



EFFECT OF DISSIMULATION ON SELF-REPORT AND OBJECTIVE MEASURES OF PERSONALITY

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Summary—The effect of subject dissimulation on self-report personality inventories (EPQ-RS and IVE Questionnaires) and two objective tests (time taken to complete the questionnaires and time taken to trace a circle) was investigated. A total of 150 subjects were placed in one of three conditions: (1) faking towards the personality of a successful stockbroker; (2) faking towards the personality of a successful librarian; or (3) control. When motivated to fake, it was hypothesized that objective tests would be more resistant to faking and thus more accurate than self-report personality questionnaires. Results supported this hypothesis and also demonstrated the validity of both objective measures. Copyright © 1996 Elsevier Science Ltd.

INTRODUCTION

According to Blinkhorn and Johnson (1990) around 50% of companies in the U.K. use self-report personality inventories for employee recruitment. Yet severe doubts have been cast over the accuracy of such measures. Indeed, their own investigations led Blinkhorn and Johnson to declare that “there is precious little evidence that even the best personality tests predict job performance” (p. 672). One of the main problems with using these “pen and paper” questionnaires is that they are easy to fake (Furnham, 1986). Power and MacRae (1971) demonstrated that subjects could identify the specific items underlying the dimensional structures of Extroversion (E), Neuroticism (N) and the Lie (L) scale of the Eysenck Personality Inventory (EPI). Such transparency suggests that subjects can choose answers to suit the kind of image they wish to portray, thus defeating the purpose of using the questionnaire in the first place. The extent of faking or dissimulation is highly dependent on the subject’s motivation to cheat (Corr & Gray, 1995). For example, a questionnaire administered as part of an employee selection procedure is likely to induce strong motivation to lie.

Measures have been introduced which attempt to overcome faking. Eysenck, Eysenck and Shaw (1974) recommended including instructions to answer “as honestly as possible”. Yet Edwards (1957) has pointed out that “faking good” may not be an entirely conscious or deliberate act, so such instructions may not wholly eradicate the problem. The validity of the item would thus become confounded if the subject’s self-perception was false (Kline, 1992). L-scales have also been introduced to detect faking by identifying those subjects who generally choose socially desirable responses (Furnham, 1986). Subjects scoring above a cut-off point are assumed to be ‘faking’ and their test scores are not interpreted further. A number of studies have shown the sensitivity of the L-scale to dissimulation. For example, when instructed to “fake good”, students tended to show an increased L-score (Gorman, 1968). Candidates awaiting selection to the police service had significantly higher L-scores compared to controls, police recruits and probationary constables. It appears that the selection procedure motivated candidates to dissimulate (Furnham & Henderson, 1982). However, L-scales have also been criticized. Kline (1992) pointed out that removing those subjects whose L-scores exceed a specific cut-off point does not solve the actual problem of dissimulation but simply eliminates those subjects who distort a large number of responses. From an employee selection point of view, this may also eliminate some of the best candidates. Moreover, the L-scale is unlikely to detect all patterns of faking. For example, candidates applying for a job as a stockbroker may well try to make a positive impression by appearing to be less socially conforming than candidates applying to be a librarian, and would therefore go undetected. Dunnett, Koun and Barber (1981)

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reported that the L-scale of the EPI did not effectively discriminate honest subjects from those "faking bad" (i.e. faking to a less socially desirable personality). Additionally, Jackson and Wilson (1994) challenged the traditional assumption that high L- and low N-scores are the sign of a dissimulator (Michaelis & Eysenck, 1971) by suggesting that patterns of "faking good" can take on different forms according to the characteristics of different professions.

The potential for bias in completing self-report personality questionnaires raises some alarming questions about the faith some employers have put in their usage as selection, appraisal and redundancy instruments. The Observer (9 October 1994) highlighted the growing concern surrounding the use of personality questionnaires in selecting people for redundancy by citing two organizations currently involved in unfair dismissal claims: Anglian Water and Southwark Council. According to Ann Vinden, Regional Officer for Unison, Anglian Water based decisions for redundancy on self-report personality tests plus an interview. Up to 70 cases are likely to come before the industrial tribunal.

What is needed in occupational and other settings is an accurate personality test in which subjects are unable to manipulate their answers. Objective personality tests have this potential. Cattell (1957) described an objective test as any task which shows variance, can be objectively scored and whose purpose is indecipherable to the subject. There has been some success in demonstrating the 'manipulation-free' qualities of such tests. Posey and Hess (1984) revealed that prisoners could fake the 'obvious' scales (self-report) but not the 'non-obvious' scales (Draw-A-Man test). Cattell and Warburton (1967) compiled a compendium of over 800 objective personality and motivation tests for use in experimental research. Unfortunately, little progress has followed, other than the work completed by Cattell and his associates. In 1978, Cattell and Schuerger developed the Objective-Analytical Test Battery aimed at measuring 10 source traits factors. Although the test had considerable potential, it lacked validity and was confounded by ability (Kline & Cooper, 1984). Despite the criticisms of objective personality tests the advantages over self-report questionnaires indicate that objective tests are much better suited towards personality assessment, particularly in the realm of employee selection. Kline (1995) described their advantages in terms of their likely resistance to biases involving lack of self-perception, faking and cross-cultural differences.

The traditional approach to investigating dissimulation (i.e. asking subjects to 'fake good/bad', to lie, to be honest or simply to give subjects financial incentives) typically relies on the subject's own broad interpretation of what is required and has led to equivocal results (Gorman, 1968). Alternatively, subjects can be instructed to fake responses according to particular stereotypes (e.g. Velicer & Weiner, 1975). Such specific stereotypes can be identified in the occupational field. For example, candidates are likely to believe that the trait of 'impulsivity', defined as acting on the spur of the moment, with little consideration, in a spontaneous and unplanned manner (Kagan, 1966), is fundamental to the successful performance of an advertising salesperson who needs to make important decisions very quickly. However, this characteristic may be detrimental to an accountant who needs to think a situation through slowly and carefully before reaching a decision. In this study, subjects were therefore motivated to 'fake good' according to either a high risk and highly impulsive occupational stereotype (Stockbroker) or a low risk, low impulsive stereotype (Librarian). A third group (Control) was instructed to complete all questionnaires honestly. As a baseline comparison, subjects in all conditions were asked to provide an honest self-rating on an impulsive/neutral/non-impulsive questionnaire.

The self-report personality measures used in this experiment were: the Eysenck Personality Questionnaire Short Scale (EPQ-RS), the IVE Questionnaire (Eysenck and Eysenck, 1991) and an impulsive/neutral/non-impulsive questionnaire constructed specifically for this study. Two objective measures were also used. Molto, Segarra and Avila (1993) reported that impulsives and non-impulsives adopt different information processing strategies. Highly impulsive people have a less reflective cognitive style and tend to respond quickly. Low impulsives, on the other hand, are more concerned with being accurate. Impulsives therefore use faster and less accurate strategies than non-impulsives when processing information. The authors suggested that completing a questionnaire involves reading, processing and responding to each question. Thus, total response speed can be seen as a measure of impulsivity. After completing a 261-item personality questionnaire, they found that subjects classed as 'impulsive' did indeed respond significantly faster. In this study, subjects were timed when completing the EPQ-RS and the IVE. The total time taken to complete both

questionnaires was the first objective measure of the level of impulsivity of the subject: the faster the time, the more impulsive the subject. Wallace and Newman (1990) related the trait of impulsivity to motor speed. The authors identified a neurotic, extraverted individual with impulsivity and related this to Gray's neuropsychological model of impulsive behaviour. Essentially, extraverts are "geared to respond" (Brebner & Cooper, 1974) and readily initiate goal-directed behaviour (Derryberry, 1987). Neurotic individuals tend to respond faster than their more stable counterparts. It was thus predicted that a neurotic, extroverted individual would be highly reactive and more inclined to engage in goal-directed behaviour. To test this theory, the authors asked subjects to trace on a circle template as slowly as possible. The assumption was that impulsives would be less able to inhibit their approach behaviour than non-impulsives when the situation included a concrete goal. As expected, it was found that subjects classed as high extraverts and neurotics ('impulsives') traced significantly faster than 'non-impulsives'. Based on these findings, the second objective measure used in this study was time taken to trace circle templates *as slowly as possible* but in a manner that was in accord with the instructions previously given.

The main aim of this experiment was to determine if objective measures were more resistant to faking and therefore more accurate than self-report personality measures. There were four specific hypotheses:

(1) The EPQ-RS and IVE scores were expected to vary across conditions. In the Stockbroker condition, high Psychoticism (P), E and low L scores were expected together with high Impulsiveness (I), Venturesomeness (V) and low Empathy (Em) scores. In the Librarian condition, the opposite profile was predicted. In the Control condition, mid-range scores across these traits were expected. Both objective tests were expected to show similar scores across the three conditions.

(2) A significant correlation between the two objective tests in each of the three conditions was predicted. This would illustrate their concurrent validity.

(3) Scores on I, as measured by the IVE, were predicted to show significant correlations with both objective tests in the Control condition only. In terms of construct validity, it was expected that there would be: (a) convergent validity in the control condition between objective and 'honest' questionnaire measures of I; and (b) discriminant validity in the other conditions between objective and faked questionnaire measures of I. All this would indicate that the objective tests were more resistant to faking than the self-report measures and therefore truer measures of I.

(4) Scores on the authors' impulsivity measure, in which all subjects answered honestly regardless of condition, were predicted to correlate significantly with the two objective measures in all conditions and also with I, as measured by the IVE, in the Control condition only. This would also provide evidence of construct validity (again in terms of convergent and discriminant validity).

METHOD

Subjects

A total of 150 undergraduate students of London Guildhall University: 44 males (mean age: 25.89 yr, SD: 7.91) and 106 females (mean age: 24.36 yr, SD: 4.96). They ranged in age from 18 to 54 yr.

Materials

Subjects completed five tests that were either personality tests or objective measures:

Personality tests:

- (i) The EPQ-RS (Eysenck & Eysenck, 1991) which measures E, N, P and L.
- (ii) The IVE Questionnaire (Eysenck & Eysenck, 1991). This is a 54 item questionnaire which measures I, V and Em.
- (iii) A self-rating questionnaire consisting of three statements describing a low, medium and highly impulsive individual. The highly impulsive description consisted of statements selected from the IVE. The low impulsive description consisted of the negative form of these selected statements. The medium impulsive description consisted of 50% positive and 50% negative statements.

Objective measures:

- (iv) Combined response time for completing both the EPQ-RS and IVE personality questionnaires.
- (v) Time taken to trace a circle template when instructed to do so *as slowly as possible* (Wallace & Newman, 1990). This test was completed three times: the last test tracing time was used as the dependent variable. The circle template consisted of two concentric circles of 9" diameter (22.9 cm) and 10" diameter (25.4 cm). Hatchmarks transected both circles at the 12 o'clock position. On the right side of the hatchmark on the outermost circle the word 'GO' was printed and on the left side the word 'STOP' was printed.

Job advertisements were compiled for a stockbroker and a librarian. The Times' City appointments page and The Librarian Association's newsletter were consulted for details of wording, common job requirements and layout.

Procedure

Subjects were assigned randomly to one of the three experimental conditions: Stockbroker, Librarian or Control. The order of administration of questionnaires was counterbalanced to eliminate sequence effects. Each subject was tested individually as follows:

(1) Subjects in the Stockbroker and Librarian conditions were shown the appropriate job advertisement and asked to imagine they were in a job interview situation. Subjects were asked to imagine they really wanted this job and should therefore complete both questionnaires according to how they thought the ideal job candidate would complete them. Subjects in the Control condition were asked to complete both questionnaires as honestly as possible.

(2) Subjects were instructed to work at their own speed. A concealed stopwatch was started as soon as the subject began to complete the first questionnaire and stopped as soon as they had completed the second questionnaire.

(3) Once both questionnaires were completed, subjects were instructed to trace a circle in a continuous line on the circle template, *as slowly as possible*, whilst staying within the double lines. Again, subjects were asked to complete the task according to the specific instruction set of the particular condition to which they had been assigned. Subjects started at the word 'GO' and traced clockwise to the word 'STOP'. Timing of this task began as soon as the subject commenced tracing and stopped as soon as they reached the 'STOP' line. This task was repeated three times.

(4) Finally, each subject was asked to complete the authors' Impulsivity self-report questionnaire and tick the box corresponding to his or her true level of impulsivity irrespective of previous instructions to fake.

RESULTS

The means and standard deviations of each scale in the EPQ-RS and the IVE (see Table 1) indicated that: (a) the average score for each scale varied considerably according to experimental condition. In particular, there was a difference of 9.2 points between the average Impulsiveness scores in the Stockbroker and Librarian conditions; (b) Standard deviations in the Stockbroker and Librarian conditions were generally smaller than in the Control condition. These scores generally indicated greater subject homogeneity in the Stockbroker and Librarian conditions in comparison to the Control. The control means, for all traits, were similar to the norms quoted in the manual (Eysenck & Eysenck, 1991). However, it should be noted that the most appropriate group in the manual was that of 21–30 year old females, which is not an exact comparison.

Table 1. Means (and standard deviations) of the scores for each personality scale in the EPQ-RS and the IVE Questionnaires as a function of experimental condition

Condition	P	E	N	L	I	V	Em
Stockbroker	5.36 (2.46)	11.56 (1.74)	1.02 (1.81)	4.24 (2.90)	10.44 (4.07)	14.64 (2.13)	5.72 (3.44)
Control	2.74 (2.30)	8.00 (3.37)	6.54 (3.48)	2.32 (2.02)	8.16 (4.68)	8.36 (4.30)	13.14 (4.19)
Librarian	0.28 (0.67)	5.04 (3.27)	2.18 (2.10)	9.60 (3.21)	1.24 (1.59)	2.58 (3.25)	14.32 (2.93)

P = Psychoticism, E = Extraversion, N = Neuroticism, L = Lie scale, I = Impulsivity, V = Venturesomeness, Em = Empathy. *N* = 50 per condition.

Table 2. Analysis of variance results across the three experimental conditions for each scale of the EPQ-RS and IVE

Self-report measures	Mean square	df	F-ratio	Probability
Psychoticism	322.69	2	81.89	0.000
Extraversion	532.88	2	63.78	0.000
Neuroticism	423.55	2	64.27	0.000
Lie scale	711.79	2	93.76	0.000
Impulsivity	1147.70	2	84.01	0.000
Venturesomeness	1819.10	2	162.53	0.000
Empathy	1086.70	2	85.84	0.000

N = 150 across the three experimental conditions.

All seven personality scales showed significant differences across experimental condition at the 0.000 level (Table 2). The scales that showed the highest *F*-level ratios, in order of magnitude, were: V, I, E and L. Tukey test analyses showed that subjects in the Stockbroker condition had higher P, E, I and V scores than those in either the Librarian or Control conditions. In particular, there were sharp contrasts between scores in the Stockbroker and Librarian conditions: $P = 5.36$ vs 0.28 ; $E = 11.56$ vs 5.04 ; $I = 10.44$ vs 1.24 ; $V = 14.64$ vs 1.24 . Subjects in the Librarian condition scored significantly higher on L than subjects in either the Stockbroker or Control conditions. Although there was no significant difference between scores in the Stockbroker and Librarian conditions for N, subject responses in both conditions were significantly lower than in the Control. Em scores in the Stockbroker condition were significantly lower than those in the other two conditions (5.72 vs 14.32 and 13.14) but there was no significant difference between the Librarian and Control Em scores.

Figures 1a and b illustrate the means and standard deviations for both objective tests. They indicate that subjects' responses were unaffected by the experimental conditions, in particular identical mean timings were obtained in Objective Test 1 for both the Stockbroker and Librarian conditions. The differences between the means in each condition were not significant for either the Questionnaire or the Circle timings.

Table 3 shows the correlations between personality scale and objective measures in the Stockbroker, Librarian and Control conditions. I was significantly positively correlated with E in the Librarian condition ($r = 0.41$, $P < 0.001$) and Control condition ($r = 0.36$, $P < 0.01$). There were significant positive correlations between I and P in the Stockbroker condition ($r = 0.65$, $P < 0.001$) and in the Control condition ($r = 0.46$, $P < 0.001$). N was significantly correlated with I in the control condition only ($r = 0.29$, $P < 0.05$). There was a positive correlation between N and L in the Stockbroker condition and a negative correlation between N and L in the Librarian and Control conditions. See Table 3 for other correlations between E, N, P, V and Em.

Analysis of the objective test results in each condition revealed significant positive correlations between the questionnaire and circle timings in all three conditions: Stockbroker ($r = 0.37$, $P < 0.01$), Librarian ($r = 0.30$, $P < 0.05$), Control ($r = 0.48$, $P < 0.001$). There were no significant

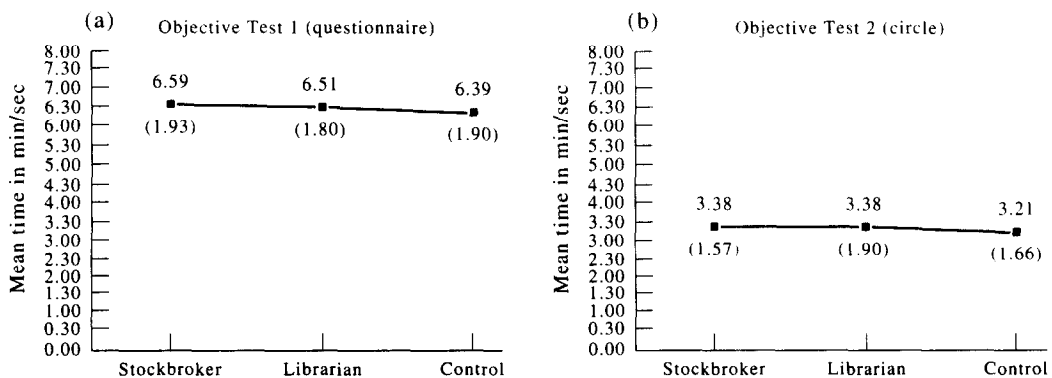


Fig. 1(a) and (b). Means (and standard deviations) for subject responses (min/sec) in Objective Test 1 (time taken to complete two questionnaires) and Objective Test 2 (time taken to trace the template of a circle as slowly as possible) as a function of experimental condition. *N* = 50 per condition.

Table 3. Correlation coefficients for the Stockbroker, Librarian and Control conditions between the seven scales of the EPQ-RS, Impulsiveness questionnaires, Objective Test 1 (time taken to complete both questionnaires) and Objective Test 2 (time taken to trace the template of a circle as slowly as possible)

Stockbroker									
	P	E	N	L	I	V	Em	Q	C
Extraversion (E)	0.02								
Neuroticism (N)	-0.12	-0.81***							
Lie scale (L)	-0.48***	-0.04	0.13						
Impulsivity (I)	0.65***	-0.09	0.05	-0.53***					
Venturesome (V)	0.52***	0.38**	-0.48***	-0.37**	0.44**				
Empathy (Em)	-0.61***	-0.13	0.30*	0.48***	-0.44**	-0.51***			
Questionnaire (Q)	0.06	-0.20	0.04	-0.17	0.02	0.14	0.01		
Circle (C)	-0.07	0.08	-0.15	-0.08	-0.03	0.12	-0.00	0.37**	
Impulsiveness self-rating	-0.06	0.16	0.02	-0.01	-0.14	-0.01	0.04	-0.37**	-0.25
Control									
	P	E	N	L	I	V	Em	Q	C
Extraversion	0.35*								
Neuroticism	-0.10	-0.35*							
Lie scale	-0.15	-0.30*	-0.12						
Impulsivity	0.46***	0.36**	0.29*	-0.21					
Venturesome	0.45***	0.48***	-0.10	-0.12	0.40**				
Empathy	-0.25	-0.10	0.40**	-0.16	0.04	-0.09			
Questionnaire	-0.09	-0.18	-0.24	0.14	-0.35*	-0.12	-0.04		
Circle	-0.21	-0.01	-0.32*	0.20	-0.45***	-0.05	-0.03	0.48***	
Impulsiveness self-rating	0.14	0.36**	-0.04	-0.20	0.36**	0.29	0.03	-0.28*	-0.10
Librarian									
	P	E	N	L	I	V	Em	Q	C
Extraversion	-0.16								
Neuroticism	0.07	-0.51***							
Lie scale	-0.05	0.08	-0.11						
Impulsivity	-0.03	0.41**	-0.14	0.04					
Venturesome	-0.09	0.58***	-0.27	0.00	0.73***				
Empathy	-0.09	0.02	0.22	0.06	0.04	0.16			
Questionnaire	0.23	0.16	-0.16	0.11	0.05	0.06	-0.19		
Circle	-0.11	-0.04	-0.13	-0.17	-0.10	-0.07	-0.07	0.30*	
Impulsiveness self-rating	-0.13	-0.06	0.12	0.21	0.07	-0.07	-0.19	-0.39**	-0.39**

N = 50 per condition.

* = $P < 0.05$, ** = $P < 0.01$, *** = $P < 0.001$.

Two tailed tests were employed.

correlations between the IVE I score and the questionnaire/circle timings in either the Stockbroker or Librarian conditions. However, there was a significant negative correlation between the I score of the IVE in the Control condition and the Questionnaire timing ($r = -0.35$, $P < 0.05$) and the Circle timing ($r = -0.45$, $P < 0.001$). The subjects' own self-rating measures of impulsivity correlated with the IVE I score in the Control condition only ($r = 0.36$, $P < 0.01$). The time taken to complete the two questionnaires correlated significantly with this self-rating in all three conditions (Stockbroker: $r = -0.37$, $P < 0.05$; Control: $r = -0.28$, $P < 0.05$; Librarian: $r = -0.39$, $P < 0.01$). The time taken to draw a circle, as slowly as possible, correlated with this self-rating in the Librarian condition only ($r = -0.39$, $P < 0.01$).

DISCUSSION

The results showed a significant relationship between the instructions given in each experimental condition and the scores of the EPQ-RS and IVE. More precisely, subjects demonstrated the ability to fake answers to match highly specific occupational stereotypes. In the Stockbroker condition, for example, the overall profile was of a highly extroverted, impulsive, venturesome character with very few empathic tendencies. This is consistent with the general stereotype of such a personality. In contrast, the results in the Librarian condition described an introvert with few psychotic, impulsive or venturesome tendencies but with a high degree of empathy. Again this is a fairly predictable description of the commonly-held stereotype of librarians. In the Control condition, where subjects answered honestly, condition means were similar to norms quoted in the test manuals and scores were in-between the Stockbroker and Librarian conditions. This indicates an 'average' profile. Responses to the objective tests, however, were unaffected by individual instruction sets and provided relatively uniform responses across conditions. Therefore the results supported the experimental

hypothesis that self-report questionnaires are highly susceptible to deliberate faking, whilst objective measures are resistant.

Contrary to Eysenck and Eysenck's (1991) claim that the L-scale can detect those subjects who are 'faking', results of this study indicated that it did not effectively discriminate all faking subjects from honest subjects. Three key methods for detecting dissimulation using the L-scale all proved fallible. Firstly, the notion that high L-scores indicate deliberate distortion is misleading as there was no significant difference between the Control condition and the Stockbroker condition. In other words, faking towards a stockbroker stereotype was not detectable by using the L-scale. Secondly, it is unlikely that subjects' L-scores in the Stockbroker condition would have been above a 95% cut-off point, for the same reasons. Thirdly, Eysenck and Eysenck (1991) reported that 'faking good' involved reducing the N-score at the cost of increasing the L-score. Yet in this study, the N/L correlations took opposite forms in the Stockbroker (positive correlation) and Librarian (negative correlation) conditions. Such patterns of results could be predicted from Jackson and Wilson's (1994) findings. The L-scale appears to be more sensitive to detecting those subjects who 'fake good' rather than those who 'fake bad'. This is a fundamental flaw in occupational terms because it ignores the fact that subjects may be motivated to 'fake bad' to an occupational stereotype such as a stockbroker (i.e. not trying to be overly honest to reinforce a tough attitude). The L-scale overlooks the fact that, in certain occupations, 'faking good' is seen as a vice rather than a virtue.

The high mean L-score in the Librarian condition also suggests the measurement of some stable personality factor in its own right. Francis, Philipchalk and Brown (1991) proposed that the L-scale of the EPQ contained two components. Component A functions as an index of social conformity, component B as a purer index of dissimulation or 'impression management' (Bartram, 1992). A further problem with the L-scale of the EPQ and the EPQ-RS is therefore the differentiation between those adopting 'impression management' and those with the genuine social conformity trait. It is likely that the stereotype of a librarian contains a greater element of social conformity than the stockbroker. Thus the results of this study support the proposal of Francis, Philipchalk and Pearson (1991) that the two components of the L-scale be scored separately to achieve a purer (although still flawed) measure of dissimulation and a separate index of social conformity.

It has been shown that the objective tests used in this study were resistant to faking. However, validity of these tests must also be demonstrated. It was clear that they lacked face validity because no transparent connection existed between the objective measures and impulsivity. However face validity is of little relevance and only relates to rapport and good relations (Anastasi, 1961). Results of this study showed that the lack of face validity was in fact an advantage to the objective tests because it ensured that subjects were unable to fake their answers. In contrast, the high face validity of the self-report questionnaires simply enabled subject dissimulation. In regard to the objective measures more important technical components of validity were found. First, the significant correlations in each of the experimental conditions between the two objective tests demonstrated their concurrent validity. In other words both objective measures were measuring the same aspect of personality. Second, the significant negative correlation between the IVE impulsiveness score and the questionnaire and circle timings in the control condition only, indicated convergent validity and suggested that both objective tests were measuring a relatively true level of impulsivity. Third, discriminant validity was demonstrated by the lack of significant correlations between objective tests and I scores of the IVE in the faking conditions. Fourth, the self-ratings of I and objective test scores correlated significantly in each condition, with the exception of the circle timings in the Control and Stockbroker conditions (the latter is significant using a one-tailed test), despite subjects' attempts at faking the objective tests in the Stockbroker and Librarian conditions. In contrast, the correlation between the self-ratings and the I scores of the IVE was significant in the control condition only, in which subjects had been instructed to answer honestly. The correlations between the subjects' self-rating on I, as measured by the authors' own self-report questionnaire, and their scores on the IVE and the two objective measures provides strong evidence that the objective tests have construct validity.

Overall, the results of this study indicate that a fundamental drawback of using self-report personality measures, particularly in the occupational field, is the subject's considerable ability to fake responses. The results support Corr and Gray's (1995) claim that the relationship between the EPQ and faking depends on the specific motivational characteristics of the population in question,

indicating that researchers should establish the degree of dissimulation for given populations rather than rely on global measures of dissimulation. Global personality traits are likely to be too broad for accurate detection of dissimulation. Indeed, Eysenck, Barrett, Wilson and Jackson (1992) and Jackson and Lawty-Jones (1996) both emphasized the importance of looking at the underlying components of traits and their interactions.

In contrast, to the self-report questionnaires, the objective tests proved harder to 'fake' and provided a more accurate measure of personality. Researchers have long since noted the potential benefits of objective tests. Cattell (1965) recommended using a battery of objective tests when testing job applicants because they might be expected to fake responses. Kline (1995) claimed that "objective measures appear to overcome many of the defects of the older techniques". A lack of demonstrable validity has been holding back the use of such tests for too long. This study has demonstrated the validity of two objective measures of impulsivity. The next step must be to demonstrate the validity of objective measures for other personality traits. To ensure that objective measures of personality are not confounded with ability (Kline & Cooper, 1984), it would be wise to develop measures of the different strategies used by subjects as opposed to simple performances measures. The aim, ultimately, will be to provide what self-report questionnaires cannot. Namely an accurate measure of personality, in contrast to the subject's ability to manipulate the tester.

Certain limitations with these results, however, should be considered: (a) Predictive validity was not measured in this experimental design; and (b) reading and comprehension skill was not controlled for in this experiment, yet this could have had an effect on the subjects' time taken to read and answer the questionnaires. However, it should be noted that the sample was relatively homogeneous as all subjects were enrolled on a degree level course.

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