Beliefs and the Subjective Meaning of Thoughts: Analysis of the Role of Self-Statements in Academic Test Performance

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Although research in test anxiety has shown that anxious students emit more negative self-statements than nonanxious students, there is little evidence directly linking negative thoughts to lower test performance. One explanation for this finding is that covert self-statements may function differently depending on an individual's academic competence beliefs. This study was designed to evaluate this formulation first by comparing high and low competence beliefs groups on the frequency of negative thought content during a simulated testing session and for differences in the subjective meaning that they attached to these covert thoughts. Second, the degree to which negative thoughts correlated with test performance and the degree to which non-facilitative subjective meaning responses correlated with test performance were compared. Results indicated that differences in competence beliefs were unrelated to negative thoughts but were significantly related to the types of subjective meaning given thought-listed responses. Comparisons among the cognitive variables showed that only subjective meaning responses were consistently predictive of anagram and math test performance. Results are discussed in light of supplemental analyses and with regard to further research and clinical implications.

KEY WORDS: test anxiety; cognitive structures.

This research was supported by a fellowship and grant-in-aid to the first author from the SUNY Joint Awards Council and University Awards Committee. Appreciation is expressed to Randy Cale for his invaluable assistance with various phases of this study.
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Recent theoretical models of test anxiety have emphasized the critical role of covert thoughts in the test-taking behavior of high and low test-anxious students (Meichenbaum & Butler, 1980; Sarason, 1975; Wine, 1980). These models postulate that dysfunctional beliefs or attitudes about academic evaluation as well as attentional focus on negative self-statements may disrupt important task behaviors or produce excessive emotional arousal leading to decrements in test performance. A review of empirical investigations designed to clarify the role of these cognitive variables suggests at least two clear but possibly contradictory conclusions (Arnkoff & Smith, 1982; Bruch, Juster, & Kaflowitz, 1983; Deffenbacher, 1980; Galassi, Frierson, & Sharver, 1981a, 1981b; Galassi, Frierson, & Siegel, 1984). First, in these studies test-anxious students reported a greater tendency to focus on negative thoughts in both analogue and actual testing situations. Second, in studies where measures of negative thought content were correlated with performance outcomes, there was little evidence that the frequency of dysfunctional thoughts was significantly associated with meaningful decrements in test performance. For example, Galassi et al. (1981a, 1981b) did not find relationships between self-statement inventory scores and test scores in an actual classroom examination. Using the same inventory, Bruch et al. (1983) also found no relationships among self-statements and scores on simulated classroom tests. Galassi et al. (1984) employed a thought-listing procedure and related the frequencies of content categories to test scores in an actual exam situation. In this study there was a significant relationship between thought content and performance but thought codes predicted only 4% of test score variance.

In contrast, only two studies were identified that showed a relationship between the frequency of negative thoughts and lower test scores. Bruch (1978) found that the frequency of negative self-statements was significantly associated with poorer anagram solution times. In an actual exam situation, Arnkoff and Smith (1982) compared the relative amounts of variance in final exam scores predicted by two measures. They found that both negative thought scores from Galassi's inventory, and the amount of negative-task statements obtained from a thought-listing measure, predicted significant but small amounts of test score variance.

Although differences in methodology make comparisons difficult, the majority of findings point to a lack of relationship between the content of covert thoughts and test performance. One explanation for this rests with certain assumptions that are made of how covert thoughts affect performance. Galassi et al. (1984) have argued that the potential effects of covert thoughts on performance may not occur as a result of the sheer frequency of certain thoughts but as a result of the sequencing of particular types of thought content. It is assumed that such sequencing may reflect underlying processes, for example, coping with negative thoughts versus being overwhelmed by