Mere Exposure to Bad Art

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I

Why do we make the aesthetic judgements that we do? Luck and happenstance—our environment, our upbringing, our friends—presumably play some role. But most philosophers of art presume that works of art have stable aesthetic or artistic values to which judgement is also sensitive. Hence the standard philosophical (and perhaps commonsensical) view that artistic value is a primary determinant of canonical status.

By contrast, many scholars from other disciplines are sceptical about the aesthetic domain: they presume that sociocultural processes are the primary determinants of aesthetic judgement, 'value', and canonicity.[1] In addition to the power of art insiders, or socio-political forces which favour privileged groups and exclude outsiders, an aesthetic sceptic might also suggest that our (putatively) carefully cultivated aesthetic tastes are largely a product of contingencies and chance encounters. Such a sceptic might even marshal recent evidence from psychology on her behalf. A recent set of studies by the psychologist James Cutting demonstrated that merely exposing people to certain Impressionist paintings produced an increase in their liking for them.[2]

Cutting's research prompts important questions about the conditions under, and the extent to which, exposure influences aesthetic preference and judgement. Is it the case that no matter what images people are exposed to, they will grow to like the ones they see the most? This would suggest at best an extremely limited role for aesthetic value in determining our aesthetic tastes. Perhaps Cutting's study might be taken to support such extreme scepticism. Alternatively, the study might suggest that exposure only works under fairly limited constraints. Perhaps it is only when all other factors are kept equal that mere exposure plays a role; that is, among paintings of equal quality, people will prefer those they have seen most often.[3] While less extreme than the sceptical view, such a reading nonetheless puts pressure on the soundness of many of our comparative judgements. Perhaps we mistake the effects of mere exposure for superior artistic quality much more commonly than we would like to think.

This paper addresses the interaction between mere exposure and the quality of the artworks to which we are exposed. It focuses on an experiment we conducted to test

1 See, for example, Pierre Bourdieu, *Distinction: A Social Critique of the Judgement of Taste*, trans. Richard Nice (London: Routledge, 2010); Terry Eagleton, *The Ideology of the Aesthetic* (Oxford: Blackwell, 1990); Barbara Herrnstein Smith, *Contingencies of Value: Alternative Perspectives for Critical Theory* (Cambridge, MA: Harvard University Press, 1988).

2 James E. Cutting, 'Gustave Caillebotte, French Impressionism, and Mere Exposure', *Psychonomic Bulletin & Review* 10 (2003), 319–43.

3 This is Cutting's view (personal communication).

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whether mere exposure increases or decreases liking for bad visual artworks. The results indicate that mere exposure to bad art makes people like it less. We argue that these results suggest that exposure itself is sensitive to value. If this is correct, sceptics about aesthetic value and the canon cannot straightforwardly rely on Cutting's results to support their position. Even when exposure makes a difference, aesthetic value appears to remain in the picture.

Section II briefly introduces the mere exposure effect. Section III considers in detail Cutting's experimental studies concerning preferences for Impressionist artworks. Section IV discusses the potential philosophical implications of Cutting's results. Section V describes the experiment we ran and provides an extended account of the results of that experiment. We found that mere exposure decreased liking for the bad paintings to which we exposed our subjects. Section VI explores potential explanations for our results—results which seem to be in tension with the extreme sceptical position described above. Section VII discusses our study in relation to earlier research on mere exposure and 'negative' stimuli. We argue that there are good reasons to resist characterizing the stimuli used in our study as 'negative'—at least in the sense in which that term is ordinarily used by psychologists. Section VIII explores the potential philosophical significance of our results, and Section IX comprises a brief conclusion.

II

The mere exposure effect is a psychological phenomenon whereby repeated exposure to a stimulus enhances people's attitudes towards it. Gustav Fechner, the founder of experimental aesthetics, first identified the phenomenon in the late nineteenth century, but the classic source for methodologically systematic psychological investigation of the effect was published by Robert Zajonc.[4]

According to Zajonc 'mere repeated exposure of the individual to a stimulus is a sufficient condition for the enhancement of his attitude toward it. By "mere exposure" is meant a condition which just makes the given stimulus accessible to the individual's perception.'[5] The stimulus is *unreinforced*, hence the 'mere' in 'mere exposure'. 'Attitude' here is a generic term taken to include, among other things, preference, liking, and judgements of goodness.[6] In a series of studies, Zajonc exposed study participants at different frequency rates (typically between 0 to 25 times) to a variety of stimuli, including nonsense words, Chinese characters, and photographs. In most cases mere exposure to stimuli consisted in passive viewing via screen projection for 2 seconds. Participants were then asked to rate the stimuli on a 7-point scale ('bad' to 'good' in most studies, degree of liking in the

4 Robert B. Zajonc, 'Attitudinal Effects of Mere Exposure', *Journal of Personality and Social Psychology Monograph Supplement* 9 (1968), 1 – 27.

5 Zajonc, 'Attitudinal Effects of Mere Exposure', 1.

6 It is important to note that this effect occurs regardless of which of these judgments is elicited. Subjects' preferences, expressions of liking, and evaluative judgments are correlated. See Robert F. Bornstein, 'Exposure and Affect: Overview and Meta-analysis of Research, 1968–1987', *Psychological Bulletin* 106 (1989), 265–89, at 275.

photograph stimulus study). In each experiment it was found that mere repeated exposure to a class of stimuli enhanced participants' attitudes towards them. The more often participants saw a stimulus the more positively they judged it or the more they liked it.

Since Zajonc's initial work, the phenomenon has been subject to widespread investigation in psychology. Experiments investigating mere exposure effects have ranged across a dizzying array of domains from language,[7] food preferences,[8] social perceptions,[9] and political attitudes[10] to advertising effects.[11] A large-scale meta-analysis of 208 independent experiments conducted on exposure effects, ranging over disparate domains, concluded that there is 'little doubt that the exposure–affect relationship is a robust, reliable phenomenon'.[12] However, as we shall see, the results of experiments in the aesthetic domain have been slightly more heterogeneous.

There have been a number of published studies examining the consequences of mere exposure to aesthetic stimuli. In the case of music, for example, numerous studies report the standard enhancement in liking following exposure.[13] Intriguingly, more exposure does not always lead to more liking. There is evidence, for example, that once some threshold is reached, liking often decreases, following an inverted U-shaped pattern (perhaps boredom is the source of this satiation effect). Even then, there is a difference between the effects of exposure on focused listening, which follows this pattern, and on incidental listening, which gives rise to a monotonic increase in liking.[14]

It is somewhat puzzling that of all stimuli considered in the meta-analysis, the effects found for 'abstract paintings, drawings and matrices' were the weakest.[15] Nonetheless, there is evidence that the same general trend seems to hold with respect to visual stimuli. Berlyne, for example, found exposure effects on liking for abstract coloured shapes.[16] Zajonc *et al.* found increased preference along with satiation effects at a certain level of

7 Wladyslaw Sluckin, Andrew M. Colman, and David J. Hargreaves, 'Liking Words as a Function of the Experienced Frequency of Their Occurrence', *British Journal of Psychology* 71 (1980), 163–9.

8 Patricia Pliner, 'The Effects of Mere Exposure on Liking for Edible Substances,' *Appetite* 3 (1982), 283–90.

9 Susan Saegert, Walter Swap, and Robert B. Zajonc. 'Exposure, Context and Interpersonal Attraction', *Journal of Personality and Social Psychology* 25 (1973), 234–42.

10 Richard L. Miller, 'Mere Exposure, Psychological Reactance and Attitude Change', *Public Opinion Quarterly* 40 (1976), 229–33.

11 Alan G. Sawyer, 'The Effects of Repetition of Refutational and Supportive Advertising Appeals', *Journal of Marketing Research* 10 (1973), 23–33.

12 Bornstein, 'Exposure and Affect', 278.

13 See, for example, William R. Wilson, 'Feeling More Than We Can Know: Exposure Effects without Learning', *Journal of Personality and Social Psychology* 37 (1979), 811–21; Isabelle Peretz, Danielle Gaudreau, and Anne-Maries Bonnel, 'Exposure Effects on Music Preference and Recognition', *Memory and Cognition* 26 (1998), 884–902.

14 Karl K. Szpunar, E. Glenn Schellenberg, and Patricia Pliner, 'Liking and Memory for Musical Stimuli as a Function of Exposure', *Journal of Experimental Psychology: Learning, Memory, and Cognition* 30 (2004), 370–81; E. Glenn Schellenberg, Isabelle Peretz, and Sandrine Vieillard, 'Liking for Happy- and Sad-Sounding Music: Effects of Exposure', *Cognition and Emotion* 22 (2008), 218–37.

15 Bornstein, 'Exposure and Affect', 269.

16 Daniel E. Berlyne, 'Novelty, Complexity and Hedonic Value', *Perception & Psychophysics* 8 (1970), 279–86.

exposure to non-representational paintings.[17] Bowker and Sawyers found a strong mere exposure effect in children for representational paintings.[18]

What is the mechanism by which the mere exposure effect works? There is not an agreed-upon answer,[19] but one popular account holds that mere exposure functions to increase processing fluency—the subjective experience of ease associated with information processing.[20] This positive feeling of fluency is, then, misattributed to the object in question and results in positive affect toward that object.[21] Although this is an interesting issue, we shall say no more about it here.

III

In light of the research described in the previous section, James Cutting conducted a series of studies investigating, among other things, the effects of mere exposure on preference for established visual artworks.[22] Sixty-six images of Impressionist master works from Caillebotte's collection were selected for use as stimuli, consisting of works by Caillebotte (2), Cezanne (5), Degas (8), Manet (4), Monet (16), Pissarro (4), Renoir (9), and Sisley (8). Each selected image was then paired with another image by the same artist, in the same style, with the same subject matter, and from about the same time period (typically within 2 years). The occurrence of these selected images in approximately 6,000 books from the Cornell Fine Arts and campus libraries was researched. This revealed a gradation from the 'high canon of Impressionism to its base corpus' with the frequencies of particular images ranging from over 100 to less than 10.[23]

Cutting's first two studies examined the relationship between frequency counts and viewer preferences, using both undergraduates and older participants.[24] Across all pairs, participants preferred the more frequently reproduced image of each pair in 59 per cent of trials. The effect was significant. But these results do not show that the relation between participants' preferences and frequency of reproduction is due to mere exposure. As Cutting notes, the results are consistent with the hypothesis that a third variable—the quality of the works—explains the correlation. It is possible that both preferences and frequency of reproduction are driven by artistic value. An additional study was conducted to test whether mere exposure could be positively ruled in as explaining the results. The experimental group of 116 undergraduate psychology students was shown the images

17 Robert B. Zajonc *et al.*, 'Exposure, Satiation and Stimulus Discriminability', *Journal of Personality and Social Psychology* 21 (1972), 270–80.

18 Jeanette E. Bowker and Janet K. Sawyers, 'Influence of Exposure on Preschoolers' Art Preferences', *Early Childhood Research Quarterly* 3 (1988), 107–15.

19 Szpunar, Schellenberg, and Pliner, 'Liking and Memory for Musical Stimuli as a Function of Exposure', 370–71.

20 Daniel M. Oppenheimer, 'The Secret Life of Fluency', *Trends in Cognitive Science* 12 (2008), 237–41.

21 Szpunar, Schellenberg, and Pliner, 'Liking and Memory for Musical Stimuli as a Function of Exposure', 370.

22 Cutting, 'Gustave Caillebotte, French Impressionism, and Mere Exposure'.

23 *Ibid.*, 326.

24 Other studies focused on the responses of child subjects, as well as the roles of prototypicality and complexity in preference judgments.

from the 51 colour pairs of Impressionist paintings used in the first study. The individual images were shown via PowerPoint at the start of class for 2 seconds without comment. The more frequently publicly reproduced works were shown once and the less frequently reproduced ones were shown 4 times over the 21 classes. In the 22nd class, all pairs were shown side by side for 6 seconds each (randomly sequenced) with participants asked to register their preference within each pair. The results from the first study, consisting of similar participants without exposure, were used as control group results. As we saw above, the group from that study preferred the more frequently reproduced images. However, those in the experimental exposure group no longer did so, preferring the more frequently reproduced images only 48 per cent of the time. In fact in 41 of 50 image pairs (with one tie), the more frequent image received a smaller proportion of preference judgments.[25] Cutting concluded that the results of this sixth study demonstrate that mere exposure can have a significant effect on art preference.

Cutting concluded the following:

> Thus, I claim that artistic canons are promoted and maintained, in part, by a diffuse but continual broadcast of their images to the public by museums, authors, and publishers. The repeated presentation of images to an audience without its necessarily focused awareness or remembrance makes mere exposure a prime vehicle for canon formation.[26]

Note that this quotation suggests that Cutting's own view is a moderate one and does not imply any full-fledged scepticism about aesthetic or artistic value since, on his view, 'broadcast' or 'repeated presentation' of images is clearly only one among a number of factors that influence canon formation.[27]

IV

How do Cutting's results bear on claims about aesthetic judgement? Most obviously they might be thought to present a challenge to the aforementioned philosophical presumption that quality plays a significant (albeit not necessarily determinative) role in such judgements. To be clear, this presumption is not that quality is the only factor in aesthetic judgement, nor does it occlude the distinctions between more- and less-discriminating responses. Nonetheless, philosophers standardly assume that, other things being equal, aesthetic judgement latches on to a work's aesthetically appreciable qualities. Cutting's study might be harnessed by some in the attempt to call this assumption into question.

It should be emphasized that Cutting's studies concern expressed preference, and preference—like pleasure and liking—is distinct from aesthetic judgement. However, preference often is an expression of what grounds evaluative appraisals or judgements of artistic value (e.g. pleasure in appreciating a work). The sceptic's interest in Cutting's studies is largely motivated by the idea that the grounding for aesthetic judgement is

25 *Ibid.*, 335.

26 *Ibid.*

27 Thanks to a referee for this journal for helping us get clear on Cutting's views.

significantly shifted by mere exposure. The explanation given for the difference in preferences in Cutting's studies and, by implication, in the wider world, is mere exposure. It is standard to assume that we derive pleasure from a work, and prefer one work to another, due to its aesthetically evaluable features. Yet if Cutting is right, we are—to some significant extent—responding to its familiarity. This kind of claim lends itself to sceptical worries about aesthetic judgement sketched above, and suggests that we often conflate the pleasures of aesthetic appreciation with those derived from a myriad of other sources such as familiarity or status.[28] A second challenge directly flows from the first. Cutting's results might be taken to put pressure on the widely accepted view that passing the test of time is a good indicator of positive aesthetic or artistic value. Philosophers and critics often assume that ascriptions of value to canonical works have a greater degree of surety when compared with more recent works. Critical judgements and disputes frequently appeal to canonicity. Thus, for example, critics often relate contemporary artists and works to those more established in the canon to justify evaluative claims. Rachel Campbell-Johnston's review of Damien Hirst's skull paintings is typical:

> The paintings are dreadful. Think Adrian Mole meets Francis Bacon … What are they doing in the home of such masters as Rembrandt or Poussin, Titian or Fragonard? … these works are utterly derivative of Bacon (give or take a dash of Giacometti), but they completely lack his painterly skill.[29]

Underlying such practices is the assumption that canonical works pass the test of time in virtue of their artistically good-making features. The classic articulation of this idea is to be found in Hume:

> We shall be able to ascertain its [beauty's] influence not so much from the operation of each particular beauty, as from the durable admiration, which attends those works, that have survived all the caprices of mode and fashion, all the mistakes of ignorance and envy … The same Homer, who pleased at Athens and Rome two thousand years ago, is still admired at Paris and at London. All the changes of climate, government, religion, and language, have not been able to obscure his glory.[30]

The test of time is neither required to warrant ascriptions of value nor an infallible guide to value; by its nature, it is also a matter of degree. Nonetheless, it seems plausible that we have greater warrant in judging that Michelangelo is a great artist than in judging that Matisse is, and greater warrant in the case of Matisse than in that of Damien Hirst. Why? The standard presumption is that the more robustly a work is valued as art across different individuals, ages, and cultures, the more confident we can be that critical esteem really is a function of appreciating its good-making features. Yet if the aesthetic sceptic is to be

28 Matthew Kieran, 'The Vice of Snobbery: Aesthetic Knowledge, Justification and Virtue in Art Appreciation', *Philosophical Quarterly* 60 (2010), 243–63.

29 Rachel Campbell-Johnston, 'Damien Hirst at the Wallace Collection, W1', *Times* (London), 14 October 2009.

30 David Hume, 'Of the Standard of Taste', *Essays Moral, Political and Literary*, ed. Eugene F. Miller (Indianapolis: Liberty Classics, 1985), 233.

believed, canonicity is largely a function of cultural exposure rather than artistic value. The entire canon, from Homer to Michelangelo, may 'pass' the test of time as a function of cultural exposure rather than any non-coincidental relation to artistic value.

Although the aesthetic sceptic's conclusion contradicts the traditional philosophical take on the test of time, the phenomenon of mere exposure as such does not. The fact that we like works more when we are exposed to them is *consistent* with the claim that the capacity of a work to transcend time and place is evidence of its worth. Mere exposure might, in fact, provide a mechanism by which works pass the test of time. If, for some reason or other, good works were regularly reproduced more often than bad works then the mere exposure effect alone would tend to make good works preferred to bad works and, hence, underwrite their capacity to pass the test. However, there *is* something undermining about the mere exposure phenomenon. The test of time relies on inference to the best explanation. The thought underwriting appeal to the test of time is that artistic value or goodness provides the best explanation for why it is that a work of art transcends its cultural and historical context. But the mechanism of mere exposure presents an alternative explanation for the capacity of works to pass the test of time. Insofar as the operation of mere exposure is a live possibility, the abductive inference to quality is undercut.

A standard response to those who would draw sceptical conclusions on the basis of Cutting's studies is to point out that those studies concern the preferences of undergraduate psychology students. The studies show that non-experts are susceptible to mere exposure effects. Yet when it comes to aesthetics no one thinks that everyone's judgements are on a par. Expertise plays a significant role in getting things right with respect to aesthetic matters and the participants studied in Cutting's experiment were far from being experts.

The aforementioned response suggests that research on the effect of mere exposure on expert judgements of art would be worth pursuing. But it is possible that, even if we restrict our attention to ordinary participants, it is unwarranted to infer sceptical conclusions from Cutting's results. Why? In brief, alternative explanations of Cutting's results are available. It could be, for example, that—rather than mere exposure to paintings changing preferences—it is what exposure enables that is doing the work; that is, exposure results in increased access to, or appreciation of, aesthetically valuable features. After all, the works used in Cutting's study are by Impressionist masters and are plausibly of high artistic value. That is, they are all pretty good (to say the least). It is at least as reasonable, in comparison with the mere exposure hypothesis, to think that greater exposure to these good works aids appreciation of their aesthetically good-making features. This is one of the motivations that drive us to return again and again to the same works. However, if exposure is merely facilitating appreciation, as opposed to directly increasing liking, it should matter whether the exposed paintings are good or bad. That is, if the aesthetic sceptic's conclusions were correct, repeated exposure should lead to increased liking independent of the value of the works. But if the alternative explanation is correct, exposure will only lead to an increase in liking when works have positive aesthetic value. In order to discriminate between these competing hypotheses, we would need to know whether mere exposure to bad art produces effects similar to the ones Cutting produced in his study. That is what our study aimed to determine.

V

To test whether mere exposure is doing all the work in determining preference, we designed an experiment to evaluate the effects of exposure on liking for bad paintings. Participants were 57 students at a large university in the north of England taking a third-year module in philosophy of literature. Students received no reward for participating in the study. Due to the nature of the study, participants were only informed that they were participating in an experiment during the final ratings phase, when they were given the opportunity to opt out. The control groups consisted of students in two psychology of music classes and a group of philosophy students in a first-year history and philosophy of psychology module. Stimuli consisted of 60 PowerPoint slides of landscape paintings, 48 images of bad paintings by Thomas Kinkade, the American 'Painter of Light', and 12 images of good paintings by the English Pre-Raphaelite painter John Everett Millais. Slides were created by searching the Internet for appropriate images and then choosing high-resolution images of the appropriate size. Paintings were selected to represent a variety of subjects such as cottages, bridges, country estates, and holiday scenes. Kinkade paintings used included *Stairway to Paradise*, *Petals of Hope*, *Bridge of Hope*, and *Christmas Memories*. Millais paintings used included *Dew-Drenched Furze*, *St Martin's Summer*, and *Flowing to the River*.[31]

Kinkade's paintings were chosen as representative bad paintings largely on the basis of the artistic judgement of three of the authors. It is, however, not hard to find support for this view among critics. Laura Miller describes his paintings as 'hollyhocked and morning-gloried cottage porn',[32] and Joan Didion comments that

> a Kinkade painting was typically rendered in slightly surreal pastels. It typically featured a cottage or a house of such insistent cosiness as to seem actually sinister, suggestive of a trap designed to attract Hansel and Gretel. Every window was lit, to lurid effect, as if the interior of the structure might be on fire.[33]

Kinkade's art is described as 'so awful it must be seen to be believed' by Joseph Heath and Andrew Potter.[34] Hence, as Oliver Burkeman states, 'art critics have long dismissed his work as a kitsch crime against aesthetics.'[35] We take the judgements of art critics to converge with our own, though we encourage readers to search on the Internet to judge for themselves.

John Everett Millais's late landscapes were chosen as representative good paintings because Millais is recognized as one of the pre-eminent painters of the nineteenth century, the paintings roughly match Kinkade's subject matter and palette, and they are not widely known. Millais was an artistic child prodigy who studied at the Royal Academy from the age of eleven. He was a founding member of the Pre-Raphaelite Brotherhood at nineteen, painting some of its most renowned works such as *Christ in the House of His Parents* (1850), and *Ophelia* (1852). His development toward a broader painterly style

31 For a full list of paintings used, see Appendix A.

32 Laura Miller, 'The Writer of Dreck™', *Salon.com*, 18 March 2002.

33 Joan Didion, *Where I Was From* (Westminster, MD: Knopf, 2003), 73.

34 Joseph Heath and Andrew Potter, *The Rebel Sell: Why the Culture Can't be Jammed* (Chichester: Capstone, 2005), 124.

35 Oliver Burkeman, 'Dark Clouds Gather over "Painter of Light"', *Guardian*, 25 March 2006.

attracted criticism from those associated with the Pre-Raphaelites, such as Ruskin and Morris, though it is often taken to foreshadow aestheticism. While Millais did produce commercial work alongside his more artistic paintings, the later portraits and landscapes are admired. In reviews of the exhaustive Millais exhibition, 2007, at Tate Britain, the late landscapes were considered a surprising highlight. This was partly due to the fact that ownership of the twenty or so paintings is scattered far and wide, so the Tate exhibition was the first time that twelve of the late landscapes could be seen together. Yet it was also due to the critical recognition that while not being masterpieces of the first order, nonetheless the paintings are pretty good.[36] Andrew Graham-Dixon's review of the show was typical in suggesting that 'the principal revelation of this show is Millais's later work as a landscape painter',[37] and Tim Barringer, Paul Mellon Professor of the History of Art at Yale, thought that

> the crucial revelation of this exhibition is a final group of late, elegiac landscapes: No longer Ruskinian essays in fanatical empiricism, they are melancholy symbolist explorations of the wild emptiness of the Scottish Highlands. In misty evocations such as *Dew-Drenched Furze*, 1889–90, Millais finally reunites the visionary and realist elements in nineteenth-century culture, providing a staggering and unexpected climax to the show.[38]

During 14 class periods over the course of 7 weeks, mid-lecture (during 'intermission'), participants in the experimental condition were shown a sequence of images: on 12 days, participants were exposed to 13 images, on 2 days participants were exposed to 12 images. Each image was presented for approximately 2 seconds as an untitled PowerPoint slide. The instructor made no comment about the slides other than to say occasionally prior to the first image 'now we will look at some pictures' or something similar. Overhead lights were kept dim in the lecture theatre to ensure legibility of images. Over the course of the term, half (i.e. 24) of the images of bad paintings were shown 5 times; half of them were shown to participants only once (paintings selected for repeated showings were selected by a randomization process). Similarly, half the images of good paintings were shown 5 times; half of them were shown only once (again, selection was randomized). This method allowed us to investigate the effect of frequency of exposure on preference within the experimental group, as well as the effect of any exposure whatsoever by comparing the experimental group to the control group, described below.

During the 16th and final class period, experimental participants were shown all 60 PowerPoint images, 1 at a time for 6 seconds each, and asked to express a degree of liking on a 10-point Likert scale.[39] In this, we followed Cutting who presented his images 'for

36 Richard Dorment, 'Millais: Master of Passion and Scandal', *Telegraph*, 25 September 2007; Fiona MacCarthy, 'A Force of Nature', *Guardian*, 8 September 2007; Simon Poe, 'After Ophelia', *Apollo*, December 2007.

37 Andrew Graham-Dixon, 'Millais at Tate Modern', *Sunday Telegraph*, 30 September 2007.

38 Tim Barringer, 'Modern Painter: Tim Barringer on John Everett Millais', *ArtForum,* September 2007.

39 Participants were presented with the statement 'I like it' and asked to indicate a degree of liking, with 'Strongly Agree' at one end of the scale (a rating of 10) and 'Strongly Disagree' at the other end of the scale (a rating of 1).

about 6 sec per pair in a new random sequence' and asked 'which image of each pair they liked best' rather than which was, in fact, better.[40] We followed Cutting in presenting images for 6 seconds in order to mirror the original study closely but also because there is some reason to think that consciously reflecting on reasons for preferences can itself shift preference formation and judgement in irrelevant ways.[41] As noted above, liking and judgements of value are not identical, and they may pull apart. Our decision to measure liking rather than goodness was based on the assumption that preference is expressing what is taken to be the grounding of aesthetic appraisal, and a concern that a measure of goodness might suffer from ambiguity. Participants might confuse (or run together) overall artistic quality or worth ('good art') with a judgement of technical merit ('good painting'). It is worth noting that 'researchers have used a variety of dependent measures to examine the exposure–affect relationship (e.g. liking ratings, goodness ratings)' and 'every type of affect measure has produced significant exposure effects.'[42] In short, we think it unlikely that our results are an artefact of our choice of a particular dependent measure.

The order in which images were shown was determined by a random number generator and a process which ensured that there would be no especially long run of bad paintings (i.e. more than eight in a row). A visual analogue scale, designed to induce interval measurement, accompanied the Likert scale questions. Participants also filled out a brief questionnaire, indicating gender, ethnicity, the number of times per year that they attended an art museum, the number of art history courses they had taken, estimated weekly hours on the Internet, the number of lectures attended, and familiarity with the paintings of Kinkade, Millais, and, more specifically, Millais's late landscapes. Three students reported familiarity with Millais's paintings, one of those students additionally reported familiarity with Kinkade and the late landscapes of Millais. Of the 57 students, 47 reported attending an art museum between 1 and 5 times per year. Forty-three students reported having taken no art history classes, and only 5 students had taken more than 2 art history classes. Students spent an average of 24.8 hours per week on the Internet. Thirty-eight of the students were female and 18 were male (1 student chose not to answer the gender question). Fifty of the 57 students listed their ethnicity as White and 1 student declined to answer this question. Students reported attending an average of 11.04 lectures.

The control groups were not exposed to the paintings prior to the ratings phase but were otherwise treated identically to the experimental participants (i.e. exposed to all 60 images sequentially and asked to rate them on the 10-point Likert scale). The same demographic questionnaire was given to the controls, except that they were not asked how many lectures they had attended.[43] The control groups were similar to the experimental group with respect to most of the items on the questionnaire, although they reported

40 Cutting, 'Gustave Caillebotte, French Impressionism, and Mere Exposure', 334.

41 Timothy D. Wilson *et al.*, 'Introspecting about Reasons Can Reduce Post-choice Satisfaction', *Personality and Social Psychology Bulletin* 19 (1993), 331–9.

42 Bornstein, 'Exposure and Affect', 275.

43 The results of the questionnaire are reported in Tables A1 to A4 in Appendix B. Our data show the results for three different control groups, taken individually and in combination. Control 1 (n=20) is a graduate music psychology class. Control 2 (n=57) is an undergraduate music psychology class. Control 3 (n=57) is an undergraduate philosophy class.

even fewer art museum visits and art history courses taken. As mentioned above, we had a number of distinct control groups. Due to worries about potential taste-relevant personality differences between music and philosophy students,[44] we considered the philosophy group to be the best control and, unless otherwise noted, we shall be referring to the philosophy students when we talk about the control group.

For the moment, we shall ignore the difference between multiply and singly exposed paintings within the experimental group, to get a sense of the effect of any exposure whatsoever. For each participant an overall liking rating was generated for the Kinkade paintings, on the one hand, and the Millais paintings, on the other. For our control group, these scores were the average of the participant's ratings for each painting, based upon seeing the paintings only during the rating phase. For the experimental group, these scores were based on the participant's ratings for each painting, having seen each painting either a single previous time or multiple times during the exposure phase.

To determine the effect of any exposure whatsoever for Kinkade compared to Millais, we subjected these overall liking ratings to a 2 (exposure: unexposed, exposed) × 2 (artist: Kinkade, Millais) analysis of variance (ANOVA). The analysis revealed a significant two-way interaction between exposure and artist, (Exposure vs Artist): F (1,99) = 9.7, p =.002. [45] There was no main effect for artist: F (1,99) = 0.17, p =.681. Nor was there a main effect for exposure: F (1,99) = 0.98, p =.325. In other words, these results reveal that people respond differently to Kinkade paintings after exposure than they do to Millais paintings after exposure.

We can tell how exposure affected responses to Kinkade paintings, on the one hand, and Millais paintings, on the other, by examining mean liking scores. The mean of the overall liking scores for Kinkade paintings was lower (M = 4.92, SD = 1.58) for participants who had been exposed to the Kinkade paintings (i.e. participants in the experimental condition) than for participants in the control condition who had not previously been exposed to the paintings (M = 5.8, SD = 1.3). This implies that exposure decreased liking for these paintings, contrary to the increase typically produced by mere exposure. On the other hand, the mean of the overall liking scores for Millais paintings was higher (M = 5.67, SD = 1.43) for participants who had previously been exposed to the Millais paintings than for the controls who had not previously been exposed to the paintings (M = 5.22, SD = 1.73). Thus the pattern of responses to these good paintings *was* consistent with the mere exposure effect. (See Figure 1.)

To further investigate these results, we used independent samples T-tests to analyse overall liking scores for each artist. We found a significant negative effect of exposure for the Kinkade paintings: t (100) = 3.01, p = 0.003 (two-tailed), r = 0.29. However,

44 See Chris McManus and Adrian Furnham, 'Aesthetic Activities and Aesthetic Attitudes: Influences of Education, Background and Personality on Interest and Involvement in the Arts', *British Journal of Psychology* 97 (2006), 555–87.

45 Participants who did not rate all 60 paintings were rejected from this analysis. However, analyses produced the same significant effect whether all incomplete responses were rejected, all incomplete responses were included (F (1,112) = 9.7, p =.002), or only those responses in which more than two paintings were not ranked were rejected (F (1,110) = 9.07, p =.003).

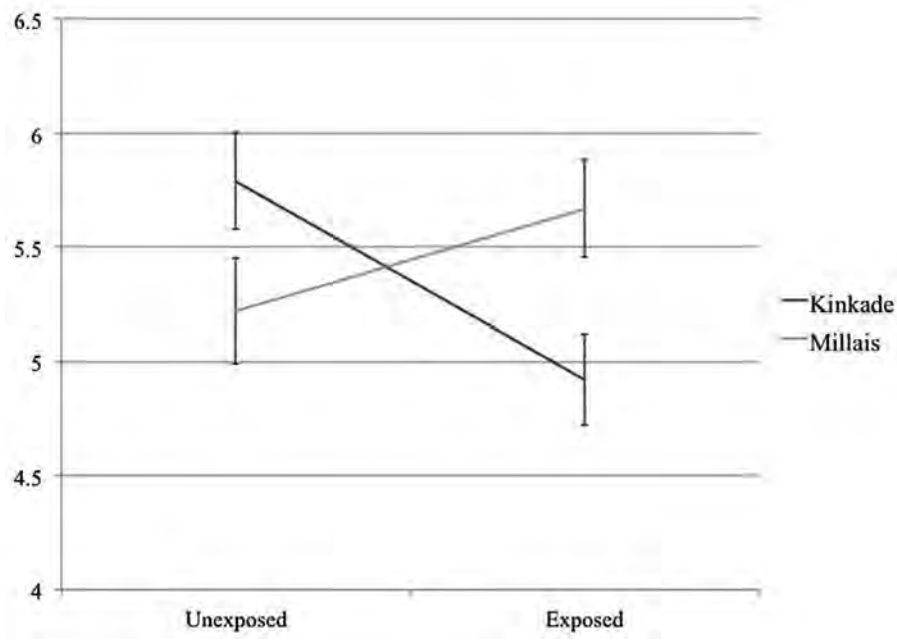

Fig. 1. Mean overall liking scores for artist, unexposed and exposed.

the positive trend for Millais was non-significant: t (100) = 1.42, p = 0.16 (two-tailed), r = 0.14. The fact that we did not find a significant effect for Millais may seem problematic, since the mere exposure effect is a reliable phenomenon, demonstrated for a variety of stimuli by numerous experimental studies. However, the fact that a T-test fails to reveal a significant mere exposure effect for Millais may well be due to our comparatively small number of participants. As discussed above, Cutting found that participants in his experimental group preferred the Impressionist paintings they had classroom exposure to more than those that were part of the artistic cannon. But this significant result was the result of comparing 282 participants' responses. Assuming our observed effect size, we would find a significant effect for Millais if we had twice as many (200) participants.

Up to now we have been considering the effect of any exposure whatsoever. Now let us compare the results for the paintings that were exposed a single time to those that were exposed multiple times for each of our two artists. Here as before a multiply exposed liking rating and a singly exposed liking rating was generated for each artist for each participant in the experimental group by averaging ratings for individual paintings. Here, we find a similar pattern as before (Figure 2).[46] The mean of the overall liking scores for the singly exposed Kinkade paintings was higher (M = 5.11, SD = 1.56) than for the multiply exposed Kinkade paintings (M = 4.74, SD = 1.63). In other words, participants

46 Here, as in the other graphs, error bars report standard errors for the reported means. In the case of independent-sample T-tests, overlap between error bars precludes significance. But in the case of paired-sample T-tests, as are being reported here, significance is consistent with overlap of error bars, as is demonstrated in the case of Kinkade.

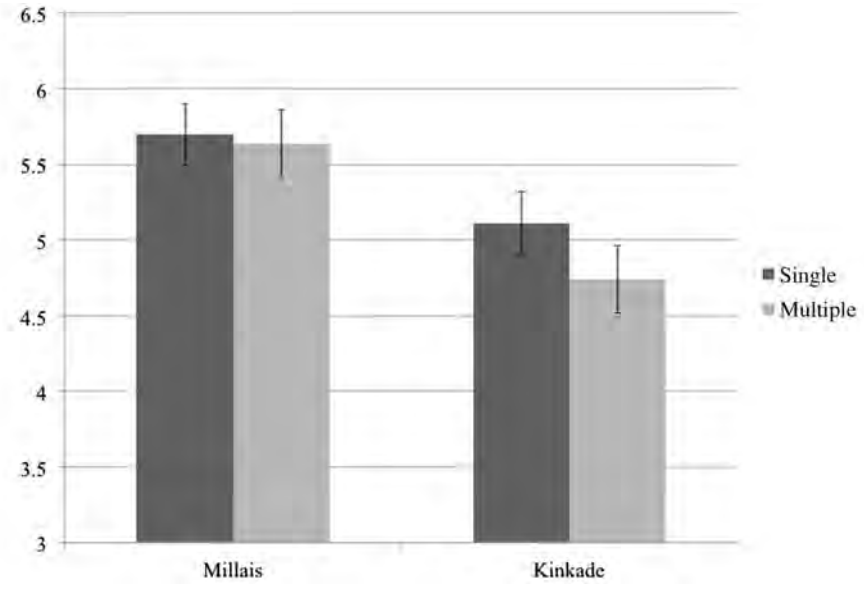

Fig. 2. Within group comparison for experimental group.

were overall less inclined to like a Kinkade painting after having seen it multiple times before the ratings phase. Also in apparent opposition to the mere exposure effect, the mean of the overall liking scores for the singly exposed Millais paintings was slightly higher ($M = 5.70$, $SD = 1.49$) than for the multiply exposed Millais paintings ($M = 5.64$, $SD = 1.62$).

The experimental participants' exposure-relative liking ratings were subjected to a 2 (exposure: singly exposed, multiply exposed) × 2 (artist: Kinkade, Millais) repeated measures ANOVA.[47] We found a main effect for Artist: $F(1,53) = 7.165$, $p = .01$. We also found a main effect for Exposure, in the opposite direction of Cutting: $F(1,53) = 5.74$, $p = .02$. The interaction was approaching significance: $F(1,53) = 2.84$, $p = .098$. These results tell against the sceptic's hypothesis—here mere exposure resulted in overall less liking. But though the interaction effect is approaching significance, we do not find a significant interaction that conforms to a difference for good and bad art.

To further investigate the difference between good and bad art, we used paired sample T-tests to examine these within-participant results for Kinkade, on the one hand, and Millais, on the other. Here we found a significant *negative* exposure effect with the bad paintings within our experimental group. The difference between participants' responses for singly and multiply exposed Kinkade paintings was statistically significant: $t(53) = 5.56$, $p < .001$. On average, participants in the experimental group liked the Kinkades they had seen multiple times less than they liked the ones they had seen only

47 Again, in this and other analyses, participants who did not rate all paintings were rejected. Here, unlike above, we use a *repeated measures* ANOVA because the variables being compared were generated by the same participants. Thus the experiment involved *repeated measures* of the same participants.

once. This suggests that exposure decreased liking for these paintings, contrary to the increase typically produced by mere exposure. Similarly, within the experimental group, multiply exposed Millais paintings were liked less than singly exposed Millais paintings, but the difference was extremely small (a less than 0.07 difference in the mean of the mean scores) and was not significant: t (53) =.401, p =.69.

Comparing the experimental group's liking ratings to those given by the control group for the singly exposed paintings, on one hand, and for the multiply exposed paintings, on the other, gives additional support for the claim that exposure to Kinkade paintings decreases liking. When the responses of the experimental group are compared with those of the control, we found that the experimental group liked the Kinkade paintings significantly less than did the control group, both for singly and multiply exposed paintings (Figure 3). The mean liking score for singly exposed Kinkades in the experimental condition was approximately 0.78 less than the score these same paintings received from the unexposed control group. An independent-samples T-test revealed that responses for these paintings were significantly different for the unexposed control group and the experimental group: t (99) = 2.73, p =.007. The mean liking score for the multiply exposed Kinkades was approximately 1.0 less than the mean score for the controls. Responses for these paintings were also significantly different: t (99) = 3.19, p =.002. We did not get significant exposure effects for the Millais paintings: (single exposure) t (99) = 1.18, p =.24; (multiple exposure) t (99) = 1.5, p =.14. However, these non-significant trends are (as discussed above) in the appropriate direction as, and consistent with, a standard mere exposure effect, that is, increased liking after exposure. Differences in mean liking expressed by control and experimental group were approx. 0.4 (single) and 0.52 (multiple).

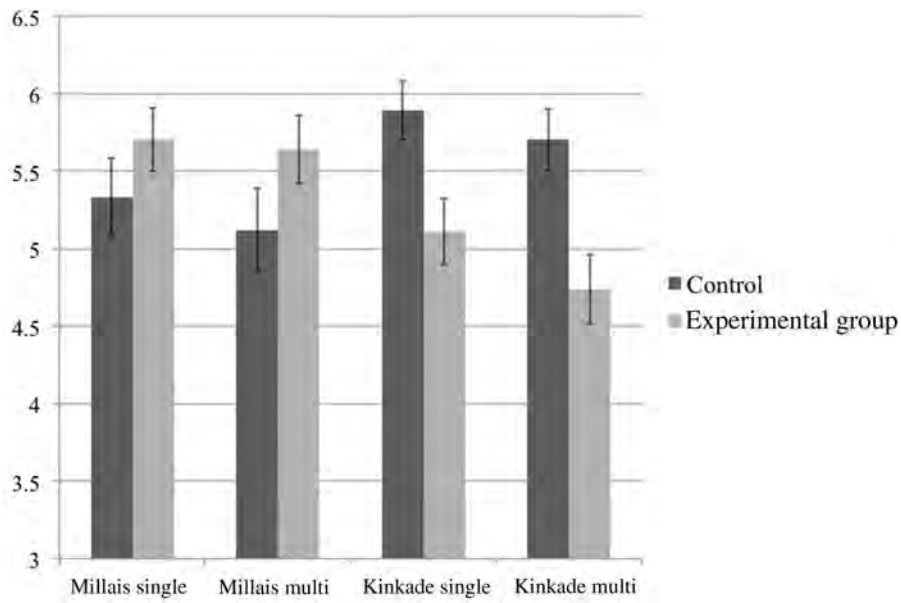

Fig. 3. Experimental versus control liking scores for singly and multiply exposed paintings.

When the experimental group is compared with the combined controls (i.e. students from all three control groups), a dramatic pattern is revealed. Forty-seven of the 48 Kinkade paintings received lower mean liking scores among the experimental (i.e. exposed) group as compared with the combined unexposed controls. Of these 47 cases, 43 of the decreases were statistically significant as was the one increase in liking.[48] Only 2 out of 12 results for Millais paintings were statistically significant. Exposure increased liking in one case, and decreased liking in the other. It is interesting to note that the one Kinkade that received a higher mean liking score in the experimental group (*Winter Light*) was—admittedly after the fact—judged by the authors to be significantly different in style from the others; we encourage readers to do an online comparison between that image and the other Kinkade images we used.

A final table (Figure 4) summarizes the data by comparing mean response to paintings in various categories (Kinkade single, multiple, and combined ('all'); Millais single, multiple, and combined ('all')) between controls (no exposure) and test participants (exposure). As can be seen, exposure of any kind produced a statistically significant decrease in liking for all groups of Kinkades. No statistically significant effect was found for the Millais paintings.

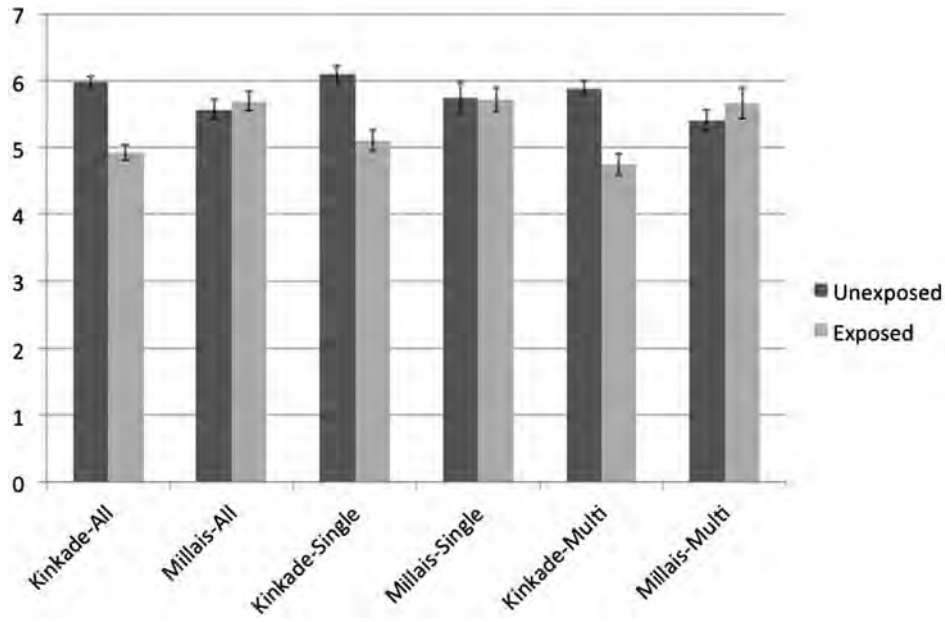

Fig. 4. Mean liking scores (exposed vs unexposed) for all categories of stimuli.

48 We are taking results outside the margin of error to be statistically significant results. Most of the results are well above the 95 percent confidence interval.

VI

As can be seen from the results, we found a statistically significant decrease in liking for the Kinkade paintings in response to repeated exposure. Indeed even a single exposure produced a statistically significant negative effect on liking, and repeated exposure produced an even greater negative effect. There are several potential explanations for our results.

One possible explanation involves rethinking the classical way of thinking about the mere exposure effect. As mentioned above, Zajonc characterizes the mere exposure effect as involving an 'enhancement of … attitude'.[49] 'Enhancement' is, however, an ambiguous term. On our reading of the literature, 'enhancement' is typically understood to involve an increase in liking or preference; that is, the mere exposure effect is explicitly defined in terms of increased liking or (more generally) positive affect. But 'enhancement' might be understood differently; namely, in terms of intensifying or increasing the magnitude of a valenced response (i.e. making positive responses more positive and negative responses more negative). Although our results might appear consistent with such an explanation, the fact that much of the mere exposure literature uses affectively neutral stimuli and that repeated exposure to neutral stimuli produces liking suggests that understanding mere exposure simply as the intensification of valenced response will not do. Of course, a cousin of such a view—one which posits *both* the mere exposure effect as traditionally understood and a distinct exposure-intensification effect—might seem to have the capacity to explain the mere exposure effects found with neutral stimuli in addition to our results. But, in fact, this will not do either, since the control group responses to the Kinkades were, in fact, more positive than to the Millais paintings—in other words, no enhancement of valenced response seems to be taking place. Nevertheless, the suggestion that a full explanation of the relevant phenomena requires appeal to a distinct process in addition to (and not in lieu of) the mere exposure effect is surely right. In short, making sense of all the data looks like it requires appeal to two processes rather than a reconceptualization of one process. So what varieties of two-process explanation are available?

In different contexts, other researchers have suggested the existence of a simultaneous but opposed psychological phenomenon that sometimes overrides the positive affect produced by mere exposure. For example, Perlman and Oskamp found a 'negative effect' produced by repeated exposure to negative photographic stimuli. Thus, they suggest that in some circumstances associative learning may produce a negative influence on liking. However, because this negative effect 'was neither as marked nor as consistent as the favourable effects of positive photographs', Perlman and Oskamp conclude that it merely outweighs the positive effect of mere exposure, which is still in play even in the case of negative stimuli.[50] It is not obvious how associative learning would be a factor in our experiment, but the operation of some synchronic process that overrides the tendency of mere exposure to increase liking could explain our results. We shall discuss two other possibilities.

49 Zajonc, 'Attitudinal Effects of Mere Exposure', 1.

50 Daniel Perlman and Stuart Oskamp, 'The Effects of Picture Content and Exposure Frequency on Evaluations of Negroes and Whites', *Journal of Experimental Social Psychology* 7 (1971), 503–14, at 511.

As mentioned above, a number of studies have shown that repeated exposure to music does not uniformly produce greater liking or increased preference. So, for example, Szpunar, Schellenberg, and Pliner find an inverted U-shaped function of exposure on liking for 'ecologically valid' music in a 'focused listening' condition.[51] One account of this phenomenon posits two competing processes—enhanced affect as a product of exposure, on the one hand, and increasing boredom on the other.[52] At some point, the effects of boredom outweigh the affect-enhancing process and liking begins to decrease.

Could our results stem from this sort of effect? Not, we think, through boredom with particular images. After all, we found decreased liking for the Kinkades after only one exposure; it seems implausible that this was a product of participants being bored with individual paintings. And if our results were simply a product of boredom with individual images, we would have expected liking for the multiply exposed Millais paintings to be lower than liking in the controls (as was the case for the Kinkades). This we did not find.

One possibility, however, is that participants multiply exposed to the Kinkades became bored with the category or style rather than merely with each individual image. Perhaps our participants reached a point of satiation with Kinkade's style rather than with individual Kinkade paintings.[53] We think this is an interesting hypothesis, and we are looking to test it in a follow-up to our original study. Whatever the results of that study, however, we think it is implausible that boredom is the full story about the effect we found. After all, we found a statistically significant difference in liking between the singly exposed Kinkades and multiply exposed Kinkades. If categorial satiation was the full story about the decrease in liking, there should be no difference between mean likings for these paintings. Finally, we note that even if boredom of some sort is the explanation for our findings, this still presents a challenge to the aesthetic sceptic, who holds that canon formation and judgements of art are driven entirely by a traditional (positive) mere exposure effect. If boredom is also a factor in driving judgements, then enhancement of attitude by means of mere exposure is not the full story.

A final two-process account starts by suggesting that the low artistic value of the Kinkades was the relevant factor in the decrease in liking induced by exposure. The explanation is that repeated exposure to the Kinkades facilitated appreciation of those works by enhancing the capacity of participants to detect what was bad about them. Just as the first sip of a pint of poorly made real ale might not reveal all that is wrong with it (but a few drinks will reveal how unbalanced and undrinkable it really is), so too initial exposure to the Kinkades might not have enabled participants to see how truly bad they are. Repeated exposure, however, may have allowed our participants to notice, for example, how garish the colours in Kinkades works are or how hackneyed the imagery is. Thus one explanation of the results is that the Humean challenge to aesthetic scepticism is on the money and the so-called 'mere exposure' effect found in Cutting's study was simply a matter of exposure facilitating appreciation of what's good in good paintings. If this explanation is correct, Kinkades paintings

51 Szpunar, Schellenberg, and Pliner, 'Liking and Memory for Musical Stimuli as a Function of Exposure', 375.

52 Berlyne, 'Novelty, Complexity and Hedonic Value'.

53 Thanks to Kevin Reuter for pointing out this possibility.

are, in some sense, 'negative' stimuli (though not in the sense familiar to psychologists), but, unlike Perlman and Oskamp's previous account, people are not merely coming to associate negative emotions with certain stimuli. Instead they are coming to appreciate what is bad in these particular bad paintings. In the next section, we consider in more detail whether and in what sense Kinkade's paintings can be considered negative stimuli.

Our results do not establish that the low-artistic-value account is correct. However, all plausible accounts present challenges to Cutting's suggestion that judgements of artworks are 'one-process results'[54] based solely on mere exposure as traditionally understood. Although it may be true that we like images 'we have seen before and, particularly, those we may have seen many times',[55] this does not appear to be the full story about what we like. A bad painting seen many times may be liked much less than a good painting (or that very same bad painting) seen only once.

VII

Our results show a decrease in liking for the Kinkade paintings in response to repeated exposure. The result may seem inconsistent with the large body of work showing that mere exposure produces increased liking.[56] However, as mentioned above, there is a small body of work (such as the Perlman and Oskamp paper referred to above) that suggests that exposure under certain conditions, most relevantly when the stimulus is initially judged negatively, can decrease liking.[57]

Two studies by Brickman *et al.* are most relevant to our results. In the first study, participants were presented 90-second excerpts of five rock and roll songs (B-sides) either 0, 1, 2, 5, or 10 times. During the rating phase, a 3–5-second excerpt of the chorus of each song was played and participants were asked to rate the songs on a 7-point scale. In a surprise to the experimenters, ratings of the songs decreased as a function of exposure—'the overall mean for the highest frequency is significantly lower than the mean for the zero exposure frequency.'[58] What explained this effect? Although almost all participants had expressed a positive view towards rock and roll in a pre-experimental questionnaire, a number of them stated afterwards that they did not like the 'antiquated' rock and roll used in the experiment. Brickman and his colleagues hypothesized that it was this negative initial attitude towards the songs that generated the exposure-induced decrease in liking. To test this, they ran a second experiment in which they exposed participants in a pretest to 20 reproductions of abstract paintings and asked them to rate

54 Cutting, 'Gustave Caillebotte, French Impressionism, and Mere Exposure', 335.

55 *Ibid.*

56 Bornstein, 'Exposure and Affect: Overview and Meta-analysis of Research'.

57 Perlman and Oskamp, 'The Effects of Picture Content and Exposure Frequency on Evaluations of Negroes and Whites'; Philip Brickman, Joel Redfield, Albert A. Harrison, and Rick Crandall, 'Drive and Predisposition as Factors in the Attitudinal Effects of Mere Exposure', *Journal of Experimental Social Psychology*, 8 (1972), 31–44; Richard J. Crisp, Russell R. C. Hutter, and Bryony Young, 'When Mere Exposure Leads to Less Liking: The Incremental Threat Effect in Intergroup Contexts', *British Journal of Psychology*, 100 (2009), 133–149.

58 Brickman *et al.*, 'Drive and Predisposition as Factors in the Attitudinal Effects of Mere Exposure', 33.

the works on a 7-point scale (from 'dislike extremely' to 'like very much'). Participants were then exposed to 4 paintings 1, 2, 5, and 10 times, respectively. Participants in the 'Positive' condition were exposed to the 4 paintings they liked the most; participants in the 'Negative' condition were exposed to the 4 paintings they liked the least; and participants in the 'Neutral' condition were exposed to 4 paintings that had been rated affectively neutral. Although there was an overall positive effect of frequency on affect, there was a significant interaction between frequency and condition. Ratings of initially positive and neutral stimuli were enhanced by exposure, but ratings of initially negative stimuli decreased with exposure.[59] Brickman's results are of a piece with those from a recent study that found a decrease in liking on exposure to music judged (in a pretest) to express negatively valenced emotional states: 'exposure enhanced liking of positive music and repetition accentuated participants' dislike for negative music.'[60] In addition, exposure had a similarly polarizing effect on participants' self-reported hedonic state (or mood) while listening to the music: 'participants reported feeling more unpleasant with exposure to negative music.'[61]

Can our results be explained by assuming that the Kinkades were negative stimuli? Perhaps. After all, many people we have shown the Kinkade images to respond with rather strong negative affect. Yet there are a number of considerations that give pause for thought. In the second Brickman experiment, a stimulus was considered negative if it was among the four stimuli the subject had rated most negatively in the initial pretest. Remember that the Kinkade slides were initially judged *more positively* than the Millais slides (mean liking 5.98 vs 5.57). Thus it is hard to see what would justify considering the Kinkades to be negative stimuli but not the Millais paintings. Alternatively, if the Millais paintings were also negative stimuli, we should expect a similar decrease in liking on exposure. This we did not find—as described above, subjects who had been previously exposed to works by Millais liked them more than members of the control group who had not been exposed to them. Note also the overall mean rating of the Kinkades in the control group (5.98 on a 10-point Likert scale). Although there are some difficulties interpreting these Likert results, the mean liking for the Kinkades cannot be said to be clearly low or negative on the basis of this number.

There is another oddity about considering the Kinkades negative stimuli in the psychologists' sense. The works are immensely popular in the United States—Kinkade is 'America's most collected living artist, with work of one sort or another in one out of every twenty homes.'[62] So there is something strange about considering such popular paintings to be negative stimuli. Now, of course, the paintings are popular in America not England. And it seems pretty clear that Kinkade's imagery of 'sugar-drenched Middle

59 *Ibid*.

60 Charlotte Witvliet and Scott Vrana, 'Play it Again Sam: Repeated Exposure to Emotionally Evocative Music Polarises Liking and Smiling Responses, and Influences Other Affective Reports, Facial EMG, and Heart Rate', *Cognition and Emotion* 21 (2007), 3–25, at 17.

61 *Ibid*.

62 Jed Perl, 'Bullshit Heaven', review of Alexis L. Boylan (ed.), *Thomas Kinkade: The Artist in the Mall* (Durham, NC: Duke University Press, 2011), *New Republic*, 14 July 2011.

America, with its frosted gingerbread domiciles, dew-kissed old-fashioned small-town Main Streets' is designed especially for American consumption.[63] Our participants were mostly British undergraduates attending a northern England university. So it is possible that despite their American popularity, these paintings were negative stimuli for our participants in some sense. But, again, the Likert scale ratings described above weigh somewhat against such a view.

Finally, it is worth reminding the reader that the psychologists' sense of 'negative stimuli' is a fundamentally descriptive and non-normative one. That is, a stimulus counts as negative for Brickman merely on the basis of its being disliked or liked less than other stimuli. The value or quality of the stimulus (i.e. whether it is *worthy* of being liked or disliked) is not directly relevant to this conception of a negative stimuli (although value might have an effect on liking and disliking). So the fact that the Kinkades are bad does not, on its own, establish that they are negative stimuli in this sense. Of course, as mentioned above, there are alternative senses of 'negative stimuli' available: one way of characterizing the low-artistic-value/Humean explanation of our results is that the Kinkade's are 'negative stimuli' in some robust normative or evaluative sense. That is a perfectly reasonable way of putting things just so long as the sense of 'negative' invoked is clearly differentiated from the psychologists' sense.

VIII

Cutting's study, in line with much of the general psychological literature on exposure, is supposed to show that mere exposure to artworks, independently of recognition, is a significant determinant of subsequent positive aesthetic response. This seems to pose a challenge to traditional philosophical aesthetics. First, as emphasized above, aestheticians standardly assume that quality plays a significant determinative role in aesthetic response and judgement. If Cutting's studies are taken to support an extreme aesthetic scepticism, then the assumption looks problematic. Second, if the sceptic is right, the reasons we usually give for our aesthetic responses will often fail to track the genuine explanation of our responses. In other words, much of our aesthetic lives may be lived in even greater ignorance than is commonly presumed. Third, the empirical work seems to suggest that scepticism about the test of time and canon formation may be much better motivated than is often presumed.

As noted above a standard move in the face of Cutting's studies and hypotheses is to advert to the notion of experts. Even if non-experts are susceptible to mere exposure effects, this is said to be philosophically irrelevant since the responses and judgements of experts are what matters for normative and evaluative claims about art. Such a move might seem to set the bar relatively high for what counts as expertise since that would have to involve immunity to mere exposure. However, insofar as our experiment suggests that (poor) quality plays a significant role in ordinary subjects' responses even in cases of repeated exposure, then expertise may be of less normative significance than is

63 *Ibid.*

claimed. That is, ordinary, non-expert appreciators, contrary to the sceptical hypothesis, may be able to track quality through exposure as opposed to responding merely to familiarity. (A slightly different approach would suggest that 'expertise' may be easier to come by than is often assumed.) Of course, as outlined above, there are issues about how to interpret the results and further studies are required to substantiate our hypothesis that quality or value is playing a role in producing our results. Nonetheless, the empirical results from our study are suggestive and in tension with the presumption that quality is irrelevant. Furthermore, if mere exposure is not the full story about the responses of ordinary observers, and value does have some role to play in generating those, then the practice of appealing to the various values of works in the explanation of one's responses and judgements does not look so suspect. Thus we may be able to recognize the epistemic and appreciative role that exposure brings with it while maintaining, consistent with the empirical evidence, the view that quality underwrites the capacity of works to pass the test of time.

The philosophical significance of the results canvassed so far have to do with how they might provide a basis for responding to empirically informed scepticism about artistic value and quality. But we think our results are even more philosophically (and practically) suggestive than that. For if exposure is sensitive to value or quality, then exposure might be used to help *determine* (that is, identify) artistic value or quality (or lack thereof). The existence of some sort of robust counterfactual-supporting generalization here (*e.g., if a work is bad then repeated exposure to it will,* ceteris paribus*, decrease liking*) would have profound implications for issues having to do with the possibility of 'laws of taste' as well as the epistemology of artistic and aesthetic value. It might even have profound practical implications for the art market. (We are not, however, holding our collective breath for the auction houses to contact us.)

IX

Our results put pressure on a sceptical interpretation of Cutting's results. They suggest that something other than mere exposure plays a role in judgements of paintings. It could be 'quality assessment',[64] or it could be something else. Moreover, the sceptical contention that canons are formed and maintained entirely by mere exposure cannot be the full story; frequent and repeated presentation (or representation) of artworks does not look as if it will ensure that they are in the canon, since mere exposure to bad paintings such as Kinkade's decreases liking for them. We do not deny influence by mere exposure; we suspect that mere exposure is one among a number of factors that goes into the formation of art judgements and canon formation. But our results suggest something more is likely involved in both of these—perhaps that something more is artistic value.

More broadly, we hope to have shown the importance of philosophical consideration of empirical work on the arts and provided an example of one of the ways in which

64 Cutting, 'Gustave Caillebotte, French Impressionism, and Mere Exposure', 335.

that empirical work can inform and pose questions for conceptual work in normative aesthetics.[65]

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Appendix A: List of paintings

Paintings in roman type were shown five times; all other paintings (italic) were shown once.
Paintings by Thomas Kinkade (1958–)

A Peaceful Retreat
Afternoon Light, Dogwood
Aspen Chapel
Autumn Lane
Beside Still Waters
Beyond Summer Gate
Bridge of Hope
Brookside Hideaway
Christmas Eve
Christmas Memories
Cobblestone Christmas
Cobblestone Mill
Courage
Creekside Trail
Dogwood Chapel
Evening Carolers
Evening Majesty
Forest Chapel
Garden of Hope
Glory of Winter
Hidden Arbor
Hometown Memories
Lakeside Hideaway
Lamplight Bridge
London
Moonlight Cottage
Moonlight Lane
Moonlit Sleigh Ride
Moonlit Village
Mountain Retreat
New Horizons
Paris, Eiffel Tower
Perseverance
Petals of Hope
Silent Night
St Nicholas Circle
Stairway to Paradise
Stepping Stone Cottage
The Blessings of Autumn
The Blessings of Summer
The Broadwater Bridge, Thomashire

The Good Shepherd's Cottage
The Mountain Chapel
The Power and the Majesty
The Rose Garden
Victorian Light
Winter Glen
Winter Light

Paintings by John Everett Millais (1829–1896)
Blow, Blow, Thou Winter Wind (1892)
Chill October (1870)
Christmas Eve (1887)
Dew-Drenched Furze (1889–90)
Flowing to the River (1871)
Lingering Autumn (1890)
Scotch Firs (1873)
Sound of Many Waters (1876)
St Martin's Summer (1877)
The Moon Is Up, and Yet It Is Not Night (1890)
Tower of Strength (1878–9)
Winter Fuel (1873)

Appendix B: Summary of Background Questionnaire

Table A1. Familiarity with painters used in this study.

Class	Sample size	Familiar with Millais	Familiar with Millais late landscapes	Familiar with Kinkade
Control 1	20	0	0	2
Control 2	57	3	1	1
Control 3	57	4	2	2
Combined controls 1–3	134	7	3	5
Experimental group	57	3	1	1

Table A2. Art museum visits per year.

Class	Sample size	0	1 to 2	3 to 5	>5	Not reported
Control 1	20	2	14	3	1	0
Control 2	57	17	33	4	3	0
Control 3	57	12	28	12	5	0
Combined controls 1–3	134	31	75	19	9	0
Experimental group	57	3	27	20	7	0

Table A3. Number of art history courses taken.

Class	**Sample size**	**0**	**1 to 2**	**>2**	**Not reported**
Control 1	20	18	1	1	0
Control 2	57	47	7	2	1
Control 3	57	47	8	1	1
Combined controls 1–3	134	112	16	4	2
Experimental group	57	43	9	5	0

Table A4. Demographic characteristics.

Class	Sample size	Hours per week on Internet	Women	Men	White	Mixed	Asian or Asian British	Black or Black British	Chinese or other ethnic group	Ethnicity not reported
Control 1	20	37.75	15	5	20	0	0	0	0	0
Control 2	57	23.8	33	24	50	3	1	3	0	0
Control 3	57	26	26	31	44	6	2	3	2	0
Combined controls 1–3	134	26.8	74	60	114	9	3	6	2	0
Experimental group	57	24.8	38	19	50	3	1	0	2	1