

The Indestructible Nature of Art

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### Abstract

Drawing from the philosophical and psychological literatures, we explored people's beliefs about the experience and nature of art. We asked participants to rate the ability to experience different works of art after the original work, copies, and memories of the work had been destroyed.

Across four experiments, people endorsed destroying the original of an art piece as more damaging to the experience of a visual work (paintings, carved sculptures) than a nonvisual work (literature, music). However, people endorsed that famous and nonfamous art works could still be experienced until people's memories of the pieces were destroyed. When an art piece ceased to exist, people rated it could still be experienced to some extent through similar proxies.

Overall, our findings suggest that people believe the identity of art works exist past the destruction of their physical form, suggesting interesting implications for theories of object identity and the valuation of art.

Keywords: art; identity; ontology; valuation of art; aesthetics

### The Indestructible Nature of Art

In the winter of 2013, thousands of people waited in line through freezing temperatures to see a Dutch Masters exhibit at the Frick Collection in New York City. In particular, people came to see two paintings: Johannes Vermeer's *Girl with a Pearl Earring* and Carel Fabritius's *The Goldfinch* (The Frick Collection, 2014). Many visitors stated coming to see these works because of reading eponymously titled novels whose plots revolved around the paintings ("Blockbusters at the Frick," 2014). Each novel describes its titular painting in detail, suggesting these visitors already had a sense of how these pieces of art looked. In fact, the paintings are reproduced either in whole or in part on the covers of popular editions of the novels, and in the electronic front matter of the e-books. Despite probably having detailed knowledge of these paintings, people still felt it was worth enduring extreme winter weather to see the paintings in person. More generally, millions of people visit art galleries each year to view original works of visual art despite having alternative ways to experience these pieces. For example, 6.5 million people visited the Metropolitan Museum of Art in New York City in 2015 to see original pieces by the likes of Manet, Polluck, Goya, and Cassatt (Pes, Da Silva, & Sharpe, 2016). The crowds that packed in to The Met could arguably have seen these works in more detail by viewing the paintings on The Met's website, which offers descriptions and pictures of their collection and the ability to zoom in on details of individual pieces (<http://www.metmuseum.org/art/collection/>). Why are people drawn to see original artworks in person and what does this pilgrimage suggest about how people think about art? In this paper, we explore these questions by investigating people's beliefs about the experience and underlying nature of art.

To explore how people think about the experience of art, we draw from previous research in the fields of philosophy and psychology. Within the philosophy of art tradition (aesthetics),

“art” is standardly defined so as to include forms of visual art (paintings, sculptures), as well as nonvisual musical and literary works (S. Davies, 2006; Hick, 2012; Stecker, 2005). We use this definition and explore how people think about the experience of different kinds of artistic works. In the following, we first discuss ideas from aesthetics suggesting why people should be drawn to original art pieces. We then outline previous psychological research that has explored conceptions of art, especially in relation to originals versus duplicates. We then describe a set of experiments that draw from philosophical predictions to test how people think about the experience of art. Through these experiments we provide novel evidence of how people think about the existence of art and the identity of objects more generally.

### **The philosophical approach to experiencing art**

Ontology is the area of philosophy concerned with the fundamental nature of things, and kinds of things, asking centrally what makes something the thing that it is, and what distinguishes one kind from another. Within the subarea of philosophy known as aesthetics, questions about ontology are directed towards art objects (e.g., paintings, poems, plays, and works of music). In analytic philosophy of art, art-kinds are traditionally divided into those kinds of works that allow for multiple genuine instances, and those kinds that only allow for a singular instance. Most of the latter are works of hand-rendered visual art, such as paintings and carved sculptures. Paradigmatic multiple-instance art-kinds include music and literature (S. Davies, 2003; Levinson, 1987; Thomasson, 2004). On this view, a perfectly-typed reproduction of a poem would be a genuine instance of that poem, as much an instance of the poem as the original. However, a copy of a painting which perfectly reproduces the look of the original would only be a replica of the original—if it is a work of art at all, it would be a distinct work. With this distinction in mind, we might say that although two people have read different copies of Stephen

King's latest publication, they have nevertheless read the same novel: the very same literary work. However, if two people see different but identical painted objects in different museums, we would not say that they have seen the same painting: the same visual artwork. If a painting can only ever truly exist in a single instance—the original, hand-rendered painting—we might then understand how people would think about the experience of that object as special. That is, if there is only one genuine instance of a painting, then seeing and experiencing that original object would be the only way to truly experience that piece of art. The experience of the original would be less important for a musical or literary work, where an accurate copy would have as much claim to being the genuine article as does the original.

Working from the assumption that any given painting is—if only as a matter of practice—a singular concrete object, a related question in aesthetics is, does one need to be in the physical presence of that painting in order to experience it? Philosophers have generally agreed that one cannot truly experience a work of art through mere description of that work. For example, one cannot experience a painting from the detailed description of a friend who has just been to see it or experience a great work of Western literature by reading the CliffNotes synopsis of the book. However, some philosophers have argued that a reasonably faithful replica of a work of visual art (a painting or carved sculpture) can serve as a sort of aesthetic surrogate or proxy for the original, even if, as discussed above, that copy cannot be (and should not be considered) a genuine instance of the work (Budd, 2003; Livingston, 2003; Mitias, 1972; cf. Eaton, 2001; Goodman, 1976).

From the dominant theories in aesthetics, we can build philosophical predictions of how people should think about the experience of art. Namely, people should value the experience of an original work of visual art much more than a copy of that work, at least in part because visual

works exist only in one genuine instance. And further, we should not find this same imbalance in the experience of nonvisual art. Would the average non-philosopher agree with these intuitions? This question is of fundamental importance to aesthetics in that the ontology of art is grounded in artistic practice: how we (both artists and audiences, experts and laymen) go about referring to, treating, distinguishing, interpreting, and evaluating works (D. Davies, 2004; Dodd, 2007; Hick, 2013; Thomasson, 2005). In essence, aestheticians should care how laypeople think about art because that is part of what determines the nature of art in the first place. We now turn to the psychological literature to gain insight on how such laypeople think about art.

### **Psychological insights into the experience of art**

While entire groups of philosophers have dedicated themselves to understanding the nature of art, relatively little *psychological* research has explored how people think about art. Given the millions of dollars people spend on purchasing art objects (e.g., books, wall art, mp3s) and the cultural significance many works of art hold, understanding how people think about these man-made objects is important to understanding human thinking. In the extant psychological literature on art beliefs, one line of research has focused on when people classify an object as a piece of art. People are sensitive to the intention of the creator in determining if a work is a piece of art (Bloom, 1996; Jucker & Barrett, 2011; Preissler & Bloom, 2008). Objects described as having been created through a highly intentional process (rather than, say, an accident with a paintbrush) are more likely to be rated as pieces of art (Jucker, Barrett, & Wlodarski, 2014). Likewise, people can successfully differentiate abstract works made by professional artists from works made by nonprofessionals (i.e., children and animals), calling to a perceived intentionality in the professional pieces (Hawley-Dolan & Winner, 2011; Snapper, Oranç, Hawley-Dolan, Nissel, & Winner, 2015). At a more general level, people place

importance on the history of art objects in their categorization (Bulot & Reber, 2013), a phenomenon that reflects a general importance of historical factors in categorizing all objects (e.g., Gelman, Meyer, & Noles, 2013; Gelman, Noles, & Stilwell, 2014).

The history of an object is an important element not only in categorizing, but also in valuing art. Much of the work on the valuation of art has focused on how people think about the value of duplicates of original artworks. People place a much lower dollar value on exact copies as compared to original artworks, even when the copy is visually indistinguishable from the original (Newman & Bloom, 2012). This finding for art mirrors a more general finding that people are highly sensitive to the way in which something became a member of a category in assigning it value. For example, genetically modified foods are strongly prejudiced against because of the perception these foods came into existence in an unnatural way (Rozin et al., 2004; Tenbült, de Vries, Dreezens, & Martijn, 2005). Likewise, lab-made diamonds which are materially and structurally identical to naturally-occurring mined diamonds, and often aesthetically superior to their natural counterparts due to fewer inclusions, sell for much lower prices compared to their natural counterparts (Scott & Yelowitz, 2010). The importance of attaining membership in 'correct' ways is also seen in perceptions of human social groups, as is noted in the negative reactions people have toward imposters (for a review see Hornsey & Jetten, 2011). In sum, people more highly value members of categories that came in to those categories by sharing the historical path believed to be the 'right way' for something to enter that category.

Newman and Bloom (2012) argue that the thing in an original artwork's history that gives it value is the direct contact it had with the artist when she created the work through a unique creative performance. When the artist has this direct contact with a piece, a form of contagion occurs where elements of the artist are passed on to the artistic work. Newman and Bloom

support the idea that people could believe in such a form of contagion by pointing to the large literature demonstrating people's conception of contagion as being unbounded by any particular scientific or realistic confines (for a review see Rozin & Nemeroff, 2002). The idea of artistic contagion privileging original art pieces has been further described as a form of individual identity extension, where the piece of art is perceived as an extension of the artist's identity (Newman, Bartels, & Smith, 2014). In this way, thinking about the identity of an original piece of art versus a copy should be akin to thinking about the identity of an individual person versus an exact copy of that person made from different physical molecules. People do not view an exact copy of a person as a continuation of the original person (Blok, Newman, & Rips, 2005). Similarly, Newman et al. found that participants are less likely to consider an exact copy of an art piece to be a continuation of the original work, as compared to other artifacts. Overall, these findings suggest that original artworks become valued because of the historical contact they have had with the work's original creator.

A limitation of the psychological research on the nature and valuation of art has been its focus on visual art pieces. Given that the greater art world is made of much more than just visual art, it is important to understand how people think about nonvisual art kinds such as literature and music. Presumably, intentionality should matter in determining if a nonvisual object is a piece of art (e.g., a poem intentionally created by placing words together should be more likely to be viewed as a work of art than a similar series of words created through a random mixing of prose refrigerator magnets). Just as an artist like Vermeer interacted intensely with an original painting, so too did a composer like Handel with an original monograph of a score, or an author like Dickens with his original manuscript. The idea of artistic contagion should in principle imbue original musical scores or literary manuscripts with the same essence of the artist and



result in a relatively high value on the original when compared with faithful copies. However, these possibilities have not been explored, leaving an open question of how people think about nonvisual art pieces.

### **The present experiments**

In this paper we tested people's beliefs about the nature of visual and nonvisual art forms and what it means to experience those art forms. If people's beliefs are in alignment with the predominant philosophical view in seeing paintings and carved sculptures as essentially singular, then people should privilege the experience of original work in these cases but not in the cases of musical or literary works. However, if it is the interaction an artist has with a work regardless of medium that imbues an original piece with its value, then literary and musical originals should be likewise privileged. To test these possibilities, we developed a paradigm where we described original artworks that had been destroyed in various ways and asked participants about their beliefs of whether the artwork could still be experienced. In Experiment 1, we tested whether people believe original instances of visual and nonvisual art work are privileged and whether a work of art can be experienced after destruction of this original. We then investigated the quality of the experience of a piece of art separately from beliefs about whether the piece of art still exists for famous (Experiment 2) and non-famous (Experiment 3) works. Finally, we explored how people think about the use of proxies to experience a piece after its destruction (Experiment 4).

#### **Experiment 1**

In Experiment 1 we examined when people believe they can no longer experience a work of art. We asked participants to imagine a famous work of art and to think about whether a novice viewer could experience that piece after various types of destruction, including

destruction of the original art piece, destruction of copies of the art piece, and destruction of all people's memories of the piece. We had participants make these ratings for visual and nonvisual art pieces. This design allows us to test several issues. One, we can test whether people agree that visual art works exist in singular genuine instances in a way that nonvisual art pieces do not (D. Davies, 2004; Goodman, 1976; Levinson, 1987).<sup>1</sup> Specifically, we predict that the ability to experience an art piece whose original form is destroyed should be significantly hampered for visual art pieces compared to nonvisual art pieces. Two, by asking people whether artworks can still be experienced when only memories of the pieces remain, we will be able to test whether people believe that an artwork can be experienced through testimony. Overall, the destruction paradigm of Experiment 1 will allow us to test the limits of when people believe a piece of art can be experienced.

## Method

**Participants.** A total of 117 participants completed the experiment. Sixty-two participants were recruited and paid through Amazon Mechanical Turk. An additional 55 undergraduate participants were recruited from a northeastern private university who participated for partial fulfillment of an introductory psychology course requirement.

**Materials.** We selected art pieces that represent a variety of visual and nonvisual art forms. To represent visual art pieces, we chose a painting (Leonardo Da Vinci's *Mona Lisa*) and a carved sculpture (Michelangelo's *David*). For nonvisual art pieces, we included both literary and musical works. For literary pieces, we chose a novel (Charles Dickens's *A Tale of Two Cities*), a play (William Shakespeare's *Romeo and Juliet*), and a poem (Dylan Thomas's "Do not

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<sup>1</sup> Although there are visual art kinds generally treated by philosophers as allowing for multiple genuine instances—for example, photographs, lithographs, and cast sculptures—we will through the rest of this paper use "visual art" as a shorthand to refer to paintings and carved sculptures, and "nonvisual art" to refer to literary and musical works.

go gentle into that good night”). For musical forms, we chose a classical music piece (George Frideric Handel’s *Messiah*) and a popular music piece (The Beatles’ “Hey Jude”). We additionally asked participants about an installation piece (*The Gates* by Christo and Jeanne-Claude). Because of the nature of this last piece, the format of the questions of interest differed from those of the other art pieces. As such, we do not discuss the installation piece further.

To measure what participants thought it took to destroy a piece of art, we developed a set of ways a piece of art could be destroyed that increased in thoroughness (see Table 1). The most basic option described destroying just the original painting, manuscript, or score (Original option). The next option included destroying the original plus all physical printed, painted, or sculpted copies of the original (+Physical Copies option). The next option included destroying the original, physical copies, and all photographs, videos, and electronic copies of the piece (+Digital Copies option). The most thorough level of destruction described destroying the original piece, physical copies, digital copies, and people’s memories of the piece (+Memories option). We also provided an option where participants could indicate that there was no way to destroy the piece (No way option), an option that they did not know how one could destroy the piece, and another option that allowed them to fill in their own idea of how to destroy the piece. The last two options were added to ensure that participants did not feel forced into choosing a target option. We do not provide further analyses of these last two options.

**Procedure.** Participants began the experiment by reading a passage that established a reason for destroying works of art. We asked each participant to imagine being an evil villain who wanted to destroy certain works of art so that no one could ever experience those works again. We told participants they would be presented with different works of art and options of how the work could be destroyed, and that their task was to select the option that would destroy

the piece so that other people who had not previously experienced the piece could never experience the piece. After this introduction, participants were randomly presented with each of the pieces of art one at a time on the screen. Each screen presented the name of a specific work along with its creator's name and asked participants to imagine attempting to destroy the piece "so that the work no longer existed, preventing anyone from having any new experience of it". Below this description, the destruction options were presented in the order seen in Table 1. Participants were asked to select which option from the multiple choice list would accomplish their goal of preventing new experiences of the piece. Participants were only allowed to select one option from the list.

The order of art pieces was randomized for each participant and each participant completed ratings on all pieces. Participants completed the survey at their own pace through the Qualtrics Survey software platform. Participants could not go backwards in the experiment, meaning that answers could not be changed once participants had moved on from a screen.

## **Results**

In these analyses we are interested in exploring how visual and nonvisual art pieces differ in what type of destruction it takes to prevent experience of a piece. To account for the repeated categorical nature of participant responses, we used the Generalized Estimating Equations (GEE) procedure to analyze our data. We recoded our data to represent a binary response structure. For each destruction option, we coded selection of the option as a 1 (e.g., yes this destruction destroys the piece) and we coded not selecting the option as 0 (e.g., this destruction does not destroy the piece). As such, the data were structured such that for a given art piece, each participant was given a separate dummy coded value for each of the destruction options, with only one of those dummy codes being the equivalent of a response of yes because of the forced

single-choice answer format. We grouped responses to the different art pieces into two groups: visual pieces (painting and sculpture) and nonvisual pieces (literary and musical forms).<sup>2</sup> Table 2 presents the percentage of participants who chose each destruction option for each art type. We focus our analyses here on the first 5 destruction options of Table 2. For the GEE analysis, we used a binary logistic link function to statistically model choice as a nested, repeated measures dependent variable, as a function of Destruction Option (original, +physical, +digital, +memories, no way) and Art Type (visual vs. nonvisual). This structure will allow us to look at the main effects of destruction option and art type, as well as the interaction between these two variables.

Figure 1 depicts the mean proportion of participants who chose each of the five destruction options of interest for visual and nonvisual pieces. We found a main effect of destruction option,  $\chi^2(4) = 162.8, p < .001$ , and art type,  $\chi^2(1) = 6.44, p = .011$ , as well as a significant interaction,  $\chi^2(4) = 28.4, p < .001$ . We explored the interaction through follow up pairwise comparisons using a sequential Bonferroni correction. We found that the option describing destroying the original was more often chosen to prevent someone from experiencing a visual art piece than a nonvisual art piece,  $p = .008$ . There was no difference across art types in the proportion of participants who chose the +physical ( $p = .72$ ), +digital ( $p = .062$ ), and +memories ( $p = .23$ ) options. Participants were more likely to choose there was no way to destroy a nonvisual art piece than a visual art piece,  $p < .001$ . However, most striking in Figure 1 is that regardless of art type, the overwhelming choice for destroying a piece of art so that novices could not experience it was destroying the memories people have for those art pieces.

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<sup>2</sup> We conducted a GEE analysis comparing the literary and music pieces to test whether these two types were treated differently. We found no main effect of type of material and no interaction of type and option,  $ps > .22$ . This suggests that music and literary works are treated the same, supporting our collapsing of them into one nonvisual art category.

The memories option was chosen more often than the other four options for visual and nonvisual pieces, all  $ps < .001$ .

## Discussion

We used a novel destruction paradigm to examine people's intuitions about the identity and nature of visual and nonvisual art pieces. We did find support for people endorsing the idea that visual art pieces exist in a singular instance while nonvisual art pieces exist in multiple genuine instances: people endorsed targeting the original of a visual art piece as a better technique for destroying the piece than destroying the original of a nonvisual art piece. However, our data show that people believe destroying art is a much harder task than simply destroying original works. To accomplish the goal of destroying an art piece, the most often chosen option across art types was to destroy everything including people's memories of the piece. In fact, a notable percentage of participants indicated that it may be impossible to destroy works of art.

Our findings in Experiment 1 pose several interesting questions for how people represent the identity of a piece of art. How do people think a novice can experience a piece of art when it exists only in others' memories? Works such as poems and songs could be easily memorized, and even longer novels, plays, and music pieces could in principle be memorized and performed or spoken for the novice. However, what does it mean to memorize a visual art piece and what does it mean to then attempt to convey that visual memory to another person? In trying to convey the *Mona Lisa*, a person could describe it, draw or paint a version of it, or enact the posture of the figure. While some experience of the piece of art may be conveyed, do people think it would be as good an experience across types of art? We take up this question in Experiment 2.

More broadly, if people generally think an art piece can be experienced until memories of that piece are destroyed, what does this imply for people's beliefs about what determines the

existence of a piece of art? It is possible that the experience and the existence of a piece of art are wholly separable matters? In the case of our visual art pieces, it may be that the actual work *Mona Lisa* ceases to exist when its original form is destroyed but it can still be experienced via testimony. Similarly, nonvisual art pieces may exist as long as there are text or recording copies of the works, but cease to exist once those copies are destroyed. In this way, what remains in people's memories would be something that could be used to help others experience a piece, but would be in no way sufficient for the existence of the original piece. This is an open question that we address in Experiment 2.

### **Experiment 2**

In Experiment 2 we separately tested beliefs about the existence of a piece of art and beliefs about the ability to experience a piece of art. If the results of Experiment 1 were correct in suggesting that people have an understanding of visual art pieces as singular instances and nonvisual art as existing in multiple genuine instances, we would expect that destroying the original for a nonvisual art piece should be significantly less damaging to endorsements that the nonvisual work still exists than the same action would be for visual pieces. We would also expect that overall willingness to endorse the existence of a piece of art should decline especially after destruction of its copies, unless people believe that the memory of a piece of art still constitutes an accurate and transferrable representation of that piece.

### **Method**

**Participants.** We recruited 100 participants from Amazon Mechanical Turk who were compensated monetarily and 102 participants from a private northeastern university who participated for partial fulfillment of an introductory psychology course requirement.

**Materials and Procedure.** We used the same art pieces as in Experiment 1. For each art piece, participants read a passage that named a work of art and asked them to imagine that they wanted to experience the piece. The piece was then described as having experienced a level of destruction detailed in the first four options of Table 1: just the original; original plus all physical copies; original, physical, and digital copies; all of the preceding plus people's memories). After reading this description, participants first answered the question "Would you say this piece of art still exists?" by selecting from the binary choices of either yes or no. Then, participants were asked to rate "to what extent could you experience this piece of art" on a sliding 0 (It is not at all possible for you to experience this piece of art) to 100 (You would be able to fully experience this piece as if you were looking at it yourself) scale. We adjusted the wording of these scale anchors to fit the piece of art in question (e.g., changing looking to hearing for music pieces). For a given art piece, participants made the existence and experience ratings for when only the original was destroyed, followed by the +physical option, then +digital, and finally for +memories. In this way, participants first made ratings for the simplest level of destruction, and then made ratings for progressively more complete forms of destruction.

Each destruction description was presented on a new screen of the experiment. Participants could not return to a previous rating once they moved on from a screen of the experiment. Participants made all ratings for a single art piece in the described order before moving on to the next art piece. The order of art pieces was randomized for each participant and each participant made ratings for all art forms. The experiment was self-paced and presented through the Qualtrics Software.

## **Results**



**Does the piece exist?** The binary nature of participant data allowed us to use the same GEE analysis and follow up tests as in Experiment 1. For a given level of destruction, a yes response (i.e., the piece still exists after this level of destruction) was coded as a 1 and a no response (i.e., the piece does not still exist) was coded as a 0. Using the GEE analysis in this way, we can test for main effects of destruction level (original, +physical, +digital, +memories) and art type (visual vs. nonvisual), as well as the interaction of the two variables. We were also interested in quantifying the size of the drop in endorsement proportions between levels, regardless of significance. To do this, we calculated Cohen's  $h$ , an effect size measure that quantifies the difference between two proportions. Cohen's  $h$  is interpreted in the same way as Cohen's  $d$ : small effect = .2, medium effect = .5, large effect = .8 (Cohen, 2013).

We found a main effect of destruction level,  $\chi^2(3) = 276.5, p < .001$ , and art type,  $\chi^2(1) = 127.6, p < .001$ , as well as a significant interaction,  $\chi^2(3) = 105.2, p < .001$ . We explored the significant interaction with sequential Bonferroni follow-up comparisons. Figure 2 shows the proportion of participants who reported that each art type still existed at each destruction level. There were significant differences between art types at each level of destruction. When the original work was destroyed, visual art pieces were significantly less likely to still be believed to exist than nonvisual pieces,  $p < .001$ . The same was true when physical copies,  $p < .001$ , digital copies,  $p < .001$ , and memories,  $p = .001$ , were destroyed.

There was a significant decrease for both types of art in the believed likelihood a piece existed for every increase in the level of destruction, i.e., comparing original to +physical, +physical to +digital, and +digital to +memories,  $ps < .001$ . As Figure 2 illustrates, the size of this proportion decrease between levels varied between levels. For visual art pieces, the decrease in the proportion of people endorsing the existence of an art piece between when just the original

was destroyed and the addition of all physical copies ( $M = .069$ ,  $SE = .015$ ) represented a trivial effect,  $h = 0.140$ . The decrease between +physical and +digital ( $M = .19$ ,  $SE = .026$ ) was a small-sized effect,  $h = 0.39$ . The decrease between +digital and +memories ( $M = .23$ ,  $SE = .027$ ) represented the biggest decrease for visual art as a medium-sized effect,  $h = 0.56$ . For nonvisual art pieces, a slightly different pattern emerged. The decrease between original and physical copies was as before the smallest decrease ( $M = .054$ ,  $SE = .012$ ), representing a small effect,  $h = 0.25$ . The decrease between +physical and +digital copies ( $M = .42$ ,  $SE = .030$ ), represented a large effect,  $h = 0.99$ . The difference in proportion between +digital and +memories ( $M = .34$ ,  $SE = .029$ ) represented a medium-to-large effect,  $h = .76$ . In short, while greater destruction reduced willingness to endorse the existence of an art piece, what type of damage was most punishing in reducing existence endorsement varied across artworks.

Notable in this data is that a meaningful percentage of people believed that visual and nonvisual art pieces still existed when memories of those pieces had been destroyed. This finding was not driven by only a few participants always saying pieces existed. Looking across the raw data for the 7 individual art pieces, roughly 27% of participants endorsed at least one of these pieces as still existing after the memories of that piece had been destroyed, with only 6% of participants saying that every art piece still existed after memories were destroyed.

**The ability to experience a destroyed art piece.** We analyzed how experience quality ratings were influenced by the extent to which a piece had been destroyed. To understand whether our destruction options may have influenced the experience of the piece even if it was still believed to exist, we selected for each participant experience ratings for pieces they had reported still existed in the first question of the experiment, i.e., selected yes on the existence

question for that piece.<sup>3</sup> Using this analysis structure means that 1) not all participants have data points represented in the experience ratings for each level of destruction and 2) there is more missing data points occurring at the higher levels of destruction since they were endorsed as less likely to exist. We used a GEE analysis because such an analysis is robust to missing data and is consistent with the previous analyses. We conducted the GEE analysis over the continuous experience ratings as nested, repeated dependent variables. We used an identity link function and included art type and destruction level as within-subjects factors in the model.

We found a main effect of destruction level,  $\chi^2(3) = 376.7, p < .001$ , and art type,  $\chi^2(1) = 74.5, p < .001$ , as well as a significant interaction,  $\chi^2(3) = 25.6, p < .001$ . We explored the interaction with follow up comparisons with sequential Bonferroni correction. As can be seen in Figure 3, the ability to experience a piece was significantly hampered for visual compared to nonvisual art pieces: ratings were significantly lower for visual art pieces when the original only,  $p < .001$ , the physical copies,  $p < .001$ , and the digital copies,  $p < .001$ , were destroyed. There

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<sup>3</sup> We also ran these analyses with all participant experience ratings included, regardless of whether a piece was stated to still exist. Adding in the experience ratings for pieces that were said not to exist lowered the mean experience ratings. However, we found the same overall pattern of results in our GEE analysis, with significant main effects of destruction level,  $\chi^2(3) = 1776.8, p < .001$ , and art type,  $\chi^2(1) = 202.1, p < .001$ , as well as a significant interaction,  $\chi^2(3) = 210.7, p < .001$ . The experience ratings followed the same pattern with ability for someone to experience a piece being greatest when the original alone was destroyed (visual:  $M = 67.5, SE = 1.81$ ; nonvisual:  $M = 90.0, SE = 1.07$ ), followed by physical copies (visual:  $M = 52.1, SE = 1.74$ ; nonvisual:  $M = 79.9, SE = 1.29$ ), then digital copies (visual:  $M = 20.1, SE = 1.44$ ; nonvisual:  $M = 31.6, SE = 1.56$ ), and finally memories (visual:  $M = 5.47, SE = 1.03$ ; nonvisual:  $M = 7.13, SE = 1.05$ ). In both art types, the ability to experience a piece was significantly lower with each progressive increase in the destruction level,  $ps < .001$ . Ratings were lower at each level for visual compared to nonvisual art pieces for the original only, physical copies, and digital copies,  $ps < .001$ . Unlike when we analyzed only pieces still thought to exist, experience ratings were significantly lower for visual pieces than nonvisual pieces when memories were destroyed,  $p = .023$ . As in the previous analysis, a Cohen's  $d$  analysis found that the biggest drop in experience ratings came between printed and digital copies (visual:  $M = 43.2, d = 1.81$ ; nonvisual:  $M = 48.3, d = 1.89$ ).

was no difference in the experience of a piece across art types when memories were destroyed,  $p = .122$ .

In both visual and nonvisual art types the ability for someone to experience a piece was greatest when only the original was destroyed, followed by the physical copies, followed by the digital copies, and finally followed by memories, with differences between all of the levels being significant for both art types,  $ps < .02$ . We can quantify the decreases in experience ratings between levels through measures of effect size. Since these ratings are continuous in nature, we calculated Cohen's  $d$  for the comparison between each destruction level's mean rating. The largest drop in experience ratings came between destroying physical copies and then adding digital copies for both visual ( $M = 37.0, d = 1.70$ ) and nonvisual ( $M = 35.9, d = 1.77$ ) art pieces. The decreases between digital copies and memories ( $M_{\text{visual}} = 15.5, d = 0.59; M_{\text{nonvisual}} = 12.0, d = 0.44$ ) and the drop between destroying the original and physical copies ( $M_{\text{visual}} = 7.74, d = 0.43; M_{\text{nonvisual}} = 8.68, d = 0.55$ ) represented medium effect size differences for both types of art.

## Discussion

The findings of Experiment 2 suggest that people are willing to believe a piece of art exists far past the destruction of its physical presence. In our comparison of visual and nonvisual art pieces, people were much more tolerant of a piece of art existing after each level of destruction for nonvisual than for visual art pieces. This difference between visual and nonvisual pieces again matches with the idea that a nonvisual art piece can exist in multiple genuine instances while a visual art piece cannot. However, paralleling the results of Experiment 1, many people indicated that destroying an original visual art piece did not cause the work to cease to

exist. For all pieces of art, a considerable percentage of people endorsed the work as still existing when memories of it were destroyed.

Participants' ratings of experience quality were sensitive to the level of destruction of a piece. Despite an endorsement of the piece as existing at each level in these data, the more thorough levels of destruction resulted in lower experience quality ratings. Additionally, people rated the ability to experience a visual art piece as less than the ability to experience a nonvisual art piece at each destruction level except for the final level of destruction of memories. These findings suggest that people are sensitive to the idea that while you may be able to experience a piece, it may not be the same quality of experience if any of our destruction options had been implemented. That is, people seem to understand that having someone else describe the *Mona Lisa* to you from memory is not the same quality of experience as having someone recite *A Tale of Two Cities* from memory.

Taking the findings of the two previous experiments together suggests that people do conceptualize the identity of visual and nonvisual art pieces differently and tend to believe art persists past the destruction of many of its physical forms. An open possibility from our previous experiments is that our results arise in part because we are examining famous art pieces. It is possible that people believe pieces as famous as the ones we used uniquely exist at some cultural level that transcends the physical object, with the cultural sharing of the object being what makes it so hard to destroy. If this is in part what is driving our results, then we would not expect to see the same resistance to destruction for nonfamous art pieces that are not culturally shared in the same way. We tested this prediction in Experiment 3.

### **Experiment 3**

In Experiment 3 we again tested beliefs about the existence and experience of pieces of art. However, we now tested nonfamous art pieces by unknown artists. If the difficulty in destroying the previous pieces lay in their famous nature, then we would not expect to see similar resistance to destruction in our nonfamous art pieces. However, if our results are reflecting something about the identity of art regardless of fame, then we would expect similar patterns to Experiment 2.

### **Method**

**Participants.** We recruited 100 Amazon Mechanical Turk participants who were compensated monetarily.

**Materials and Procedure.** In Experiment 3 we developed nonfamous equivalents to our famous art pieces used in Experiment 1 and 2. In creating the nonfamous pieces, we provided a label for the piece and a description of the creator that made it clear she or he was not famous. These pieces were categorized and described as follows: a painting (“the painting your neighbor made called *Cloudy Day*”), a sculpture (“sculpted artwork titled *Peter*, made by an art school student”), a novel (“the novel a science fiction enthusiast wrote called *Star Journey*”), a play (“the play by a yet-to-be discovered playwright, titled *Don't Tell the Neighbors*”), a poem (“the poem an unknown poet wrote called ‘Bags and blocks’”), a symphonic musical work (“the work of symphonic music a college music major wrote called *The Calling*”), and a contemporary musical piece (“the song a local coffee shop singer wrote called ‘New Car Blues’”). We did not include a nonfamous equivalent for the installation item.

The procedure of the experiment was identical to Experiment 2.

### **Results**

We used the same data structure, dummy coding, and analysis plan as in Experiment 2 to analyze the data of Experiment 3. We explored significant interactions with sequential Bonferroni corrected follow-up comparisons.

**Does a nonfamous piece of art exist after it is destroyed?** For exist ratings, we found a main effect of art type,  $\chi^2(1) = 65.4, p < .001$ , a main effect of destruction level,  $\chi^2(3) = 148.2, p < .001$ , and a significant interaction of the two variables,  $\chi^2(3) = 68.6, p < .001$ . When the original work was destroyed, when physical copies were destroyed, and when digital copies were destroyed, visual art pieces were significantly less likely to be rated as existing than nonvisual pieces,  $ps < .001$  (Figure 4). There was no difference between art types in the endorsement of a nonfamous art piece existing when memories were destroyed,  $p = .912$ .

For both art types, there was a significant difference in the endorsement of art pieces still existing between each destruction level,  $ps < .015$ , with the willingness to endorse a piece as still existing decreasing with each additional element of destruction added. The decreases in existence endorsement represented overall small to medium effect sizes for visual art pieces. The largest drop in the existence endorsement proportion came between destroying physical copies and destroying digital copies ( $M = .26, h = 0.54$ ). The decrease between destroying originals and physical copies ( $M = .17, h = 0.34$ ) and between destroying digital copies and memories ( $M = .13, h = 0.32$ ) represented small effect sizes. For nonvisual art pieces, we found larger differences between destruction levels in existence endorsement. The difference between destroying physical and digital copies ( $M = .53$ ) represented a very large effect size,  $h = 1.22$ . There was also a medium-sized drop between destroying digital copies and memories ( $M = .26; h = 0.61$ ). The change in existence endorsement between the original and physical copies ( $M = .03$ ) represented a trivial-sized effect,  $h = .12$ .

As in Experiment 2, we inspected the data to see whether a meaningful percentage of participants believed art pieces existed beyond the destruction of memories. In the Experiment 3 sample, 24% of participants endorsed at least one of the pieces as still existing after the memories of that piece had been destroyed, a number similar to Experiment 2. Only 2% of participants stated that every art piece still existed after memories were destroyed, again showing variability in participants by art piece regarding whether the work was believed to exist past destruction of memories of the original.

**The ability to experience destroyed nonfamous art pieces.** As before, we analyzed participants' ratings regarding the potential to experience a work previously endorsed as still existing (Figure 5). We found a main effect of destruction level,  $\chi^2(3) = 93.2, p < .001$ , and art type,  $\chi^2(1) = 4.69, p = .030$ , as well as a significant interaction,  $\chi^2(3) = 19.6, p < .001$ . Comparing visual to nonvisual art pieces, visual art pieces were less able to be experienced at the level of destruction of original only,  $p < .001$ , and physical copies,  $p < .001$ . However, there was no difference in the experience of a piece across art types at the digital copies,  $p = .836$ , or memories,  $p = .122$ , destruction level. In both art types, the ability to experience a piece was significantly lower when physical copies had been destroyed compared to just the original piece,  $ps < .001$ . Destruction of digital copies resulted in significantly less ability to experience a piece than destruction of physical copies in both art types,  $ps < .001$ . The ability to experience a nonfamous piece was rated to be equal between the +digital and the +memories options for visual,  $p = .816$ , and nonvisual,  $p = .580$ , pieces.

We calculated effect size measures for the differences between each level within each art type to evaluate the relative size of the decreases between the drops in experience ratings. The decreases in the ability to experience an art piece were the largest for visual ( $M = 41.1; d = 1.99$ )



and nonvisual ( $M = 35.4$ ;  $d = 1.81$ ) art pieces when going from destroying just physical copies to destroying digital copies as well, representing very large effect sizes. Small-to-medium effect size differences were found in comparing experience ratings between destroying just the original and destroying physical copies as well ( $M_{\text{visual}} = 6.90$ ,  $d = 0.41$ ;  $M_{\text{nonvisual}} = 7.52$ ,  $d = 0.46$ ). For nonvisual art pieces, a small difference was found in experience ratings between the destruction of digital copies and the destruction of memories as well ( $M = 7.97$ ,  $d = 0.30$ ). The same difference in experience ratings for visual art pieces was trivial in size for the difference in experience ratings for destroying digital copies and destroying memories as well ( $M = 2.93$ ,  $d = 0.10$ ).<sup>4</sup>

**Comparisons between nonfamous and famous art.** As a last analysis, we compared findings from this experiment to the ratings for Experiment 2. In these analyses we combined data for the two experiments and added into the GEE model the between subjects-factor of experiment (Experiment 1 vs. Experiment 2) and all of the interactions of the experiment variable with other variables. There are inherent concerns in cross-experiment comparisons, such as combining data given that the experiments were collected at different time points. However,

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<sup>4</sup> The same overall pattern obtained when analyzing all participant experience ratings, regardless of whether a piece was endorsed as still existing. We found the same overall pattern of results in our GEE analysis, with significant main effects of destruction level,  $\chi^2(3) = 552.9$ ,  $p < .001$ , and art type,  $\chi^2(1) = 71.6$ ,  $p < .001$ , as well as a significant interaction,  $\chi^2(3) = 121.5$ ,  $p < .001$ . The ability for someone to experience a piece was greatest when only the original was destroyed (visual:  $M = 73.1$ ,  $SE = 2.43$ ; nonvisual:  $M = 87.4$ ,  $SE = 1.87$ ), followed by the physical copies (visual:  $M = 53.6$ ,  $SE = 2.50$ ; nonvisual:  $M = 78.8$ ;  $SE = 1.95$ ), then digital copies (visual:  $M = 19.1$ ,  $SE = 2.38$ ; nonvisual:  $M = 24.6$ ,  $SE = 2.20$ ), and finally followed by memories (visual:  $M = 8.53$ ,  $SE = 1.93$ ; nonvisual:  $M = 7.48$ ,  $SE = 1.66$ ). In both art types, the ability to experience a piece was significantly lower with each progressive increase in the destruction level,  $ps < .001$ . As when just analyzing pieces thought to exist, ratings for visual works were significantly lower than nonvisual works for when the original only,  $p < .001$  and the physical copies,  $p < .001$ , were destroyed, and there was no difference between art types for memories,  $p = .168$ . Unlike the existing pieces only analysis, experience ratings were significantly lower for visual than nonvisual pieces when digital copies were destroyed,  $p < .001$ . As in the previous analysis, a Cohen's  $d$  analysis found that the biggest drop in experience ratings came between physical and digital copies (visual:  $M = 47.7$ ,  $d = 1.75$ ; nonvisual:  $M = 54.2$ ,  $d = 1.77$ ).

we present these comparisons to most generally determine if data patterns differ wildly between the two experiments. Examining the main effect of experiment allowed us to evaluate whether ratings were overall higher for famous or nonfamous art. Examining whether there was a significant three-way interaction of experiment and the other variables along with follow-up comparisons allowed us to directly compare how ratings differed across experiments.

For the exist ratings, there was no main effect of experiment,  $p = .236$ . There was a significant three-way interaction,  $\chi^2(3) = 11.4, p = .010$ . We explored the significant three-way interaction through follow-up comparisons, comparing the two experiments within each art type and destruction level. The proportion of people saying a nonvisual art piece still existed after destruction of its digital copies was significantly lower for nonfamous art pieces ( $M = .38$ ) than famous ( $M = .50$ ) art pieces,  $p = .020$ . The same comparison for visual art pieces was marginally different ( $M_{\text{famous}} = .35, M_{\text{nonfamous}} = .26, p = .070$ ). Importantly, no other proportions differed across experiments,  $ps > .14$ .

We ran our analyses for experience ratings on just the cases where participants said the piece of art existed. There was a marginal main effect of experiment,  $p = .073$ , indicating that overall experience ratings were somewhat higher for nonfamous pieces of Experiment 3 ( $M = 63.0, SE = 2.72$ ) than for famous pieces of Experiment 2 ( $M = 57.3, SE = 1.66$ ). There was not a significant three-way interaction,  $p = .718$ .

## Discussion

Overall, our results for nonfamous art pieces in Experiment 3 mirror results for famous art pieces found in Experiment 2. Visual art pieces were rated as less likely to still exist than nonvisual art pieces at each destruction level except for when memories were destroyed, as in Experiment 2. Inspecting Figure 2 and Figure 4 together highlights the similarity in the

proportions of people reporting the pieces still existed across experiments. For experience ratings, we replicated the Experiment 2 pattern of significantly lower experience ratings for visual than nonvisual pieces for the original and physical levels of destruction, as well as no difference between types for destroying memories. We did not replicate the specific Experiment 2 finding of a difference between visual and nonvisual art pieces at the digital level and a significant drop when comparing destruction of memories to destruction of digital copies. Despite these differences, the overall pattern for nonfamous art pieces mimics that of famous art pieces.

To this point, we have demonstrated that people believe art can exist and be experienced far past the destruction of its original form. Interestingly, we have shown across Experiment 2 and 3 that even the destruction of the memories of an art piece does not completely impede the ability to experience a piece of art for some people. How do people think a work can be experienced when even memories of the piece have been destroyed? We explored this question in Experiment 4 by asking people to think about the experience of a famous work of art through proxies.

#### **Experiment 4**

Beyond believing that the experience of a work may be shared through testimony from another's memories, do people further believe it is possible to experience one work by viewing, reading, or otherwise experiencing a similar work? For example, if people wanted to read *Pride and Prejudice* but every copy and every memory of this work was destroyed, would reading *Sense and Sensibility* be a suitable substitute? In taking up Newman and Bloom's (2012) idea of artistic contagion, some element of the artist may be intrinsically embedded in any piece she creates. This could allow for other pieces by the same artist to serve as a proxy though which to

experience the work in question. We tested this possibility in Experiment 4 by asking people to imagine that a famous work of art was destroyed and then to rate whether other pieces of art could allow for any experience of the destroyed work.

## Method

**Participants.** We recruited 100 Amazon Mechanical Turk participants who were compensated monetarily.

**Materials and Procedure.** For our materials, we selected 4 well-known works of visual art (the *Mona Lisa*, *Girl with a Pearl Earring*, *Starry Night*, and *The Scream*) and 4 well-known works of literature (*The Great Gatsby*, *Romeo and Juliet*, *Grapes of Wrath*, and *Lord of the Flies*).<sup>5</sup> For each work, we asked people to imagine that they wanted to experience the piece but that the work had been completely destroyed, including destruction of the original work, all of its physical and digital copies, and all people's memories of the work. We then asked people to imagine they were going to view (or read) other works of art (or literature) that varied in similarity to the piece they wanted to experience. Participants were told their task was to rate "the extent to which experiencing each of these works would allow you to experience" viewing or reading the original work that had been destroyed. Participants performed these ratings on a 0 to 100 sliding scale, with 0 representing no ability to experience the work ("This experience would not allow you to experience viewing [work name] at all") and 100 representing a perfect ability to experience the work ("This experience would allow you to fully experience viewing [work name] as if you looked at [work name] itself"). We adjusted the wording of these scale anchors to fit the piece of art in question (e.g., changing "viewing" to "reading" for literary pieces, inserting the name of the work).

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<sup>5</sup> As previous experiments in the series showed no significant difference between musical and literary works, and given the high number of ratings participants were asked to provide for each work, we did not include musical work as materials in our experiment.

We created alternative works that people could experience by manipulating four factors. First, we manipulated whether the work had the same or a different creator (e.g., Da Vinci versus a different artist). Second, we manipulated whether the work had similar content as the original. For visual art works we described this as the subject of the piece (e.g., a person, a landscape) and for literary works we described this as the plot of the work. Third, we manipulated whether the piece was in a similar or different style. Finally, we manipulated whether the work was in the same medium (e.g., painting, novel, or play) or not. Crossing these 4 variables, we have 16 different comparison works for a given art piece. Table 3 provides the options used for the *Mona Lisa* as an example of how we worded these options.

Participants made all 16 ratings for a given work before moving on to the next work. Participants made ratings for all 8 works. The order of the works and the order of the ratings were randomized for each participant. The experiment was self-paced and presented through the Qualtrics Software.

## **Results**

The goal of these analyses is to determine if people will believe there is any way in which an original art piece can be experienced through a proxy and how that ability may differ between visual and nonvisual art types. We averaged across the four works of each art type to create mean visual and nonvisual ratings for each of the 16 proxies. We first examined whether participants' ratings were sensitive to the similarity of a proxy to an original piece. Instead of comparing all 16 ratings across art types, we simplified our analyses by averaging together ratings for items that had the same number of similar features to the original piece. This resulted in the 16 ratings being collapsed into five similarity classes: items where 0, 1, 2, 3, or all 4 factors were similar to the original piece. Inspecting Figure 6 shows that ratings were not at floor for the ability to

experience an original work of art through a proxy. We submitted the experience ratings to a 2 (Art type: visual vs. nonvisual) x similarity (0, 1, 2, 3, 4 similar features) repeated-measures ANOVA. We found significant main effects of art type,  $F(1, 99) = 32.83, p < .001, \eta_p^2 = .25$ , and similarity,  $F(4, 396) = 166.1, p < .001, \eta_p^2 = .63$ , as well as a significant interaction,  $F(4, 396) = 5.58, p < .001, \eta_p^2 = .053$ . We explored the significant interaction through Sidak corrected follow-up comparisons. Participants were sensitive to similarity of the proxies for each art type. For both visual and nonvisual proxies, the item with 4 similar features received the highest ratings, and the experience rating significantly decreased with each reduction in the number of similar features,  $ps < .001$ . Comparing ratings by art type, proxy ratings for the nonvisual domain were significantly higher than visual ratings when all features,  $p < .001$ , 3 features,  $p < .001$ , 2 features,  $p < .001$ , and 1 feature,  $p = .015$ , was similar. There was no difference in ratings for visual and nonvisual art proxies when there were no shared features between a work and the original art piece,  $p = .103$ .

We next explored how much each individual type of feature being different influenced experience ratings. To do this simply, we analyzed ratings for the items where three features were similar to the target art object and one was dissimilar (e.g., an item where the artist, subject, and style were the same, but a different medium was used). By analyzing ratings on these items alone we can see the influence of each feature missing while the other features are present. We conducted a 2 (art type) x 4 (missing feature: artist, subject, style, medium) ANOVA. Figure 7 presents the data split by art type condition. We found a significant main effect of art type,  $F(1, 99) = 32.8, p < .001, \eta_p^2 = .25$ , reflecting that overall literature proxies ( $M = 41.6, SE = 1.89$ ) were rated as providing a better experience than visual art proxies ( $M = 36.4, SE = 1.99$ ). We also found a main effect of missing feature,  $F(3, 297) = 27.0, p < .001, \eta_p^2 = .21$ , but no significant

interaction,  $p = .644$ . We conducted Sidak-corrected follow-up tests on the marginal means to compare ratings on the different missing feature items. The ability to experience a work through a proxy was rated the highest when the proxy only differed on the type of medium ( $M = 44.48$ ,  $SE = 2.13$ ). Ratings for the different medium proxy were significantly higher than ratings for any other of the proxies missing one feature,  $ps < .001$ . Ratings were the lowest for the proxy that was only different in artist ( $M = 33.06$ ,  $SE = 2.07$ ), and were significantly lower than all other ratings,  $ps < .002$ . Ratings for proxies differing by subject ( $M = 38.67$ ,  $SE = 1.87$ ) or by style ( $M = 39.76$ ,  $SE = 2.08$ ) were not different from each other,  $p = .711$ .

## Discussion

In Experiment 4 we demonstrated that people believe a single piece of art can be experienced at least in some ways via proxies. The ability to experience a piece was mapped on to the overall similarity of the proxy to the original piece. Interestingly, literature proxies better conveyed the experience of a destroyed literary work than painting proxies. These findings echo the importance participants placed in our previous experiments on original visual art work over nonvisual pieces.

We also found that the best proxies are those created by the original work's artist. According to our data, for instance, a similarly painted rendering of the *Mona Lisa* by a different artist would be expected to provide a worse experience of the original *Mona Lisa* than that provided by a pencil sketch of the *Mona Lisa* made by Da Vinci himself. This finding dovetails with the lower value people place on exact copies of original artworks that are identical in every way (medium, style, subject) but which have a different artist (Newman & Bloom, 2012). Overall, our participants' beliefs match the intuition that reading *Sense and Sensibility* might get a person much of the way to experiencing *Pride and Prejudice*.

### General Discussion

In this paper we explored how people think about the experience and nature of art. Using predictions from philosophical theory, we tested the boundaries of when people think you can experience a work of art and whether people differentiate between how one can experience visual and nonvisual art works. While we found support across experiments that people see nonvisual works as being able to be experienced in different ways than visual art pieces, we also found evidence that people believe art can be experienced in surprising ways. Namely, people act as if art can be experienced through testimony of another person and that art pieces can exist well beyond the destruction of any physical form.

Although these findings do align with the widespread philosophical view that the original of a visual art piece is more important than the original of a nonvisual art piece, there are a number of places where the findings are at odds with dominant philosophical theories. The findings are first at odds with the position widely held among philosophers that paintings and carved sculptures are either identical to or at least reliant for their existence upon the particular material objects of which they are composed (this canvas, that hunk of marble). On this view, the destruction of the original work of visual art would mean the destruction of the work itself—not what participants indicated by endorsing that such a work might continue to exist following the destruction of the original and all copies of the original. The idea that a musical or literary work might continue to exist following the destruction of all copies and memories of that work does in fact have some adherents (see Dodd, 2002; Goodman, 1976; Kivy, 1993), but these philosophers do not typically hold the same view about works of visual art.

Finally, these findings rather stretch the notion held by some that an aesthetic surrogate could serviceably take the place of the original work. Generally, in speaking of such a proxy,



philosophers have in mind an item like an accurate photograph or serviceable print of the *Mona Lisa*, and not (as in our study) another portrait in the same style by Da Vinci (see, e.g., Hopkins, 2015; Livingston, 2003). However, the findings do shed some light on philosophers' uncomfortable relationship with translations of literary works, which tend to be treated both as, and not as, instances of the original works (see Laiho, 2009). Given that many philosophers ground the ontology of art in artistic practice (D. Davies, 2004; Dodd, 2007; Hick, 2013; Thomasson, 2005) it is important to evaluate how theories in aesthetics can account for our findings.

Our findings also have important implications for theories within psychology. Most directly, our research suggests future directions for refining theories of how art is valued. We find that original works of art are valued differently depending on whether they are visual or nonvisual in nature. Understanding the value in a work of visual art as coming from the interaction between the artist and the work (e.g., Newman & Bloom, 2012) fails to explain why original manuscripts or scores of nonvisual works do not have similar value, given that they have the same element of direct artist interaction. It is an open question for future research whether such existing theories can be modified to accommodate nonvisual art pieces, or if new theories are needed to explain why we react negatively to, say, plagiarized works separately from our reaction to artistic forgeries.

A large percentage of our participants acted as if an artwork existed when only memories of the piece remained. Although philosophers have developed sophisticated views for how an art object might continue to exist following the destruction of its physical form (Currie, 1989; D. Davies, 2004; Margolis, 1977), it seems unlikely that the average person is familiar with such theories. Generally, in psychological research on how people think about the identity of objects,

if every original and copy of an object has been destroyed, the assumption is that people would say the object no longer exists (e.g., Rips, Blok, & Newman, 2006). However, notable percentages of our participants endorsed art as being altogether indestructible (Experiment 1) or as still existing past the destruction of everything including memories of the pieces (Experiments 2 and 3). How people conceptualize the existence of an art object beyond any physical form remains an open and interesting avenue for future research.

Our experiments also speak to how people think about individual members of categories. Most research in categorization has focused on how we think about the structure of entire categories. A smaller area of research has explored how we think about the identity of individual members of that general category (Blok et al., 2005; Leonard & Rips, 2015; Rips et al., 2006). Exploring how people think about individual pieces of art builds on this approach in the categorization literature in thinking not just about the identity, but also how we interact and experience individual members rather than a category as a whole.

Finally, our research suggests interesting ways in which people think about the nature and ability of memory. Our participants endorsed the idea that a novice viewer of a visual art piece could experience it somehow from another person's memories. Unless a person is quite a skilled narrator, artist, or charades actor, however, it seems unlikely to us that these means of conveying the *Mona Lisa* would come close to the detail conveyed in reciting a memorized piece of literature or music. Part of what may be driving our results related to memory is people's more general misunderstanding of how memory works. People conceive of memory working like a video recording that can be played back on command (Simons & Chabris, 2011). Given this belief, people may overestimate the ability to call an art piece to mind in order to describe it. Even where someone could pull an accurate memory to mind, accurate communication of that

memory to another person remains a distinct matter. Our findings overall suggest interesting avenues for exploring how people think about the nature of memory and the ability to communicate memories.

A possible limitation of our experiments for understanding how people think more generally about the identity and experience of objects is that we only used art objects. We propose that using art objects is a helpful tool in studying issues related to identity and concepts of individuals. Because people can conceive of pieces of art being destroyed (as in, e.g., the destruction of fine art during times of war), art provides an easy access point for asking laypeople about identity issues. Art may thus provide a more naturalistic material set than the common transporter and duplicator paradigms used to date (e.g., Rips et al., 2006). Likewise, famous and nonfamous art pieces abound in modern culture, allowing us to easily study how a specific member of a category comes to be valued. However, it is still unclear how much of what we learn using art to study these issues may be specific to the art domain (e.g., Newman et al., 2014). Future research can explore how art differs from other domains in these matters. Overall, given its importance to human culture, and unique place in human life, understanding how we think about art has particular value in understanding human cognition.

We have proposed that people do not value original manuscripts in the same way that they value original visual art pieces. However, there exist original manuscripts that people will make a pilgrimage to visit in much the same way people travel to see original artworks. For example, people will visit Trinity College in Dublin to see the illuminated manuscript of the Bible, the Book of Kells, or visit the Victoria and Albert Museum in London to see Dickens's handwritten manuscript of *A Tale of Two Cities*. We propose that cases of people visiting original manuscripts or scores are cases where these nonvisual art objects are being treated like

visual art or like other historically-important artifacts. People view original handwritten manuscripts to see what the handwriting of the author looks like, to see where corrections and alterations were made, and to see what the actual medium of the manuscript looks like. Furthermore, people visit original manuscripts to be in the presence of historically important objects. In any event, none of these possible reasons for visiting an original work of nonvisual art would normally include actually reading the manuscript as one would an ordinary published copy of the work. In this way, the experience one is gaining is not of the content of the literary work, but rather of the visual appearance or presence of the work. It is an open question for future research to explore how these types of visual art experiences with nonvisual art works alter beliefs about such works more generally.

### **Conclusion**

During the writing of this paper, Paris's Louvre Museum and Musée d'Orsay in Paris shut their doors due to flooding on the River Seine (Blaise, 2016). The closing allowed workers at these museums to move thousands of art pieces from lower floors of the museums to higher floors to prevent damage from flood waters. Given our findings, is such concern for original pieces of art necessary? If people believe that art can be experienced from another person's memories, why should museums spend the considerable sums they do to conserve and restore such works? We have provided some support that corroborates the importance of viewing original visual art works. However, overall, we have shown that people believe they can experience works of art in rich and complex ways. It is a fascinating area of future research to understand more clearly how we conceptualize art and our experience of it.

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Table 1. Example wordings for methods of destruction used across experiments.

Method of Destruction	Visual art form	Literary art form
Original	You would need to destroy the original painting made by Da Vinci.	You would need to destroy the original manuscript written by Dickens.
+Physical copies	You would need to destroy the original painting and all painted copies that have been made of the work.	You would need to destroy the original manuscript and all printed copies that have been made of the text.
+Digital copies	You would need to destroy the original painting, all painted copies that have been made of the work, and all accurate photographs and video that have been taken of the piece.	You would need to destroy the original manuscript, all printed copies that have been made of the text, and all accurate electronic copies that have been made of the text.
+Memories	You would need to destroy the original painting, all painted copies that have been made of the work, all accurate photographs and video that have been taken of the piece, and the memories of anyone who has memorized what the painting looks like.	You would need to destroy the original manuscript, all printed copies of the text, all accurate electronic copies that have been made of the text, and the memories of anyone who has memorized the text.
No way	There is no way to truly destroy this piece of art.	There is no way to truly destroy this piece of literature.

Table 2. Percentage of participants choosing each destruction option in Experiment 1.

	Visual	Nonvisual
Original	8.55	2.05
+Physical Copies	4.27	3.76
+Digital Copies	15.0	10.1
+Memories	60.7	64.8
No way to destroy	6.41	13.7
Don't know how to destroy	2.99	2.05
Other	2.14	3.59

Table 3. Example materials for the *Mona Lisa* from Experiment 4.

		Artist same		Artist different	
		Subject same	Subject different	Subject same	Subject different
Medium same	Style same	Viewing another portrait painting by Da Vinci made in a similar painting style.	Viewing a painting by Da Vinci made in a similar painting style that does not depict a person.	Viewing a portrait painting by a different artist made in a similar painting style.	Viewing a painting by a different artist that is made in a similar painting style but does not depict a person.
	Style different	Viewing a portrait painting by Da Vinci made in a different painting style.	Viewing a painting by Da Vinci that does not depict a person and is in a different painting style.	Viewing a portrait painting by a different artist that is made in a different painting style.	Viewing a painting by a different artist that does not depict a person and is in a different painting style.
Medium different	Style same	Viewing a work by Da Vinci that is not a painting (e.g., a sculpture or drawing) but does depict a person and is in a similar style.	Viewing a work by Da Vinci that is not a painting (e.g., a sculpture or drawing) and does not depict a person but is in a similar style.	Viewing a work by a different artist that is not a painting (e.g., a sculpture or drawing) but does depict a person and is made in a similar style.	Viewing a work by a different artist that is not a painting (e.g., a sculpture or drawing) and does not depict a person but is made in a similar style.
	Style different	Viewing a work by Da Vinci that is not a painting (e.g., a sculpture or drawing) and is made in a different style but does depict a person.	Viewing a work by Da Vinci that is not a painting (e.g., a sculpture or drawing), does not depict a person, and is in a different style.	Viewing a work by a different artist that is not a painting (e.g., a sculpture or drawing) and is made in a different style but does depict a person.	Viewing a work by a different artist that is not a painting (e.g., a sculpture or drawing), does not depict a person, and is made in a different style.

Fig. 1. Mean proportion of people choosing each level of destruction option in Experiment 1.

Error bars represent standard error. Proportions do not sum to 1 because of two option choices not plotted here.

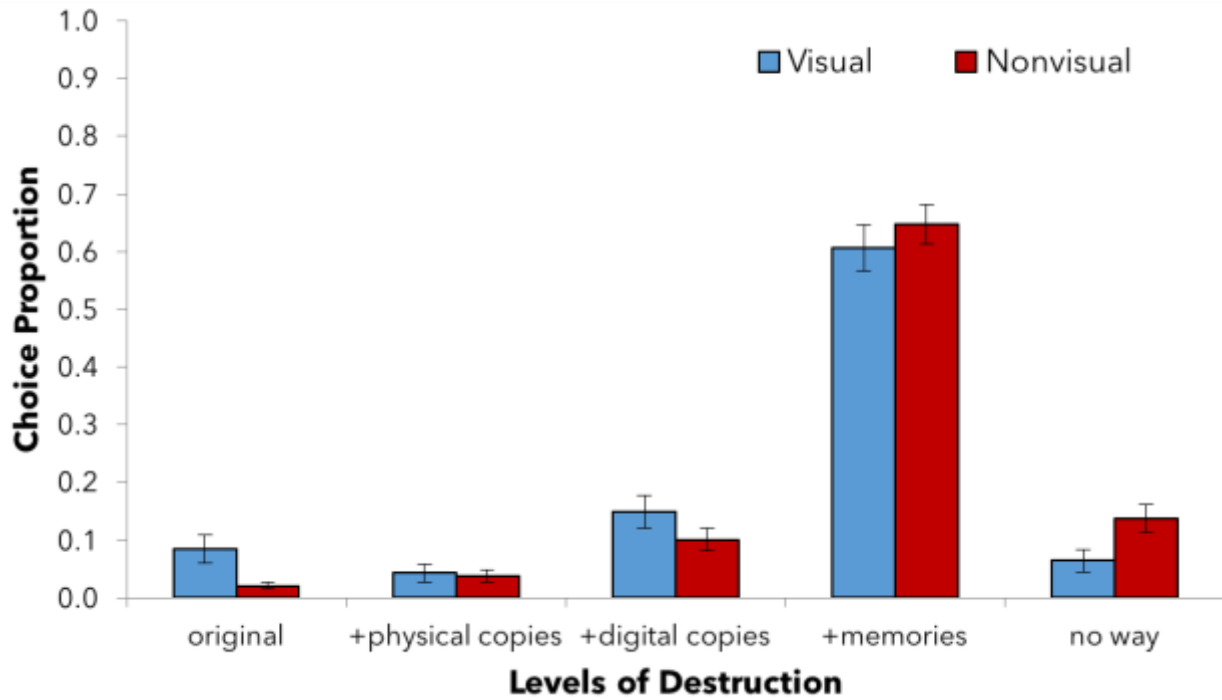


Fig. 2. Mean proportion of people endorsing the art work still existed at each level of destruction in Experiment 2. Error bars represent standard error.

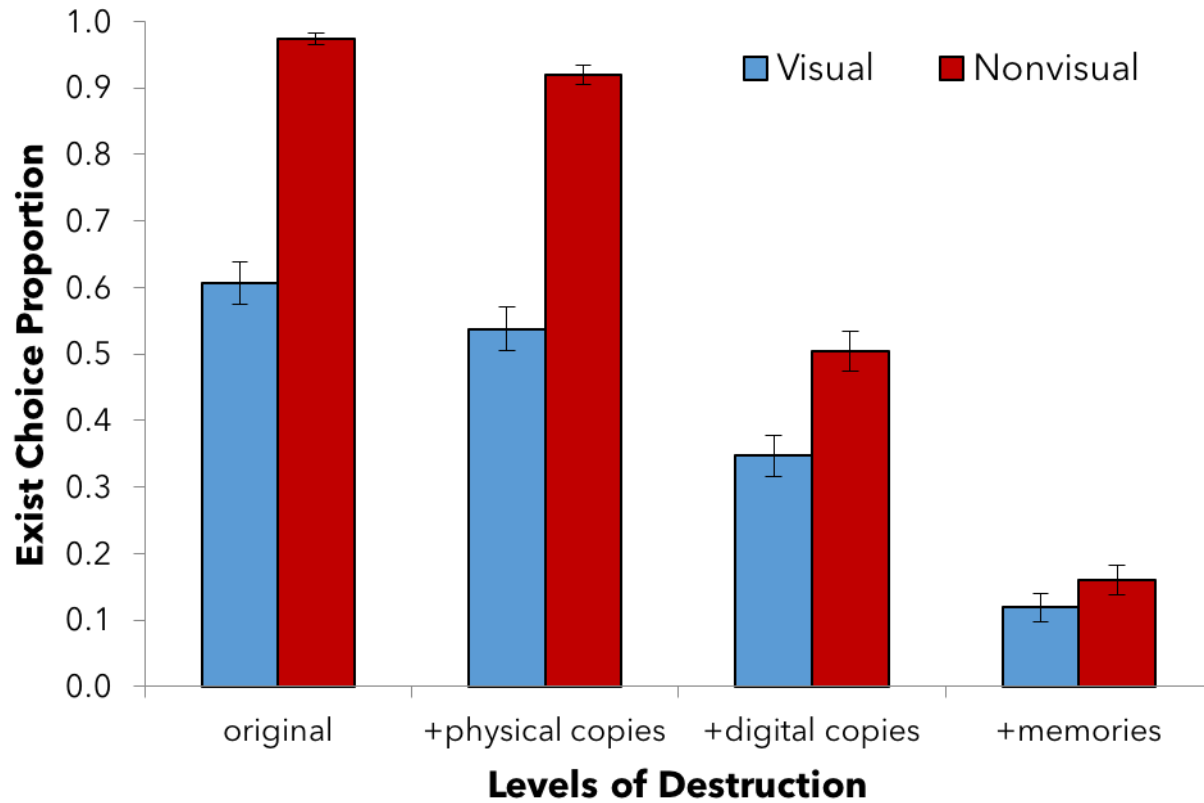


Fig. 3. Mean experience ratings for each level of destruction in Experiment 2 when the work was endorsed as still existing. Error bars represent standard error.

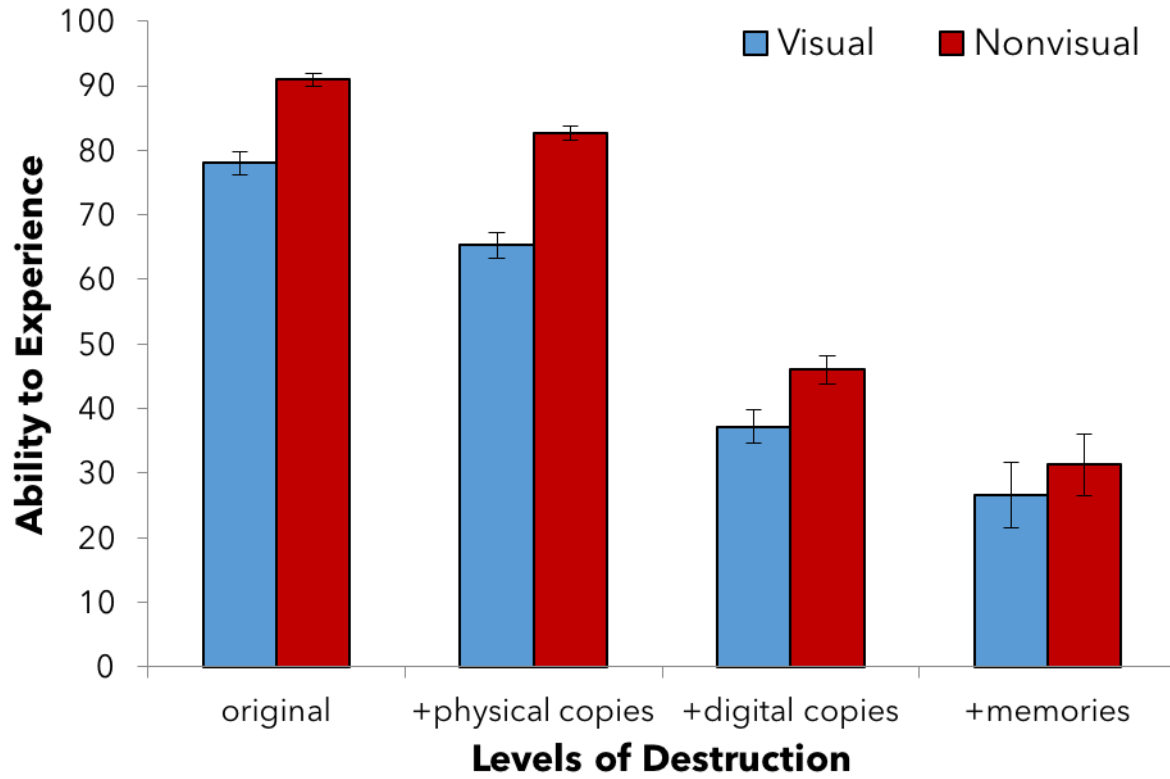


Fig. 4. Mean proportion of people endorsing the art work still existed at each level of destruction in Experiment 3. Error bars represent standard error.

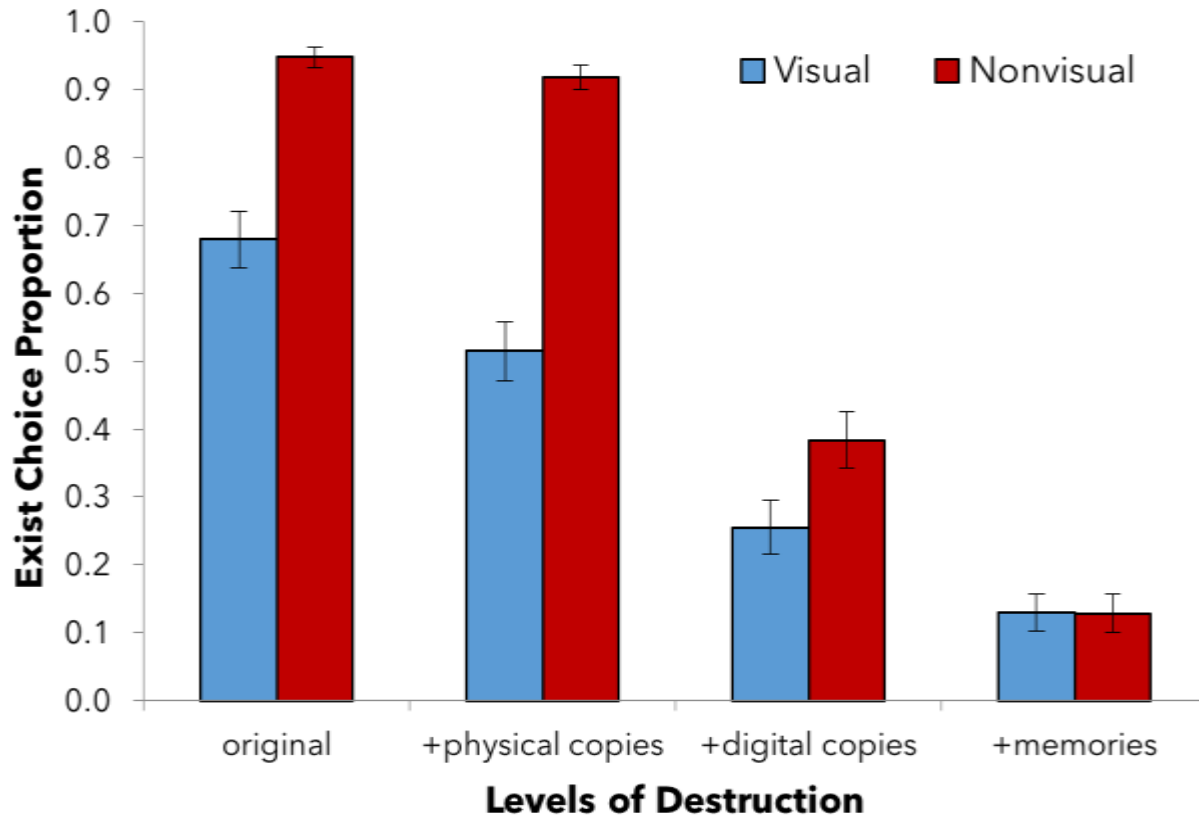




Fig. 5. Mean experience ratings for each level of destruction in Experiment 3 when the work was endorsed as still existing. Error bars represent standard error.

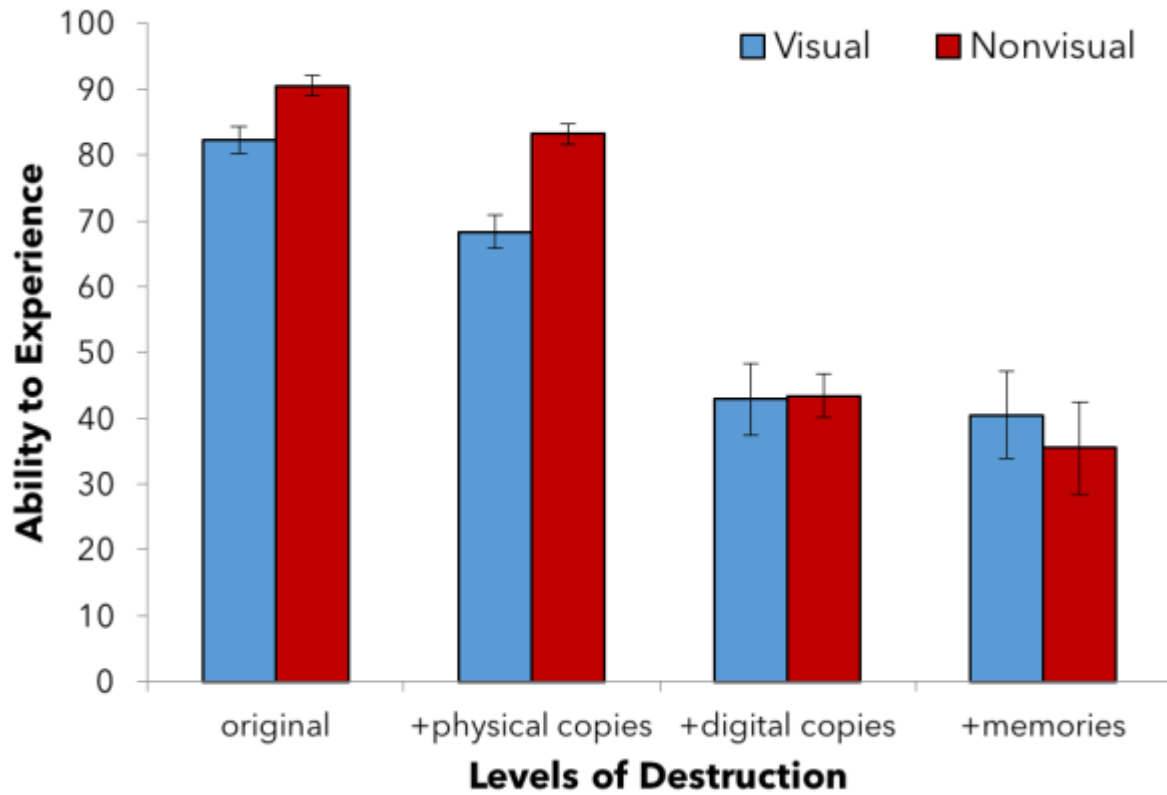


Fig. 6. Mean experience ratings for proxies varying in number of similar features in Experiment 4. Error bars represent standard error.

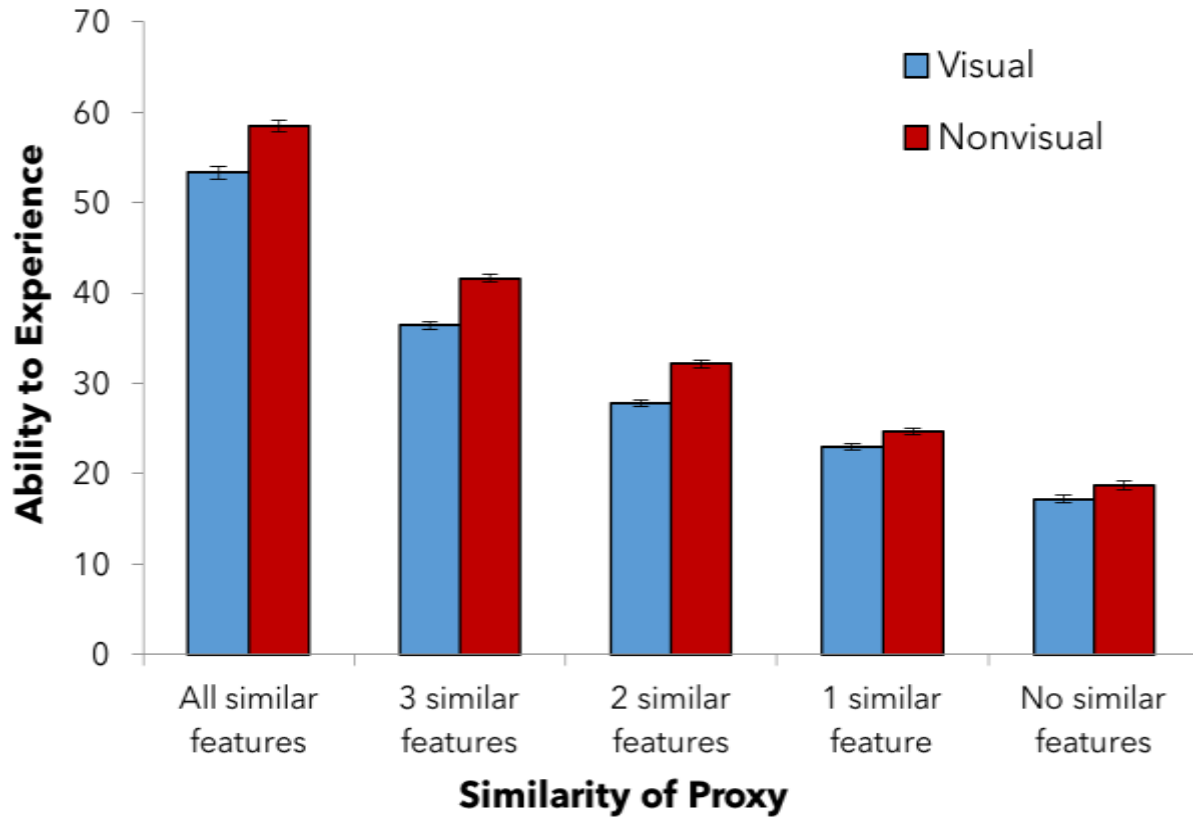


Fig. 7. Mean experience ratings for proxies missing only one feature in Experiment 4. Error bars represent standard error.

