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Confounding of Assessment Method with Reaction Assessed in the Three Systems Model of Fear and Anxiety: A Comment on Douglas, Lindsay and Brooks

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Confounding of assessment method with reaction assessed in the three systems model of fear and anxiety: a comment on Douglas, Lindsay and Brooks.

In a well-designed study, Douglas, Lindsay and Brooks (1988) have shown disappointing correlations between rated behaviour in a social performance task and several questionnaire and autonomic measures of social anxiety. Because most of the other measures showed strong concordance, it appeared that behavioural ratings alone would give an inaccurate impression of the subject's anxiety level.

It is well-known that the three response systems (autonomic, behavioural and cognitive) do not covary at all strongly. But part of the problem in some demonstrations of this is the confounding of (1) assessing different response systems and (2) asking different "questions" in those different response systems (Cone, 1979). In their Table, Douglas *et al.* show that there is a strong relationship between the autonomic self-report questionnaire (MSPQ) and the autonomic measure (pulse rate) used in the performance test. Assuming that the MSPQ included a question on pulse rate, then the high correlation shows that asking the same question ("How high is the pulse rate?") in two response modes (self-report and physiological monitoring) produces consistent results. Similarly, the cognitive self-report questionnaire (SASSC) correlated well with the cognitive "fear thermometer" (Fear C) during the performance test. The questions asked were a little different—to paraphrase, they were "Which negative self-statements do you have?" (SASSC) and "How much difficulty did you have in thinking clearly?" (Fear C), but in this case the same response mode, self-report or cognitive, was used for both assessments.

By contrast, the behavioural self-report questionnaires did not show clear correlations with rated verbal and nonverbal behaviour in the performance test. Of the four relevant comparisons here, only the correlation between the self-report discomfort measure (SSQD) and the ratings of verbal behaviour (SIT Verbal) was statistically significant. Yet it is not surprising that the self-report measure of frequency of entering various social situations (SSQF) did not correlate strongly with observer ratings of verbal and nonverbal behaviour, because very different questions were asked. "How often does the person enter such-and-such a situation?" is a different question from "What were the person's voice pitch, gaze, posture, etc. like?"

If the same "question" is asked throughout each response system, the intercorrelations among the systems will be much higher. A problem is that the same question cannot always be asked of different response systems. Table 1 illustrates this.

The chief difficulty is with the cognitive response system. Until someone invents Dr Isaac Asimov's fictional "psychoprobe", there is no way of asking about subjects' thought content other than by asking them about their thought content. Instead, we ask different questions of the other response systems: We ask subjects about their

TABLE 1. Assessment methods and reactions assessed. It makes sense to correlate 1 (b) with 2 (b), and 1 (a) with 3 (a); in each case, the same question is being asked, but in different response systems. The problem is, what to correlate with 1 (c) while asking the same question?

Assessment method		Reaction assessed
1. Self-report	(a) Autonomic	("I perspire; my pulse races")
	(b) Behavioural	("I avoid social settings; my speech is disturbed")
	(c) Cognitive	("I think negative thoughts; I cannot think clearly")
2. Behavioural observation	(a) Autonomic	(subject perspires; looks redfaced)
	(b) Behavioural	(subjects avoids; shows speech disturbance)
	(c) Cognitive	(...?)
3. Psychophysiological monitoring	(a) Autonomic	(low skin resistance on GSR; increased HR)
	(b) Behavioural	(...?)
	(c) Cognitive	(...?)

thought content via the assessment device of self-report, then we ask how disrupted subjects' behaviour is via the assessment device of behavioural observation. It should not surprise us when different measures of anxiety do not agree with each other when we confound "question asked" with "response mode".

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