's responses to art. My primary question is how children's and adults' beliefs about the moral mind of the artist affects how much the artwork is liked and how good the artwork is judged to be.

To provide a background, I first review what is known about the influence of direct contextual information on our responses to works of art (how much we like them and how good we think they are). More specifically I review information on the effects of titles on viewer response. I then review what is known about three kinds of indirect contextual information on our response to objects that are or are not works of art: information about origin, information about authenticity, and information about the maker or owner of the object (in particular, information about the maker/owner's fame and morality). I also provide a brief review of the development of moral reasoning and theory of mind because both kinds of skills apply directly to the studies reported here. And lastly, because I assess both liking as well as evaluative judgments, I provide a brief overview of what is known about the differences between these two kinds of responses when responding to artworks.

The Influence of Direct Contextual Information on Response to Works of Art

Descriptive vs. elaborative titles. An artwork's title may simply describe and/or identify what is depicted (e.g., Still Life with Fruit; Woman with Red Dress) or it may be expressive and elaborate on what is depicted (e.g., Loneliness; Victory). A descriptive title allows a viewer to identify objects and forms within an artwork. Descriptive titles

draw the viewer's attention to objects within the visible space and often repeat what is already visible (Millis, 2001). For example, Picasso's painting "Nude Woman With a Necklace" draws our attention to something that is already visible within the artwork—a nude woman with a necklace. The title is a literal reiteration of what is already depicted.

A possible concern with literal titles is that they could constrain our interpretations. People are less likely to change their interpretations of representations after they have been encoded in long-term memory (Millis & Magliano, 1999). Thus, when provided with a direct interpretation of what is depicted, a viewer might become attached to a literal interpretation and be unable create new schemata. If Picasso had used a more elaborative or expressive title such as "Longing" the work might have allowed for a wider variety of responses, each based on personal associations and memories (Millis, 2001).

An elaborative title allows a viewer to go beyond what is depicted and gain a richer understanding of the meaning the artist intends to convey. Aesthetic experience ratings (including level of liking and of understanding) increase when an artwork is presented with an elaborative title (rather than a descriptive title) because such titles allow for flexible interpretations and representations that can be made based on personal experiences (Millis, 2001).

Several researchers have examined the positive and negative effects of descriptive versus elaborative titles on aesthetic experience (both liking and understanding). Millis (2001) showed participants 30 representational artworks (15 black and white photographs and 15 colored illustrated works on paper) which were assigned either a descriptive title identifying what was present in the artwork (e.g. "Picking Flowers"), or a more

metaphorical title (e.g., "One Day at a Time") that could lead to associations beyond what was actually depicted. Participants were randomly assigned to one of three conditions: no title, descriptive title, or elaborative title. They then rated their aesthetic experience on a six-point scale on five different dimensions: how well they understood the meaning of the artwork, how much they enjoyed the artwork, their level of interest, the extent to which artwork evoked emotions, and the extent to which artwork elicited thought. Millis was particularly interested in whether titles aided in people's *perceived understanding* of an artwork. Therefore, he isolated the understanding score for the purposes of analysis. He found no difference between the self-reported level of understanding of artworks with descriptive titles versus elaborate titles. However, self-reported understanding was lower when artworks were presented with no titles.

A mean rating score was then computed combining all five dimensions to yield a total *aesthetic experience* score. There was an effect of title on both the illustrations and the photographs, but the effect was more pronounced for illustrations. The aesthetic experience score for illustrations was highest in the elaborative title condition, with no difference between the descriptive and the no title conditions (Millis, 2001). For photographs, the aesthetic experience score was higher in the elaborative title condition than in the no title condition, but was not higher than in the descriptive title condition.

These results showed that the following: having a title increases perceived understanding of an artwork, but the type of title (descriptive vs. elaborative) does not matter for perceived understanding; type of title affected perceived aesthetic experience; and elaborative titles aided more than descriptive ones in self-reported understanding of less realistic artworks (illustrations), but not in self-reported understanding of more

realistic artworks (photographs). Overall this study showed that elaborative titles led to higher aesthetic ratings than did the descriptive titles. Taken together these findings show that the more a title aids in an elaborated (but coherent and relevant) representation, the higher one's aesthetic experience.

While Millis (2001) examined the effects of titles on representational art, Leder, Carbon and Ripsas (2005) examined the effects of descriptive vs. elaborative titles on people's understanding and appreciation of not only representational but also abstract artworks. In Experiment 1, participants viewed artworks under one of three randomly assigned conditions: no-title, descriptive title, and elaborative title. They then rated each artwork on six dimensions using a seven-point scale (1= fully agree, 7= fully disagree). Understanding referred to the extent to which participants believed they understood the artist's intention; meaning referred to the extent to participants found a personal meaning in the artwork; liking referred to the extent to which participants liked the artwork; interest referred to the extent to which participants were interested in the artwork; emotion referred to the extent to which the artwork affected participants emotionally; and thoughts referred to the extent to which the artwork evoked thoughts for the participant.

Representational paintings received higher ratings on all of the six variables than did abstract paintings. This is consistent with research by Parsons (1987) showing that people respond more favorably to representational than abstract paintings. The presence of a title increased the level of understanding in abstract but not in representational works. No other dimension was affected by whether the work was abstract or representational. Elaborative titles yielded higher "understanding" scores than did descriptive titles, and descriptive titles yielded higher understanding scores than did those with no titles. Thus,

elaborative titles foster perceived understanding more than do descriptive ones, but type of title has no effect on liking, interest, emotions or thoughts.

Experiment 2 tested the hypothesis that when viewing time is limited, descriptive titles should yield greater perceived understanding than elaborative titles. In contrast, elaborative titles should foster greater perceived understanding when the viewer has a longer period of time to look at the work. These hypotheses were based on a model of aesthetic appreciation proposed by Helmut Leder (Leder, Belke, Oeberst & Augustin, 2004). According to this theory, we first respond to works of art in an automatic manner based on the work's perceptual properties; this response is then followed by a more cognitively based, deliberative kind of response. With a longer time to view a painting, thoughtful deliberation can occur. With a shorter presentation time, thoughtful deliberation is less likely to occur because the viewer only has time to respond to the perceptual properties of the artwork.

Only abstract works were examined in this experiment. Participants viewed paintings for either one or ten seconds (the same paintings were used in both time conditions). As predicted, ten second viewing times led to greater perceived understanding given elaborative rather than descriptive titles. One second viewing times led to greater perceived understanding given descriptive rather than elaborative titles.

Leder et al. (2005) and Millis (2001) show that a viewer's level of perceived understanding is aided by the contextual information provided by a title. Elaborative titles aid in people's understanding of abstract artworks more than do descriptive titles (Leder, et al., 2005). There was no effect of kind of title (elaborative versus descriptive) on the level of "liking" of the artworks. And finally, Leder et al., (2005) showed that descriptive

titles are more helpful for immediate viewing (identifying objects and forms within an artwork), but with increased viewing time, more elaborative titles help people to understand artworks—or at least to feel that they have achieved an understanding.

Thus far all of the studies reviewed have used explicit self-report measures of aesthetic response. But implicit measures such as eye gaze patterns may also be informative. By examining implicit measures we can determine people's spontaneous, perhaps unconscious responses to artworks. At the very least it would be important to determine whether implicit measures yield results consistent with explicit measures. One study showed that eye gaze fixation time is longer when participants viewed images with authentic titles (i.e., the actual titles of the works) than with no titles, and also than when they were asked to generate their own titles (Kapoula, Daunys, Herbez & Yang, 2009).

Eye gaze fixation time was also the measure of understanding used by Kapoula, Daunys, Herbez & Yang (2009). Participants were shown three cubist paintings varying in levels of abstraction: an image containing abstract forms accompanied by high density fragments of limbs and faces, an image containing arbitrary fragments roughly resembling a person or object (i.e., alarm clock), and an image containing simple forms and cylinders. Paintings were presented in three conditions: without a title, without a title but in which participants were asked to invent one, and with the actual title. Fixation duration was higher in the actual title condition than in the no title condition. When participants viewed paintings along with their actual titles, their eyes were rapidly drawn to the fragments resembling objects. For example, when given the title *Alarm Clock*, gaze was immediately drawn to the fragments resembling an alarm clock. When they viewed untitled paintings, participants took longer to fix their gaze, and they spent more time

scanning the artwork. Unlike the studies reviewed earlier, this study did not measure participants' level of liking or level of understanding when responding to artworks. Thus, titles shape *where* we look in a painting, and this may affect actual understanding of the work.

Descriptions of artworks. A working hypothesis for many researchers is that the understanding of an artwork's message leads to an enjoyable aesthetic experience (Russell, 2003). However, as reviewed above, studies have shown that titles do not increase level of hedonic value (Leder et al., 2005; Russell & Milne, 1997). Perhaps this is because the meaning in a painting could already be very apparent (and thus the level of enjoyment already high) and a title adds little to the enjoyment of the work (Russell, 2003). Thus Russell (2003) examined how additional contextual information above and beyond a title—descriptions of the artworks—affect a viewer's experience by helping the viewer to understand the artists' intention for the artwork.

Russell (2003) tested the hypothesis that informative descriptions of a work increase a viewer's understanding of that work, and that this increase in understanding would result in an increase in enjoyment. Participants rated their level of understanding and enjoyment of 12 abstract and semi-abstract paintings. Paintings appeared in three conditions: no title, title plus artist's name, title plus artist's name and a description. The descriptions were compiled by the researcher from textbook and internet resources and were aimed at facilitating the viewer's understanding of the artwork. For example, for a painting by Yves Tanguy called "Shadow Country" (1927), the description read:

> Tanguy was a French-born American Surrealist who regarded himself as a 'recording apparatus' for the voice of the unconscious mind. His imagery is highly distinctive, featuring half-marine and half-lunar landscapes in which amorphous, nameless objects, and imaginary life-forms proliferate in a spectral dream-space.

There was a marginal main effect of condition on level of understanding: not surprisingly, with more information provided, level of perceived understanding increased. Note however that this study examined perceived understanding only, not actual understanding. It is difficult to determine how to measure "understanding" objectively because understanding an artwork can mean something different to each individual. For one person, understanding an artwork could mean that the image reminds her of a personal experience. For another, understanding an artwork could mean interpreting the artist's intention. It should be noted that while condition affected perceived understanding, condition had no effect on level of pleasingness. Other factors may contribute to the level of pleasingness besides level of understanding.

The Influence of Indirect Contextual Information on Response to Works of Art

We also use indirect information to reason about an artwork – information about the artist rather than direct information about the works. Information about who an artist is, or about how the artist created the work of art is information that cannot be seen. I refer to this kind of context as indirect.

We care about who made an artwork because works of art of all societies express personal character and feeling specific to an individual mind (Dutton, 2003). Evaluating an art object involves engaging with a human agent—the artist. In the book *Search for the Real*, abstract expressionist artist Hans Hoffman claims that "Arrangement is not art" (Hoffman, 1948, p. 46). Hoffman states that the space known as the paper or canvas is a pictorial space with a life of its own (Hoffman, 1948). Several factors make up this space—the most obvious factors are the visual properties. But the life of the creative

mind (the artist) is also part of the pictorial space. The artist directly constructs the space: it is the artist's design and the artist's thoughts on the paper. But the artist becomes an indirect part of the viewer's experience because the viewer knows that the artist is behind the artwork. To understand what the artist "means," we look to the artistic process behind the work—was it original, copied, accidental, labored over, what style of art was the artist reacting against, what was the artist thinking and feeling as she created the work, etc. (Dutton, 2009).

Dutton (1979, 2009) argues that what gives rise to the consideration of the mental state of the artist is the concept of *performance.* Aesthetic appreciation is "inherently connected with the experience of making," and understanding of a work involves not only responding to the physical properties of the work but also comprehending the nature of the achievement that a work represents (Dewey, 1934, p. 49). An artwork is the product of an individual mind, rather than a product manufactured by a company. The process of creation can be considered a performance. This performance includes the artist's motive for creating the work, the artist's level of experience, and the artist's historical affiliations. We are interested in who made an artwork and when it was made in order to get a sense of the historical context of the artwork. For example, faced with a simple painting constructed of lines and geometrical forms, knowing whether that painting came from Dutch De Stijl Movement in the early 1900's (a German movement that was created in part as a response to Cubism), or from the Minimalist Movement in the 1960's (a post World War II Western movement that was created in part as a response to Abstract Expressionists) adds meaning to the painting. The historical ties attached to an object add invisible meaning beyond the material or functional worth of the object

(Bloom & Markson, 1998; Gelman & Ebeling, 1998). And knowing the historical context of a painting may make it easier to connect "the experience of making" (i.e., the performance) to the artwork. Where an artwork came from becomes part of the performance of the artist, and thus part of the viewing experience. All of these aspects contribute to a unique performance behind the each work.

In what follows I review research on how these aspects (origin, authenticity, and magical contagion [as influenced by the morality of the artist and of the image contents]) affect our response to works of art. Because the research on this is scant, I draw upon research examining how our knowledge about the origin and authenticity of non-art, utilitarian objects affects our valuing of these objects, and point out how these findings may lead to hypotheses about how these contextual factors could shape aesthetic experience.

Status. One form of indirect contextual information is a status label – that is, verbal information telling the viewer the status of the artist in terms of fame, skill level, etc. Hawley-Dolan and Winner (2011) examined the effect of telling the viewer that the work of art was created by a famous artist vs. a child or an animal. They paired strikingly similar pairs of abstract art made by children, monkeys and elephants with abstract professional artworks. In one condition images were presented unlabeled as to who the artist was; and in the other two conditions images either had correct labels (artist, child, monkey/elephant) or incorrect (e.g., reversed) labels. Adult participants with and without art training were asked which image they preferred and why, and which image was the better work of art and why. Overall participants preferred and judged as better the professional images over the images made by children, chimps and elephants,

irrespective of labeling condition. However, correct labels did elevate preferences for the works by professional artists for the participants without art training. These findings show that status information does affect preference, but only when the status information is correct and only for participants without art training.

Origin: Accidental vs. intentional. There is a considerable body of work examining how people respond to objects based on information about the object's origin (i.e., how the object was made), but most of this work examines responses to non-art objects (Friedman, Neary, Defeyter, & Malcolm, 2011). However, two studies have examined children's sensitivity to origin when reasoning about art objects (Bloom & Markson, 1998; Gelman & Ebeling, 1998).

Children are attentive to origin (often called historical path) when responding to human-made artifacts as well as to drawings (Bloom & Markson, 1998; Gelman & Ebeling, 1998). When we respond to the origin of an artwork, we overlook outward appearances and focus on the non-visual properties of the artwork (i.e., where it came from, who made it). In one experiment, 3-5-year-old children were given a series of artifacts and artworks (e.g., knife, toy, painting) and were told that some were accidentally made and others intentionally made (Gelman & Ebeling, 1998). They were read a story about the process of creation and then asked, "What is this?" Children were more likely to use artifact names (e.g., knife) than material-based descriptions (e.g., plastic) when responding to objects/artworks made intentionally rather than accidentally. Proper names for objects/artworks were used when objects/artworks were created intentionally, whereas material-based names were used when objects/artworks were created accidentally. The authors concluded that children pay attention to how something

was made and where it came from when deciding how to identify it. This study did not examine how much children liked the objects/artworks, or how good they judged them to be.

Origin: Authentic vs. forged. Information about whether the work was forged or authentic has a powerful effect on the viewer's experience of an artwork. Imagine an original work of art and a forgery of that work that is an identical copy. There should be no difference in our response to these two works. We can see no difference, and we only know through the word of an expert (who knows from documented history or microscopic examination) which image is the original and which the forgery. Still when told which one is the original and which the forgery, people value the original more (Newman & Bloom, 2011). Why is this the case? This question has been much debated by philosophers (Dutton, 1979; Goodman, 1976).

According to Dutton (1979), the reason that an original and a copy do not have the same aesthetic value is that forgeries are artistic crimes. They are artistic crimes because they are misattributions of origin. Because they are misattributions of origin, they are misrepresentations of achievement. Recall that for Dutton, the performance of the artist is important to aesthetic experience. Because forgeries are misrepresentations of performance, knowing that a work is a forgery fundamentally alters the aesthetic experience, even when there are no visible differences between the original and the forgery. Goodman (1976) offered another reason for why we respond differently to a forgery than to an original. Just knowing that a work is a forgery encourages us to look more closely at the forgery to try to figure out how it differs from the original.

Psychologists have also addressed this question. Kulka (1982) provided three theoretical categories of answers to the question of whether there is a difference between an original and a forgery: the skeptical view, the reductionist view, and the attitudinal view. According to the skeptical view, two objects that do not differ in observable qualities cannot differ in aesthetic value. According to the reductionist view, there is an aesthetic difference between an original and a forgery that can be reduced to the existing physical differences between them, no matter how minute. Consistent with Dutton (1979) and Goodman (1976), according to the attitudinal view, it is not viewers' actual ability to perceive the minute differences, but rather their *belief* that there are differences (even if they can't see them) that affects their aesthetic judgment. Rather than subscribing to one of these three particular viewpoints, Kulka underscores the need to discriminate between aesthetic value and artistic/art-historical value. In his view, a forgery and an original have the same aesthetic value, but the forgery has no art-historical value. The art historical value provides context for an interpretation of the artwork.

Experiments have been conducted to determine the factors that affect responses to images when viewers know that they are forged. Newman & Bloom (2011) approached this topic by asking people to think about duplicated art and non-art objects that were either created by the original maker or by someone else (an apprentice or subcontractor). Participants saw one of the following four scenarios:

> *Art, original manufacturer:* The Mill, a painting by a well-known artist named Roberts, is currently stored in Warehouse A. The painting is valued at $100,000. The artist agrees to make an exact duplicate personally. The duplicate is identical in every way. The duplicate is stored in Warehouse B.
>
> *Art, different manufacturer:* Murder of Valentinian, a painting by a well-known artist named Smith, is currently stored in Warehouse A. The painting is valued at $100,000. The artist agrees to have an apprentice create an exact duplicate. The duplicate is identical in every way. The duplicate is stored in Warehouse B.

> *Artifact, same manufacturer:* R-TL, a prototype car by a well-known manufacturer named Roberts, is currently stored in Warehouse A. The automobile is valued at $100,000. The manufacturer agrees to make an exact duplicate. The duplicate is identical in every way. The duplicate is stored in Warehouse B.
>
> *Artifact, different manufacturer:* RI-XP, a prototype car by a wellknown manufacturer named Smith, is currently stored in Warehouse A. The automobile is valued at $100,000. The manufacturer agrees to have a subcontractor make an exact duplicate. The duplicate is identical in every way. The duplicate is stored in Warehouse B.

Using a 9-point scale (0 = a lot less than $100,000 and 9 = a lot more than $100,000), participants indicated how valuable they believed the artwork/automobile to be. Duplicate artworks were judged as less valuable than the original artwork, but there was no difference in response to duplicate artifacts vs. original artifacts. Additionally, duplicate artworks made by the original artist were judged to be more valuable than duplicate works of art made by the artist's assistant. There were no observable differences between duplicate automobiles made by the original manufacturer and those made by the subcontractor.

These results show that origin is important when making decisions about artworks but not when making decisions about non-artworks. Newman and Bloom (2011) theorize that the authentic work is valued over the duplicate work because we know that the artist touched or handled the object in some way. The qualities of the artist—the maker—rub off on the artworks, making the objects special. These contagious qualities affect the way in which we respond to a work of art.

Celebrity contagion. The properties that an artifact inherits by being touched, worn or handled in some way have been shown to "contaminate" our perceptions of these artifacts, a phenomenon referred to as "magical contagion" (Hood, 2009). Both the negative and positive qualities of the owner or maker of an object are perceived to "rub

off" (by being touched or handled) on the objects themselves, and they thereby become essential properties of the items, affecting how we respond to them. People refuse to wear a freshly laundered item of clothing after being told that a killer once wore it (Nemeroff & Rozin, 2000). When presented with two identical rings (one an individual's own wedding ring and the other a duplicate) and asked which one they prefer to keep, people choose the original (Hood, 2009). And people rate items of clothing significantly more highly if told they belonged to celebrities with positive rather than negative reputations (Newman, Diesendruck, & Bloom, 2011).

Children are also sensitive to the notion of "celebrity contagion." Hood and Bloom (2008) presented children with a cup in one of two conditions: a cup that was said to be "special" because it was owned by a famous person (e.g., Queen Elizabeth), and a cup that was said to be "special" because it was made of metal (the cup was identical in appearance in both conditions). Children were asked to indicate with tokens how much they valued each cup. They offered more tokens for the cup that was special because Queen Elizabeth made it. The researchers reasoned that the children believed that certain qualities of Queen Elizabeth "rubbed off" on the cup, making it more valuable than the cup that was just special because of it was "made of metal." Queen Elizabeth's handling, touching and owning of the cup made it valuable and irreplaceable.

Surprisingly we know little about the effects of magical contagion on artworks (Frazier, Gelman, Wilson & Hood, 2009). Art objects differ markedly from utilitarian objects. There is no utilitarian purpose to art objects, only an aesthetic purpose. Because artworks are performances by artists, it is likely that our beliefs about origin have more of an effect on our responses in the case of an artwork than in the case of a utilitarian object.

In addition, who owned the object (the person who has handled the object) is likely to be more important in the case of utilitarian objects, whereas who made the object is likely to be more important in the case of art objects.

Moral contagion. Because a work of art is a reflection of the artist's mind, our response to a work of art is likely to be influenced by what we know about the artist's moral character. Do we like Wagner a little bit less because we know he was a Nazi sympathizer, even when we insist we can separate his art from his politics? If an artist's character is reflected in the actual content of the works of art he or she creates, does that make it even more difficult to avoid the influence of the artist's moral mind? In short, can we separate the artist's immorality from the content of the work?

A powerful illustration of the role of moral contagion in response to visual artworks can seen in a 1995 installation by Tracey Emin in the Saatchi Gallery in London. Emin's installation included a warmly lit tent with an embroidered quilt laid inside. On first glance the installation appears to be a simple camping tent with a soft glow that invites further exploration perhaps by a child or by a boy scout. When approached more closely, patchwork lining the outer edge of the tent becomes visible indicating the dates "1963-1995"—curious to the viewer, but so far, uninformative. Perhaps the viewer's first associations with the installation are of camp memories and of reading by the glow of a flashlight. But upon further investigation of the internal tent flaps, one can see a list of names embroidered on the sides. The viewer may still be confused, attempting to work out what this all means. But finally, the viewer reads the title, "Everyone I Have Ever Slept With 1963-1995."

How does the realization that inside the tent is an embroidered list of names indicating every person that Emin has slept with for 32 years influence the viewer's experience of the installation? The tent is no longer a play area for children, nor a representation of past camping trips, but rather a representational shrine to all the people Emin has had relations with. It is reasonable to assume that the newly acquired knowledge of what the tent actually represents changes how the viewer responds to the physical artwork directly (our literal interpretation of the work), but also changes the way in which we see (and perhaps judge) the artist.

Inside the artwork, inside the tent, is a visible display of how many partners Emin has had. And for some this display might be offensive. But what is more offensive, that Emin had so many partners or that she is showing this in her installation? It is reasonable to assume that facts about Emin's moral character might in fact change the way one views the artwork. In some cases traces of the moral character of an artist might be *visible* within an actual artwork: a list of 108 names of sexual partners displayed in a tent. In other cases information about the artist's moral character might be *invisible*: an artist had 108 partners but there is no visible record of this displayed, no direct link to the content of the artwork (i.e., a tent with camping gear and children's toys). Would we care if an artist had 108 sexual partners and made an installation completely unrelated to his or her sex life? How does information about the artist's character shape our viewing experience? Contextual information about the artist's moral character might not be directly related to what is represented in the artwork, but might influence how we view the artwork. The artist, who remains invisible when we are confronted with an artwork, becomes indirectly (and metaphorically) visible through contextual information.

Another example that illustrates the concept of moral contagion can be seen in the 1998 installation by Mike Kelley for the Renaissance Society called "Pay For Your Pleasure." Pop art-like pictures of famous great male poets, philosophers and politicians (e.g., Oscar Wilde, Piet Mondrian, Francis Picabia, among others) lined the walls of a corridor. Each portrait was accompanied by a statement made by the artist, philosopher or politician commenting on the similarities between the criminal mind and the artistic mind, i.e. the licensure of the artist to be rebellious and non-conformist. Examples of statements included: "Men like Benvenuto Cellini (artists) ought not be bound by laws (Pope Paul III);" "A painting is a thing which requires as much cunning, rascality and viciousness as the perpetration of a crime (Edgar Degas); and "Imagination lies in wait as the most powerful enemy. Naturally raw, and enamored of absurdity, it breaks out against all civilizing restraints like a savage who takes delight in grimacing idols (Goethe)" (Renaissance Society, 1988, http://www.renaissancesociety.org/site/Exhibitions/Images.Mike-Kelley-Three-Projects-Half-a-Man-From-My-Institution-to-Yours-and-Pay-for-Your-Pleasure.110.2373.html). The show included one painting at the very end of the hallway with no quote—a self-portrait by John Wayne Gacy, a child rapist and murderer. At the end of a show that seemed to honor the exciting criminality of the creative mind was an actual criminal's artwork made by a man awaiting his death sentence (Knight, 1992). The connotation of heroism, of the rebellious artist, disappears and suddenly the viewer is faced not just with the notion of rebellion and art, but with an artist who was an actual killer.

One of Kelley's many goals in showing this work was to encourage the viewer to rethink the romanticism attached to the rebel artist status (Knight, 1992). Another one of

his goals might have been to encourage the viewer to consider not only the contribution that these great men made to their fields, but also the minds behind the crafts. Kelley encourages the viewer to examine the artist's historical and moral affiliations when considering his craft, not just the artist's end product. One of the most important questions this installation raises is why we care about who made an artwork if we are merely looking at the visible end product of the artist's work. And if information about the artist is not *directly* related to the physical image, how is it that such information affects how we view and respond to the work?

An important factor to consider regarding magical contagion is that there are both positive and negative consequences of contagion. People recoil from the idea of wearing a sweater worn by a killer, but jump at the opportunity to wear one worn by George Clooney (Hood, 2009). The negative qualities of the killer seem to rub off on the sweater, as do the positive qualities associated with Clooney. No research has yet examined whether the positive vs. negative moral character of the artist affects our experience of works made by that artist.

In the example of Emin's 1995 work mentioned above, the fact that the artist slept with so many people may in some way have sullied the viewer's perception of the installation. But is it that the content of the work is viewed as unsavory, or that the artist is viewed as having an unsavory character? If she is judged immoral, her character may literally "contaminate" the work of art. Or there could be a combination of both the artist's immorality and the immorality of the content of the artwork (because the artist's encounters are literally laid before the eye for us to judge). No research has examined this and thus no empirical evidence supports one conclusion or another, but in this case it is

reasonable to assume that the negative reaction would be a combined response to both Emin's moral character and the visible depiction within the installation. In this example the visible (i.e., list of sexual encounters) and the non-visible (i.e., the actual sexual encounters) are so thoroughly intertwined that one cannot determine the cause of an aversive reaction.

There are three ways in which negative moral information associated with the artist could "contaminate" a viewer's response to an artwork. First, an artist may be known to be an immoral person, but the content of his artworks is unrelated to his immorality. Hitler was an artist in Vienna in the early 1900s (Schjeldahl, 2002) but his works tell us nothing about his monstrous war crimes. Alternatively, an artist may be known to be an immoral person and this may be directly reflected in the content of his artworks. Serial murderer John Wayne Gacy was an artist, and his works actually depicted his crimes. Gacy's painting of a clown ("Pogo the Clown") was particularly controversial because he often played a clown at events to prey on young children. And lastly, a person could be a perfectly moral person but depict immorality within his or her artwork (e.g., Eustache Le Sueur's *Rape of Tamar*).

If an artist is known to have an unsavory moral character, how much does this knowledge contaminate our experience of artworks produced by this artist? Works by both Hitler and Gacy been auctioned for thousands of dollars to buyers whose goal was to buy them so they could then destroy them (http://www.cnn.com/2011/US/05/13/serial.killer.art/index.html?hpt=C2, accessed 9/12/12). Is it enough to know that an artist was a criminal to make us shudder at his works? How much worse is it for the viewer if the works actually have a visible

connection to the artist's crimes? How much does the intention behind the artist's immoral depiction matter? Picture an artist who may not be known to be an immoral person, who may not depict immoral scenes, but whose works fulfill immoral fantasies. For example, imagine an artist who paints images of nude children because he has inappropriate fantasies about children. If we knew this fact would it affect our aesthetic response, or could we separate our view of the artist's character from our judgment of his artworks?

To conclude, little is known about how the perceived morality of the artist bleeds into our experience of the art produced by that artist. This is the issue addressed by the two studies reported in the following chapters.

The Moral vs. Artistic Side of the Artist's Mind

Before turning to the studies, I first review research on the relationship between the moral and aesthetic domain, the development of moral reasoning, and the development of theory of mind, and differences between liking and evaluative responses to works of art.

The moral domain and the aesthetic domain. Little research has examined the relationship between how we reason about the moral and the aesthetic domain. But we do know that theory of mind plays an integral role in both ethical and aesthetic evaluations. We are interested in 'who painted the brushstrokes, and were they intentional?' just as we are interested in 'who poisoned X, and was it intentional? In recent work by Hawley-Dolan and Young (*submitted*) we investigated the role of theory of mind in the aesthetic and ethical domain, specifically examining the role of subjective evaluations vs. objective evaluations. Participants were given moral stories about moral deeds in which the motive

was either accidentally or intentionally good or bad. Participants were also given paintings in which the motive for painting the image was either accidental or intentional with the image being aesthetically "good" or "bad". Participants were asked a question assessing liking for the image or the moral agent, and one assessing evaluative judgment for the image or moral agent. The results showed that intent (i.e., intentional vs. accidental) matters more for objective (evaluative) than subjective (liking) judgments for both the art and moral domains. And intent matters more for the moral than the aesthetic domain, perhaps because the moral domain is more objective (moral codes are seen as permanent and non-negotiable [Turiel, 1979]) than the aesthetic domain. Aesthetic judgments are likely more subjective than are moral ones, and aesthetic judgments have been likened to gustatory taste [Parsons, 1987]). Consistent with Hawley-Dolan and Young (*submitted*), Hawley-Dolan and Winner (2011) showed that judgments of value in the aesthetic domain are sensitive to perceived levels of intentionality. While research shows that intent matters more in the moral domain than in the aesthetic domain, little is known about how morality influences the domain of aesthetics.

The development of morality. Jean Piaget's and Lawrence Kohlberg's foundational theories of moral development form the basis for what we know about how children reason in the domain of morality. In what follows I will provide a brief review on 1) what is known about how children develop moral reasoning, and 2) current research on moral reasoning in adults and children.

Jean Piaget. Jean Piaget's theory of moral development involved two key principles: 1) that moral development occurs in stages, and 2) that moral reasoning is constructed by the individual in cooperation with his or her peers (e.g., that it is not

simply a process of learning cultural expectations) (Piaget, 1965). Piaget begins his description of the stages of moral development through the lens of children's understanding of games (Piaget, 1965).

Piaget argued that all morality consists of a system of rules. In order to understand how children learn to respect these rules, and allow for changes to the rules, he studied games, because the rules of games are passed on and elaborated upon by children rather than adults. Piaget observed two different kinds of moralities when observing the games. And from his observations he described two stages of moral development: children under the age of nine to ten think about moral rules as absolute and fixed; children older than this believe rules to be more changeable—what Piaget refers to as relativistic view. While younger children believe that rules are unchangeable, sacred and "passed down by God," older children believe that society can collectively change a rule. In the game of marbles, Piaget describes young children as viewing the rules as sacred and unchangeable but in actuality they put these rules into practice in a systematic way playing according to their own understanding (Piaget, 1932/1965). Piaget explains that in older children, cooperation facilitates an understanding of rules based on mutual agreement. A 7-year-old child playing marbles may be subject to the same rule as the 12-year-old child but the 7-year-old views the rule as unchangeable and the 12 year-old views it as valid only after it has been mutually agreed upon (Piaget, 1932/1965).

Moral thinking in young children (under the age of 9-10-years-old) is based on consequences (i.e., preintentional). Moral thinking in older children (over the age of 10-years-old) is based on judgments of intentions (intentional)—they take motive into

account. For example, dropping 6 plates by accident is just as bad as dropping on purpose for the younger children in the preintentional way of thinking.

Lawrence Kohlberg. Lawrence Kohlberg adapted Piaget's theory of moral development. Kohlberg's theory consisted of six developmental stages that can be grouped into three levels: pre-conventional, conventional and post-conventional (Kohlberg & Hersh, 1977). Two stages comprise each level and no stage can be skipped. Each level provides a necessary building block for the next but also comprises a more comprehensive approach than the previous stage.

The Preconventional level of moral reasoning is common in children (although it is important to note that Kohlberg claims that adults can be at this level of reasoning) (Kohlberg & Hersh, 1977). This level comprises two stages that are primarily associated with ego-centrism—a child in the preconventional level is sensitive to society's conventions of right and wrong but interprets these labels in terms of their direct external consequences (e.g., punishment, reward). The child focuses on the direct consequences that actions elicit. In stage one, the punishment and obedience orientation, the physical consequences of the action determine the "rightness" or "wrongness" of something. In stage two, the instrumental relativist orientation, the mentality of "you scratch my back, I'll scratch yours" is adopted (Kohlberg & Hersh, 1977). Moral right is described as what satisfies one's own needs, and fairness and reciprocity are defined in terms of physical outcomes (rather than by justice or loyalty). There is a lack of recognition that another's point of view might be different from one's own, and a lack of interest in others' needs.

The Conventional level typically applies to adolescents and adults. In the Conventional level the priority of the individual is to maintain the expectations of the

family, group or nation (Kohlberg & Hersh, 1977). This is a valued priority regardless of the immediate consequences. In other words, loyalty to social order and supporting and identifying with members of the persons involved in your family, group or nation are valuable in their own right. In Stage 3, the interpersonal concordance or "good boy—nice girl" orientation, behavior that is good or which pleases others earns approval. In Stage 4, the "law and order" orientation, people are oriented towards authority (Kohlberg & Hersh, 1977). Right behavior is considered behavior that consists of doing one's "duty" and showing respect for authority.

At the Postconventional (also known as the autonomous or principled level) the effort to define moral principles and values goes beyond self-gratification and beyond obedience to authority (Kohlberg & Hersh, 1977). Stage 5, the social-contract legalistic orientation, is influenced by utilitarian judgments. Individuals in this stage define right action and individual rights by standards that have been agreed upon by what is best for society. There is an emphasis on the law. In Stage 6, the universal ethical principal orientation, people believe in universal principles of justice, reciprocity and equality of human rights. People define "right" as the "decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency" (Kohlberg & Hersh, 1977, p. 55).

Piaget and Kohlberg are just two examples of many that demonstrate how research in the moral domain focuses on the measurable repercussions of moral violations (Blair, 1995; Hamlin, Wynn, Bloom, & Mahajan, 2011; Killen & Smetana, 2006; Kohlberg, 1969; Piaget, 1932/1965; Turiel, 1983; Wainryb, 1991). Research in the domain of moral cognition has shown that moral codes are often perceived as universal

across time and space and non-negotiable (Turiel, 1979) as well as highly sensitive to information about agents' intent (e.g., Cushman, 2008). Moral judgments depend on mental state inferences: people assign more blame for intentionally versus accidentally harmful actions and more praise for intentionally versus accidentally helpful actions (Cushman, 2008; Pizarro, Uhlmann, & Salovey, 2003). Research has also uncovered individual differences in "moral objectivism" versus "moral subjectivism." Some people are "moral objectivists," taking ethical beliefs to express objective factual truths, while others are "moral subjectivists", treating moral values more like subjective preferences (Goodwin & Darley, 2008; Nichols & Folds-Bennett, 2003; Sarkissian, Park, Tien, Wright & Knobe, 2011). Another body of work examines behaviors that focus on violations of "purity" (Graham et al., 2009; Haidt & Joseph, 2004).

Examples of purity-based moral transgressions are alterations of nature or the body. In some instances these alterations (such as altering sexual organs) are said to be immoral because they violate a natural order (Graham et al., 2011; Guerra & Giner-Sorolla, 2010; Jensen, 1998; Rozin, Lowery, Imada, & Haidt, 1999; Shweder et al., 1997). And in other cases the purity violation may be seen as immoral because it is intuitively and physically disgusting (e.g., incest) (Haidt, Rozin, McCauley, & Imada, 1997; Horberg, Oveis, Keltner, & Cohen, 2009; Inbar, Pizarro, Knobe, & Bloom, 2009; Kelly, 2011; Rozin, Haidt, & Fincher, 2009; Rozin et al., 1999). There is little experimental research on children's moral responses to purity violations. Recent work by Rottman and Keleman (2012) shows that children are able to form new moral beliefs about seemingly harmless behaviors. Children were shown various novel behaviors from aliens on a pretend planet (i.e., aliens who stuck berries on their spikes). The children who were

presented with cues that the behavior was both "disgusting and unnatural" said that the novel behaviors were morally "wrong" more often than children in the control condition. While Piaget (1932) and Kolhberg (1969) focused on harm violations, this new work shows that children also view purity violations as immoral and do not need to "reflect" on outcomes when making a moral evaluation about a purity violation (Rottman & Keleman, 2012).

The development of theory of mind. Mental states matter across a number of contexts, including moral judgment (considering the helpful or harmful intentions of the moral agent) (e.g., Cushman, 2008) and in artistic evaluation (considering what the artist planned or intended for the artwork) (e.g., Bloom, 2004). Theory of mind is defined as coming to understand one's own mind and other's minds (Wellman, Cross & Watson, 2001). We look to people as intentional agents trying to understand their underlying beliefs and desires behind their thoughts and actions. The study of theory of mind (e.g., the capability to attribute knowledge and mental states to others) as it applies to the first years of life is well researched (Astington & Dack, 2008; Astington & Hughes, 2011; Flavell & Miller, 1998). In what follows I will briefly outline the development of theory of mind throughout the first five years of life.

Infants. Some researchers claim that the emergence of theory of mind can be seen with infants as young as 9-15 months in their ability to engage in joint attention (Carpenter, Nagell, Tomasello, Butterworth, & Moore, 1998). Onishi and Baillargeon (2005) found that children as young as 15 months base their predictions of a target's behavior on their implicit understanding of the target's false belief. And infants between 12-18 months use self-experience as a framework to understand others' visual perception

(Meltzoff & Brooks, 2008). Infants whose views were obstructed by blindfolds were less likely to follow a blindfolded adult's gaze that turned towards an object than both infants who merely touched the blindfold and those who were partially blindfolded (but were able to see) (Meltzoff & Brooks, 2008).

Preschool and toddler years. Observations of pretend play reveal that by the age of 2 children show awareness that thoughts within the mind differ from things in the world (Kavanaugh, 2006). When pretending a block is a car toddlers show that they can distinguish between the object (e.g., the block) and the representation of the object as a car (Kavanaugh, 2006). At this age children also understand that there is a difference between what they want and want another person wants (Meltzoff, Gopnik, & Repacholi, 199). A more advanced understanding 'that thoughts within the mind are separate from reality' is the realization that 'beliefs' are representations of an external reality and that these representations can be false (Perner, 1991). This is most commonly known as "false belief" and emerges in explicit form between the ages of three and four (Gopnick & Astington, 1988; Wimmer & Perner, 1983). This is one of the most widely explored avenues in theory of mind. A common experiment is one in which a child is shown a candy box that would appear to contain candy but in fact contains pencils. When asked what she thinks her friend would think is in the box before the friend was able to look inside the 3-year-old will say that her friend will know pencils are inside while a 4-year-old will say that his friend will think candy is inside (Perner, Leekam, & Wimmer, 1987). Three-year-olds do not remember that their own belief has changed after they looked inside the box (Gopnik & Astington, 1988). Four and five-year-olds understand the difference between appearance and reality.

Middle childhood into adolescence. By ages seven or eight, children have a more complex understanding of theory of mind called "interpretive theory of mind" (Carpendale & Chandler, 1996). Interpretive theory of mind occurs when children understand that two people can have different interpretations of reality (an understanding of subjectivity). Children who have advanced to an understanding of interpretative theory of mind must now comprehend that two people can have different opinions or responses to reality (e.g., actual stimuli) (Carpendale & Chandler, 1996). For instance, one child might interpret a drawing of a circle as a clock but is able to understand that to another child it might appear to be a ball.

Some psychologists assume that the development of theory of mind stops around age eight as children begin to reach ceiling in their performances on false belief tasks (Chandler, 1987). But a more current theory is that theory of mind continues to develop in later adolescence and adulthood becoming a more multidimensional ability to mind read (Paal & Bereczkei, 2007). Only a handful of studies have examined the development of theory of mind past adolescence (Abell, Happe & Frith, 2000; Choudhury, Blakemore & Charman, 2006).

Predictors of theory of mind ability. Other research examines predictors of theory of mind ability (predictors other than the primary predictor, which is age (Sabbagh & Seamans, 2008). There are many factors that influence the rate of typical development of theory of mind. For instance, research shows that earlier mental state awareness is associated with the extent to which mothers talk about feelings and thoughts (Ruffman, Slade, & Crowe, 2002); and that children who have siblings develop theory of mind more quickly than those who do not (Ruffman, Perner, & Parkin, 1999). Research also shows

that engaging in pretend play more frequently (Youngblade & Dunn, 1995), engaging in acting classes (Goldstein & Winner, 2010) and reading storybooks (de Rosnay & Hughes, 2006), all stimulate the development of theory of mind skills.

Disabilities are related to deficiencies in theory of mind. People with head injuries (Dennis, Purvis, Barnse, Wilkinson & Winner, 2001), paranoia (Craig, Hatton, Craig & Bentall, 2004) and those with autism or Asperger's syndrome (Baron-Cohen, Jollifee, Mortimore & Robertson, 1997) have a more difficult time with some of the subtleties of theory of mind tasks. High-functioning people with autism lack skills in mind reading abilities (Baron-Cohen et. al., 1997). Factors such as language ability (Milligan, Astington, & Dack, 2007) and cognitive abilities (executive function) that control and regulate behavior influence the rate of development (Milligan, Astington, & Dack, 2007; Moses & Tahiroglu, 2010). And how well children function in social environments is directly correlated with theory of mind (Liddle & Nettle, 2006). Research shows that children with a more developed theory of mind are more easily able to communicate with friends (Dunn, 1996), more socially competent (Astington, 2003; Gleason, Jensen-Campbell & Ickes, 2009) and report to be happier with friends (Astington, 2003).

* * * *

The goal of my dissertation was to examine through two lenses the role of contagion in children's and adults' liking and evaluations of works of art. In the first study reported here, I examined the role of contagion (positive and negative) through the lens of owning vs. making. By examining the influence of contagion on the liking of (e.g., preference for) utilitarian objects and artworks that are believed to have been made vs.

owned by morally bad[good] people, I tested the hypothesis that owning leads to the perception of contagion for utilitarian objects, while making leads to the perception of contagion for artworks. The moral character of the owner was expected to seep into the liking of a utilitarian object because of the contagious effects of physical contact: an object is held and touched by its owner. The moral character of the artist was expected to seep into the liking of an artwork because of the contagious effects of making when it comes to art: an artist expresses his or her mind in a work, and thus if the mind is perceived as negative, the artwork should be seen as negative.

In the second study reported here, I examined the effect of the artist's character (positive vs. negative) on response to artworks when the content of the work was related vs. unrelated to the artist's character. In this study I examined two potentially independent kinds of aesthetic response: how much we like a work of art, and how good we judge the work to be.

These two studies tested the hypothesis that invisible properties (i.e., the moral character of the artist) can affect our response to works of art as if they were visible properties (i.e., a part of what we see).

Concluding thoughts and general predictions. As Piaget (1932) and Kohlberg (1969) suggested, young children may judge morality by consequences. However, children may also be able to make moral judgments based on other aspects besides consequences (Rottman & Keleman, 2012). When responding to an artwork that is associated with a morally good or morally bad artist, people can respond to the moral or the artistic mind of the artist. The moral mind of the artist is reflected in the artist's moral behavior. The artistic mind of the artist is reflected in the structure, composition and

aesthetic qualities of the artwork. The current studies examine how much the artist's moral intentions influence our opinions of the artwork he or she created. Because of the strength of the effects of magical contagion (Hood, 2009) and the notion that the artist's mind is inherently tied with the experience of making (Dutton, 2004), it was hypothesized that adults as well as children are unable to separate beliefs about the artist's moral mind from responses to the artworks created by that artist. Children were expected to be more affected than adults: they were expected to focus more on the moral mind of the artist than do adults. And it was also expected that it should be most difficult to separate the moral from the artistic when the content of a work of is related to the artist's moral character. Finally, these contagion effects should be stronger when people think about how much they like a work of art than when they think about how good a work of art is. Liking is more subjective and emotional and thus is predicted to be more vulnerable to the effects of moral contagion than will be evaluative judgments.

CHAPTER 2:

STUDY 1

Moral Contagion: Responses to Art and Utilitarian Objects Owned vs. Made by Morally Good vs. Bad People.

Study 1 examined the effects in both children and adults of moral contagion on liking responses to artworks as compared to liking responses to objects that are utilitarian (i.e., not works of art). Items were described as having been either made or owned by people of either positive or negative moral character. The kind of response that was measured was how much people liked each artwork or utilitarian object.

There is no objective reason why knowing who made or who owned an item should influence how much we like that item if we are responding only to the objective physical properties of that item. But given what we know about the effects of moral contagion on utilitarian objects, it seems likely that beliefs about the moral character of the maker of a work of art should not be entirely separable from our immediate response to that work of art. Whether these responses are stronger for artworks than utilitarian objects was one question examined here. Whether these responses are stronger in response to beliefs about the maker rather than the owner of a work of art, and the owner rather than the maker of a utilitarian object was also examined. And finally, whether these responses are as strong in young children as in adults was explored.

Method

Participants

Adult participants. Forty undergraduate students who were recruited through Sona Systems at Boston College participated (*M*age = 19.5; Males = 9, Females = 31). They received one credit for their participation.

Child participants. Twenty-three 4-5-year-olds (*M*age = 4.6; Males = 10, Females = 13) and twenty 7-8-year-olds (*M*age = 7.3; Males = 7, Females = 13) participated. Children were recruited from Walnut Park Montessori, the Museum of Science in Boston, and the Boston Children's Museum. Participants received stickers and a certificate for participation.

Materials

Artist Steve Hawley was commissioned to make twelve abstract non-representational artworks. Images were non-representational. Twelve utilitarian objects (actual objects, not images of these objects) were collected (for a full list of utilitarian objects and artworks see Appendix 1).

Procedure

Each adult participant was tested individually in a testing room in the Arts and Mind Lab at Boston College. An experimenter and research assistant tested each participant. The participant was given a response booklet and told a cover story about the research assistant. The researcher was introduced as a member from a local history society in Boston. The participant was told the following: "This is [Name], s/he is from a local historical society here in Boston. S/he is going to be helping us today. Each item that [Name] brought has a historical significance that I will be telling you about. You are going to help us by rating each item based on a question we ask you. We need these ratings as baseline data for a project we are conducting with children." The participant

was then presented with each object or artwork and was read a vignette about whether the object was made or owned by a person who had committed good vs. bad deeds—for example, "This was owned by a serial rapist who was responsible for the rape of 13 women." Appendix 2 presents the full list of vignettes used for the adults. In order to avoid confusion that the objects might be misidentified as 'artworks' the subjects were told that, "all of the objects were meant as objects not artworks, and all of the artworks were meant as artworks not objects".

Each child participant was tested individually either at Walnut Park Montessori, at the Museum of Science Living Laboratory or at the Boston Children's Museum. First, each child was shown the array of objects or artworks and told that all of the objects were either made or owned by really special people who did either really good/nice things or really bad/mean things. The child was then presented with each object or artwork and was told that the object was made or owned by a person who was nice and committed good deeds vs. a person who was mean and committed bad deeds. Unlike adults, children were not read a story relating to the person's moral character. In order to make sure children were aware that the objects were not meant as artworks we asked each child the following questions: "What do we do with things like this [holding up a jump rope]?" And, "What do we do with things like this [holding up an artwork]?" If children, did not spontaneously say that objects were for playing with/using, and that artworks were for hanging up/looking at then the experimenter reinforced this with each child.

Participants were randomly assigned to one of four conditions in which they saw 24 items (both artworks and objects). In each of the four conditions ownership and morality were crossed to yield:

12 art items in each of the following four categories:

- Art-Made-Bad
- Art-Made-Good
- Art-Owned-Bad
- Art-Owned-Good

And, 12 object items in each of the following four categories:

- Object-Made-Bad
- Object -Made-Good
- Object -Owned-Bad
- Object -Owned-Good

After viewing each item and hearing whether it was owned or made by a nice or mean person, participants were shown a 7 point Likert scale (1= Not at all, 7 = Very much) which was explained to them. They were asked respond orally to a liking question (How much do you like this item?) and to justify their response (Why?). Sessions in which participants (adults or children's guardians) consented were either video- or audio-recorded.

Hypotheses

The following hypotheses were examined.

> ***H1 Moral contagion*:** Moral character should affect liking ratings. Both artworks and utilitarian objects, regardless of origin (i.e., whether they were owned or made) that are associated with people described negatively should be rated lower than those associated with people described positively. Such a

finding would demonstrate moral contagion, and would demonstrate that moral goodness/badness affects how much we like both artworks and objects.

H2: Stronger moral contagion for owned than made utilitarian objects; stronger moral contagion for made than owned artworks, or equal moral contagion for owned and made artworks. A 3-way interaction, moral character (good, bad) x kind of object (art, object) x origin (owned, made) was predicted. For utilitarian objects, owning should matter more than making. This is because a utilitarian object is often manufactured rather than made by hand, and thus should be perceived as more "contaminated" by how it has been handled as it has been used, rather than by the process by which it was made. For artworks, there are two competing possibilities. On the one hand, making may matter more than owning given the assumption that artists infuse their personal selves into what they make (Dutton, 2004). That is, artworks are not only touched and handled in the process of making, but they also reflect the artist's self (making their good or bad character more contagious than if it were merely owned). On the other hand, if contagion is primarily a consequence of imagined handling, it is possible that we respond no differently to information about who made vs. owned the artwork. After a work of art is completed it is left to be looked at and is rarely handled again after it is created. Its purpose is just to be looked at. Research on the construct of contagion often evaluates how much the participant wants to engage with the object that has been contaminated (i.e., would you wear it? would you use it?) After an artwork is made there is little physical contact with it: it simply

hangs on the wall. Thus, because artworks are made to be looked at and not touched, it could be that when comparing artworks that are owned vs. made there is no difference between whether a morally bad person makes or owns an artwork.

With respect to age, I included both younger and older children (4-5-year-olds and 7-8-year-olds) to test the hypothesis that moral contagion effects are as strong for preschoolers as they are for older children and adults. Hence I did not expect developmental changes.

Results

The most important results of Study 1 are summarized in Table 1.

A 4-way ANOVA, origin (made, owned) x kind (art, non-art) x moral character (nice, mean) x age (adults, 4-5-year-olds, 7-8-year-olds), was performed on liking ratings.

Hypothesis 1. A main effect of moral character (F (1, 79) = 86.79, MSE = 417.80, $p < .001$) supported Hypothesis 1 (see Figure 1). Across all age groups, objects and artworks associated with a negative moral character were liked less (*4-5yrs:* M_{mean}= 3.91, *7-8yrs:* M_{mean} = 3.79, *adults:* M_{mean} = 2.95) than those associated with a positive moral character (*4-5yrs:* M_{nice} = 5.61, *7-8yrs:* M_{nice} = 5.29, *adults:* M_{nice} = 4.75). Thus, the morality of the maker/owner affects how much we like what is made or owned, irrespective of whether this is a work of art or a utilitarian object. And this finding holds for adults as well as children as young as four-years-old.

Hypothesis 2. Moral character interacted with kind and origin (F (1, 79) = 5.67, MSE = 4.34, p = .02). As predicted, for utilitarian objects, those *owned* by morally bad characters were liked significantly less (M = 3.26) than those *made* by morally bad characters (M = 3.70), (t = (1, 82) = 3.96, p < .001) (see Figure 2). However, for those associated with morally good people, there was no difference in ratings for those owned vs. made (p = .97). Contrary to prediction, however, the reverse pattern was not seen for artworks: there was no difference in liking for artworks made vs. owned by morally bad (p = .35) or morally good (p = .25) characters (see Figure 2).

There was a three-way interaction among kind, character, and age, (F (1, 79) = 4.11 MSE = 4.02, p = .02). Post-hoc paired sample t-tests showed that the younger children preferred utilitarian objects over artworks both when these were associated with negative moral character (M_{object} = 4.44, $M_{artwork}$ = 3.38 respectively), (t = (1, 22) = -2.75, p = .01) and with positive moral characters (M_{object} = 5.89, $M_{artwork}$ = 5.32 respectively), (t = (1, 22) = -2.18, p = .04) (see Figure 3). In other words, the youngest children simply preferred the utilitarian objects to the artworks. Liking ratings by older children did not differ for objects vs. artworks associated with mean moral characters, (t = (1, 19) = -1.22, p = .23). However, their preference for utilitarian objects associated with positive moral characters (M = 5.45) was marginally greater than their preference for artworks associated with positive moral characters (M = 5.05), (t = (1, 19) = -1.86, p = .07). Adults showed an intermediate pattern: they preferred artworks to utilitarian objects ($M_{artwork}$ = 6.52, M_{object} = 5.29) when these were associated with negative moral characters, (t = (1, 38) = 3.61, p = .001) (see Figure 3). However, they showed no difference in preferences

for objects vs. artworks associated with positive moral characters (t = (1, 39) = .662, p = .51).

The three-way interaction between character, kind, and origin reported above is the most important finding. This interaction demonstrates that how much we like both artworks and utilitarian objects is affected more strongly by association with morally bad than morally good characters. In the case of objects but not artworks, the negative influence is stronger if the objects are believed to be owned rather than made by a negative moral character. And finally, there were developmental differences. Four-five-year-olds simply preferred the objects to the artworks – at least to the kinds of non-representational art works used here.

While adults are not able to override the effects of magical contagion entirely, they are more easily able to override the effects of negative magical contagion when responding to artworks than utilitarian objects—perhaps because the artworks have aesthetic properties that counteract the moral character of the artist. However, the artworks used here were all nonrepresentational, and it is possible that the effects of negative magical contagion would be stronger in the case of representational artworks—where an association could be more easily be made between an immoral deed and the image depicted.

Children 7-8 years-old fell somewhere in between the pattern of the 4-5-year-olds and the adults. They did not show a preference for the objects associated with negative moral characters, and they marginally preferred artworks to utilitarian objects associated with positive moral characters.

Additional findings that do not involve the factor of morality (and hence unrelated to my hypotheses). There were several significant findings that I list here but do not discuss because they did not involve the factor of morality. There a main effect of origin (F (1, 79) = 5.54, MSE = 2.82, p = .02). Made items (M = 4.45) were liked more than owned items (M = 4.31).There was a main effect of kind (F (1, 79) = 5.79, MSE = 13.97, p = .01). Objects (M = 4.53) were liked more than artworks (M = 4.23). This main effect was further explained by an interaction between kind and age (F (1, 79) = 8.97, MSE = 21.63, p < .001). Children ages 4-5 liked objects significantly more than artworks (t = (1, 22) = -2.87, p = .009); there was no difference between liking ratings of artworks vs. objects for children ages 7-8 (t = (1, 19) = -1.703, p = .10); and adults liked artworks significantly more than objects (t = (1, 38) = 2.49, p = .01).

Discussion

As predicted by Hypothesis 1, there was a strong effect across age and across owning vs. making of moral contagion both for utilitarian as well as artworks. The perceived morality of a person associated with a utilitarian object or an art object shapes how much we like that object. This finding holds for adults as well as children as young as four-years-old. The items (both utilitarian and art) were not associated with a famous person (as in studies by Hood [2009] and Nemerofff and Rozin [2000]); nor did either kind of item have any personal significance to the participants (as in Hood and Bloom [2008]). Nonetheless, simply believing that the person who either owned or made the artwork or utilitarian object was a bad or a good person affected people's ratings of the items. Thus, our beliefs about the moral mind of the maker, as well as the owner, of a

utilitarian object as well as an artwork rubs off magically on the item and constrains our liking for that item.

As predicted by Hypothesis 2, moral character interacted with kind of object and origin. Utilitarian objects believed to have been *owned* by morally bad characters were liked significantly less than items believed to have been *made* by moral bad characters. Thus, as predicted, for objects, owning makes moral character more contagious than does making. There was no effect for owning vs. making for artworks. Why did owning vs. making have no effect on responses to art objects? If owning is more contagious than making, we can explain this finding. Owning implies handling and touching. But not in the case of art objects. Owned artworks are simply put on the wall to be looked at, not touched.

There was also an unexpected three-way interaction between kind of object, character and age. The youngest children preferred objects over artworks associated with mean moral characters and they preferred objects over artworks associated with nice moral characters. Liking ratings from older children did not differ for objects vs. artworks associated with mean moral characters. Their preferences for objects associated with nice moral characters was marginally greater than their preference for artworks associated with nice moral characters. Adults showed the opposite pattern when rating items associated with negative moral characters: they rated *artworks* more highly than objects. There was no difference in adults' preferences for objects vs. artworks associated with positive moral characters.

Together these results suggest that how much we like both artworks and utilitarian objects is affected more strongly by associations with morally bad than with morally

good characters. In the case of utilitarian objects but not art objects, the negative influence is stronger if the objects are believed to be owned rather than made by a person of a negative moral character. And finally, there were developmental differences: four-five-year-olds preferred the objects to the artworks used here.

Why might children have preferred the utilitarian objects to the artworks? It is known that children have a difficult time understanding and appreciating non-representational abstract artworks (Parsons, 1987). Perhaps because there was no representational content of the artworks the experimenter presented to them, the moral character associated with the artwork became the main focus or "content" of the artwork. Perhaps the objects were more appealing to the children; and because they could immediately see the functionality of the object (i.e., a toy car that they can play with), they focus less on the moral property associated with it.

For adults, the difference in liking between objects and artworks was seen only when there was an association with a morally bad character. Artworks associated with morally bad characters were liked more than objects associated with morally bad characters. This difference between adults and young children was due to how the task was presented. Children were presented with an object or artwork and simply told that the artwork/object was made or owned by a nice person or a mean person. In contrast, adults were told a more elaborate story in order to make the items believable. Thus for example they were told that an object or artwork was owned or made by a child molester who molested 21 children. This made it possible to associate the object with the morally bad deed (e.g., a toy car might have belonged to one of the children who had been abused by the molester) (although this was not intentionally constructed to be as such). While adults

are not able to override the effects of magical contagion entirely, they are more easily able to override the effects of negative magical contagion when responding to abstract artworks versus objects—perhaps because the artworks have aesthetic properties beyond the stories that can be evaluated. However, the effects may be different when responding to representational artworks where an association could be more easily be made between an immoral deed and the image depicted.

Children 7-8 years-old fell somewhere in between the pattern of the 4-5-year-olds and the adults. They did not show a preference for the objects associated with mean or nice moral characters significantly more often than the artworks.

Research is needed to understand whether people respond to levels of magical contagion that are associated with the process of making an object/artwork or whether they are associated instead with imagined levels of handling associated with the end product. Moreover, research should also examine the extent to which engaging with an object (utilitarian or aesthetic) matters when deciding whether or not you "like" it. And lastly, other measures besides "liking" ratings should be examined when researching the effects of making and owning in magical contagion (i.e., Would you keep this? How likely is it that you would want to put this in your house? Etc.).

CHAPTER 3

STUDY 2

Does the Moral Content of the Artwork Matter?

Study 1 showed that children as young as four years of age are sensitive to the effects of magical moral contagion on responses to art as well as non-art objects. Both adults and children preferred artworks associated with morally good than bad people. As discussed in the introductory chapter, there are at least two ways that morality can be associated with an artwork. First, the artist could be known to be immoral (or moral) but the artwork produced betrays no evidence in its content of the artist's character. Second, the artist could be known to be immoral (or moral) and the artwork produced reveals evidence in its content of the artist's character. When the artist's moral character is directly reflected in the content of the works produced, does this amplify the moral contagion effect? This was the question addressed in Study 2. I used representational works of art in Study 2 because people are more likely to be able to discern (or project) a link to the moral character of the maker/owner in the case of representational than nonrepresentational artworks.

The stimuli used in Study 2 were paintings that were presented to participants as having been painted by an artist of negative or positive moral character (hereafter I refer to mean vs. nice artists). And the content of the paintings was described as related or unrelated to the artist's character – with specifics of the content explicitly related to the artist's character.

Study 2 assessed two potentially different kinds of aesthetic responses: how much the work is liked (liking question), and how good the work is judged to be (evaluative

judgment question). The evaluative judgment question could not be asked in Study 1 because it would have been odd to ask people to evaluate how "good" utilitarian objects are. Most of the research on aesthetic response has examined what we like or prefer in artworks (e.g., Berylne, 1970, 1971, 1974; Eysenck, Götz, Long, Nias, & Ross, 1984; Fechner, 1876; Götz, Borisy, Lynn, & Eysenck, 1979; Iwawaki, Eysenck, & Götz, 1979). But recent evidence suggests that people's responses are more complex and include evaluative processes as well (Hagtvedt, Hagtvedt, & Patrick, 2008; Hawley-Dolan & Winner, 2011; Leder, Belke, Oeberst, & Augustin, 2004). Information-processing and structural models of aesthetic appreciation differentiate between responses to art that are automatic and based on perception and those that are evaluative and based on cognition (Hagtvedt, Hagtvedt, & Patrick, 2008; Leder, Belke, Oeberst, & Augustin, 2004). Hawley-Dolan and Winner (2011) found that when participants indicated why they liked an image, their justifications for doing so were based more often on subjective criteria: evoked emotions, preferred colors, styles and artworks they could more easily relate to. In contrast, when they chose an artwork that they believed to be "the better work of art" their justifications were based on more objective criteria: perceptions of intentionality and planned compositional arrangements made by the artist. Thus it is plausible to assume that liking ratings (which are more subjective and based on personal associations and emotions) would be more sensitive to moral contagion than would be evaluative judgments (which are more objective and take into consideration factors of the composition separate from personal opinions).

Method

Participants

Adult participants. Sixty-seven undergraduate students were recruited through Sona Systems at Boston College (*M*age = 18.9; Males = 18, Females = 49). They received one credit for their participation.

Child participants. Twenty-three 4-5-year-olds (*M*age = 4.43; Males = 9, Females = 14) and twenty-four 7-8-year-olds (*M*age = 7.5; Males = 12, Females = 12) participated. Children were recruited from Walnut Park Montessori, the Museum of Science in Boston, and the Boston Children's Museum. Participants received stickers and a certificate for their participation.

Materials

Twelve representational paintings were selected from online databases. Paintings selected were all representational but varied in level of realism (See Appendix 3).

Procedure

Adults were tested individually in a testing room in the Arts and Mind Lab at Boston College. Children were tested individually either at Walnut Park Montessori, the Museum of Science Living Laboratory or at the Boston Children's Museum. All participants viewed a *Microsoft PowerPoint* presentation on a laptop consisting of a series of artworks accompanied by vignettes, presented one by one. The images were approximately the same size and resolution, and each was accompanied by one of four kinds of vignettes:

Vignettes describing mean artists who created images whose content was either:

1) directly related to a negative moral deed they committed, or
2) was not directly related to a negative moral deed they committed.

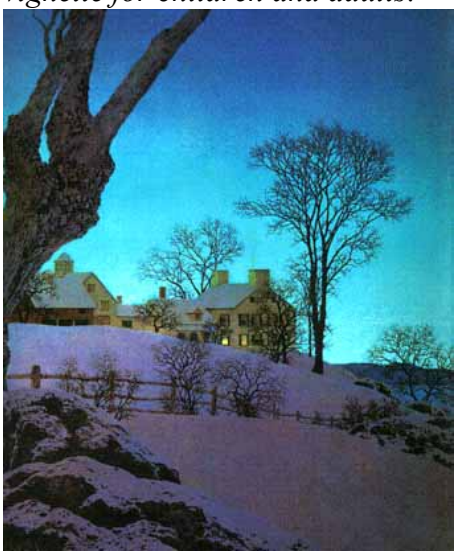
Vignettes describing nice artists who created images whose content was either

1) directly related to a positive moral deed they committed, or

2) was not directly related to a positive moral deed they committed.

(See below for examples; See Appendix 3 for a full list of vignettes and images)

Example of unrelated and related image with related and unrelated nice and mean vignette for children and adults:



Unrelated Image

Related Image

(Child Mean Vignette):
This was painted by a mean ice cream man who surprises children with a rotten apple when they get their ice cream to make them sad.

(Child Nice Vignette):
This was painted by a nice ice cream man who surprises children with a new toy when they get their ice cream to make them happy.

(Adult Mean Vignette):
A man who is an artist painted this. He owned an ice cream truck and would to go to local parks to sell ice cream to lure children into his truck to molest them.

(Adult Nice Vignette):
A man who is an artist painted this. He owned an ice cream truck and would surprise local orphanages with free ice cream on the weekends.

Participants saw both images with either the mean vignette for both related and unrelated images or the nice vignette for both related and unrelated images. Participants

were asked to make two ratings for each image on a 7-point Likert scale and to give a reason for each rating. The scale was explained to all participants.

The first question was a liking question: (How much do you like this picture? [experimenter pointed to the picture] (1= Not at all, 7 = Very much) Why?

The second question was an evaluative judgment question: How many stars would you give this picture if it were in an art contest? [experimenter pointed to the picture] (1 = Very Small Star, 7 = Very Big Star). Why?

The experimenter read aloud the rating instructions only on the first slide, and then stated (bracketed sections include additional information given to adults in order for them to find the vignettes convincing): " I am going to show you some pictures that are done by various artists that I have collected from a database. [For adults: We are doing a norming study for research with children. I need you to rate these pictures]. Each picture will have some information about the artists that I will read to you. I am going to ask you some questions and there are no right or wrong answers, just do your best". Then the experimenter read aloud the vignette that accompanied each image. Participants responded orally and the experimenter recorded their responses. Sessions in which participants (adults or children's guardians) consented were either video- or audio-recorded.

Hypotheses

I first present the hypotheses for liking ratings, followed by hypotheses for evaluative ratings.

Liking ratings

LH1 Moral contagion: As in Study 1, it was hypothesized that moral character would affect liking ratings, with art made by artists of positive moral character rated more highly than art made by artists of negative moral character. Such a finding would replicate Study 1 this time with representational works of art, demonstrating moral contagion, and would demonstrate that the moral mind of the artist leaks into aesthetic preferences not only for nonrepresentational but also for representational images.

LH2 Related negative moral content should affect ratings: Moral character was hypothesized to interact with content: images by artists of negative moral character should be liked less when the content is related to the negative character than when it is not related. However, this effect should be diminished or non-existent in the case of artists of positive moral character because negative objects are more affected by contagion than are positive objects (Newman, Diesendruck & Bloom, 2011). Even the youngest children were expected to show the same pattern of findings as the adults, revealing the power and immediacy of moral contagion.

Evaluative judgments.

JH1 Moral contagion: As predicted in LH1, it was hypothesized that moral character would affect evaluative judgment ratings, with art made by artists of positive moral character judged as better than art made by artists of negative moral character. Such a finding would again demonstrate moral contagion, and would demonstrate that the moral mind of the artist leaks into aesthetic judgments of representational images.

JH2 Adult's judgments should not be affected by moral contagion*:* In contrast to what was predicted for liking ratings, no content x character interaction was expected for judgments. While adults should *prefer* mean artist images with unrelated content to those with related content, such images should not be *judged* as better. Such a finding would show that for evaluative judgments, but not preferences, adults separate the moral from the aesthetic and base their judgments on the aesthetic properties of the artworks.

There are two reasons to suspect that this distinction between questions should occur for mean but not nice artist images. First, liking ratings are more subjective than evaluative judgments, and thus should be more affected by magical moral contagion than evaluative judgments. Second, negative objects have been shown to more affected by contagion than are positive objects (Newman, Diesendruck & Bloom, 2011). I included children in order to determine at what age children show a similar pattern to the predicted pattern of adults.

Results

The most important results of Study 2 are summarized in Table 1.

Two 3-way ANOVAs were conducted on moral character (mean, nice) x content (related, unrelated) x age (adults, 4-5-year-olds, 7-8-year-olds), once for liking ratings and once for evaluation ratings.

Liking.

Hypothesis L1. A significant main effect of moral character supported Hypothesis 1, (F (1, 111) = 77.52, MSE = 176.25, p < .001). Images made by nice artists (M = 5.63) were preferred to images made by mean artists (M = 4.23) (see Figure 4).

Hypothesis L2. Content interacted with character, consistent with Hypothesis 2, (F (1, 111) = 6.49, MSE = 4.079, p = .01) (see Figure 5). Mean artist images with related moral content were liked less (M = 3.79) than mean artist images with unrelated content (M = 4.49) (t = (1, 113) = 5.98, p < .001). Surprisingly, the same pattern occurred for nice artist images: images with related content were liked less (M = 5.45) than images with unrelated content (M = 5.81) (t = (1, 113) = 3.19, p = .002). (A simple effects ANOVA revealed that there was a greater difference in how much participants disliked the mean related vs. the mean unrelated (p < .001) than in how much they disliked the nice related vs. the nice unrelated (p = .002).) Thus people preferred images in which the content of the moral character was unrelated to artist's moral or immoral deed. There was no moral character x content x age interaction.

Evaluative judgments.

Hypothesis J1. A significant main effect of moral character supported Hypothesis 1, (F (1, 111) = 92.24, MSE = 128.28, p < .001). Thus, consistent with liking findings, images made by nice artists (M = 5.69) were judged as better than those made by mean artists (M = 4.5) (See Figure 4).

Hypothesis J2. As predicted in Hypothesis 2 there was no content x character interaction (p = *.70)*. There was a significant moral character x content x age interaction, (F (1, 111) = 3.36, MSE = 1.65, p = .03). Paired sample t-tests were conducted to further explain this result. Children ages 4-5-years-old judged mean artists' images with

unrelated content as better (M = 5.08) than images with related content just as they did in their liking ratings (M = 4.14), (t = (1, 22) = -2.64, p = .01) and there was no differences in their evaluations of nice artists' content-related or content-unrelated images, (t = (1, 22) = -1.20, p = .24) (see Figure 6). As predicted, there was no difference between adults' evaluations of images with or without content related to the mean artist's character, (t = (1, 66) = -1.51, p = .13). Adults evaluated the images of nice artists with unrelated content (M = 5.32) as better than those with related content (M = 4.99), (t = (1, 66) = -3.19, p = .002) (see Figure 6). Adults enjoy images more when they are allowed to extrapolate their own meaning (Millis, 2001), and thus perhaps in this case adult participants thought that the nice images with related content lacked imagination and were too directly stating the artist's intention. Surprisingly, children 7-8-years-old followed a similar pattern to the adults. There was no difference between 7-8-years-old's evaluations of images that were related or unrelated to a mean artists' image, (t = (1, 23) = -.16, p = .86). Seven-eight year olds judged the images of nice artists with unrelated content as marginally better (M = 5.32) than those with related content (M = 4.99), (t = (1, 23) = -1.89, p = .07).

Paired samples t-tests further examine the differences between participants' liking ratings and evaluative judgment ratings. It was predicted that adults would make a distinction between the two questions, *preferring* mean artist images with unrelated content to those with related content, but not *judging* them as better. Adults made the predicted pattern of distinction between the two questions when responding to mean (but not nice) artist images. They preferred mean artist images with unrelated content (M = 4.29) to those with related content (M = 3.71), (t = (1, 66) = -5.76, p < .001), but they did

not judge them as better ($M_{unrelated}$ = 4.75; $M_{related}$ = 4.58), (t = (1, 66) = -1.51, p = .13) (see Figure 7). However, for nice artist images, adults like the unrelated images more and also deemed them as better. Unexpectedly, children 7-8-years-old made the *same pattern* of distinction between the two questions when responding to mean artist images: they preferred mean artist images with unrelated content (M = 4.50) to those with related content (M = 3.86), (t = (1, 23) = -2.05, p = .05), but did not judge them as better ($M_{unrelated}$ = 4.23; $M_{related}$ = *4.19*), (t = (1, 23) = -.16, p = .86). Seven-eight year olds did not make this pattern of distinction with images made by nice artists. Children 4-5-years-old did not make the pattern of distinction with images made by mean artists (MeanRelatedLike vs.MeanUnrelatedLike [p = .007], MeanRelatedGood vs. MeanUnrelatedGood [p = .01]) or nice artists' images. Instead they preferred the images by mean artists whose content was unrelated to those with related content, and *still* judged those images as being less good than those with related content.

Thus, adults and children ages 7-8-years did not separate the content from the character when indicating their liking for the images—the character's immoral deed sullied the image even when the deed was not visibly depicted. However when indicating an evaluative judgment, they *were* able to detach the immoral character's deed from the image and judge the image based on what was depicted (rather than the character).

Additional finding:

For both liking (F (1, 111) = 42.69, MSE = 29.71, p < .001) and evaluative judgment ratings (F (1, 111) = 17.55, MSE = 11.44, p < .001) people favored paintings with unrelated content vs. related content. This result was most likely driven by the fact

that participants were more easily able to associate the negative moral deed to the related images rather than the unrelated images.

Discussion

Liking. As predicted in Hypothesis 1, adults as well as children as young as four years of age preferred images made by artists of positive moral character to images made artists of negative moral character.

The predicted character x content interaction was found. Hypothesis 2 was supported because each age group liked mean artist images with related moral content less than mean artist images with unrelated content. But surprisingly the same pattern occurred for the nice artist images: images with related content were liked less than images with unrelated content. There was, however, a greater difference in how *much* participants disliked the mean related vs. mean unrelated as compared to the nice related vs. the nice related. Perhaps in the nice condition when presented with images in which the content was unrelated participants were more easily able to interpret the artworks based on their own interpretations rather than have a literal depiction of story associated with the artwork. We know from work on titles that people prefer elaborative over descriptive titles (Millis, 2001). Thus perhaps when participants were given such explicit information that was tied to the artworks in the positive moral condition, they liked the images less.

Evaluative Judgment. As predicted by Hypothesis 1, and consistent with the liking findings, images made by nice artists were judged as better than those made by mean artists. Thus, when responding to artworks, both adults' and children's liking and

evaluative judgments are influenced by beliefs about the moral character of the artists who created the works.

Unlike for liking ratings, for evaluative judgments I did not expect a difference in ratings for related vs. unrelated content. Results were consistent with this expectation. However, there was a content x character x age interaction that reveals a developmental difference.

Children 4-5-years-old judged mean artists' images with unrelated content as better than those with related content. This pattern mirrors that of the 4-5-year-olds' liking ratings. Their evaluative judgment ratings of nice artists' images were no different when the artist's moral character was reflected in the content of the work or not. Adults showed a different pattern. Unlike in their liking ratings, adults were not affected by whether the content was related or not in the case of negative moral character. But for positive moral character, adults evaluated the images with unrelated content as better than those with related content. Again, this could have occurred because adults enjoy images when they can freely extrapolate their own meaning (Millis, 2001) and thus perhaps adults thought that the images with related content lacked imagination and were too directly stating the artists' intentions. Unexpectedly, children ages 7-8-years-old followed a similar pattern to adults. There was no difference between 7-8-year-olds' evaluations of images that were related vs. unrelated to a mean artist's image. And like the adults they judged the images of nice artists with unrelated content as better (marginally) than those with related content. In what follows, I more directly review the patterns of response for liking vs. judgment ratings across age.

It was predicted that adults would make a crucial distinction between the two questions when responding to mean artist images with unrelated content vs. related content. Preferences were expected to be more affected by personal, subjectively based analyses of an artwork (i.e., liking ratings) than were more objective based responses (evaluative judgments) (Hawley-Dolan & Winner, 2011; Leder et. al., 2004). Thus, because preferences are more personal (sensitive to personal taste and opinions) it was predicted that adults would prefer mean artist images with unrelated content. But because judgments of value are more objective and less personal, adults were not expected to judge images with unrelated content as better than those with related content.

Adults did prefer mean artists' unrelated images to their related images but they judged the two kinds of images as equally good (and they did not make this pattern of distinction between the two questions when responding to images made by nice artists). As expected, children 4-5-years-old did not make this pattern of distinction between the two kinds of questions—meaning they preferred the images by mean artists' whose content was unrelated to those with related content and *still* judged those images as being less good than those with related content. It is reasonable to assume that their personal preferences took over their ability to be able to judge the works objectively. It could be that children ages 4-5-years-old are acting as more absolutist in that there is only one right, the moral right; and that the moral "right" is one in the same with "aesthetic" right.

Unexpectedly, the 7-8-year-olds made the pattern of distinction between the two questions when responding to mean art images just as did the adults: they preferred mean art images with unrelated content to those with related content, but did *not* judge them as better. The children ages 7-8-years old were capable of disassociating the artist's

immorality from the artwork when evaluating it as an artwork in an art contest. As did adults, they were able to realize that a moral "rightness" did not have to equal aesthetic "rightness", and that if a painting was done by an immoral artist and depicted an immoral deed, it still might be an aesthetically good work of art.

In summary, at all ages the character's moral character shaped liking ratings even when the artist's moral character was not visibly reflected in the image content. For liking ratings, the artist's work could be separated more from artist's perceived morality when there was no visible depiction of the deed (since participants liked the unrelated more than the related images). For evaluative judgment ratings, the artist's work could be separated from the artist's perceived morality because it made no difference whether the content was related or not. Participants were able to judge the image based on its artistic qualities rather than based on the morality of the artist's mind.

Applying the results from this study to the example of John Wayne Gacy (who depicted a direct link to his deeds in his artworks) vs. Hitler (who did not), one could reason that we would like the paintings by Hitler more than those of Gacy, but we would judge the artworks as equivalent in aesthetic quality.

CHAPTER 4

GENERAL DISCUSSION

Implications

Contextual factors shape our aesthetic response and any theory of aesthetic response needs to consider not only how aesthetic response is shaped by the visible properties of an artwork, but also how our response is shaped by what we believe to be true about the artist—his or her character, his or her intentions, etc. Therefore, having a theory of mind is critical to the aesthetic experience. Indirect contextual information about the artist's mind may well be more important for our aesthetic experience than is direct contextual information provided by titles and descriptions of paintings, although no comparison of these two kinds of contextual information has yet been carried out. When we respond to a work of visual art, we cannot help but think about the artist's mind: the artist's intention, process of creation, and character. All of these factors shape our experience. Research has just begun to examine these influences, and much more research is needed, including the study of how these mentalistic factors affect young children's experience of works of art.

This research also elucidates the cognitive role of moral thinking when responding to works of art. It is well known that people recoil from the idea of wearing a sweater worn by a killer (Hood, 2009). But to my knowledge the research reported here is the first examination of how the perceived moral character of the artist affects interpretations of artworks by both children and adults. My studies show that adults and children as young as 4-years-old take the moral character of the artist into consideration when responding to the artistic creation. When a negative moral character is unrelated to

the artwork's content, adults and children as young as four can focus on the artist's creation more clearly (they like it better than when the artist's immoral character is reflected in the image). And that morality is affected differentially by the cognitive roles associated with liking vs. evaluation. Adults and children as young as seven are able to judge images in which moral character is depicted within the content of the artwork as just as good as those without the depiction of moral character. That is, they have the cognitive flexibility to separate the moral from the artistic even when the moral is depicted within the artwork. But the youngest children studied here were unable to do this. Further examination of why evaluative judgments differ from liking responses and at what age this cognitive flexibility occurs will provide a broader understanding of aesthetic response. And by determining the role of morality in the aesthetic domain we can develop a broader picture of the role of theory of mind when evaluating works of art.

Limitations

There were some limitations to these studies.

Study 1

Contagion—amount of time. Study 1 did not control for amount of time that the owner or maker spent with each object or artwork. This factor could have influenced people's ratings of the objects and or artworks.

Sample. The sample size was small for both adults and children. There were very few adult males in the study.

Likert scale. Children ages 4-5-years-old had difficulty understanding the variation within the scale. They used the extremes and the middle rating but rarely chose numbers other than 1, 4 and 7. This limitation also occurred for Study 2.

Vignette vs. no vignette. Adults saw the objects presented with longer vignettes spelling out the positive and negative deeds of the makers/owners, while children only saw the objects presented with indicators as to whether the maker/owner was a good/nice or bad/mean person. The adults were given more detailed vignettes in order to make it more believable that the items were associated with negative and positive moral characters. Therefore, it is difficult to compare responses of children and adults. It would be interesting to develop vignettes for children in future work and see if they spontaneously make associations between the artworks/objects and stories.

No baseline ratings. It would have been good to have baseline ratings on the artworks and objects so that I could determine whether negative stories depressed ratings, positive stories boosted ratings, or whether both factors were at work. With the present design I cannot determine the comparative effect of negative vs. positive moral character. This limitation also occurred for Study 2.

Study 2

Sample. The sample size was small for both age groups. For the adults, there were mostly females and very few males.

Ratings of the artist vs. the picture. All children had some difficulty understanding whether the experimenter was asking them to rate the artwork vs. the artist. The experimenters did point to the pictures several times however. But perhaps this was simply a display of a child's inability to inhibit their judgments of the artist rather than the artwork.

Within subjects design. Each participant saw two different pictures (related or unrelated) with the same story (either positive or negative depending on condition). The

participants thus responded to the same story twice, each time associated with a different picture. One could argue that participants may have felt as though they were rating the same moral character twice. However, by keeping moral valence a within subjects factor I reduced error associated with individual differences. And I varied the order in which the related vs. unrelated appeared so that participants were not always making their first rating of a related or unrelated picture.

Future Directions

Contextual information

Research should continue to examine the role of contextual information when responding to an artwork. Understanding how contextual information helps or hinders one's comprehension and appreciation of varying forms of artwork (realistic, abstract, conceptual) can give us the tools for a more comprehensive understanding of how the mind responds to art. Moreover, examining how children are affected by contextual information can provide educational programs and museum initiatives with the right methods to best inform and teach children about art.

Theory of mind. More work is needed to understand how our conception of the mind behind the art affects our responses to the work. As discussed in the introduction, we can use the properties of an artwork to reason about the artist just as we can use the artist to reason about the visible properties of the artwork. It would be informative to our understanding of aesthetic response to know how much weight we assign to the visible properties of the artwork vs. the invisible properties of the artist. When do we assign such values and why? Does it depend on the type of visual artwork? For instance, do our beliefs about the artist's mind matter even more when responding to conceptual art (e.g.,

Tracy Emin's tent) where understanding depends so strongly on the artist's intended "meaning?". Future studies could examine whether children and adults can make two different ratings: one for the artist and one for the artwork, to determine the extent to which these ratings would differ from one another.

Clearly theory of mind plays a role in that people *are* in fact sensitive to the intentions of the artist as a moral agent. It would be very interesting to see how people who lack theory of mind skills (i.e., those with autism) respond to intentionality in artworks. Can they read images' visible properties and infer intentionality? Are they sensitive to the moral intentions of the artist? For instance, would adults with autism rate images associated with a negative moral artist as lower than those associated with a positive moral agent? Or would they be ambivalent to the subtlety of the mind of behind the art?

And lastly, future studies could examine how implicit or explicit is our sensitivity to the mind of the artist. Were participants who were able to respond positively to the artwork of a negative moral character inhibiting their responses? Future work should examine how aware we are of our beliefs about the artist when responding to works of art.

Morality. Little is known about how the morality of the artist affects our experience of art produced by said artist. More research is needed to understand the role of morality in art. The results of these experiments show that people are sensitive to morally negative content when it is associated with an immoral deed. What is unknown is whether people's responses to *morally negative content* depend on the artist's intentions, and whether an artist's intentions when depicting morally negative content influence whether or not the artist's work is seen as "art". For example are a murder scene

photographed by a killer to document his deed and a murder scene photographed by a journalist who was covering the story both considered art if they are equally beautifully composed aesthetically? Can something morally terrible be aesthetically beautiful? An example of this comes from the work of photographer Sarah Charlesworth. The artist put together a collection of photographs called "Stills". The black and white photographs are enlargements from Newspapers and are visually striking in composition. The photographs depict people who are either jumping from burning buildings or committing suicide, and neither the intention nor the outcome are apparent. Thus, one could use these photographs in an experiment to determine how much weight is assigned to the role of intentionality, morality and visual composition when responding to a work of art. Researchers should also examine how various kinds of moral violation (e.g., purity vs. harm) affect responses.

Liking vs. evaluative judgment. Research in aesthetics should continue to examine the role of subjective responses vs. objective responses to art—especially developmental differences in subjective vs. objective responses. In the current studies, children as young as seven years of age were able to separate their judgments from their likings and actually indicated that there was no difference in their ratings of how good a work of art was when the content was related vs. unrelated to the artist's character. Even though they disliked artworks with content that was related to immorality, they could judge it as just as good as an artwork with unrelated content. Researchers should examine whether there is a specific age at which children can separate 'what they like' from what they think is 'good art' or whether this understanding is flexible. Perhaps using a field such as art—that is seen as a more subjective field than morality (which is seen as more

objective)—can help children become more cognitively flexible in the domain of morality.

Developmental Changes

A developmental shift was seen in Study 2, with different performance from 4-5 year olds and 7-8 year olds. Children ages 7-8 performed like adults. When judging works of art, neither group showed a bias towards related vs. unrelated images created by the "immoral" artists. That is, they judged images with related vs. unrelated moral content as equally good. However, when it came to liking, all three age groups performed the same way, rating the unrelated images higher than the related ones. I propose two possible developmental explanations for why children ages 7-8 and adults were able to separate the moral mind from the artistic mind when making an evaluative judgment about the artworks.

One explanation is that 7-8 year olds and adults are able to "decouple" the morality of the artist from the artwork more easily when making an objective judgment rating than when making a subjective (liking) rating. Research shows that adults are able to decouple an immoral act from an immoral agent (Bhattacharjee, Berman & Reed, 2012). Participants were given scenarios about professional people who achieved a great deal but who also committed an immoral act (e.g., a professional hockey player who led his team to win the Olympic Gold medal but who was later found to have abused his wife) and were asked questions which measured the participants' degree of moral decoupling or moral rationalization. Adults did not rationalize the negative behaviors of the professionals (i.e., saying that it was okay that he abused his wife because he is an Olympic hockey player) but instead decoupled the two characteristics (i.e., he is an

Olympic athlete and the information about the immoral act is separate from this fact) (Bhattacharjee, Berman & Reed, 2012). Furthermore, Bhattacharjee et. al., (2012) showed that it was more difficult to decouple the moral act from the moral agent when the two were directly related (i.e., Barry Bonds using steroids to better himself in baseball vs. Tiger Woods cheating on his wife). This same difficulty is present in the current studies.

When making a liking response (a more subjective emotional response) all age groups had a difficult time decoupling the moral act from the artwork when the immoral act of the artist is visibly depicted in the artwork (as seen by the fact that all age groups' liking ratings are lower for related vs. unrelated artworks). However, when making an objective evaluative judgment rating 7-8-year-olds and adults are able to morally decouple the immoral mind from the artwork even when the image is related to the immorality of the artist.

Thus, one conclusion is that it is more difficult to morally decouple the immoral mind of the artist from the artwork when making subjective ratings of liking vs. when making objective evaluative judgments. Future work should examine if the same effect of subjective/objective distinction holds across other domains (i.e., how much do we like Barry Bonds or the Olympic hockey player vs. how good do we rate him as an athlete).

Why might we see this developmental distinction between 4-5-year-olds who are unable to objectively decouple the immoral mind from the artwork and the 7-8-year-olds who are able to do so? The developmental literature on epistemological understanding may shed some light on why children ages 4-5 are unable to decouple the moral mind from the artistic mind. Kuhn, Cheney and Weinstock (2001) propose that children's

understanding of where knowledge comes from—how it occurs—moves from objective manner of thinking (seen in children below the age of 4-5) to a subjective manner and then to an integration of both the objective and subjective.

Children begin by thinking that knowledge is an objective entity located in the external world (absolutist level) (Kuhn et al., 2000). Children reach a multiplist level when they are able to move from simply identifying knowledge as associated with an object to identifying it with the knowing subject (they become aware of the subjective nature of knowledge). Once children pass the false belief task (around the age of 4-5) they develop the ability to trace assertions of knowing back to a source distinguished from external reality (Kuhn et al., 2000). However, at this stage children can focus primarily on the subjectivity of opinions (all opinions are right) and lack awareness that there could be an objective standard that could serve as a guide to compare confliction claims. Thus, at the evaluativist level, the child reintegrates the objective dimension of knowing by acknowledging uncertainty and keeping in mind evaluation (i.e., two people can be right, but one could be more right) (Kuhn et al., 2000).

By school age, children recognize that exposures to different information may lead to different knowledge claims (Taylor, Cartwright, & Bowden, 1991). We know that children also vary in their levels of epistemological understanding across different judgment domains. For instance, coordinating the subjective and objective domains of knowing is more easily done in the more subjective domain of aesthetics than in the objective realm of moral or value judgments (Kuhn et al., 2000). Thus, perhaps 4-5-year-olds cannot make an evaluation of the artworks based solely on the artworks because they are focusing on the external reality presented before them—they focus on the immoral

transgression rather than the properties of the artwork. The 4-5-year-olds cannot decouple art from the moral domain, unlike 7-8-year-olds and adults. All age groups have difficulty separating the moral from the aesthetic when making an emotional subjective liking rating. But the 7-8-year-olds can understand that one might judge the paintings as equally good aesthetically. They are able to realize that there is an objective standard by which the artworks could be evaluated (i.e., the compositional properties rather than the morality). Additionally perhaps when children realize that two people can have different views on something (multiplist) they can also realize that one person can do something good (paint a good work of art) and something else bad (commit and immoral deed) and can hence decouple.

Future work should examine the age at which children can make an objective evaluation about art in general (without the influence of a morally good or bad artist). Then future work should examine if giving young children a clear question asking them to rate the artist as well as the artwork helps them to more easily decouple the moral mind from the artwork.

And lastly, future work should examine the aspects of morality on which children base their evaluations of art. For instance, if children had been given vignettes describing moral acts in which artists intentionally vs. accidentally caused harm that resulted in consequences varying in degrees, would their responses to the artworks depend on the consequences as found by Piaget and Kohlberg, or on intentionality (Young & Saxe, 2008).

Conclusions

More research on the bi-directional effects of the artist's influence on how we reason about an image and then the image's influence on how reason about the artist is needed. There is still a great deal of research needed to understand how contextual information affects our understanding of art and the relationship between moral contagion and art. The current studies demonstrate that how magical contagion affects our responses to artworks is more complex than the simple finding that the morality of the artist affects our responses to the artwork. As we see in both Study 1 and Study 2, people's subjective liking responses are highly sensitive to beliefs about the artist's moral character. And thus, artists are not completely immune to how their moral behaviors affect responses to their compositions. But Pope Paul III's statement, "Men like Benvenuto Cellini (artists) ought not be bound by laws" is telling. Evaluative judgments are more objective than liking responses, and hence our judgments are less influenced by beliefs about the artist's character. Instead, the aesthetic qualities of the artwork shape our judgment. Thus, our response to the artistic creation borne from the artist's mind can rise above our response to the morality of the mind of the maker. Nonetheless, when we are not evaluating but are simply responding emotionally in terms of liking, our responses to the artist's moral mind and to the artist's artistic mind are not entirely separable.

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Table 1. *Summary of main results from Study 1 and 2. (*=as hypothesized)*

Study 1	**Study 2**	
Moral Contagion: *Negative items liked less than positive items. Ownership Rubs Off on Objects: *Objects: negative owned liked less than negative made. Artworks: no difference between owned vs. made.	*Liking* Moral Contagion Replicates Study 1 for Liking: *Artworks by morally negative artists liked less than artworks by morally positive artists. Does it Matter for Liking if Content is Related? *Related content liked less than unrelated content for both artists of negative and positive moral character [at all three ages].	*Evaluative Judgment* Moral Contagion Replicates Study 1 for Judgment: *Artworks by morally negative artists judged as less good than artworks by morally positive artists. Does it Matter for Judgment if Content is Related? Adults: *For artworks by artists of negative character, no difference between related/unrelated. For artworks by artists of positive character, related judged worse than unrelated. 7-8-year-olds For artworks by artists of negative character, no difference between related/unrelated. For artworks by artists of positive character, related were judged as marginally better than unrelated. 4-5-year-olds: For artworks by artists of negative character, related judged worse than unrelated. For artworks by artists of positive character, no difference between related/unrelated.

Appendix 1. *List of Utilitarian Items And Digital Images of Artworks*, Study 1. [Sizing of artworks adjusted for the purposes of this document].*

1. Shoelace
2. Fox
3. Toy Dog
4. Toy Car
5. Cup
6. Plate
7. Jumprope
8. Puzzle
9. Washcloth
10. Notebook
11. Basket
12. Place Mat

1.

2.

3.

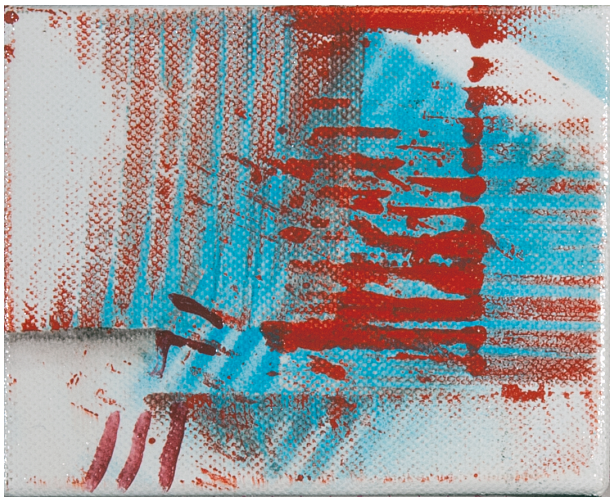
4.

5.

6.

7.

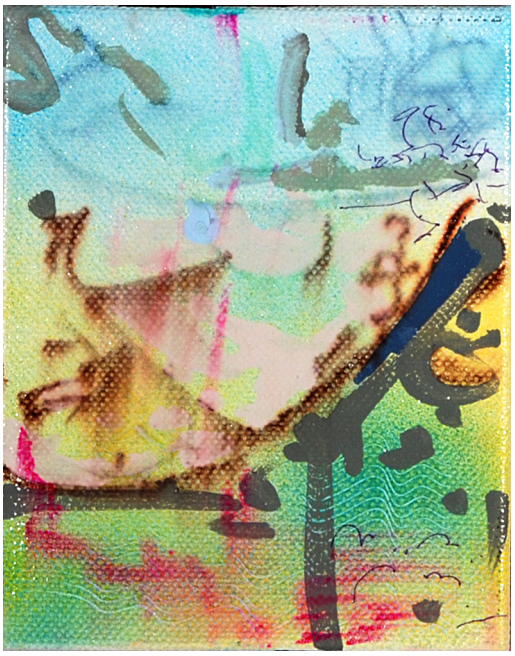
8.



9.

10.

11.



12.

Appendix 2. *Vignettes Accompanying Objects and Artworks (Adults only), Study 1.*

BAD

- This was owned by a serial rapist who was responsible for the rape of 13 women.
  This was made by a serial rapist who was responsible for the rape of 13 women.

- This was owned by a child molester who molested 21 children.
  This was made by a child molester who molested 21 children.

- This was owned by a member of a neo-Nazi organization.
  This was made by a member of a neo-Nazi organization.

- This was owned by an arsonist who is responsible for setting fires that led to the death of 9 people.
  This was made by an arsonist who is responsible for setting fires that led to the death of 9 people.

- This was owned by a former member of the Ku Klux Klan.
  This was made by a former member of the Ku Klux Klan.

- This was owned by someone who mutilates animals.
  This was made by someone who mutilates animals.

GOOD

- This was owned by doctor who works for an organization that provides free healthcare for families in need.
  This was made by doctor who works for an organization that provides free healthcare for families in need.

- This was owned by a person who ran an orphanage and connected thousands of children with families.
  This was made by a person who ran an orphanage and connected thousands of children with families.

- This was owned by a person who founded a company for educational toys for deaf children.
  This was made by a person who founded a company for educational toys for deaf children.

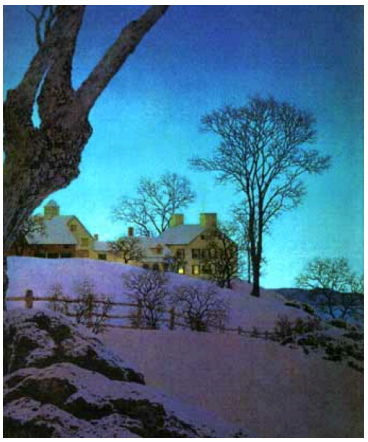
- This was owned by a nurse who provides free house calls on the weekends for war veterans.
  This was made by a nurse who provides free house calls on the weekends for war veterans.

- This was owned by a teacher who developed a revolutionary reading program for the blind.
  This was made by a teacher who developed a revolutionary reading program for the blind.

- This was owned by a person who founded a tuition free summer camp for children with cancer.
  This was made by a person who founded a tuition free summer camp for children with cancer.

Appendix 3. *Twelve Representational Paintings and Accompanying Vignettes, Study 2 (Related left, Unrelated right) [Sizing of artworks adjusted for the purposes of this document].*

1.



Adult

Good: A man who is an artist painted this. He owned an ice cream truck and would surprise local orphanages with free ice cream on the weekends.

Bad: A man who is an artist painted this. He owned an ice cream truck and would to go to local parks to sell ice cream to lure children into his truck to molest them.

Child

Good: This was painted by a nice ice cream man surprises children with a new toy when they get their ice cream to make them happy.

Bad: This was painted by a mean ice cream man who surprises children with a rotten apple when they get their ice cream to make them sad.

2.

Adult

Good: A woman who is an artist painted this. She worked for a village where she helped grow herbal remedies to ease cancer patient's pain.

Bad: A woman who is an artist painted this. She worked for a village where she grew cyanide for various cults.

Child

Good: This was painted by a nice gardener who helps plants and trees by spraying them with a special liquid to make them grow.

Bad: This was painted by a mean gardener who destroys plants and trees by spraying them with a special poison to make them die.

3.

Adult

Good: A woman who is an artist painted this. She donated her time in an afterschool program for at risk youth. She did this to help children find jobs and get scholarships.

Bad: A woman who is an artist painted this. She donated her time in an afterschool program for at risk youth. She did this to lure young girls into sex trafficking.

Child

Good: This was painted by a nice teacher who helps his students when they are upset.

Bad: This was painted by a mean teacher who yells at his students when they are upset.

4.

Adult
Good: A man who is an artist painted this. He worked for a homeless shelter, rescuing animals who were been abused.
Bad: A man who is an artist painted this. He worked for an animal shelter, secretly abusing animals.
Child
Good: This was painted by a nice dog walker who loves dogs and often pets them.
Bad: This was painted by a mean dog walker who hates dogs and often kicks them.

5.

Adult
A woman who is an artist painted this. She babysat for children and when they cried too much she sang and played with them until they stopped.
Bad: A woman who is an artist painted this. She babysits for children and when they cry too much she shook them violently until they stopped.
Child
This was painted by a nice babysitter who fixes children's broken toys.
Bad: This was painted by a mean babysitter who breaks children's toys.

6.

Adult

Good: A woman who is an artist painted this. She baked cupcakes that included organic, local ingredients to support local farms and promote well-being.

Bad: A woman who is an artist painted this. She baked cupcakes that sometimes included animal feces, because of the unsanitary conditions of her working space.

Child

Good: This was painted by a mean baker who puts extra salt in people's cupcakes to make them taste really bad.

Bad: This was painted by a nice baker who puts sugar in people's cupcakes to make them taste really good.

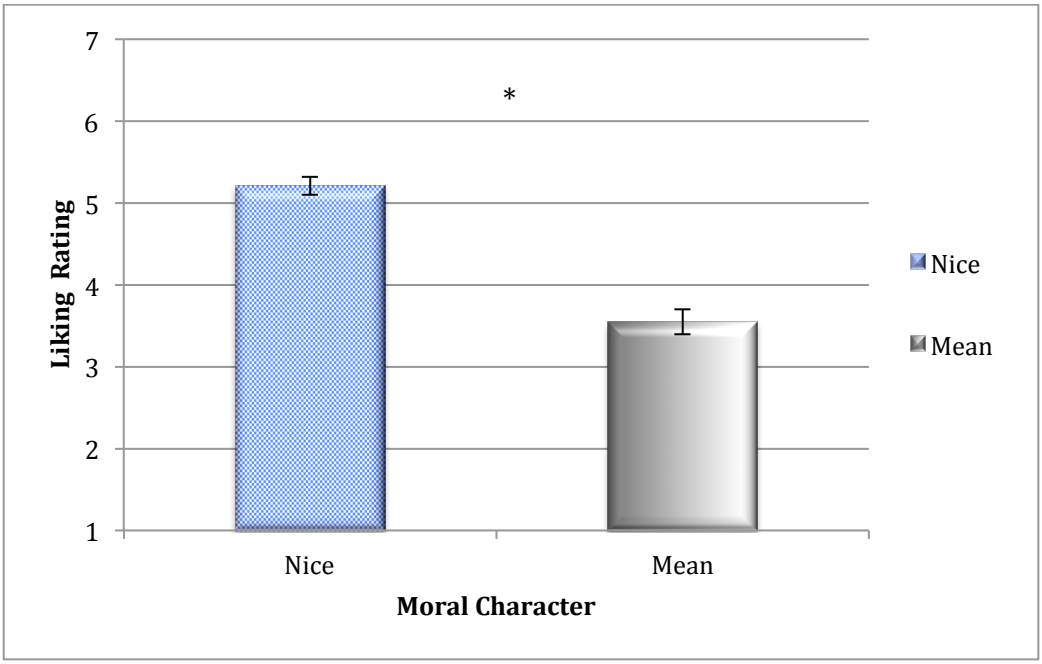


Figure 1. Liking ratings for artworks and utilitarian objects associated with mean vs. nice moral character, Study 1.

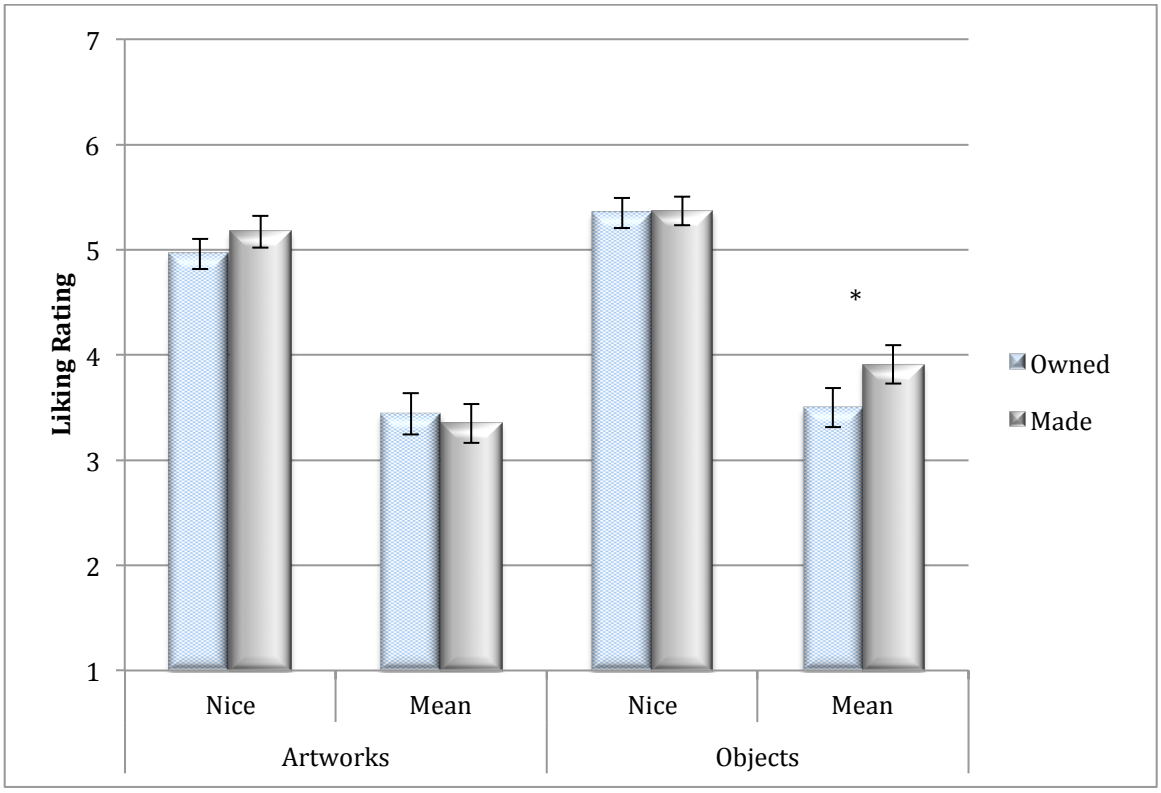


Figure 2. Liking ratings for objects and artworks owned vs. made by morally bad people, Study 1.

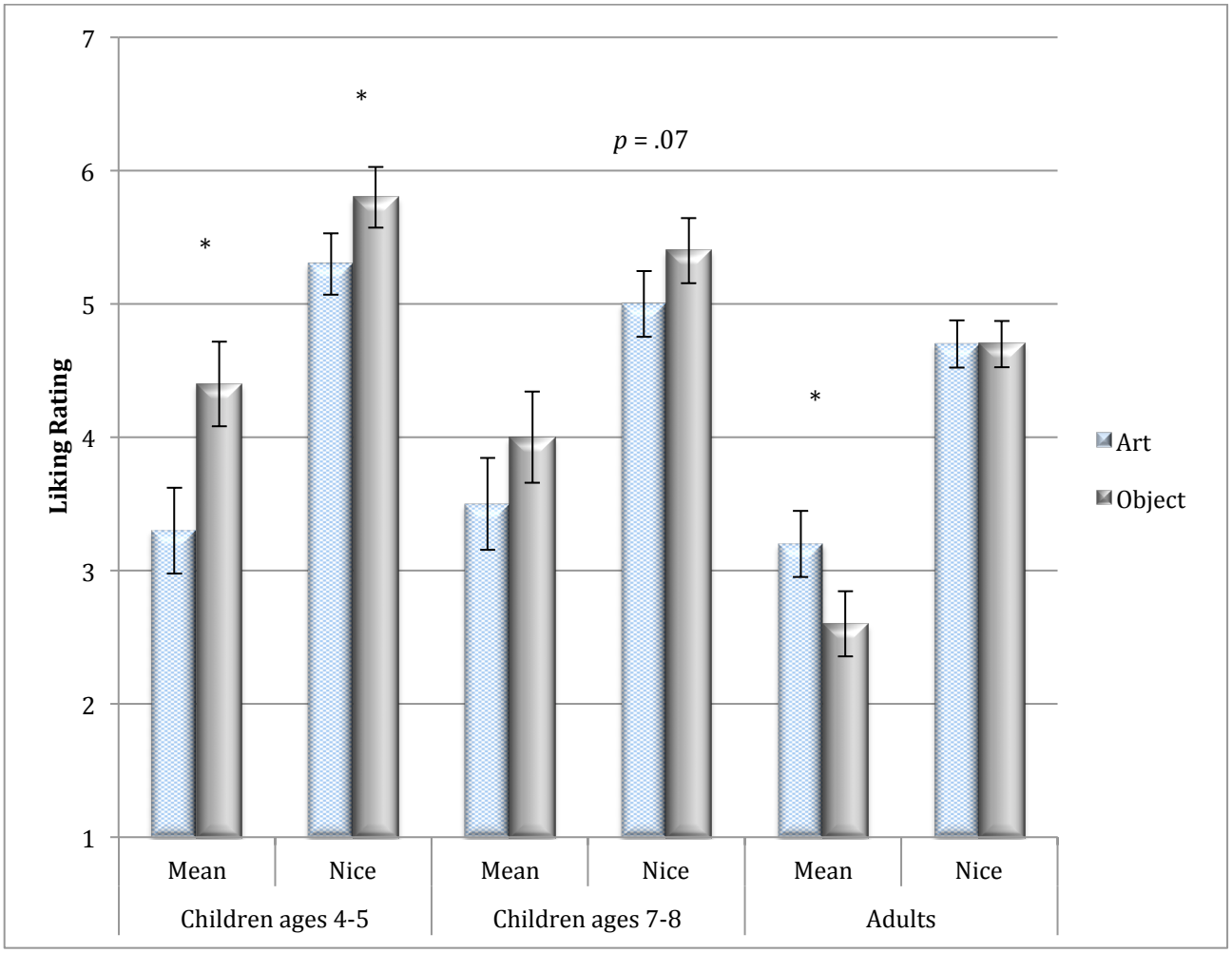


Figure 3. Liking ratings by three age groups for artworks and utilitarian objects associated with mean vs. nice moral character, Study 1.

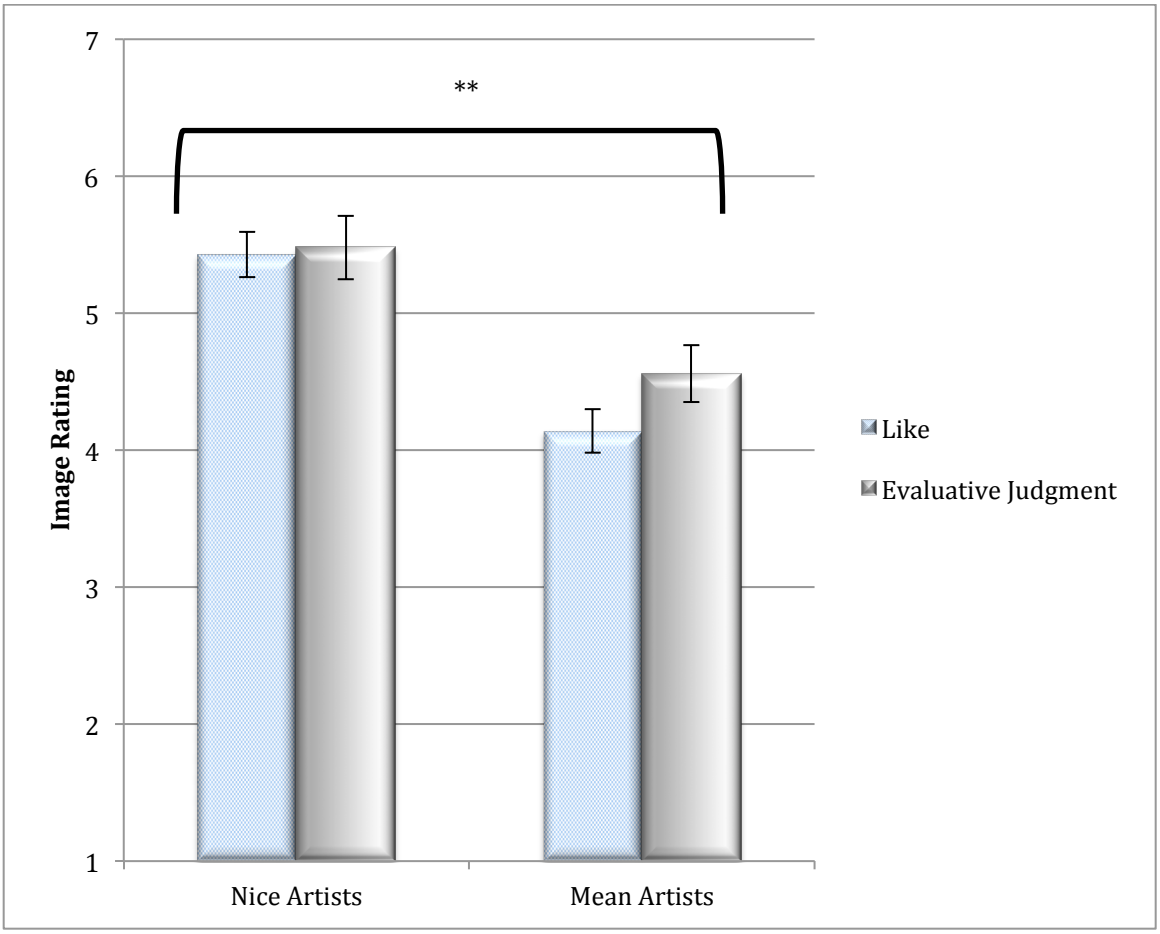


Figure 4. Mean liking and evaluative judgment ratings across age for artworks by nice vs. mean artists, Study 2.

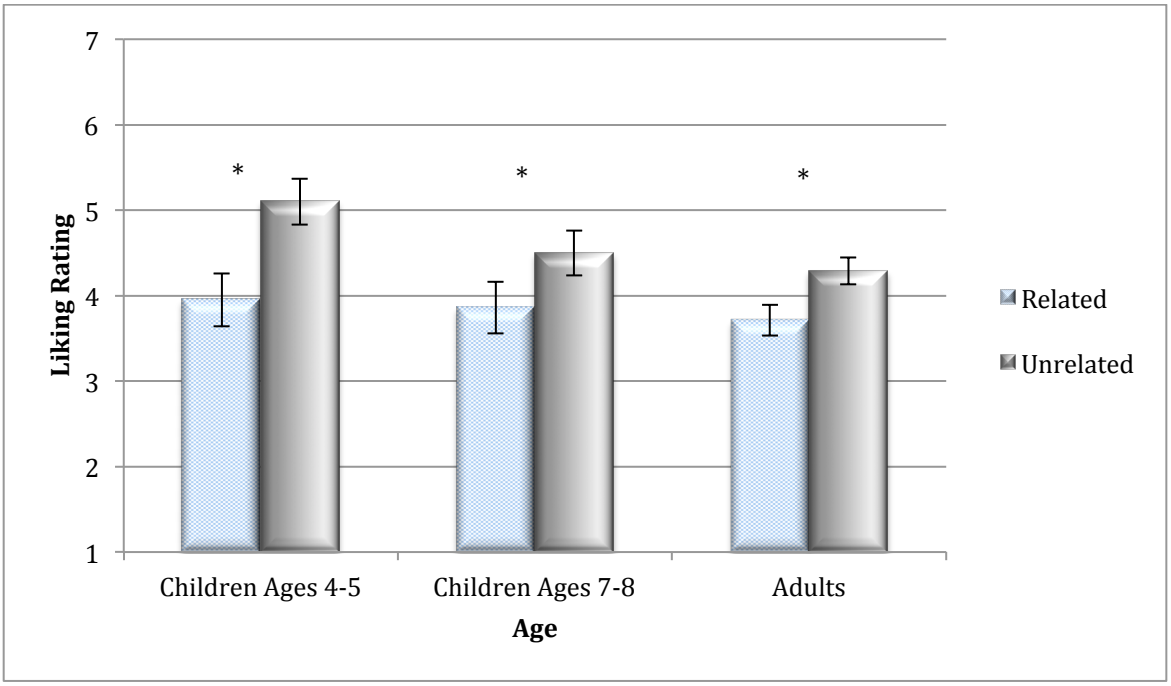


Figure 5. Liking ratings by three age groups for artworks by mean artists with related and unrelated content, Study 2.

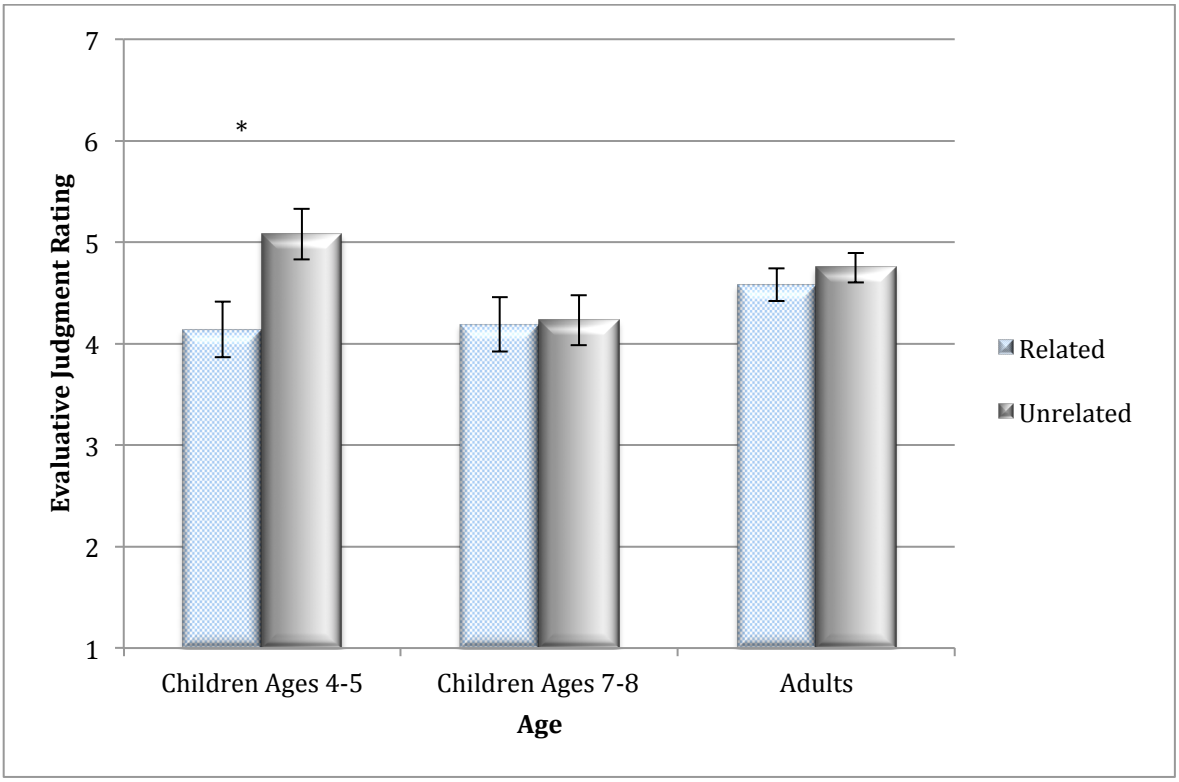


Figure 6. Evaluative judgment ratings by three age groups for artworks by mean artists with related and unrelated content, Study 2.

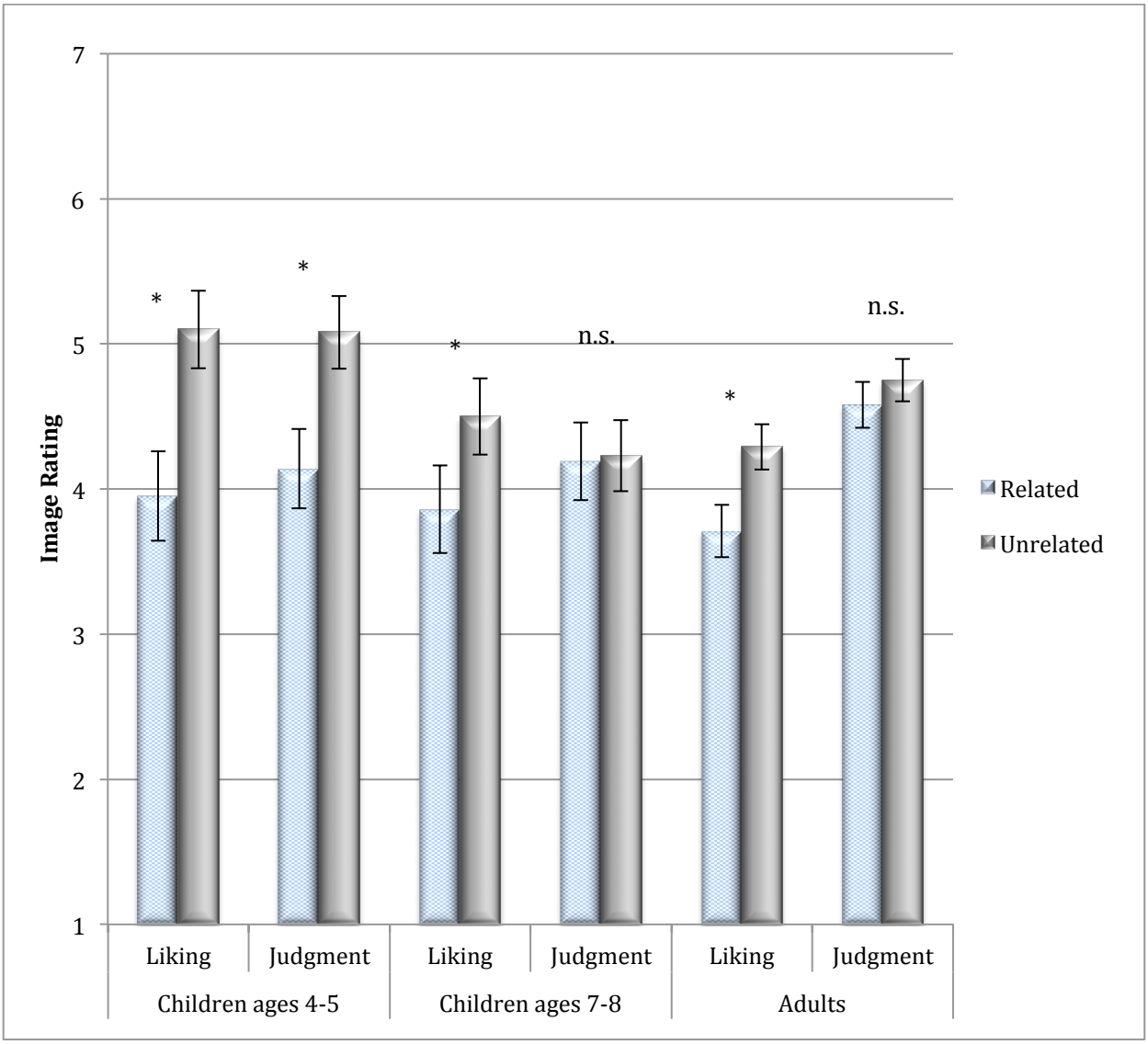


Figure 7. Mean liking and evaluative judgment ratings (combined) by three age groups for artworks with content related/unrelated to artist's mean moral character, Study 2.