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Further data on interrogative suggestibility and compliance scores following instructed malingering

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Purpose. This study examined whether people can successfully feign high levels of interrogative suggestibility and compliance as measured by the Gudjonsson Suggestibility Scales (GSS) and the Gudjonsson Compliance Scale (GCS) when given instructions to malinger.

Methods. Participants ($N = 90$) were randomly allocated to one of three groups that received: (1) instructions to give into leading questions in order to look vulnerable to suggestions, (2) instructions to be compliant with the examiner, or (3) the standard GSS/GCS instructions.

Results. One of the two malingering instructions led to modestly elevated scores of total suggestibility, while subscales remained unaffected. In contrast, both malingering groups obtained highly elevated compliance scores.

Conclusions. These findings suggest that heightened suggestibility is rather difficult to malinger, thereby confirming the reliability of the GSS. On the other hand, it might be easier to malingering compliance as measured with the self-report GCS.

Forensic experts are often required to assess potential attempts at malingering in cases of alleged amnesia or post-traumatic stress disorder. The motives for individuals to malinger include the avoidance of punishment or to at least be diminished responsible for one's criminal acts. Little is known about perpetrators who want to retract a self incriminating statement that was made during police interrogations by pretending to be vulnerable to interrogative pressure. An important term in this context is *interrogative suggestibility.*[1] Gudjonsson and Clark (1986, p. 84) define interrogative suggestibility as 'The extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as a result of which their subsequent behavioural response is affected'. During a police interrogation,

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[1] *Subsequently also referred to as suggestibility.*

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an individual with high levels of suggestibility might give in to police pressure or suggestive questions. Compliance also plays a central role in this context. It is defined as 'the tendency of the individual to go along with propositions, requests or instructions, for some immediate instrumental gain' (Gudjonsson, 2003, p. 370). In contrast to suggestibility, compliance indicates that the person does not actually agree with the prepositions that are made and does not personally accept the suggestive information. Rather, he/she is aware that his/her responses are being influenced. Gudjonsson (1991) showed that individuals who persistently denied their involvement in a serious crime for which forensic evidence was present, obtained significantly lower scores on suggestibility and compliance compared to alleged false confessors.

Malingering base rates have been said to vary between 17 and 19% in the criminal context (Mittenberg, Patton, Canyock, & Condit, 2002; Sullivan, Lange, & Dawes, 2007). Perpetrators may have much to gain if they can convince forensic experts that they are vulnerable to false confessions. Lawyers are very much aware of this and might instruct their clients to try to feign heightened suggestibility or compliance for the good of their defence. Instructed malingering of suggestibility or compliance might therefore be an important problem that warrants further research as to whether existing instruments that are intended to assess suggestibility and/or compliance are resistant to such attempts at malingering.

Only a few studies have addressed the issue of instructed malingering (Baxter & Bain, 2002; Boon, Gozna, & Hall, 2008; Gudjonsson & Clark, 1986; Woolston, Bain, & Baxter, 2006). The approach of these studies was to give participants specific malingering instructions (e.g., 'appear gullible') and administer the Gudjonsson Suggestibility Scales (GSS; Gudjonsson, 1997; see Methods). These scores are then compared to the GSS scores of a control group who did not receive any coaching, as would be typical for defendants who are unaware that their suggestibility is being tested. In general, participants who receive malingering instructions indeed show higher Yield scores, while a heightened Shift score was only observed by Woolston *et al.* (2006) in one of two malingering groups. Smith and Gudjonsson (1986) observed no differences in performance on the general measures of suggestibility yet, in line with Boon *et al.* (2008) and Woolston and colleagues (2006), the group of malingerers performed worse on free recall. In contrast, Baxter and Bain (2002) did not find any differences between malingerers and controls on free recall. An interesting aspect of the study by Boon *et al.* (2008) was the comparison of malingerers with the norms of intellectually disabled people showing no differences between the groups on the main measures of suggestibility. Malingerers, however, performed significantly better on free recall than participants with intellectual impairments. Woolston *et al.* (2006) included a malingering instruction to behave compliantly, which led to an increased Shift and Yield scores. This closely resembles how genuinely vulnerable individuals would score on the GSS, and suggests that giving specific instructions can lead to successful malingering of heightened suggestibility indistinguishable from genuinely vulnerable individuals.

The described studies are a promising start for research on faking suggestibility on the GSS. So far, however, experiments have largely focused on malingering of suggestibility but have not addressed whether compliance can be successfully malingered. With this in mind, the current study aimed to replicate results from earlier research on instructed malingering of suggestibility and to assess whether compliance can be malingered in a similar way. To this end, the GSS (GSS-1 Dutch version; see Merckelbach, Muris, Wessel, & van Koppen, 1998) and the Gudjonsson Compliance

Scale (GCS; Gudjonsson, 1989; Gudjonsson, 1997; see Methods) were administered in two groups that were given specific instructions to malinger heightened suggestibility similar to Woolston *et al.* (2006), and/or were given a specific GCS malingering instruction. A third group received the standard GSS and GCS instructions and thus served as a control group. In line with previous work by Baxter and Bain (2002) and Boon *et al.* (2008), we hypothesized that the instruction to appear susceptible to leading questions would lead to elevated Yield scores. Furthermore, based on Woolston *et al.* (2006), the instruction to behave compliantly was expected to result in increased Shift and Yield scores. As to the GCS, it was hypothesized that both malingering instructions would lead to heightened GCS scores since both contain the same specific GCS malingering instructions (see Methods).

Methods

Participants

Ninety healthy young undergraduates (61 women) with a mean age of 21.16 years ($SD = 3.54$; range: 18–45) were included in this study. Participants were randomly allocated to one of three groups ($n = 30$ per group). Test protocols were approved by the local ethical committee of the Faculty of Psychology and Neuroscience, Maastricht University, Maastricht. All participants gave written informed consent and were given a small financial reward or partial course credit in return for their participation.

Instruments

Gudjonsson suggestibility scales

The GSS is a well validated and widely used instrument with high inter-rater reliability (Richardson & Smith, 1993). There are two parallel versions, the GSS-1 and the GSS-2. The GSS measures two different dimensions of suggestibility, called *Yield* and *Shift*. Yield refers to the tendency to give in to leading questions and Shift is the tendency to change an answer upon negative feedback. Participants are told that they will undergo a memory test before the GSS is administered so as to keep them uninformed of the true purpose of the GSS. The GSS involves the following steps: first, a fictional story is read to the participants. They are instructed to listen carefully, because they will be asked questions about the story later. After that, participants have to freely recall everything they remember about the story. The story contains 40 facts which are used to score the performance of the participants based on the number of details they are able to recall (free recall; range: 0–40). Following free recall, participants are kept busy with a 50 min unrelated distracter task. Then, they are instructed to take a second free-recall test and subsequently are asked 20 questions, with 15 being leading questions which contain false suggestions. For each time they give in to a leading question, they get one point (Yield 1; range: 0–15). When all questions are answered, they receive firm negative feedback and have to answer the questions again. Participants receive one point for giving in to leading questions (Yield 2; range: 0–15). For each time interviewees change their answer they score one point (Shift; range 0–20). Total suggestibility is the sum of Yield 1 and Shift (range: 0–35). Scores can be compared to a wide range of norm scores (Gudjonsson, 1997). In the current study, the 50 min retention interval was omitted, as previous research has shown that such a shortened procedure does not affect GSS total or subscale scores (Smeets, Leppink, Jelicic, & Merckelbach, 2009).

Gudjonsson compliance scale

The GCS consists of 20 true-or-false-questions concerning statements that may or may not apply to the participant (e.g., 'I find it very difficult to tell people when I disagree with them'). The GCS primarily reflects how 'subjects report reacting when pressured by people, especially by those in authority' (Gudjonsson, 1989, p. 538), and relies on self-report. Each time interviewees answer statements that suggest compliance, they get one point (range: 0–20). Normative scores of several subgroups are available. High scores on the GSS or GCS were found to be associated with an increased likelihood of false confessions (Gudjonsson, 1991; Sigurdsson & Gudjonsson, 1996) and the two instruments are frequently used to assess vulnerabilities of making a false confession.

Design and procedure

All test sessions were led by the same male interviewer, who was blind to the groups participants were allocated to. The blind procedure was ensured by giving participants a closed envelope in which they could find the specific malingering or standard instructions. Administration order of the GSS and GCS was counterbalanced within and across groups. When participants had completed the first part of the interview (i.e., either the GSS or GCS), the interviewer reminded them to follow the instructions. This served to make sure that the participants would not forget about the instructions during the second part of the interview.

Instruction for misled group

You are going to be interviewed regarding the content of a story that will be told. You should attempt to play the role of someone who is a suspect in a criminal investigation. You have the chance of getting off the hook if you can convince the interviewer that you are easily influenced. You should try to trick the interviewer into believing that you are susceptible to accepting leading questions, that is, questions that may assume or imply information that is not completely true or is misleading. You will also be given a couple of statements with which you can either agree or not agree. Again your chances to get off the hook rise, if you respond in a certain way. Let the interviewer believe that you are eager to please other people and you try to avoid conflicts with others. The interviewer is unaware of the instructions that you have been given, so please do not let him know what you have read.

Instructions for compliant group

You are going to be interviewed regarding the content of a story that you will be told. You should attempt to play the role of someone who is a suspect in a criminal investigation. You should try to comply and go along with everything the interviewer says to you, as though you accept everything that is said to you without question. You will also be given a couple of statements with which you can either agree or not agree. Your chances to get off the hook rise, if you respond in a certain way. Let the interviewer believe that you are eager to please other people and that you try to avoid conflicts with others. The interviewer is unaware of the instructions that you have been given, so please do not let him know what you have read.

Instructions for standard group

Your memory is going to be tested in the upcoming test. To this end, you are going to be interviewed regarding the content of a story that you will be told. Please try to answer

the questions as best you can. You will also be given a couple of statements with which you can either agree or not agree. Please answer honestly which statement applies to you and which not.

Results

Mean GSS and GCS scores for each of the three groups are presented in Table 1. There was no main effect of test administration order (i.e., GSS first vs. GCS first; all ps $> .05$). A 3 (Group: misled vs. compliant vs. standard) analysis of variance (ANOVA) showed a significant main effect of Group for Yield 2 ($F[2, 89] = 3.83$, $p < .05$), total suggestibility ($F[2, 89] = 3.33$, $p < .05$, $\eta_p^2 = 0.07$), and GCS scores ($F[2, 89] = 30.16$, $p < .001$, $\eta_p^2 = 0.41$). *Post hoc* Bonferroni analyses revealed that participants in the misled group had significantly elevated Yield 2 scores compared to the compliant group ($p < .05$) and significantly elevated Total Suggestibility scores compared to the control group ($p < .05$). No differences on GSS measures were found between the standard and compliant group. For the GCS scores, the Bonferroni test revealed that the misled and compliant group had significantly higher scores than the control group (ps $< .01$). The other GSS measures did not show significant differences: Yield 1 ($F[2, 89] = 2.89$, $p = .06$, $\eta_p^2 = 0.06$) failed to reach the 5% level of significance marginally, free recall ($F[2, 89] = 0.33$, $p = .71$, $\eta_p^2 = 0.01$) and Shift ($F[2, 89] = 1.49$, $p = .23$, $\eta_p^2 = 0.03$) did also not vary across the groups.

To investigate whether the instructed malingering groups could also be distinguished from truly vulnerable individuals (e.g., individuals with low IQ), a series of one-sample t tests were carried out to compare the current findings with norms of intellectually handicapped individuals (Gudjonsson, 1997; see also Table 1). Results indicate that malingerers and controls had significantly higher scores on free recall (all ts$[29] > 6.81$, all ps $< .01$) and lower scores on Yield 1, Yield 2, Shift, and Total Suggestibility (all ts$[29] > -3.70$, all ps $< .01$) compared to vulnerable individuals. The only exception was the difference between the misled group and norm scores on measures of Yield 1 ($t[29] = -1.87$, $p = .07$). A comparison of GCS scores with norms of alleged false confessors revealed a higher GCS score in the misled group ($t[29] = 4.02$, $p < .01$), a lower score in the standard group ($t[29] = -8.60$, $p < .01$) and a non-significant difference in the compliant group ($t[29] = 0.72$, $p = .48$).

Discussion

Results from the current study can be summarized as follows. First, participants who were instructed to appear susceptible to leading questions displayed heightened scores on total suggestibility compared to participants in the standard group, but failed to show elevated suggestibility scores on the subscales of the GSS. As anticipated, no difference between the malingering groups and the standard group on the Shift dimension emerged. However, participants in the compliant group were not distinguishable from controls on any of the GSS scales. Second, participants were quite successful at feigning compliance in that both malingering groups had significantly higher GCS scores compared to the standard group. Third, the malingering groups did not differ significantly from the standard group on free recall.

Table 1. Mean suggestibility and compliance scores (±*SD*) across groups

	Study group				
	Misled	Compliant	Standard	ANOVA[a]	Vulnerable individuals[b]
GSS					
Free recall	16.08 ± 7.01	17.20 ± 5.47	15.95 ± 6.95	$F(2, 89) = 0.33$; $p = .71$; $\eta_p^2 = .01$	7.3 ± 4.5
Yield 1	5.97 ± 3.33	5.00 ± 2.92	4.17 ± 2.38	$F(2, 89) = 2.89$; $p = .06$; $\eta_p^2 = .06$	7.1 ± 4.0
Yield 2	6.43 ± 3.06	4.73 ± 2.21	4.93 ± 2.46	$F(2, 89) = 3.83$; $p < .05$; $\eta_p^2 = .08$	8.5 ± 4.4
Shift	3.00 ± 2.51	2.17 ± 1.56	2.33 ± 1.75	$F(2, 89) = 1.49$; $p = .23$; $\eta_p^2 = .04$	5 ± 3.6
Total	8.97 ± 4.53	7.20 ± 3.93	6.47 ± 2.93	$F(2, 89) = 3.33$; $p < .05$; $\eta_p^2 = .03$	12.1 ± 6.2
GCS	16.87 ± 3.36	14.97 ± 4.32	9.97 ± 2.82	$F(2, 89) = 30.16$; $p < .001$; $\eta_p^2 = .42$	14.4 ± 3.1[c]

[a] Between group (misled vs. compliant vs. standard) ANOVA.
[b] GSS 1 norms of individuals with intellectual disabilities (IQ below 75); see Gudjonsson (1997).
[c] Norm of alleged false confessors; see Gudjonsson (1997).

Our results demonstrate that the GSS is relatively unaffected by attempts at faking heightened suggestibility, as even giving specific instructions to 'accept leading questions', did not lead to significantly higher scores on the Yield and Shift dimensions. Our findings contrast with findings from previous research (Baxter & Bain, 2002; Boon *et al.*, 2008; Woolston *et al.*, 2006) that found elevated Yield scores after specific malingering instructions. The current study also examined whether instructed malingerers were distinguishable from truly vulnerable individuals by comparing group scores with norm scores of intellectually disabled people. It was found that participants in both malingering groups scored differently on almost all suggestibility measures than truly vulnerable individuals. More precisely, participants received higher free-recall scores and lower scores on the general measures of suggestibility, indicating that instructed malingerers fail to fully grasp the idea behind the GSS. This finding is only partly in line with results from Boon *et al.* (2008), who found a distinctly higher score on free recall between malingerers and disabled individuals and no differences on the other measures.

With regard to the varying compliance scores across groups, one may conclude from the current data that malingering of self-reported compliance is easier to accomplish than malingering of suggestibility. Both malingering instructions led to highly elevated scores on the GCS. Comparing the results of the GCS to norms of alleged false confessors it remains ambiguous whether instructed malingering on the GCS can be reliably detected. An examination of the norm scores reveals that participants in the compliant group received similar scores to alleged false confessors, making this group particularly difficult to identify as malingerers. Thus, this study suggests that it is relatively easy to feign high compliance on the self-report GCS instrument.

Some notes on the limitations of the current study are worth mentioning. First, in the current study the GSS was administered without the standard 50 min retention interval between immediate free recall and the suggestive questioning. We recently showed that GSS scores are neither dependent on whether multiple free-recall tests are administered nor on whether the standard 50 min retention interval is applied (Smeets *et al.*, 2009). Thus, it is unlikely that this profoundly affected the current results. Second, it should be noted that the immediate recall scores of the control group were quite low for undergraduates. This may have had to do with the fact that we did not tape-record and transcribe the free-recall tests, but rather employed a written free-recall task. In any case, the low free-recall scores in the control group were similar to free-recall scores of the instructed malingering groups (see also Baxter & Bain, 2002). Third, the purpose of this study was to examine whether participants who receive specific instructions (e.g., by lawyers who instruct their clients about the purpose of the test, or in cases where the person who wants to retract a prior confession has specific knowledge about these tests by other means), can attain higher scores on the GSS/GCS in order to appear highly suggestible and compliant. Therefore, our findings do not apply if the GSS/GCS is properly administered (i.e., in which no instructions to malinger are given). Fourth, our findings showing that Total Suggestibility scores were elevated in the misled group were accompanied by relatively small effect sizes (see Results), meaning that the increase of total suggestibility was only modest, even when giving participants specific behavioural instructions. This underscores that malingering on the GSS may be very hard in practice as the GSS seems relatively immune to such attempts.

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