

## Legend

1. [REDACTED] means that the original word/fragment was deleted to ensure the anonymity of the participants.
2. [?] is a placeholder for words/fragments that could not be transcribed.
3. (?) means that the transcriber was not completely sure what the last word/fragment was, but had a guess.
4. Sentences that begin with “I:” were said by the interviewer
5. Sentences that begin with “P:” were said by the participant

## Block 1: General Information

I: Ok. So, now, we will start with the first block. The goal of this block is to get some general information about you. So, the first question is: Are you a PhD Student?

P: Yes, I am.

I: Ok, and –

P: In developmental psychology.

I: Ah, ok. So, your field in psychology is developmental psychology?

P: Yeah.

I: Ok. And did you conduct any experiments including a Stroop task in your career?

P: Stroop task? No, but other experiments. When I was an undergraduate, I did some experiments, yeah.

I: And what is your – could you describe your experience with the Stroop task a bit?

P: It's not specifically done. I have been a participant but I haven't done - carried it out myself. So, would you want me to elaborate on me being a participant?

I: No, but maybe you could describe a bit like if you like discussed the Stroop task during your studies as well? Like, have you read papers about it?

P: Ah, ok. You mean that. Yeah, I have. I have read papers, numerous papers during my undergraduate, of course, and then I think we briefly mentioned it in lectures when I was starting my undergraduate. And, yeah, basically, that is my experience and I have been a participant of the Stroop task so I know exactly how it works.

I: Ok, thank you. Then, which statistical analysis programs do you use at least once a week? Multiple answers are possible. For instance, SPSS, R, Stata, SAS, Matlab, Python, or any other?

P: Yes. SPSS. R. MPlus. I used to use Stata very often but right now for what I am doing I am not using it. So, yeah.

I: Ok. And how would you rate your knowledge of statistics relative to your peers on a scale from 1, extremely poor, to 10, excellent?

P: Oh, wow. That is a little bit hard to grade. Let me think. Slightly above average – maybe a 7.

I: Ok. Let me just check. Yeah, it is still running, ok. And how confident are you that your fabricated data will go undetected as fabricated? Again on a scale from 1 to 10 where 1 means extremely insecure and 10 means extremely confident.

P: 6.

## **Block 2: Timeline of Data Fabrication Process (When?)**

I: Ok, then this is the end of the first block about general information. Now, we will start with the second block. The goal of this block is to get some information about the timeline of the data fabrication process. So, the first question is: Did you fabricate the data in one day or spread the data fabrication over several days?

P: Yeah, I spread it over two days.

I: Two days, ok. And how much time do you estimate that it took you to fabricate the data in their entirety?

P: I think about 30 to 40 minutes.

I: And how much time do you feel you invested in fabricating the data on a scale from 1 (no effort at all) to 7 (a lot of effort)?

P: 4.

I: 4, ok. And did you prepare in any way before starting to fabricate the data?

P: Yeah. I started looking online at research papers who had done the Stroop task and then roughly how long it takes with regard to completing a Stroop task because we needed to fill it in in milliseconds. And I also did the Stroop task myself online to see how long it would take for the congruent and incongruent conditions.

I: And how much time do you estimate you spent on preparing?

P: I think, half of the time that I took to before actually fabricating the data. So, about 20 minutes.

I: And did you read any literature on detecting data fabrication?

P: No, I did not.

I: And did you look into previous cases of data fabrication and how they had been detected?

P: No, not at all.

I: And like are there - so, you said that like you spent half of the time of your preparation for the - to look up the Stroop task and to get familiar with like usual values. Did you - so, how did you spend the other half of the preparation time?

P: It was not preparation. It was more like keying the data in.

I: Ah, ok.

P: And then, so that was the time that I took to come up with numbers.

I: And did this preparation influence your approach to fabricating the data?

P: To a certain extent, yes. Especially, the part with me doing the actual task itself. Because I mentioned I would - I tried it online and how long it would take. So, I used myself as a gauge. And I knew that I am pretty fast in such experiments. Then, I tried to average out - some people might be faster, some slower. So, yes. Mostly on that. And first the papers helped but then it was just difficult to compare because it was not the same number of trials and I was spending too much time trying to look for numbers and it was just too time consuming, so yeah.

I: Ok, then this is the end of the second block. Do you have any other comments about the timeline of the data fabrication process that you think could be interesting for us to know?

P: No, not that I could think of.

### **Block 3: Broad Framework of Data Fabrication Process (What?)**

I: Ok, then, we will now start with the third block. The goal of this block is to get some information about the broad framework of the data fabrication process. So, could you name specific characteristics that would make data look fabricated or more fabricated in your opinion?

P: Well, you always need to have some outliers, I would think. And then you also need to have - yeah, some who are really fast and some who are really slow. And of course, the numbers being the standard deviations being really widespread. And, I think I have a very simple - because I have never done data fabrication and I felt really uncomfortable doing it to be honest. So, I didn't really think too much, but then, of course, you want to sort of try to paint the

general population how some people want to be – can do on this task. And of course, you always have outliers.

I: Ok. And could you name specific characteristics that would make data look genuine or more genuine in your opinion?

P: Well, of course, the timings cannot be too far off from how, you know, you would take to complete 30 trials. For example, it cannot look like it took more than 5 minutes, for example. And also it cannot be too fast because it is not humanly possible. Yeah, because it is not like the person is doing it online, I think, because I would assume that there would be someone timing them there then when you are doing the Stroop task. So basically, yeah, that.

I: And did you take these characteristics you just mentioned into account when fabricating the data?

P: Yeah, I did. Definitely. So, I had some values that were higher and some that were lower. Some were average, many were around the average. Normal, the general population how they would do.

I: And did you take into consideration relations in the data other than the Stroop effect itself?

P: Not exactly.

I: So, for instance, the distribution of the scores or other aspects that could be inspected with the dataset.

P: You mean normality.

I: For instance.

P: Yes, because, yeah, I did look at the standard deviations and then – of course, I can't see with my naked eye. I could have plotted a histogram or something like that, but I didn't do it. I just had average numbers that were spread out with different standard deviations.

I: And what criteria did you use to determine whether you thought your fabricated data would go undetected?

P: Sorry, could you repeat that?

I: Oh, sure, yes. What criteria did you use to determine whether you thought your fabricated data would go undetected?

P: Well, like what I have mentioned. Basically having a whole wide range of scores. Not really a huge range, but then within the means of a normal, healthy population. And, of course, with the standard deviations, some were really small and some were really huge, basically.

I: So, you had sort of different criteria for means and standard deviations?

P: Yeah.

I: Could you describe these criteria a bit more?

P: Well, it was quite random. So, I just thought, perhaps someone could have a higher than average reaction time, then I sort of made the standard deviation smaller. Some who may did the other way around where I had higher standard deviations so to make it seem like not consistent, like everyone is different. For example. Does that make sense?

I: Yeah, ok.

P: Because you are looking at me like, yeah. So, basically, that was it.

I: And in hindsight, are there things you think you should have paid specific attention to while fabricating the data?

P: Yeah, now that you mention it. Then, you start thinking about I should have looked more at normality, or perhaps skewness or that kind of things. And to also perhaps look on literature on fabricating data. The thing was because I read like – I didn't want to spend more than 30 minutes or so. Of course, you could spend more time, but then I didn't want to. Knowing me I would just go and dig into the literature and it would take too much time. And then I really felt very uncomfortable doing it. [?] this data fabrication really influenced me how I could fabricate data.

I: Ok, then this is the end of the third block. Do you have any other comments about the broad framework of the data fabrication process that you think could be interesting for us to know?

P: No, I think I have mentioned everything.

#### **Block 4: Specific Steps of Data Fabrication Process (How?)**

I: Then, we will now start with the fourth block. The goal of this block is to get some information about the specific steps of the data fabrication process. So, could you indicate what steps you took to fabricate the means for the participants?

P: It was really simple. I feel very stupid now just saying it. But so, basically like I said, I did the actual task myself online and then I keyed in my – so I did a few times and then I keyed in an average of my score and then I just wrote the numbers around it. Trying to think in terms of how the general population [?] – older people who might be slower and then some people who might be faster and who are on average - and I considered myself as slightly faster than the average population. And yeah, this is how I basically did it.

I: And did you create the scores yourself? Or did you use a computer program?

P: Oh, yeah, I did it completely myself. So, basically, like I said, I spread it out over two days. Once I got bored on the first day with coming up with numbers – it was sometimes very hard to come up with numbers all in one go – I went

away and then on the next day, I did a fresh day. I didn't want the numbers to look like it was fabricated. In a way, like, you know, certain numbers – like for example 12444 – and then you do another like 12111, you know, those kind of numbers really make it seem like it is real reaction times by real people.

I: Ok. And could you indicate what steps you took to fabricate the standard deviations for the participants?

P: Again, I used myself as a gauge. I did the task a few times to sort of get the standard deviations. And from there, I derived other standard deviations and then I just thought in terms of having sort of with regard to the general population: Some people might have wider standard deviations, some have less, and then it was just really random.

I: And did you like - was your creation of the standard deviations related to the creation of the means or did you do it as like sort of two separate processes?

P: Sometimes, I did it together. So, for example, if I tried to take myself as a gauge, and then I looked at the means, they should not be to – ah, the standard deviations should not be too far up. But sometimes I had – I just thought that I gave a mean but then have a bigger standard deviation because maybe some people tend to vary a little bit more. And then sometimes I just didn't bother about the mean and just typed in a standard deviation without thinking. So, it was just really random. Yeah, I tried to be as random as possible.

I: And did you repeatedly fabricate data until you were satisfied with the results?

P: No. Because as long as I saw that I supported the hypothesis and it was in the right direction, then I didn't want to go on – typing too much of the data. I felt very uncomfortable. If I had to do it again, it would be torture to me.

I: And how did you determine whether you were satisfied with the fabricated data or that they needed to be adjusted?

P: So, I saw it as I went along. So, I looked at the numbers that I have typed in previously sort of and then to see that I did not sort of repeat it too much and I assured some variation. So, basically, that is how I gauged whether I was satisfied or not.

I: Ok and did you try to inspect whether the fabricated data looked weird in a way?

P: No.

I: Ok and did you try to inspect whether the fabricated data looked genuine?

P: I just – what do you mean by whether it looked genuine – in terms of the numbers or like - I just looked like I mentioned earlier – I had a wide range of means – not wide, that wide, but wide enough for my liking – so that they seemed reasonable reaction times when you do a Stroop task.

I: Ok, and how many different mean-sd combinations did you fabricate before getting to the final fabricated dataset?

P: You mean, how many times I actually did the fabrication?

I: Yeah, like did you just do it once or once and then again and again?

P: Yeah, just once. Like I mentioned before. I didn't want to type anymore.

I: And besides the supplied spreadsheet, did you use any other computer programs to fabricate data?

P: No.

I: Did you use a random number generator to simulate data during this study?

P: No.

I: Ok and did you use real data during the fabrication process?

P: Yeah, like I said I tried to look at research papers and then I tried to use their time. But then I realized that it didn't seem – it seemed quite far off, so I didn't use it in the end.

I: Ok, so you used it sort of as a first inspiration?

P: As a first inspiration. But then it didn't seem quite reasonable in terms of the times. But then, you know, I would have to look at the literature to see: Ok, is this a healthy population, is this, of course, a psychiatric population, you know, and things like that. And of course, this would make a huge difference but then I was wasting too much time trying to find all that information.

I: Ok, then this is the end of the fourth block. Do you have any other comments about the specific steps of the data fabrication process that you think could be interesting for us to know?

P: No.

### **Block 5: Underlying Rationale of Data Fabrication Process (Why?)**

I: Then, we will now start with the fifth block. The goal of this block is to get some information about the underlying rationale of the data fabrication process. So, the first question is: Did you consider fabricating these data a difficult task to complete?

P: It was – for me, it was. I wouldn't say torture but it was really difficult. I didn't know how to approach it. I mean the only way I could think is looking at other papers. I mean I didn't think of looking at data or fabricated data because this isn't an area I am very familiar with and yeah, so then it was very difficult for me to come up with the data.

I: Ok. And do you think that your approach to data fabrication will be difficult to detect as fabricated?

P: I think it might be easy to detect because I used a very simplistic approach compared to perhaps other participants.

I: And could think of like how it could be detected? Do you have any hunch or so?

P: To be honest I really have no clue. I was lost as well. I was so curious about this experiment but, yeah, it never even cross – ok, it crossed my mind that people would fabricate data but not an entire set of - So, it is really unfamiliar, it is uncharted waters for me, yeah.

I: Ok. So, why did you decide to participate in this study?

P: So, basically, of course, the money was good. I myself wanted to test myself to how I would feel when it comes to fabricating data and how comfortable. And then what steps I would have taken but I used a very simplistic manner mainly because I didn't have so much time. And also, I thought it was a very interesting way of doing research because it is totally not my area. And I found it interesting combining both the qualitative part and, of course, the quantitative part – the participants fabricating themselves. It was an interesting thought process, I think.

I: And did you discuss this study or the fabrication of the dataset for this study with other people?

P: I just talked with my colleagues: Oh, there is this interesting research but I didn't talk about how I was going to do it.

I: Ok, so these people didn't help you in fabricating the data?

P: No, no.

I: Ok, then this is the end of the fifth block. Do you have any other comments about the underlying rationale of the data fabrication process that you think could be interesting for us to know?

P: No.

I: Ok, then this is the end of the interview or is there anything else you can recall about the data fabrication that you think is worth mentioning?

P: I am just thinking. No, not that I could think of.