Cognitive Skills

interactive assessment programs that confront the person with complex, realistic problems and then track his cognitive processing all the way through to his "answers." Such a program would draw upon the work of Sternberg and others, as well as on the cognitive dimensions that are currently assessed by the Rorschach technique.

LECTURE 3: ASSESSING MOTIVATION, VALUES AND COPING SKILLS THAT AFFECT COMPETENCE.

In his chapter, Strategies of Adaptation, White (1976) identifies three necessary elements of successful adaptation, which I equate with competence. A person must (1) keep securing adequate information about the environment (cognitive); (2) maintain satisfactory internal conditions (feelings and motivation both for action and for processing information), and (3) maintain autonomy or freedom of movement, freedom to use his repertoire in a flexible fashion (coping skills). There are consistent findings across almost all of the studies of effectively functioning individuals in American Society, supporting this model. As Mondell and Tyler sum it up, effective people show a sense of self-efficacy, an "active, planning, coping style," and a "moderate degree of optimism and trust to build constructive social interactions" (Mondell and Tyler, 1981). One study simultaneously assessed the contribution of all these factors to school achievement at ages 10 and 14, in eight countries (Peck et al, 1981), with a fifteen-year longitudinal follow-up study of adult competence in the Austin, Texas sample (Peck, Payne and Cisneros-Solis, 1983). Cognitive skill was estimated by the Raven Progressive Matrices. Strength of motivation was measured by educational and occupational aspiration measures. Motivational values were measured by an Occupational Values instrument, based on Super's work (Super, 1957). Emotionalised attitudes were measured by a sub-set of items in a Sentence Completion instrument. A conceptual model of coping skills was inductively derived from Story Completion data, then measured by Sentence Completion items and two coping questionnaires. The model of coping skills was found to apply uniformly in all of the countries (Peck, 1983). The multi-dimensional model for predicting competence (school achievement) was found valid in all countries, with significant contributions by each element: cognitive skills,
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strength of motivation, quality of motivation (intrinsic vs. extrinsic), controlled emotionality, and active, effective generalised coping skills. The percent of criterion variance explained ranged from a low of 7% on one achievement measure, in Brazil, to the 40%-52% range in England, West Germany, Japan, the U.S. and Yugoslavia. In the longitudinal follow-up the age-14 non-cognitive measures explained 36% of the variance in age-29 work competence and general competence; 36% of job status level; 24% of social mobility; 24% of the management of anger; and 27% of the management of anxiety. Adult instruments embodying the attitude and coping concepts, in particular one called Individual Styles of Coping, similarly accounted for 39% of the variance in rated career competence, 32% of general competence, 39% of interpersonal competence, and significant amounts of other kinds of competence. The cross national findings indicate that the same combination of cognitive skills, positive motivation, emotional self-control and active self-generating coping skills that explain competence in the numerous North American studies, play a very similar role in seven other societies, as culturally diverse as England, Italy, Japan, Brazil, Mexico, West Germany, Yugoslavia and two regions of the U.S. The longitudinal findings in the Texas sample confirm the substantial stability of these attributes over at least a fifteen year period. This finding replicates those of the other longitudinal studies reviewed in Lecture 1.

Coping skills, in particular have come to be the central focus of many current lines of research in this field. Lazarus and his colleagues have found a wide repertoire of specific things that people do as they try to deal with a particular life-task, or crisis. (Lazarus, 1966; Lazarus et al, 1974; Lazarus and Cohen, 1977). In particular, they have identified two different aspects of coping: mastering external problems and regulating one's emotionalised reactions to problems. A recent study of the second aspect is reported in "Coping behaviours that mediate between life events and depression" (Parker and Brown, 1982). Fenz used psychophysiological and TAT measures of cognitive and emotional reactions to stress, in a study of parachutists, (Fenz, 1976). Among the interesting, clearly patterned findings were these: "good, experienced parachutists showed an early rise in heart rate during the early phases of the jump sequence followed by a steady decline to normal levels ... at the time of jump. The poor, inexperienced parachutist ...showed a steady rise from (about) 92 bpm when first arriving at the airport to an average of about 122 bpm just before exiting the aircraft ...Skill is directly related to the way in which a person has learned to control his autonomic responding." Elsewhere, Fenz observes, "the experienced jumper becomes increasingly more externally task oriented, whereas the