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CHAPTER 1 Goals of the CPI 260™ Instrument

The goal of the inventory is to give a true-to-life description of the respondent, in clear, everyday language, in formats that can help the client to achieve a better understanding of self. The reports should also be helpful to counselors, personnel officers, and others properly entitled to have access to the findings. At present two reports are available. One, called the CPI 260™ Coaching Report for Leaders, gives information on leadership style, areas of strength as a leader, and areas where improvement in leadership performance can occur. This computer-based interpretational narrative has its own user's guide (Manoogian, 2005) and instructional materials.

The other is the CPI 260™ Client Feedback Report, for which a guide for use is also available (Devine, 2005). In our more general and technical manual, we will tell how the CPI 260™ scales were developed and validated, furnish extensive norms, examine relationships to a number of widely used personality measures, and offer research-based suggestions for interpretation. Basic psychometric data will also be presented.

The CPI 260 instrument is derived from the full *California Psychological Inventory*™ instrument. As discussed in the manuals for the 434-item inventory (Gough & Bradley, 1996/2002; Gough & Cook, 1996), there is abundant empirical and theoretical source material for the CPI™ instrument, covering more than 50 years of usage, translations and study in more than 40 languages, and a bibliography of approximately 2,000 titles. This bibliography can be obtained from CPP, Inc. Because of the very strong correlations between CPI 260 scales and their corresponding measures on the full 434-item CPI instrument, data found in the CPI manual and research literature can be safely applied to interpretation of the scales as they are scored on the CPI 260 instrument.

BASIC QUESTIONS

Five basic principles govern the choice of attributes to be assessed by the CPI 260 instrument, the number of scales to include, how each should be developed, their interrelationships, and the logic of grouping them into categories so as to facilitate interpretation.

A first question asks about what attributes of personality to measure. One answer is to assess aspects of psychopathology, ways in which difficulties in adjustment are manifested, and negatives of personality in general. Several of the most widely used instruments in psychology have adopted this strategy. An example is the *Minnesota Multiphasic Personality Inventory* (MMPI; Hathaway & McKinley, 1943, 1987), which is scaled for diagnostic concepts of psychiatry, plus ancillary scales for variables such as health concerns, anger, cynicism, and social discomfort. Another example is the *Millon Clinical Multiaxial Inventory* (MCMI; Millon, 1987), scaled for negative personality patterns such as schizoid, histrionic, and self-defeating personality disorders, and clinical syndromes such as bipolar-manic, alcohol dependence, and thought disorder. Instruments such as these are commonly used in clinical settings, where they have proven value, but are less relevant and of less value in personnel assessment and in settings where the

emphasis is on positive, life-enhancing attributes and dispositions.

A second answer to the question is to extract psychometric themes within a library of items, usually by means of the mathematical technique of factor analysis. One example of this approach is Cattell's *Sixteen Personality Factor Questionnaire,* or 16PF (see Conn & Rieke, 1994). The 16PF has 16 primary scales, including warmth, liveliness, vigilance, and perfectionism, plus five higher-order measures. Another example is the *NEO Personality Inventory* (Costa & McCrae, 1992), whose five factor scales assess themes of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. A goal for factor analytic tests is to keep interscale correlations as close to zero as possible, except for tests such as the 16PF, which are based on oblique rotations of factors, leading to partially correlated scales.

A third approach is to create scales for assessing each of the themes proposed by formal theories of personality. A good example of this methodology is the *Myers-Briggs Type Indicator*® (MBTI®) assessment (Myers, McCaulley, Quenk, & Hammer, 1998), based on the writings of the eminent psychoanalyst C. G. Jung. The MBTI instrument has four bipolar dimensions (Extraversion–Introversion, Sensing–Intuition, Thinking–Feeling, and Judging–Perception) to assess the ways in which individuals are interpersonally oriented, apprehend the world, process this information, and evaluate experience.

A fourth approach was adopted to develop the scales for the CPI 260 instrument. The attributes assessed by the CPI 260 instrument come from the language of everyday life, more specifically from what may be called "folk concepts." A folk concept is a construct about personality that all people, everywhere, make use of to comprehend their own behavior and that of others. Illustrative examples are dominance, sociability, self-control, and tolerance. The CPI 260 instrument has 20 folk concept scales, plus six additional measures directly applicable to the workplace, and three higher-order measures (see Table 1, pp. 6–7). Justification for basing assessment primarily on folk concepts comes from their universality, ease of understanding, immediate relevance to everyday life, and their depiction of positive, self-actualizing psychological characteristics.

All four of the approaches to assessment described above have their own theory and logic, and the tests mentioned have reliable empirical foundations of research. This permits the professional practitioner in assessment to choose those instruments that are most helpful, and accurate, in the particular setting in which testing is to be conducted.

A second question asks how many scales should the inventory contain. For the CPI 260 instrument, the guiding principle in this regard is that a sufficient number of folk concepts should be assessed so that any consequential, recurring form of interpersonal behavior can be forecast, either from a single scale (the rare case), or from a combination of two, three, or even four scales (the usual case). An excellent discussion of both linear and configural combinations of CPI scales may be found in Loring McAllister's book on this topic, *A Practical Guide to CPI™ Interpretation* (1996). Because there is no way to anticipate what criteria will prove to be of interest, or whether the current scales of the inventory will be able to predict them, one must be ready to add measures, as needed. Likewise, if a scale consistently fails to relate to criteria relevant to the purposes of the instrument, it should be dropped. In other words, the set of scales for the CPI 260 instrument constitutes an "open system," a system in which measures may be added or deleted as usage indicates. Additions and deletions of scales have both occurred in the life of the inventory.

A third question concerns the methods by which scales should be developed. In regard to this issue, there are two dominant methods in psychology. The first, often called the "internal consistency" method, assigns items to a scale according to the magnitude of the correlations of each item with all others in that same measure. The goal is a set of items, all having face relevance to the target of measurement (for example, introversion), and all highly correlated with one another. Although this method assures high internal consistency, it does not guarantee predictive validity or correspondence to nontest specifications of the same attribute.

The "empirical" method of scale development, in contrast, examines each item for its association with an external or nontest specification of the attribute to be assessed. Those self-report items that correlate well with a nontest criterion are kept for the scale, and those that do not are rejected. This method makes sure that the scale will relate appropriately to the nontest world but often results in sets of items having low intercorrelations. The psychometric concept for internal homogeneity of items is *reliability;* the concept for linkage to appropriate nontest criteria is *validity.* The internal consistency method of scale development stresses reliability over validity, whereas the empirical method emphasizes validity over reliability. Experts in psychometrics can be found on both sides of the issue as to which method is better.

The empirical technique of scale construction was used for most of the measures in the CPI inventory. One reason for this choice is that a basic goal of the inventory is to assess interpersonally defined dispositions such as dominance and flexibility; another goal is to include scales capable of predicting important criteria such as managerial performance and dependability as a worker. More specifically, for the scales of the CPI inventory, two and only two purposes are crucial: first, to predict with reasonable accuracy what people will say and do in defined situations; and second, to identify people who will be described in meaningful and differentiated ways by those who know them well. Consider the Responsibility (Re) scale. High-scorers should acknowledge respect for societal ethics, should display honest and reliable behavior at work and elsewhere, and should be described by friends and acquaintances as dependable, conscientious, and trustworthy. A comprehensive survey (Weekes, 1993) of research done with the Re scale indicates that all these implications have been verified.

A fourth question inquires about the intercorrelations to be desired among the scales of the CPI 260 instrument. As mentioned above, factor analytic proponents seek orthogonality, that is, zero or close-to-zero correlations among scales. However, inasmuch as the CPI instrument seeks to mirror the sphere of interpersonal life, the intercorrelations among its scales should match those that exist in the nontest world. The key notion is correspondence, not orthogonality. For example, if observers' ratings of responsibility and self-control correlate at .55, then the CPI Re and Self-control (Sc) scales should have the same similarity. If ratings of dominance and sociability correlate .81, then the Dominance (Do) and Sociability (Sy) scales should have this same linkage. The topography of relationships among nontest markers for each CPI variable establishes the standard; correlations among the scales of the inventory should correspond to this standard. If these concepts in the social world are correlated, then correlations among the scales of the CPI instrument should mirror this reality. Assertions that the scales of the instrument are "too highly intercorrelated" betray ignorance of the fundamental requisite for topographical congruence between the CPI measures and realities of the interpersonal world.

A fifth question refers to the ways in which CPI 260 scales can be placed into groups. One cluster of scales includes seven measures of different ways of dealing with others. Underlying these seven scales is a general theme of greater to lesser interpersonal involvement. Each of the seven focuses on a particular way in which social participation is expressed.

Another group of seven scales includes measures of personal values and self-regulation. Examples are the Self-control (Sc) and Tolerance (To) scales. Overall elevation of these seven measures gives a general indication of self-discipline, and acceptance of societal rules. Within this group configurations among the scales are important. For example, respondents who score high on Responsibility (Re) but average or low on Sc will be less conventional in their rule-following behavior than respondents who score high on both scales.

Three other groupings of scales are presented in the Client Feedback Report, namely, motivations and thinking style, personal characteristics, and work-related measures. All five groupings and the scales each comprises, will be discussed in detail below. The groupings are intended to serve a pragmatic purpose: to assist the client and counselor in making useful interpretations of the findings.