

Supplementary material

Figure Legends

Figure S1. Behavioral and neural results combining all 3 monetary conditions (\$30, \$100, \$300) (A) The average painting preference was higher for sponsor paintings compared to non-sponsor paintings across 3 monetary conditions ($n = 87$, $p < 0.002$). (B) Sponsor preference compared to non-sponsor preference separated by monetary condition. While there was a trend toward preferring sponsor paintings at \$30 and \$100, only the \$300 condition showed a significant behavioral difference ($n = 87$, $p < 0.002$). (C) Imaging analysis collapsed across all monetary conditions showed no differential activation in a contrast of [Sponsor paintings > Non-sponsor paintings].

Figure S2. Imaging analysis comparing excluding \$300 condition To verify statistical independence for subsequent ROIs, we excluded the \$300 data and re-ran the GLM analysis to look for neural activity that correlated with painting preference. Even when excluding the \$300 subjects from the analysis (red overlay), there was significant activity observed in the posterior cingulate, parahippocampal gyrus, and middle temporal gyrus ($p < 10^{-5}$, uncorrected). The active regions found using all three monetary conditions to build the preference regressor are shown in yellow, with overlapping regions in orange.

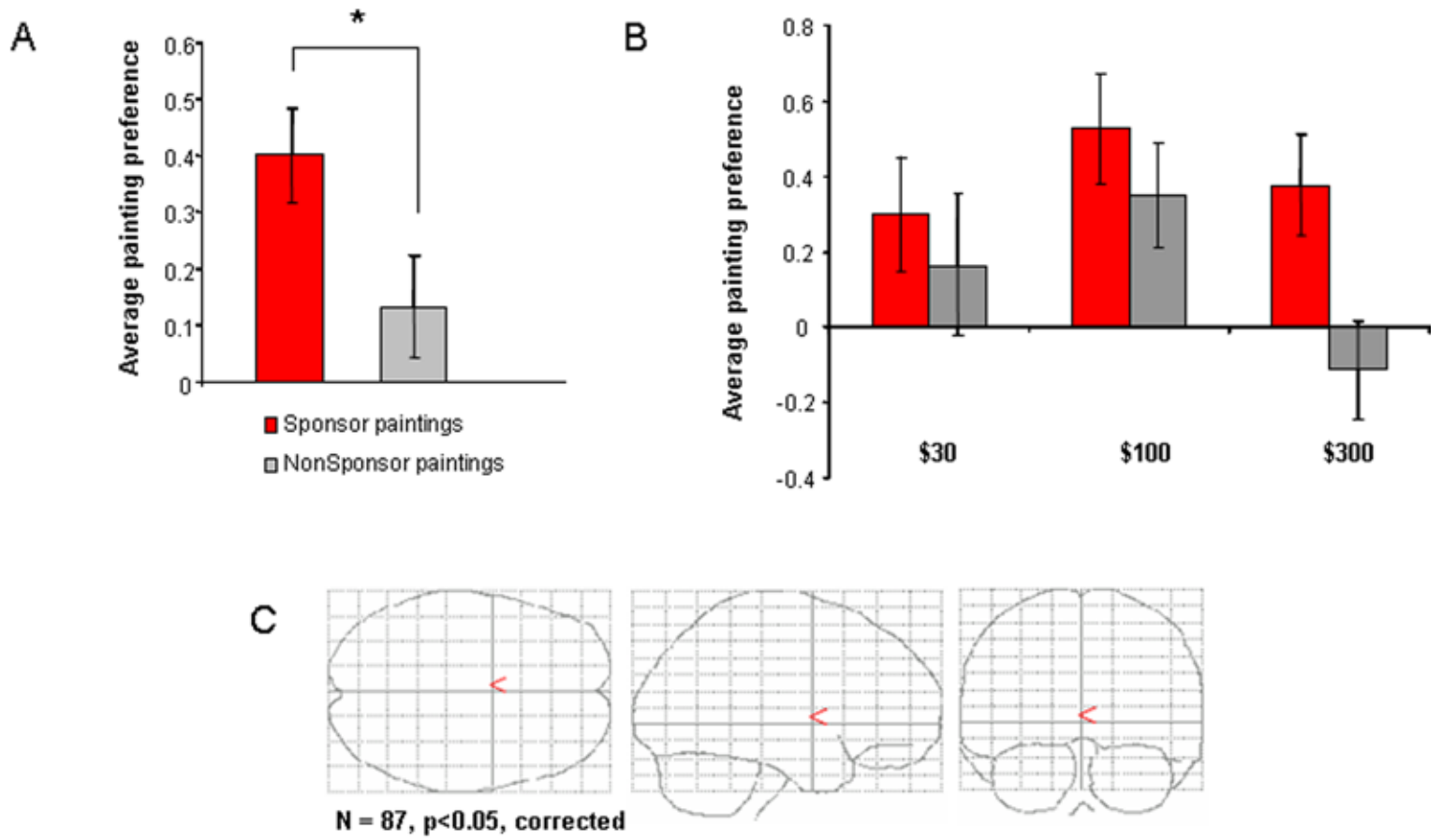
Figure S3. Experimental Design for Spatial Favor Experiment and behavioral results. (A) The spatial favor task displayed a series of 90 abstract paintings that did not overlap with paintings used previously. Paintings were reduced in size to approximate the size of the logos. The paintings were always presented in the center of the screen, while the logos were arranged at four different positions on the screen. These positions matched the paintings horizontally, and were positioned at locations next to the painting and further away on both left and right side. (B) Subjects preferred the paintings that were displayed alongside the sponsor logo relative to non-sponsor logo irrespective of logo position ($n=19$, $p < 0.001$).

Figure S4. Screen representations of the Mere Offer experiments presented in Figure 4 (A) In version 1 of the task, 2 companies offer to sponsor the subject for their participation in the experiment. The computer randomly chooses which company will actually sponsor the experiment, and the alternative company becomes the “mere offer” company. (B) In version 2 of the task, 1 company offers to sponsor the subject for participation, and the computer chooses whether the subject will be sponsored by the company or be paid through our normal route of compensation (no sponsor). In the latter case, the company displayed becomes the “mere offer” company.

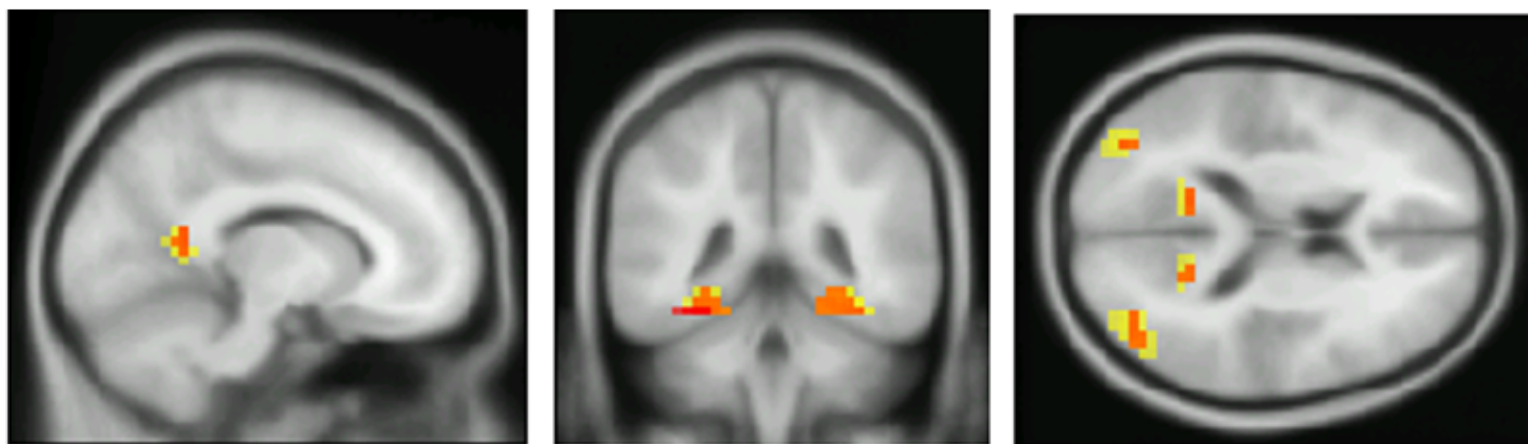
S5. Subject instructions prior to fMRI scanning session

S6. Instructions for rating paintings given to subjects post-scanning and behavioral questionnaires completed by subjects after all paintings were rated.

Supplementary Figure S1.



Supplementary Figure S2.



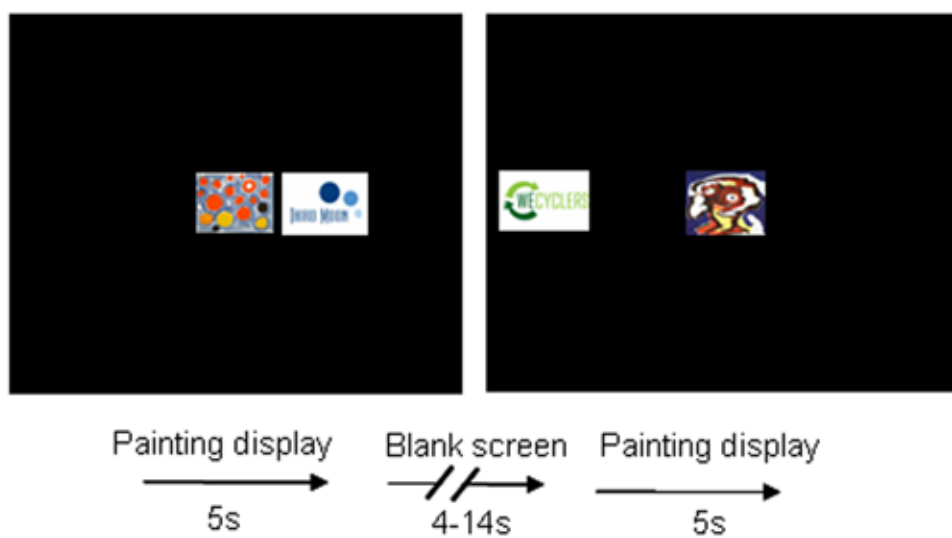
■ preference regressor, \$30 and \$100 data only, $n = 58$, $p = 10^{-5}$

■ preference regressor, all monetary conditions, $n = 87$, $p = 10^{-5}$

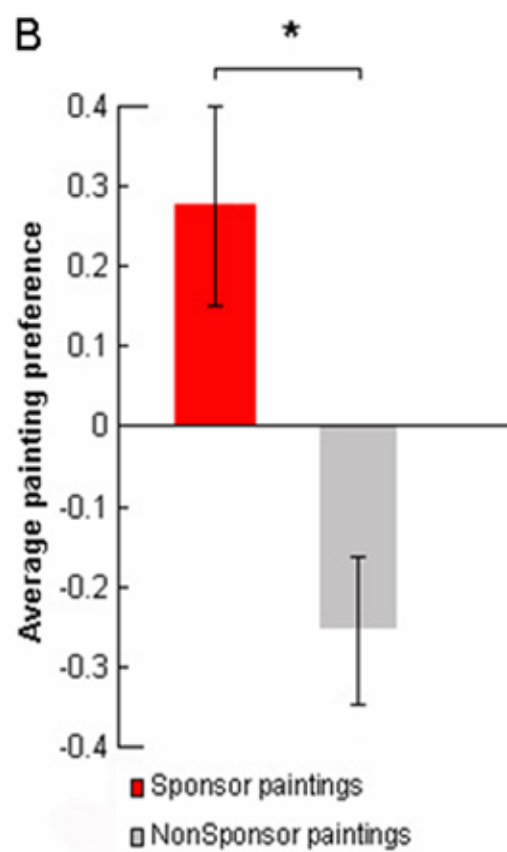
■ overlap of two regressors

Supplementary Figure S3.

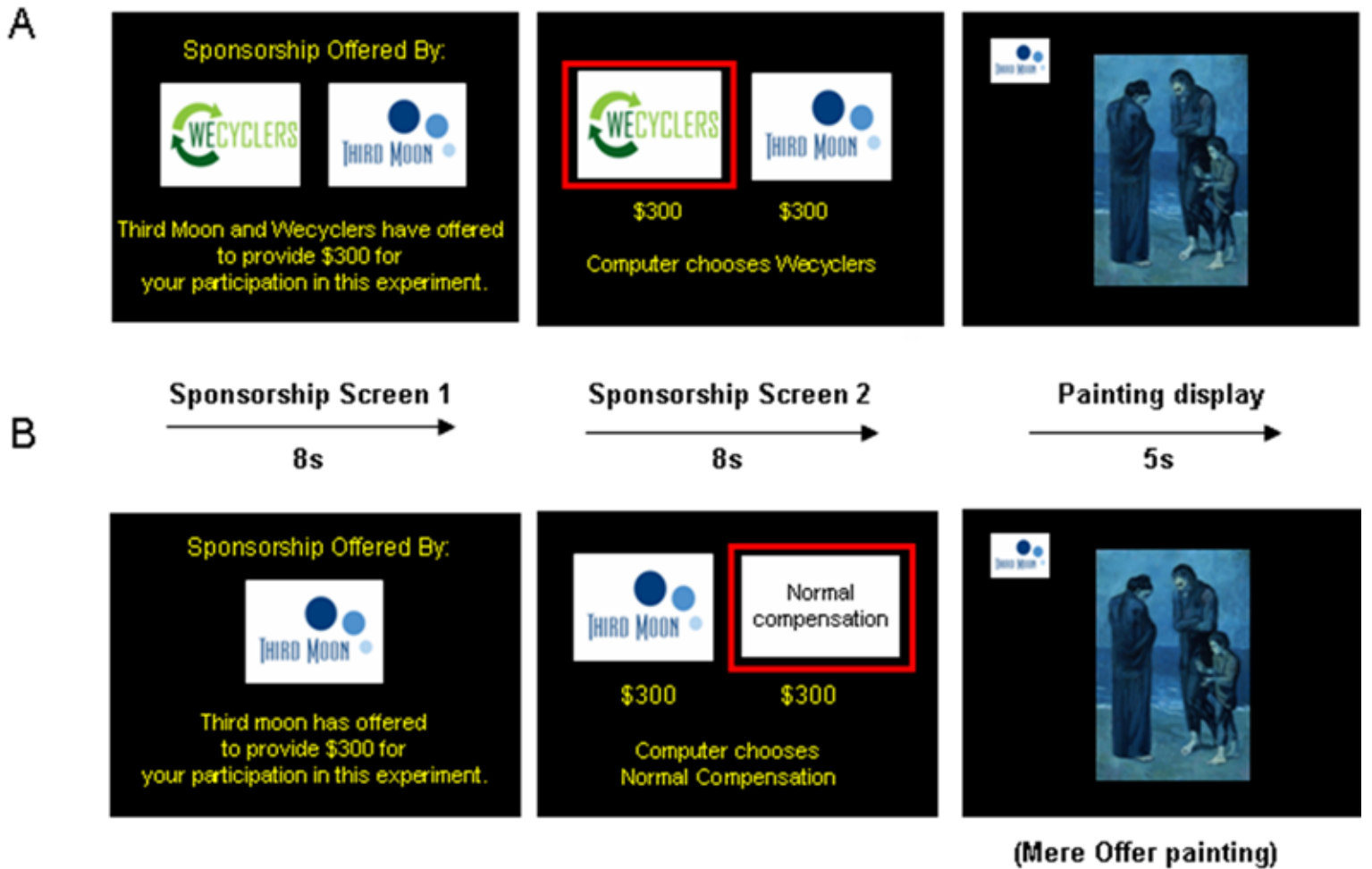
A



B



Supplementary Figure S4.



Supplementary Material S5. Subject instructions

Branded Favor \$300 experiment

Thank you for participating in our study today! The purpose of this set of experiments is to understand how people's brains respond to visual stimuli such as art, brand labels, faces, or other objects.

Today you will be viewing images of artwork while you undergo an MRI scan. You will also see commercial logos presented with the artwork. One of the commercial logos in the experiment is associated with funds that will be contributing to the money you will receive today. Your compensation for participation will be \$300.

At the beginning of the task, you will see a screen presenting two logos. One of the logos will be your sponsor company, and the other logo will be a separate, non-sponsor company.

Shortly after, you will see a screen indicating both your amount of payment, and which of the two companies will be sponsoring your participation. On the screens that follow, you will see images of artwork presented with a series of logos. Sometimes a painting will be paired with your sponsor logo, and sometimes a painting will be paired with the non-sponsor logo. Even though only one company is sponsoring the experiment, your amount of payment is fixed and will not be based on the number of times you see either logo.

In all cases, you should simply look at the paintings and logos as they appear on the screen. The total viewing time in the scanner should be about 25 minutes.

**Note: for \$30 and \$100 versions, only the dollar amount was changed. The remaining instructions were consistent across tasks.*

Mere Offer Version 1 experiment

Thank you for participating in our study today! The purpose of this set of experiments is to understand how people's brains respond to visual stimuli such as art, brand labels, faces, or other objects.

Today you will be viewing images of artwork while you undergo an MRI scan. You will also see commercial logos presented with the artwork. The companies whose logos you will be viewing have offered to sponsor your participation in today's experiment. At the start of your experiment, the computer will randomly determine which of the two companies will be sponsoring your experiment. Your compensation for participation will be \$300, and the money will be contributed by the company designated by the computer. We allow the computer to choose so the experimenters do not unknowingly bias the sponsorship toward one company or another.

At the beginning of the task, you will see a screen presenting two logos. These logos represent the two companies that have offered to sponsor your participation. Only one of the two companies will *actually* be compensating you; the computer will choose which company on the screens that follow.

Shortly after, you will see a screen reminding you of the two companies that have offered to sponsor your participation and your amount of payment. The computer will then randomly select which company will be sponsoring your experiment; in either case you will receive \$300 from the company that was chosen by the computer.

On the screens that follow, you will see images of artwork presented with a series of logos. Sometimes a painting will be paired with your sponsor logo, and sometimes a painting will be paired with the company logo that offered to sponsor but was not chosen by the computer. Your payment is fixed and is not affected by your sponsorship status or the number of times each logo is shown.

In all cases, you should pay attention to the paintings and logos as they appear on the screen. The total viewing time in the scanner should be about 25 minutes.

Mere Offer version 2 experiment

Thank you for participating in our study today! The purpose of this set of experiments is to understand how people's brains respond to visual stimuli such as art, brand labels, faces, or other objects.

Today you will be viewing images of artwork while you undergo an MRI scan. You will also see commercial logos presented with the artwork. One of the companies has offered to sponsor you for participating today. The computer will determine if you will be sponsored by this company, or if you will participate normally, without the company sponsor. Your compensation for participation will be \$300, regardless of your subsequent sponsorship status.

At the beginning of the task, you will see a screen presenting two logos. One of the logos will be your potential sponsor company, and the other logo will be a separate, non-sponsor company.

Shortly after, you will see a screen indicating which of the two companies has offered to sponsor your participation and your amount of payment. You will next see a screen presenting both possible conditions in which you may participate: either sponsored by the offering company, or under normal, non-sponsored conditions. The computer will then select which condition will be the case; again, this will not affect your compensation.

On the screens that follow, you will see images of artwork presented with a series of logos. Sometimes a painting will be paired with your "potential-sponsor logo", and sometimes a painting will be paired with the "non-sponsor logo". Your payment is fixed and is not affected by your sponsorship status or the number of times each logo is shown.

In all cases, you should simply look at the paintings and logos as they appear on the screen. The total viewing time in the scanner should be about 25 minutes.

Supplementary Material S6. Behavioral instructions and post-rating questionnaires

Behavior Instructions

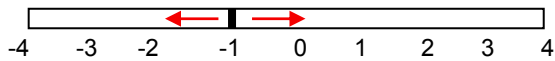
In this portion of the experiment, we are going to ask you about the paintings you just saw in the scanner. You will see the same screens that you saw in the scanner; first you will see the pair of logos presented on the screen, followed by the “sponsor logo” screen from the scanner experiment.

The next screens will either ask you about your preference or familiarity for all of the paintings you saw in the experiment. When the task begins, you will see a sentence appear at the bottom of the screen that either says, “How much do you like this painting?” or “How familiar are you with this painting?” Use the handout as a guideline to best guess your rating. A rating of +4 means you really like the painting (or are really familiar with it), and a rating of -4 means you really dislike the painting (or have never seen a painting like it before). A rating of zero means you are neutral.

Then use the number keys to move the slider bar: 1 = increase, 2 = decrease, 3 = submit. The slider bar moves in increments of 1, and you should feel free to use the full range of the scale (eg not just the extreme ratings of +4 or -4).

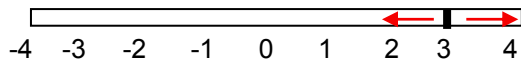
When you have rated all of the paintings, a screen will come up displaying “A-L”. Please wait for someone to come in and continue the experiment for you. You will repeat familiarity and preference ratings for all of the paintings.

When you are finished, you will see a screen that says “Experiment Complete”. Please wait for one of the lab members to come and finish your paperwork.



How much do you like this painting?

- +4 = I strongly like this painting**
- 0 = I neither like nor dislike this painting**
- 4 = I strongly dislike this painting**



How familiar are you with this painting?

- +4 = I distinctly recognize this painting**
- 0 = the style is vaguely familiar, but I cannot name the painting or painter**
- 4 = I've never seen a painting like this before.**

Subject ID:

Experiment ID (A-L):

Art Follow-up Questionnaire

1. Do you have any formal art training? Yes/No

If Yes, please specify (introductory art class, art major, professional artist, etc)

2. Did you have difficulty rating the paintings on either preference or familiarity? Yes/No

If Yes, please comment on why you think it might have been difficult.

(For instance, some people may have very little exposure to art and so may not be familiar with any of the art presented. Or you may have disliked all the paintings in the presentation, so you found it difficult to rate any of the paintings with a positive rating.)

3. Please circle from the list below a statement that best fits your feelings about the logos presented with the paintings. If none of the statements is accurate, please provide any additional comments in "other".

- A. I found the logos distracting when the paintings were presented; I spent more time looking at the logos than I did at the paintings.
- B. The logos were slightly distracting, but I was able to adequately view the paintings and make judgments about the paintings without difficulty.
- C. The logos were not distracting; they did not interfere with my ability to view or rate the paintings.

D. I didn't even pay attention to the logos on the screen when they were presented with the paintings.

E. Other: _____

4. Which of the commercial logos below was named the sponsor in your experiment? (check box)



5. Please order the logos below according to your preference (1 = best, 7 = worst)

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6. Do you think the logos on the screen influenced your ability to judge **how much you liked** the paintings?

Circle YES or NO

Comments: _____

7. Do you think the logos on the screen influenced your ability to judge **how familiar you were** with the paintings?

Circle YES or NO

Comments: _____
