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**From:** Donald Rubin [REDACTED]  
**Sent:** Thursday, December 8, 2016 12:43 AM  
**To:** jeffrey E.  
**Subject:** Re: Placebo effects, EB, etc.

I'm speaking the Adriaan Tuiten tomorrow at 6:30 am our time, and I'll try to arrange a skype call. It cannot be tomorrow because I'm in a deposition all day.

On Dec 7, 2016, at 6:57 PM, Donald Rubin [REDACTED] wrote:

Sorry for the delay. Had meetings all day with a former PhD student and a current student.

Not a silly question. I think that it has a lot to do with how data are collected and who summarizes them. With recorded data there is often a lot of rounding, truncating, heaping (meaning on nice round numbers, as in age heaping), and "filtering" meaning by the data collector to avoid reporting suspicious values that could lead to scorn. In some contexts we also have scores that are averages of many values or effects, which push toward the gaussian by the CLT; for example, I used to work at ETS, and exams are notorious for those effects. Theoretical distributions like the Cauchy are almost always just approximations because machines or people cannot record data with an infinite number of places. I think your question is relatively deep with a variety of answers depending on the context and could change as we get better at recording data. :)

On Dec 7, 2016, at 12:52 PM, jeffrey E. <jeevacation@gmail.com <mailto:jeevacation@gmail.com> > wrote:

query, why are so many distributions in nature so consistent and accurate. doesn't it give you pause. like centripetal force. not a true force but one we sense. many distributions could be described as pseudo forces pushing the tails toward the mean. . . could gravity be one of these pseudo type forces pushing things towards a distribution?? not as silly a question as it first might appear to be. :)

On Wed, Dec 7, 2016 at 1:47 PM, Donald Rubin [REDACTED] > wrote:

Think so. Where will you be?

On Dec 7, 2016, at 12:25 PM, jeffrey E. <jeevacation@gmail.com> wrote:

are you around on the weekend in Cambridge?

On Wed, Dec 7, 2016 at 1:10 PM, [REDACTED] wrote:

settle a bit.

OK. I'll get back to you after = make contact with Adriaan again, and my plans

On Dec 7, 2016, at 10:38 AM, jeffrey E. <jeevacation@gmail.com> wrote:

three way skype for =. and yes 1 face to face

On Wed, Dec 7, 2016 at 11:37 AM, Donald Rubin [REDACTED] wrote:

Different ways to follow up.

1. The next time =hat we're in the same town, we could talk about the statistical =deas underlying ways to disentangle placebo effects from biological =ffects of drugs and why that's important for FDA approvals and =or prescripts in the docs office — different answers, I =hink.

2. = can send some recent things on the topic of placebo response, which =re still not that wonderfully written.

3. If interested in exploring =nvesting in EB, I can put you in touch with Adriaan, who lives in =msterdam.

Are =ny of these appealing? I prefer 1 to 2. I think a face to =ace version of 3 could be arranged either here or there.

Let me =now.

On Dec 7, 2016, at 9:35 AM, jeffrey E. <jeevacation@gmail.com> wrote:

I'm always interested in unique idea

On =ed, Dec 7, 2016 at 10:12 AM Donald Rubin [REDACTED] wrote:

Hello Jeffrey,

I'm glad that Martin has put us in touch for a couple =f reasons. First, I think we have some mutual interests =oncerning the complications of doing experiments with humans, rather =han plants or animals or tires. One complication is noncompliance =ith the assigned treatment, which we briefly discussed at the dinner, =ut the more interesting one is the placebo effect, which can be =igantic, for example in "viagra" type studies, which we =idn't get around to discussing except indirectly in the context =f the Emotional Brain (EB) female viagra issue.

More generally, this is related to FDA standards for =pproving drugs. A slight aside: in January I'm one of =hree people getting honorary degrees from the Medical Faculty of the =niversity of

Uppsala in Sweden, where one of the others is Robert =aliff, the current Commissioner of the FDA (the other is Marcia McNutt, =he current President of the National Academy of Sciences), so I should =et the chance to bend his ear at various meals (a former commissioner =E2?? under Bush II — was a partial PhD student of mine when =e was getting his MD at Harvard and his PhD in Econ at MIT, and remains = good friend: Mark McClellan, who is interested in this stuff and =emains quite influential in DC, I think).

But the reason for rambling about the FDA and placebo effects =s the following. This morning I just had an exchange of emails =ith the CEO of EB, whom I've known and worked with for about =hree years, Adriaan Tuiten. He wrote that FDA has agreed with =B's proposal for more trials, and the EB board of directors =ust approved the issuance of about 12 million Euros in stock to pay for =hese trials. Adriaan thinks that they may have enough connections =ow, but would you be interested in participating? I already have =ome stock, which I earned though consulting. I think EB is =nteresting but still needs more wisdom when it comes to their =tatistics (I've been to FDA with them two or three times, and I =hink they still need help with some of their ideas e.g., using =NPs). If interested in tossing some money their way, let me =now.

In any case, I very much enjoyed our last conversations, and = look forward to seeing you again, either in Cambridge or in NYC, which =ll probably get to in the next couple of weeks.

Best wishes, Don

Donald B. Rubin  
John L. Loeb Professor of Statistics  
Department of Statistics, Harvard University



On Dec 2, 2016, at 9:41 AM, jeffrey E. <jeevacation@gmail.com> =rote:

great

On Fri, Dec 2, 2016 at 9:40 AM, Donald Rubin <[redacted]>

<mailto:[redacted]> wrote:

Great, thanks Martin. =ometime when I get to NYC, which I often do to visit Columbia =onnections, I'd like to be in touch, and give Jeffery more =ectures in statistics — I think he has some potential!

pretty much shot for =e with visitors.

Also, Martin, should we try to =ouch base on Monday? The rest of the week is

Best, Don

<mailto: [REDACTED]> > On Dec 2, 2016, at 9:32 =M, Nowak, Martin A. < [REDACTED]>  
> wrote:

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> Don , Jeffrey

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> I would like to put you in =irect email contact.

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> also cc Lesley.

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