

COMPLIANCE IN AN INTERROGATIVE SITUATION: A NEW SCALE

GISLI H. GUDJONSSON

Department of Psychology, Institute of Psychiatry, De Crespigny Park, Denmark Hill,
London SE5 8AF, England

(Received 20 May 1988)

Summary—This paper describes the development of a new compliance questionnaire which is intended to complement the present author's previous work into interrogative suggestibility. The questionnaire consists of 20 true-false statements which have particular application to interrogative situations involving retracted confession statements. The questionnaire has satisfactory internal consistency and test-retest reliability. Data are presented which support the concurrent and construct validity of the questionnaire.

INTRODUCTION

The purpose of this paper is to introduce a compliance questionnaire which, theoretically and empirically, complements the previous work of the present author into interrogative suggestibility. After laying the foundations for the work on interrogative suggestibility (Gudjonsson and Gunn, 1982; Gudjonsson, 1983), Gudjonsson (1984) presented the development and early validation of a suggestibility scale that could be used to assess the individual's responses to "leading questions" and "negative feedback" instructions when being asked to report a factual event from recall. The scale was constructed to be applicable to legal contexts, such as police officers' questioning of witnesses to crime and interrogation of criminal suspects. It employs a narrative paragraph describing a fictitious mugging, which is read out to subjects. They are then asked to report all they can recall about the story. About 50 minutes later delayed recall is again obtained, after which subjects are asked 20 specific questions about the story. Fifteen of the questions are deliberately misleading and five act as "buffer" items to disguise the real purpose of the test. "Negative feedback" is then given, indicating to the subjects that they should try harder to be more accurate. The 20 questions are then repeated and any changes from the previous answers are carefully monitored. The scale is intended to measure individual differences in the tendency to *yield* to leading questions, and secondly, to monitor how readily subjects' previous answers can be *shifted* in response to criticism or interpersonal pressure.

The original scale, labelled the "Gudjonsson Suggestibility Scale" (GSS 1), stimulated a considerable amount of research and resulted in the development of a theoretical model of suggestibility in police interrogation (Gudjonsson and Clark, 1986). Gudjonsson (1987) constructed a parallel form (the GSS 2), which correlated very highly with the scores of the original scale and provided evidence for high "temporal consistency" of interrogative suggestibility over time.

Gudjonsson and Clark (1986) define interrogative suggestibility as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as the result of which their subsequent behavioural response is affected." This definition implies certain distinguishing features which differentiate interrogative suggestibility from general compliance. First, interrogative suggestibility involves a questioning procedure related to past experiences and events. Second, it has a significant relationship with the cognitive processing capacity and functioning of the individual. It correlates highly significantly with both memory and intelligence, particularly at the lower range (Gudjonsson, 1988a). Third, the *acceptance* of the suggestion offered by the interrogator is a crucial factor in the suggestion process. That is, the message must be perceived by the respondents as being plausible and credible. The main difference between interrogative suggestibility and compliance is that the latter does not require a personal acceptance of the proposition or request. The individual makes a conscious decision to carry out the behaviour requested, which he or she may or may not agree with privately. Within the context of the present paper, of particular importance is the general tendency or susceptibility of individuals to comply

with requests and obey instructions that they would rather not do, for some immediate instrumental gain. Being able to measure this type of compliance would have at least two distinct applications. First, it would complement the contribution that the objective assessment of interrogative suggestibility can make in cases of alleged false confession. For example, the "coerced-compliant" type of false confession described in the literature appears more related to compliance than suggestibility (Gudjonsson and MacKeith, 1988). These are the people who claim to have been fully aware that they were confessing to things that they had not done, but did so, for example, in order to relieve the pressure concerning the immediate situation. Second, in criminal cases, where there is more than one offender, allegations are sometimes made that an offender was somehow "coerced" or "led" into criminal activity by a more forceful accomplice. A general tendency towards compliance may make a person particularly susceptible to exploitation by another. This susceptibility can only indirectly be assessed by suggestibility scales.

In view of the above, a compliance questionnaire would complement the work that has been done on interrogative suggestibility. Although the processes involved in suggestibility and compliance undoubtedly differ in several respects, some of the mediating variables, such as eagerness to please and avoidance behaviour, are probably common to both suggestibility and compliance (Gudjonsson and Clark, 1986). As suggestibility and compliance are construed as overlapping rather than distinct personality characteristics they would be expected to be correlated to a certain extent. This is particularly the case with regard to *shift*, as measured by the GSS 1 and GSS 2, since that aspect of interrogative suggestibility most strongly relates to perceptions of pressure (Gudjonsson, 1988b).

CONSTRUCTION OF THE QUESTIONNAIRE

Twenty-eight items were selected for the true-false questionnaire format. These were chosen on the basis of their conceptual and theoretical relevance to compliant behaviour. It was hypothesised that the two main components to compliant behaviour are: (i) eagerness to please and the need to protect one's self-esteem when in the company of others (Konoske, Staple and Graf, 1979); and (ii) the avoidance of conflict and confrontation and fear of people in authority (Irving and Hilgendorf, 1980). When either or both of these two components are present, people may on occasions comply with requests and obey instructions which they would ordinarily reject.

The questionnaire was administered to 164 subjects (81 males and 83 females) and the 28 items were subsequently factor analysed using principal component analysis. Twenty of the items had a loading of above 0.25 and these were used to make up the final questionnaire. Seventeen of the items were keyed True for a compliance response and three (items 17-19) were keyed False. The questions and their factor loadings are given in Appendix 1. The items having the highest loading clearly relate to the person's ability not to give in when pressured to do so. Unfortunately, several of the original items keyed False for compliance loaded poorly in the principal component analysis.

The 20 items were rotated using Varimax procedure. Three factors were extracted in order to identify different components of compliant behaviour. The factors and their loadings are given in Table 1.

Factor 1, which comprises ten items, clearly relates to the difficulties the subject has in coping with pressure. This seems to reflect fear and apprehension when in the company of authority figures and avoidance behaviour (i.e. avoidance of conflict and confrontation). Factor 2, comprises five items and reflects the eagerness of the subject to please and to do what is expected of him or her. Factor 3 is also made up of five items, but the loadings are rather modest and this factor is rather obscure. It includes the three items that are keyed False for a compliance response.

The Alpha coefficient consistency for the 20 items was 0.71. The test-retest reliability of the 20-item questionnaire was measured by administering the questionnaire twice, 1-3 months apart, to 20 forensic patients at the Bethlem and Maudsley Royal Hospitals. The Pearson correlation between the two sets of scores was 0.88 ($P < 0.001$).

Validity

The construct validity of the questionnaire was tested by comparing the normative scores of different groups of subjects. It was hypothesised that a minority group such as alleged false confessors to serious crimes would score higher on the compliance questionnaire than, for example,

Table 1. Varimax rotated factor matrix of the compliance scale

Item	Factor		
	1	2	3
1	0.56	0.20	0.28
2	0.57	0.12	0.28
3	0.64	0.08	0.17
4	0.40	0.19	0.48
5	0.68	-0.09	0.22
6	0.23	0.61	0.09
7	0.31	0.49	-0.04
8	0.49	0.03	0.25
9	0.51	0.21	-0.13
10	0.08	0.63	0.22
11	0.50	0.04	0.12
12	0.22	0.64	-0.22
13	0.34	0.29	0.04
14	0.40	0.21	0.05
15	0.40	0.29	-0.34
16	0.17	0.72	0.22
17	0.04	-0.27	-0.53
18	-0.15	0.02	-0.47
19	-0.13	0.17	-0.57
20	0.12	0.10	0.28

University students and academic staff; the reason being that the former had a history of having made an alleged false confession during police interviewing. Similarly, criminal suspects known to have been able to resist making self-incriminating statements during questioning, in spite of forensic evidence against them, would be expected to be least compliant. Data were also collected for other groups of subjects for normative purposes. The mean and standard deviation scores for nine different groups of subjects are given in Table 2. The groups were as follows:

(1) Fifty-five criminal suspects or convicted offenders (50 males and 5 females) who had made self-incriminating admissions during police questioning which they subsequently retracted. The cases were referred for assessment by defence of prosecution solicitors. Their mean age was 32 years (SD = 11.9).

(2) Forty-eight criminal suspects or convicted offenders (40 males and 8 females) who had been referred for assessment because of pending court proceedings. None of them alleged to have made a false confession. They had a mean age of 36 years (SD = 11.6).

(3) Fifty prisoners (all males), serving sentences for various types of criminal offences. Their mean age was 37 years (SD = 10.3).

(4) Seventy-two student nurses (14 males and 58 females), with a mean age of 25 years (SD = 10.6).

(5) Fifty-six medical students (27 male and 29 females), with a mean age of 20 years (SD = 1.2).

(6) Forty-one academic staff in a University setting (21 males and 20 females), with a mean age of 30 years (SD = 7.8).

(7) Fifty-one University students (26 males and 25 females), with a mean age of 25 years (SD = 7.5).

(8) Twenty-eight male soldiers with a mean age of 21 years (SD = 3.5).

(9) Thirteen criminal suspects (11 males and 2 females) who did not make self-incriminating admissions to the police during extensive questioning, but they were subsequently convicted, largely it seemed, on the bases of some forensic evidence. This group will be referred to in this paper as "resisters".

The compliance questionnaire was presented to the subjects as a personality test and was completed on a voluntary basis.

Two-way ANOVA (by sex and group membership) indicates a significant overall difference in the scores on the different groups ($F = 17.14$, $df = 8413$, $P < 0.001$), but there was no significant sex effect ($F = 1.41$, $df = 1413$, P NS).

The compliance questionnaire was correlated with a number of other tests in order to test its concurrent and construct validity. The following tests were administered to some of the subjects in addition to the Compliance Questionnaire: (1) The Wechsler Adult Intelligence Scale (WAIS-R);

Table 2. Mean and standard deviation scores for seven experimental groups

Group	N	Mean	SD
Alleged false confessors	55	14.4	3.1
Other forensic cases	48	11.3	4.6
Prisoners	50	11.0	5.2
Soldiers	28	10.6	2.4
Student nurses	72	9.2	3.6
Medical students	56	9.1	3.3
Academic staff	41	7.9	3.4
University students	51	7.8	4.1
Resisters	13	6.8	2.3
Overall score	414	10.1	4.6

Table 3. Pearson correlations between compliance and other variables

Variable	N	Correlation
Age	369	0.10
IQ (WAIS-R)	139	0.08
Marlow-Crowne	125	0.35***
EPQ		
Psychoticism	61	-0.18
Extraversion	61	-0.02
Neuroticism	61	0.27*
Lie	61	0.05
Suggestibility (GSS 1)		
Yield	119	0.40**
Shift	119	0.53**
Total suggestibility	119	0.55**
Social Conformity	68	0.54**
Acquiescence	57	0.28*

* $P < 0.05$; ** $P < 0.001$.

Wechsler, 1981). This test was administered to some of the forensic cases only; (2) the Marlow-Crowne test of social desirability (Crowne and Marlowe, 1960). This test was administered to subjects in Groups 1, 2, 6 and 7; (3) the Eysenck Personality Questionnaire (Eysenck and Eysenck, 1975). The EPQ was administered to subjects in Groups 1 and 2; (4) The Gudjonsson Suggestibility Scale (Gudjonsson, 1984). The GSS was administered to subject in Groups 1, 2 and 6; (5) The Social Conformity Scale (Pettigrew, 1958); This test was administered to subjects in Group 4; (6) The Acquiescence Scale (Winkler, Kanouse, and Ware, 1982). This test was administered to subjects in Groups 1 and 2 only.

Theoretically, it was expected that compliance would correlate positively with social conformity, social desirability, acquiescence and neuroticism, and negatively with psychoticism. No specific hypothesis was formulated with respect to IQ, but it was important to investigate a possible relationship with IQ for the following reason. IQ correlates to a moderate extent with interrogative suggestibility which makes theoretical sense in view of the nature of the scale (Gudjonsson, 1988a). Since compliance is not related to memory processes like suggestibility it should not correlate with IQ to the same extent.

The Pearson correlations between compliance and the other variables are shown in Table 3.

Most of the hypotheses were confirmed. Compliance correlated most strongly with Social Conformity and Interrogative Suggestibility, and to a lesser extent with Social Desirability. It is interesting that the EPQ Lie did not correlate significantly with compliance whereas the Marlow-Crowne score did. Psychoticism, Extraversion, IQ and age did not correlate significantly with the compliance score.

DISCUSSION

The purpose of the present paper is to introduce a new compliance questionnaire, which has particular application to the assessment of forensic cases. The questionnaire, which consists of 20 true-false statements, has reasonable internal consistency and test-retest reliability. The only problem with the construction of the questionnaire was the poor loading in the factor analysis on items which were keyed False as a compliance response. Since most of the items in the final questionnaire are keyed True for a compliance response an acquiescent response set may not be adequately controlled for. In the present study compliance did correlate significantly with acquiescence, but the correlation is quite low and consistent with what one might expect without a specific acquiescence bias (Gudjonsson, 1986). The items which have the highest factor loadings on the questionnaire indicate that it is primarily measuring how subjects report reacting when pressured by people, especially by those in authority. Conceptually, this makes the questionnaire particularly relevant to the "coerced-compliant" type of alleged false confession (Gudjonsson and MacKeith, 1988). The fact that highly compliant subjects express awareness of their difficulties in coping with pressures when in the company of authority figures, makes the compliance questionnaire more similar to Milgram's (1974) construct of "obedience to authority" than "conformity to group pressure" as described by Asch (1951).

The highly significant correlation between the compliance questionnaire and Social Conformity as measured by Pettigrew's (1958) scale, supports the concurrent validity of the questionnaire. Construct validity is supported by the fact that the questionnaire was able to discriminate significantly between different target groups. Alleged false confessors scored highest on the questionnaire, as predicted, whereas University students and academic staff scored low. Lowest scores were found among the "resisters". Students of the helping professions, that is, student nurses and medical students, obtained higher scores than University staff and students, but lower than prisoners and forensic cases.

The significant correlations between the compliance and suggestibility scores supports the view provided in the introduction that there is a certain overlap between the two constructs. Although there are clear differences, as discussed in the introduction, the findings point to similar mediating variables. Of particular interest are avoidance coping, eagerness to please and social desirability, and certain anxiety factors associated with how individuals cope with pressure (Gudjonsson, 1988b).

Although there is a significant relationship between the compliance questionnaire and the social conformity scale, neither instrument measures "prosocial behaviour" as such and they cannot give any indication about criminal tendencies. Rather, these instruments measure how subjects are likely to yield to pressures by others, irrespective of their criminality. Compliance is therefore likely to be associated with the lack of assertiveness and low "potency scores" as measured by the semantic differential technique of Osgood, Suci and Tannebaum (1957). This probably explains why compliance was found to be quite high among some of the prisoners, a group that can hardly be described as socially conforming. Certain personality traits, such as Psychoticism as measured by the EPQ, would be expected to have some negative relationship with compliance, because it indicates suspiciousness and general unco-operativeness (Eysenck and Eysenck, 1975). Nevertheless, no significant negative correlation was found between compliance and Psychoticism in the present study. One possible explanation is that the subjects' true Psychoticism score was in many instances suppressed by the subjects' high Lie scores. The mean Lie score for Groups 1 and 2 (i.e. the two forensic groups) was 10.2 (SD = 4.8), which is higher than that found among ordinary prisoners (Eysenck and Eysenck, 1975). In a future study, the true relationship between compliance and Psychoticism needs to be investigated in a population that does not have elevated Lie scores. The high Lie score among the forensic cases and alleged false confessors may have been partly due to the circumstances under which they were being tested (i.e. for court report purposes).

It is hoped that the compliance questionnaire is going to complement the previous work into interrogative suggestibility. Its advantage is that it does not, unlike interrogative suggestibility, correlate significantly with IQ. This indicates that it is more of a personality rather than a cognitive measure. In addition, it is a direct self-report measure of subjects' susceptibility when under pressure to comply with requests and obey instructions which they would ordinarily reject. Interrogative suggestibility, on other hand, is a more direct measure of susceptibility to erroneous testimony. Both types of behaviours are relevant to how subjects cope with the demand characteristics of police interviewing and custody.

The major advantage of suggestibility, as measured by the GSS 1 or GSS 2, is that it is a behavioural measure (i.e. it reflects behaviour during a standard experimental paradigm) and is not dependent upon self-report like the compliance questionnaire. This makes it resistant to self-report bias and possible faking. Ideally, compliance should also be measured by a standard experimental paradigm, but for practical and ethical reasons this would be very difficult to achieve within the framework, of a paradigm that has forensic applications. A self-report questionnaire provides a reasonable compromise to a very important area of forensic psychology.

Acknowledgements—The author is grateful to the following people who assisted with the administration of the compliance questionnaire to some of the groups of subjects: Miss Karin Gray, Miss Maggy Hilton, Mrs Freda Steuart-Pownall and Mrs Caroline Stewart. I also acknowledge the help of Miss Juliet May with the preliminary analyses of the questionnaire and Mr John Roscoe who carried out some of the statistical analyses.

REFERENCES

- Asch S. E. (1951) Effects of group pressure upon the modification and distortion of judgement. In *Groups, Leadership and Men* (Edited by Guetzkam H.). Carnegie Press, Pittsburg, Pa.
- Crowne D. P. and Marlowe D. (1960) A new scale of social desirability independent of psychopathology. *J. consult. Psychol.* 24, 349-354.

- Eysenck H. J. and Eysenck S. B. G. (1975) *Manual of the Eysenck Personality Questionnaire*. Hodder & Stoughton, London.
- Gudjonsson G. H. (1983) Suggestibility, intelligence, memory recall and personality: an experimental study. *Br. J. Psychiat.* **142**, 35–37.
- Gudjonsson G. H. (1984) A new scale of interrogative suggestibility *Person. individ. Diff.* **5**, 303–314.
- Gudjonsson G. H. (1986) The relationship between interrogative suggestibility and acquiescence: empirical findings and theoretical implications. *Person. individ. Diff.* **7**, 195–199.
- Gudjonsson G. H. (1987) A parallel form of the Gudjonsson Suggestibility Scale. *Br. J. clin. Psychol.* **26**, 215–221.
- Gudjonsson G. H. (1988a) The relationship of intelligence and memory to interrogative suggestibility: the importance of range effects. *Br. J. clin. Psychol.* **27**, 185–187.
- Gudjonsson G. H. (1988b) Interrogative suggestibility and its relationship with assertiveness, social anxiety, fear of negative evaluation and methods of coping. *Br. J. clin. Psychol.* **27**, 159–166.
- Gudjonsson G. H. and Clark N. K. (1986) Suggestibility in police interrogation: a social psychological model. *Social Behav.* **1**, 83–104.
- Gudjonsson G. H. and Gunn J. (1982) The competence and reliability of a witness in a criminal court: a case report. *British Journal of Psychiatry*, **141**, 624–627.
- Gudjonsson G. H. and MacKeith J. A. C. (1988) Retracted confessions: Legal, psychological and psychiatric aspects. *Med., Sci. Law.* **28**, 187–194.
- Irving B. and Hilgendorf L. (1980) Police interrogation. The psychological approach. *Research Study No. 1*. H.M.S.O., London.
- Konoske P., Staple S. and Graf R. G. (1979) Compliant reactions to guilt: self-esteem or self-punishment. *J. Social Psychol.* **108**, 207–211.
- Milgram S. (1974) *Obedience to Authority*. Tavistock Publications, London.
- Osgood C. E., Soci G. J. and Tannebaum P. (1957) *The Measurement of Meaning*. Univ. of Illinois Press, Ill.
- Pettigrew T. F. (1958) Personality and sociocultural factors in intergroup attitudes: a cross-national comparison. *Confl. Resol.* **11**, 29–42.
- Wechsler D. (1981) *The Psychological Corporation/Harcourt Brace Jovanovich. WAIS-R Manual*, New York.
- Winkler J. D., Kanouse D. E. and Ware J. E. (1982) Controlling for acquiescence response set in scale development. *J. appl. Psychol.* **67**, 555–561.

APPENDIX 1

Content and Factor Loadings on the Compliance Questionnaire

	<i>Loading</i>
1. I give in easily to people when I am pressured	0.64
2. I find it very difficult to tell people when I disagree with them	0.61
3. People in authority make me feel uncomfortable and uneasy	0.60
4. I tend to give in to people who insist that they are right	0.57
5. I tend to become easily alarmed and frightened when I am in the company of people in authority	0.56
6. I try very hard not to offend people in authority	0.52
7. I would describe myself as a very obedient person	0.48
8. I tend to go along with what people tell me even when I know that they are wrong	0.48
9. I believe in avoiding rather than facing demanding and frightening situations	0.47
10. I try to please others	0.46
11. Disagreeing with people often takes more time than it is worth	0.45
12. I generally believe in doing as I am told	0.43
13. When I am uncertain about things I tend to accept what people tell me	0.43
14. I generally try to avoid confrontation with people	0.41
15. As a child I always did what my parents told me	0.35
16. I try hard to do what is expected of me	0.31
17. I am not too concerned about what people think of me	–0.29
18. I strongly resist being pressured to do things I don't want to do	–0.27
19. I would never go along with what people tell me in order to please them	–0.26
20. When I was a child I sometimes took the blame for things I had not done	0.25