Lifelines_E3_Feature_Ranking

Start of Block: Consent

consent
Informed Consent
Participation is voluntary
It is your choice whether or not to participate in this research. If you choose to participate, you may change your mind and leave the study at any time. Refusal to participate or stopping your participation will involve no penalty or loss of benefits to which you are otherwise entitled.

What is the purpose of this research?
The purpose of this research is to examine human visual performance and judgments. All data from this experiment are gathered for scientific purposes and will contribute to our eventual understanding of brain and visual function. These data may be published in scientific journals so that other researchers may have access to these data.

How long will I take part in this research?
Your participation will take approximately 15 minutes to complete.

What can I expect if I take part in this research?
As a participant, you will be asked to look at images presented on a video display and give responses with key presses or movements of a mouse pointing device. Your response may involve responding as quickly as you can, memorizing what you saw, making a judgment, or completing a questionnaire. You will also be asked to complete a demographics form.

What are the risks and possible discomforts?
If you choose to participate, the effects should be comparable to those you would experience from viewing a computer monitor for 15 minutes and using a mouse or keyboard, e.g., eye fatigue. You are free to take breaks throughout the session. Some of the images and stories are mildly emotional, and some of the written stories are disgust-inducing.

Will I be compensated for participating in this research?
You will be compensated $1.88 for this study. You will still receive payment if you withdraw early.

If I take part in this research, how will my privacy be protected? What happens to the information you collect?
Your participation in this experiment will remain confidential, and your identity will not be stored with your data.

If I have any questions, concerns or complaints about this research study, who can I talk to? The researcher for this study is Julian De Freitas who can be reached at 626.559.6401; #161 Morgan Hall, 15 Harvard Way, Boston MA, 02163; jdefreitas@hbs.edu. If you have questions, concerns, or complaints, If you would like to talk to the research team, If you think the research has harmed you, or If you wish to withdraw from the study. This research has been reviewed by the Committee on the Use of Human Subjects in Research at Harvard University. They can be reached at 617-496-2847, 1350 Massachusetts Avenue, Suite 935, Cambridge, MA 02138, or cuhs@harvard.edu for any of the following: If your questions, concerns, or complaints are not being answered by the research team, If you cannot reach the research team, If you want to talk to someone besides the research team, or If you have questions about your rights as a research participant.

consent_response
Do you consent?

- ○ Yes (1)
- ○ No (2)

End of Block: Consent

Start of Block: Attention_Check_I

JS

att_check_1 This is an attention check. **John is taller than Paul. Who is shorter?**

- ○ John (1)
- ○ Paul (2)
- ○ Neither John nor Paul (3)
- ○ Both John and Paul (4)

att_check_2 **What color is grass?**

The fresh, uncut grass, not leaves or hay. Please make sure to select purple, so that we know you're paying attention.

- ○ Green (1)
- ○ Purple (2)

End of Block: Attention_Check_I

Start of Block: Attention_Check_II

JS

instructions_fail_ac **Oops! You failed one of the previous attention checks. Please pay closer attention!**

Here are some more attention checks:

att_check_3 **Please set X at 15, and make it so Y is larger than X, and Z is larger than Y. Please also make sure that Y is evenly divisible by 10.**

	0 10 20 30 40 50 60 70 80 90 100
X ()	
Y ()	
Z ()	

att_check_4 **How many fatal heart attacks have you had?**

- ○ 0 (1)
- ○ 1 (2)
- ○ 10 (3)
- ○ 100 (4)
- ○ 1000 (5)

End of Block: Attention_Check_II

Start of Block: Welcome

welcome **In this study, you will answer some questions about a line.**

Afterward, you will be asked to rank which features of the line were most important in helping you make your judgments.

End of Block: Welcome

Start of Block: Instructions_Comp_Check_I

JS

instructions In this experiment, we will show you the ‘customer experience lines’ of different customers who interacted with a solar panel company called *Solaro*. On the y-axis, we will plot how the customer felt throughout their customer journey, and on the x-axis, we will plot each ‘touchpoint’ they had with *Solaro* during this journey. A 'touchpoint' is a moment when a customer interacts with the company.

Each customer had 80 touchpoints, from the point of first hearing about *Solaro* to eventually buying a solar panel from them. Examples of customer touchpoints include: reading their first *Solaro* ad, logging on to *Solaro*’s website, receiving information from *Solaro* about their current energy usage, obtaining estimates for how much it would cost to install solar panels on their roof, and so forth.

Therefore, the overall customer experience line shows how the customer felt at each touchpoint along their customer journey with *Solaro*.

Just to make sure you understand the basic idea, please answer the following questions about

the following practice plots, which plot how **stressed** a person felt throughout their customer experience:

JS

comp_graphic_1

comp_check_1 At what customer touchpoint was the person above when they felt the most stressed in their experience?

- 0 (1)
- 20 (2)
- 40 (3)
- 60 (4)
- 80 (5)

comp_graphic_2

comp_check_2 How stressed did the person above feel when they were at the 20th customer touchpoint?

- 0 (1)
- 20 (2)
- 40 (3)
- 60 (4)
- 80 (5)
- 100 (6)

comp_graphic_3

comp_check_3 Which is true of the customer experience of the person above?

- They were highly stressed early in their customer experience, then highly unstressed later in their customer experience (1)
- They were highly unstressed early in their customer experience, then highly stressed later in their customer experience (2)
- They were highly stressed both early in their customer experience and later in their customer experience (3)
- They were highly unstressed both early in their customer experience and later in their customer experience (4)

End of Block: Instructions_Comp_Check_I

Start of Block: Instructions_Comp_Check_II

JS

fail_comp_check_ins **Oops! You failed one of the previous comprehension checks. Please pay closer attention!**

Here is a video along with some more comprehension checks. The video on the next page will start playing automatically. Please be sure to pay close attention and turn your volume to at least 50% because you will have to answer several questions about the video after it is done.

Once you are ready, click the "Next" arrow to view the video.

End of Block: Instructions_Comp_Check_II

Start of Block: Comp_Check_II (Video)

JS

fail_comp_check_vid

timer Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Comp_Check_II (Video)

Start of Block: Comp_Check_II (Questions)

JS

comp_graphic_4

comp_check_4 At what customer touchpoint was the person above when they felt the most stressed in their experience?

- ○ 0 (1)
- ○ 20 (2)
- ○ 40 (3)
- ○ 60 (4)
- ○ 80 (5)

comp_graphic_5

comp_check_5 How stressed did the person above feel when they were at the 20th customer touchpoint?

- ○ 0 (1)
- ○ 20 (2)
- ○ 40 (3)
- ○ 60 (4)
- ○ 80 (5)
- ○ 100 (6)

comp_graphic_6

comp_check_6 Which is true of the customer experience of the person above?

○ They were highly stressed early in their customer experience, then highly unstressed later in their customer experience (1)

○ They were highly unstressed early in their customer experience, then highly stressed later in their customer experience (2)

○ They were highly stressed both early in their customer experience and later in their customer experience (3)

○ They were highly unstressed both early in their customer experience and later in their customer experience (4)

End of Block: Comp_Check_II (Questions)

Start of Block: Instructions

JS

instructions Now, we will show you the 'customer experience lines' of 27 different people and how **happy** they felt throughout their experience with *Solaro*, and ask you to answer four questions about one of them:

1. How **satisfying the person's experience** was **on the whole**, i.e., taking into account their entire customer experience line.
2. How much you would like it if **your** customer experience line looked like theirs.
3. How you would summarize the person's experience using just **one word**.
4. How much you would be **willing to pay** *Solaro* to install solar panels on your home.

Below is a compilation of the 27 customer experience lines, to give you an idea of what they look like and how they compare to one another.

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full_graphic_1

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full_graphic_2

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full_graphic_3

End of Block: Instructions

Start of Block: Linear_Rise_Sharp_Fall_Exponential_Rise

lrsfer_graphic

lrsfer_satisfy How **satisfying** was this person's customer experience **overall**?

	Least satisfying customer experience possible									Most satisfying customer experience possible
	0	10	20	30	40	50	60	70	80	90	100
1 ()											

lrsfer_preference How much would you like for **your** customer experience line to look like this?

	Not at all									Very much
	0	10	20	30	40	50	60	70	80	90	100
1 ()											

JS

lrsfer_word_gen If you had to summarize this person's customer experience using just **one word**, what would it be?

○ 1 (1) _____

lrsfer_pay Imagine that you wanted to install solar panels on the roof of your home, and your customer experience looked like the one above.

How much would you be **willing to pay** *Solaro* to install solar panels on your home (customers typically pay around $20,000 for a similar service from other solar panel companies)?

Please enter the amount below without the dollar sign or any commas.

_____

End of Block: Linear_Rise_Sharp_Fall_Exponential_Rise

Start of Block: E6_Experiment

rank_data **Imagine that you rated all 27 lines, and so did 200 other people who participated in this experiment.**

Which of the following factors do you think would be the best indicators of the ratings people provided?

Please arrange them from most to least useful, by clicking and dragging them.

_____ **Slope** The steepness of a line (1)
_____ **Acceleration** The change in slope over time (2)
_____ **End Value** The last point in a line (16)
_____ **Area Under the Curve** The region between the function line and the x-axis (3)
_____ **Peak** The highest point in a line (17)
_____ **Valley** The lowest point in a line (18)
_____ **Number of Peaks** The number of peaks in a line (19)
_____ **Number of Valleys** The number of valleys in a line (15)
_____ **Total Number of Peaks & Valleys** The total number of both peaks and valleys in a line (6)
_____ **Semantic Embeddings** The meaning of the word that you provided to describe a line (9)
_____ **Interestingness** The number of unique words different people used to describe a line (10)
_____ **Sentiment Scores** The emotional score of the word that you provided to describe a line (can be positive, negative, or neutral) (11)

End of Block: E6_Experiment

Start of Block: Comp_Check_II

JS

comp_check_7 You just ranked many features. Which rank was for the most important feature?

- 1 (1)
- 12 (3)
- I don't remember. (2)

comp_check_8 Which of the following was *not* on the list of features?

- Slope (1)
- Number of Valleys (3)
- Number of X-Values (2)
- Sentiment Scores (4)

Page Break

comp_check_9 Were there any features that you did not understand? Select all that apply:

- [ ] Slope (1)
- [ ] Acceleration (3)
- [ ] End Value (7)
- [ ] Area Under the Curve (2)
- [ ] Peak (4)
- [ ] Valley (5)
- [ ] Number of Peaks (8)
- [ ] Number of Valleys (9)
- [ ] Total Number of Peaks & Valleys (10)
- [ ] Semantic Embeddings (6)
- [ ] Interestingness (11)
- [ ] Sentiment Scores (12)
- [ ] No, I understood all of them. (13)

End of Block: Comp_Check_II

Start of Block: Demographics

JS

gender **What is your gender?**

- ○ Male (1)
- ○ Female (2)
- ○ Prefer not to disclose (3)
- ○ Other (4) _____

ethnicity
What is your ethnicity?

- ○ White (1)
- ○ Black (2)
- ○ Asian (3)
- ○ Mixed (4)
- ○ Other (5) _____

age **What is your age (in years)?**

_____

education **Please indicate the highest level of education completed.**

- ○ Grammar School (1)
- ○ High School or Equivalent (2)
- ○ Vocational/Technical School (2 year) (3)
- ○ Some College (4)
- ○ College Graduate (4 year) (5)
- ○ Masters Degree (MS) (6)
- ○ Doctoral Degree (PhD) (7)
- ○ Professional Degree (MD, JD, etc.) (8)
- ○ Other (9) _____

comments **Any comments on the survey?**

_____

End of Block: Demographics

Start of Block: Debrief

JS

debrief

Debriefing: Judgments and Visual Processing

1. What was this study about?

The aim of the current study is to explore how what we see influences the commonsense judgments we make. We are interested in how your brain gets from pixels impinging on your retina to something as complex as a moral judgment.

2. How was the study conducted?

In today's study you were asked to view some videos or images and then answer some questionnaires that contained questions about thoughts, feelings, and personality attributes. Your physiological responses may have also been recorded while you viewed stimuli.

3. What was the hypothesis?
We expect to find that specific features that we manipulate in our displays, e.g., the amount of contact between two objects, or the delay between when one object touches another and when the second moves, will systematically influence people's judgments.

4. Did we tell you everything?
Yes. There was no deception involved in this study.

5. Why is this study important?
What is the relationship between the things we see and the judgments we make? People who study vision tend to think of it as determining why we see what we do, but they don't often think of it as influencing the kinds of everyday judgments we make. Yet some more recent work (for a review, see Scholl & Tremoulet, 2000; Gao, McCarthy, & Scholl, 2010) has begun to suggest that even simple dynamic displays consisting only of simple shapes can automatically give rise to much richer notions, such as whether something is alive, responsible, or has a particular goal in mind. Thus, it may be that even simple visual information is intimately involved in our everyday intuitions about things and the eventual judgments we make. For example, it may be that even simple shapes moving around can even give rise to the sense of something being right or wrong, which then determines the kinds of moral judgments we make.

The purpose of this study is to investigate the relationship between visual processing and everyday intuitions and judgments, e.g., between vision and morality, or between vision and the self.

6. References:
Gao, T., McCarthy, G., & Scholl, B. J. (2010). The wolfpack effect: Perception of animacy irresistibly influences interactive behavior. Psychological Science, 21(12), 1845-1853.

Scholl, B. J., & Tremoulet, P. (2000). Perceptual causality and animacy. Trends in Cognitive Sciences, 4(8), 299-309.

7. How to contact the researcher: If you have questions or concerns about your participation or payment, or want to request a summary of research findings, please contact the researcher: Julian De Freitas; 626.559.6401; #161 Morgan Hall, 15 Harvard Way, Boston MA, 02163; jdefreitas@hbs.edu.

8. Whom to contact about your right as a participant in this research.
For questions, concerns, suggestions, or complaints that have not been or cannot be addressed by the researcher, or to report research-related harm, please contact the Committee on the Use of Human Subjects in Research at Harvard University, 44-R Brattle Street, Suite 200, Cambridge, MA 02138. Email: cuhs@harvard.edu

End of Block: Debrief