Correspondence with Nick Brown, Jan 2016

1. SM to Alex Holcombe

From: Stephen McIntyre
Date: Sunday, 3 January 2016
Subject: Sadness Impairs Color Perception
To: Alex Holcombe
I thought that your criticisms were very apt. I was wondering if you could send me a copy of the original data, which seems to have been removed.
Thanks,
Steve McIntyre

2. Brown to SM

On Mon, Jan 4, 2016 at 10:24 AM, Nick Brown wrote:
Hallo Steve,

Alex forwarded your e-mail to me - I was the person who did most of the analyses of the data of the Thorstenson et al. article.

Although I've kept a copy of the data, I'm not sure if it would be appropriate for me to distribute it. We put it on an OSF page as part of our preprint, but then Christopher Thorstenson (CT) asked us to take it down, which we did. We took that to mean that he didn't want more copies to be made.

You could maybe write to CT yourself, or - if you prefer - I can re-send a message similar to this, but putting CT in copy, so he can maybe chime in with the request.

Out of interest, was there a specific point you wanted to look at in the data?

Kind regards,
Nick Brown

3. SM to Brown

From: "Stephen McIntyre"
To: Nick Brown
Sent: Tuesday, 5 January, 2016 9:14:53 PM
Subject: Re: Sadness Impairs Color Perception
thanks for the reply. You can probably answer my question about the data pretty quickly. In your comment, you stated:

> Closer examination of the per-color patch data, supplied by Christopher Thorstenson at our request (see “The datasets” section), shows that of the 53 participants scoring exactly 50%, 49 (i.e., 37.7% of all participants in Experiment 2) had identical scores for both colors, namely 6.0 (100%) for blue and 0.0 (0%) for yellow. (In the patch data each correct observation counts for a half-point, so that scores for each color range from 0.0 to 6.0 in increments of 0.5; thus, a score of 6.0 corresponds to 12 correct responses out of 12.) We are at a loss to explain this phenomenon, which affects the two experimental conditions equally (26 of the 49 participants with this 12–0 split were in the neutral condition, versus 23 in the sadness condition).

I'm not sure that my understanding of this is correct. As I interpret this, the 49 participants in question gave the same blue-yellow answer for all 12 items i.e. their answers were blue for all 12 items. Am I also to understand that all or nearly of the participants giving mono-answers for blue-yellow all went with Blue as their unique choice? But did not do something similar with Red-Green?

My interest in this is not in the specifics of the topic, but in ex post tests for fraudulent/ unresponsive answers. I can expand on this if you're interested.

Thanks, Steve McIntyre

4. Brown to SM

On Tue, Jan 5, 2016 at 4:00 PM, Nick Brown wrote:
Hi Steve,

> >>I'm not sure that my understanding of this is correct.
> >>As I interpret this, the 49 participants in question gave the same blue-yellow answer for all 12 items i.e. their answers were blue for all 12 items.
> >>Am I also to understand that all or nearly of the participants giving mono-answers for blue-yellow all went with Blue as their unique choice?
> >>But did not do something similar with Red-Green?

I think I can see what you haven't understood. The participants weren't asked "is this blue or yellow?". They were shown red, green, blue, and yellow patches, at 6 different intensities, twice per colour/intensity combination, and asked "what colour is this?". (Presumably they had to press one of four coloured buttons, or one of your keyboard keys, or something.) So they each made 48 attempts: 4 colours times 6 intensities times 2 trials. They scored a point (or rather, a half-point, for some reason) if they pressed the blue button when the colour displayed was blue, and nothing otherwise.

The blue-yellow "axis" thing is apparently a technical point of the physiology (?) of how people see colours. Something along the lines of, if your perception of blue is messed up, so is your perception of yellow. Maybe this ties in to why people are typically red-green colourblind. But I have no clue about how this works.

You can see what happened, between the two experiments, on pp. 14-15 of our preprint. In Experiment 1, they almost all got almost all perfect answers on all four colours. In Experiment 2, they all had huge trouble identifying yellow.

Interestingly, the red-green patterns were different from Experiment 1 to 2, in that in Experiment 1, red and green (like blue and yellow) were all massively negatively skewed --- which is what I'd expect (although I am no expert on this) from healthy people with good eyesight (i.e., everyone got most of the answers right) --- whereas in Experiment 2, red and green were normally distributed, with the majority of participants failing to get a perfect score. Indeed, following my logic, the only colour in Experiment 2 showing the pattern of results I'd have expected (i.e., mostly correct) is blue.

Another interesting question is how they all managed to score near zero on yellow. Even if they were guessing, they ought to have scored 25%. But maybe there was an equipment failure and 49 or so of them were actually looking at a red patch, and "correctly" identifying it as red - but the computer "knew" it was yellow. Or maybe they were pressing the button for yellow, but that was "wired" to red or green or blue.

> >>My interest in this is not in the specifics of the topic, but in ex post tests for fraudulent/unresponsive answers. I can expand on this if you're interested.

I thought about fraud at one point, but then I can't imagine why they would fake the same patterns in the control and experimental conditions. On balance, I suspect some kind of screwup with the data handling and/or the equipment. But please expand!

Kind regards,
Nick

5. SM to Brown

From: "Stephen McIntyre"
To: Nick Brown
Sent: Tuesday, 5 January, 2016 11:16:21 PM

Subject: Re: Sadness Impairs Color Perception

thanks. that sort of makes sense - it seems an odd experiment the way that you described it.

Are you familiar with Lewandowsky's Moon Hoax article (http://web.missouri.edu/~segerti/capstone/LewandowskyClimateChange.pdf) in which he claimed that readers of climate skeptic blogs were more prone to believe in the Moon Landing and other improbable conspiracies. I got dragged into this because I've criticized the statistical work of some prominent paleoclimatologists (esp Michael Mann) and was named in the Lewandowsky article. The Moon Landing claim was particularly bizarre since two astronauts that walked on the moon (Harrison Schmidt of the Blue Marble photo, Buzz Aldrin) are prominent in climate skeptic circles.

It turned out that Lewandowsky's survey had been linked from eight virulently anti-skeptic blogs and had not been linked from any skeptic blogs. So his survey was actually of readers of anti-skeptic blogs. Lewandowsky asked questions about climate beliefs and also about a variety of conspiracies, including various improbable conspiracies: Moon hoax, government distributing AIDS in black communities, Princess Diana, Roswell, Area 51; 9/11 etc. Also questions about whether smoking caused cancer and HIV caused AIDS. At the linking blogs, respondents discussed the survey, smiling to themselves about Lewandowsky's questions, some apparently perceiving Lewandowsky's intent.

A few respondents at Lewandowsky's purported to strongly believe in every single conspiracy theory, no matter how implausible (except one which Lewandowsky withheld from the article and did not report.) They also purported to be climate skeptics. One of the first issues arising in the early controversy was whether these were fake responses in order to make skeptics conform to Lewandowsky's conspiracism claim. Even though Lewandowsky had not taken any steps to protect against fraudulent responses, he argued that it was illegitimate to reject such responses ex post.

Another remarkable point was that only 10 of 1465 respondents purported to believe Lewandowsky's signature Moon Hoax conspiracy, and of these 10, "skeptics" were a minority. It's questionable how many of the 10 were authentic.

I've been intending to publish a response for a couple of years now, but have had trouble finishing it as there are too many issues to deal with. Also, while statistical issues can stand on their own, there are practices in the psych community that have taken me a while to understand. Lewandowsky's results were reported as a Structural Equations Model, which also took time to learn.

In focusing on such details, I missed some important and surprising points. Although Lewandowsky's heavily promoted claims of widespread conspiracy theory among readers of skeptic blogs, he had not compared levels of belief to that of the general population, but implicitly only to that of heavily primed readers of anti-skeptic blogs. In fact, the levels of conspiracy theory were extremely low among both skeptics and warmists - unsurprising given that both have scientific interests. Lewandowsky failed to either analyse or report this.

Also Lewandowsky's SEM model is, at the end of the day, a model of a correlation matrix. The distributions were highly skew - nearly everyone doubted the Moon Hoax conspiracy. Only two respondents purported to both believe the Moon Hoax conspiracy and doubt that HIV caused AIDS (or numerous other bizarre combinations). These are the two respondents who had been identified as probably fraudulent. Even this is an essentially empty quadrant, there is a "significant" (negative) correlation between the two beliefs.

A similar phenomenon has become an urban legend among social psychologists who believe that the more that someone believes that Diana faked her own death, the more likely they are to believe that she was murdered by MI6 (Wood et al 2012; widely cited). This belief relies on claims in Wood et al 2012 that uses correlations similarly to Lewandowsky. There is a "siginificant" positive correlation between the belief that Diana faked her own death and that she

was murdered by MI6, even though no one believed both propositions. This is because the questions were on a Likert scale and there was a correlation between strength of disbelief in both propositions.

I have data from an identical survey to Lewandowsky's taken at a skeptic blog. Needless to say, among other defects, Lewandowsky's results in respect to conspiracy theory are not replicable.

However, there is an interesting substantive result that is hard to write up, given all the erroneous material. Lewandowsky's climate "science" questions included a question about whether there had been serious negative damages arising from fossil fuel emissions over the past 50 years. Most readers at the green blogs strongly agreed that there had been such serious negative damages, while readers at the skeptic blogs did not. On this point, I suspect that on the purely factual details (increase, decrease of Antarctic/Arctic ice) or whatever, there is less disagreement than over whether such changes rise to "serious negative" changes. One's position on this seems to be strongly connected to attitudes towards free markets/ big government and to public sector/private sector.

Cheers,
Steve McIntyre

6. Brown to SM

On Tue, Jan 5, 2016 at 5:31 PM, Nick Brown wrote:
I haven't followed the "moon landing" story very closely (Joe Duarte has also mentioned it to me). From what I've seen of the article, it doesn't seem like the kind of thing one would expect to see in a psychological journal. But Psychological Science publishes all kinds of things that I don't understand.

In full disclosure I should state that I participated (briefly, but my name may be on the report) in a conference that SL organised last year under the auspices of the Royal Society, on the general theme of science and society. There were people of assorted viewpoints present; on the day I was there, at least, there was very little discussion of climate science. I guess I was invited because my story (http://narrative.ly/stories/nick-brown-smelled-bull/) is considered an example of how the plucky underdog can contribute. But I was extraordinarily lucky to find myself with someone as heavyweight as Alan Sokal as a co-author. Getting stuff published that makes journal editors look bad is not easy, in any field.

Cheers,
Nick

7. SM to Brown

From: "Stephen McIntyre"
To: Nick Brown
Sent: Wednesday, 6 January, 2016 12:22:15 AM

Subject: Re: Sadness Impairs Color Perception

I didn't realize that you were THAT Nick Brown. I liked your story at the time, I noted up your story at my blog here: http://climateaudit.org/2013/10/21/nick-brown-smelled-bs/ .

It looks like we're kindred spirits of a sort. I first ventured into academic controversy when I was 55 after spending my career in business. I had studied mathematics in a hard program when I was young and had had PhD offers from MIT and Harvard, but did not pursue a PhD.

I found some errors and misrepresentations in a prominent climate science article, sparking a lengthy controversy, much of which spent more time attacking me than substantive rebuttals. It's a long story - Andrew Montford wrote a book about it. This ultimately led to the Climategate controversy, where someone hacked emails from the University of East Anglia, which showed a variety of bizarre behaviour. I was one of their main enemies. Lewandowsky's entry was related to the Climategate controversy and was a fairly concerted effort to re-frame the dispute.

Rather like you, it seemed to me that there was something fishy about the subject of interest. Although Mann's reconstruction had a very pronounced hockey stick shape, very very few of the individual series in the 400+ series had a HS shape. And the series which did have a HS shape (strip-bark bristlecones) were problematic. It turned out that Mann had modified a standard principal components algorithm with the effect that it mined for HS-shaped series and overweighted them. Without Mann's error, the bristlecones were in a lower order PC (4th) that had not been retained in his original paper. There were all sorts of other issues. The reconstruction failed a verification r2 test (being 0.0001 in one step), but results for all but the latest step were withheld. Too long a story.

Cheers,
Steve

8. Brown to SM

Jan 6
Hi Steve,

Yes, we seem to have some things in common. I expect the backlash against me to start at some point, if I keep digging far enough in psychology.

We really need better science. For me, it's quite possible for (say) climate change (although I could have mentioned any one of a dozen things from psychology) to be real at the same time as the science is very bad. But as a culture, we have used the science of a phenomenon as the proxy

for the actual underlying phenomenon for so long, so successfully, that we are not collectively ready to hear (and neither are the scientists yet ready to say) that "ummm, this is complicated, give us a couple of decades without disturbance to work it out properly". So everything ends up being driven by press releases and sound bites.

Best,
Nick