PAI

CHAPTER 2
Administration and Scoring

Morey, L. C. (1996). An Integrative Guide to the Personality Assessment Inventory. Odessa: Psychological Assessment Resources, Inc.

Appropriate Populations

The PAI was developed and standardized for use in the clinical assessment of individuals in the age range of 18 through adulthood. The PAI standardization sample did not include individuals under the age of 18; there are therefore no data to support the interpretation of PAI data for adolescents. As a clinical instrument, the PAI is designed to provide information relevant to clinical diagnosis, treatment planning, and screening for psychopathology. While the PAI does provide information relevant to these purposes, the inventory is not designed to provide a comprehensive assessment of the domains of normal personality.

Reading level analyses of the PAI item booklet instructions and test items indicate that reading ability at the fourth-grade level is necessary to complete the inventory. Reading level characteristics of the items are provided in Table 2-1. Examiners should be aware that years of completed education is not a reliable indicator of reading ability; it is commonly recognized that the grade-level ability of many individuals to read and comprehend is substantially below their completed grade level of education. In cases where there is some reason to suspect that the respondent might not be able to read at the fourth- grade level, it may first be necessary to administer a test of reading comprehension to determine whether testing with the PAI can proceed.

Table 2-1
Reading Level Characteristics of PAI Items

Flesch-Kincaid Grade Level:	4
Average sentence length:	8.5 words
Items in passive voice:	5
Items of fewer than 14 words:	337
Items of more than 30 words:	0
Total number of words:	2930
Number of prepositions:	255
Average word length:	4.17 letters
Average word length:	1.37 syllables

Note. Analysis conducted with Grammatik III computer program (Wampler & Williams, 1988).

Caution should be exercised in testing individuals whose first, or native, language is not English. Despite the fact that the PAI items were carefully screened during test construction to avoid idiomatic phrases, the performance of groups of individuals whose native language is not English has not been investigated to date.

Valid administration of the PAI assumes that the respondent is physically and emotionally capable of meeting the normal demands of testing with self-report instruments. Individuals whose cognitive abilities may be compromised by the effects of recent drug use, withdrawal from drugs or alcohol, exposure to toxic chemicals, or disorientation due to neurological disorder or disease should be tested with caution. Additionally, care should be taken in testing individuals who, by the nature of their psychological disorder, display confusion, psychomotor retardation, distractibility, or extreme emotional distress. Administrators should also be alert to physical and sensorimotor deficits, such as visual field cuts or simple lack of visual acuity, which could affect an individual's ability to complete the PAI in a valid manner. Professionals should not rely solely on PAI validity scale patterns to determine whether PAI protocols are valid; the determination that an individual is capable of responding to a self-report instrument is a professional decision.

Professional Qualifications

Administration and scoring of the PAI is straightforward and can be accomplished by technicians and other personnel who have been trained in the administration of self-report measures to individuals and groups. In all cases, administrators should be working under the supervision of a qualified professional, as defined in the *Standards for Educational and Psychological Tests* (American Psychological Association, 1985). Supervising professionals should ensure that procedures for scoring are reliable and include methods for checking the integrity of calculated and derived scores.

Interpretation of PAI profiles and test score patterns is solely the province of qualified professionals. Interpretation requires an understanding not only of the information contained in this manual, but also of common diagnostic schemas, theories of personality and psychopathol-

ogy, and knowledge of the appropriate uses and limitations of self-report inventories. Clearly, the utility and validity of the PAI as a clinical measure are directly related to the knowledge and experience of the qualified professional who interprets the PAI profile.

Interpretive Caveats

Diagnostic and screening decisions should never be based exclusively on the results of the PAI. Such decisions necessarily require multiple sources of information, which may include but are not limited to: (a) case histories and other historical data; (b) the results of mental status exams and clinical interviews; and (c) the results of projective, neuropsychological, intelligence, cognitive ability, and other self-report instruments. Interpretive hypotheses derived from PAI test results should always be limited to the purposes for which the PAI is administered. PAI test scores should be provided only to other individuals who are qualified to interpret their meaning.

Computer-based interpretive reports, provided via software or scoring services available from the publisher, are intended solely to be in the nature of a professional-to-professional consultation. Such reports are never intended to be the sole basis of any professional decisions and should always be considered to be one of many sources of hypotheses for professionals making decisions regarding diagnoses, treatment plans, or screening.

As an instrument designed to assess various forms of psychopathology, PAI scale names and hypotheses regarding scale interpretation are phrased in terms which have specific meaning to qualified professional users. Most of these terms are not well understood by the lay individual and could easily be misinterpreted by respondents. Feedback to PAI respondents regarding their PAI test scores and interpretation should therefore always be presented in terms which the respondent can clearly understand.

Test Materials

PAI Item Booklet

The PAI item booklet contains instructions to the respondent in addition to the 344 PAI items. The item booklet is used with either the Form HS or Form SS answer sheet. The item booklet is designed to be laid on a desk/table top or be inserted in the laptop folio which allows completion of the PAI when a desk or table is not available (e.g., for patients who are bedridden).

Form HS Answer Sheet

The Form HS answer sheet is designed for hand scoring and may be used in individual or group administration. The answer sheet comprises a two-part carbonless form, with the two parts joined on all four sides to form a one-page answer sheet. The two parts *should not be separated prior to administration.* The Form HS answer sheet provides spaces for capturing basic demographic information (e.g., name, age, sex) about the respondent.

Form SS Answer Sheet

The Form SS answer sheet is an optically scannable form which can be scored *only* by optical scanners. This form was designed for users who wish to employ the mail-in report service provided by the publisher. Users who wish to hand-score the PAI should use the Form HS answer sheets. Form SS answer sheets provide spaces for capturing respondent demographic information as well as optional information from the professional.

Laptop Folio

To facilitate completion of the PAI in situations where a desk or table top is not available, a folio is available. The folio holds both the item booklet and an answer sheet (either Form HS or Form SS) and provides a hard surface so that respondents can easily complete the PAI.

Profile Forms

Profile forms provide a rapid method of translating PAI raw scores to *T* scores for all full scales and subscales and for plotting the pattern of test results. Profile forms are available for adults (Profile Form for Adults) and college students (Profile Form for College Students). In addition to providing *T*-score transformations of raw scores, the adult profile form contains a blue line which demarcates the distribution of scores for a large sample of clinical cases. This blue line assists in the interpretation of PAI *T* scores and is discussed in detail in Chapter 3.

Critical Items Form

Twenty-seven PAI items have been identified as critical items. These items were selected as being critical by two criteria: (a) importance of content as an indicator of potential crisis situations and (b) very low endorsement rates in normal individuals. Intended to facilitate follow-up questioning, the critical items form lists the critical items and provides space to record the respondent's comments regarding his or her endorsement of the critical items.

Administration

Test Environment

The PAI can be administered in either individual or group testing situations. In both situations, the testing environment should protect the confidentiality of the respondent's item responses. The testing environment should provide adequate lighting and freedom from distraction.

General Instructions

Instructions for completing the PAI are provided in the item booklet. Respondents should first provide demographic information on the answer sheet and then read the directions for responding contained in the item booklet. The administrator should ensure that the respondent understands the directions. Answers to respondents' questions should be consistent with the directions.

The importance of answering *all* items should be emphasized, as well as the necessity for choosing only *one* response per item. Be sure that the respondent is aware that the items on the answer sheet are numbered consecutively in columns. Completion of the PAI takes 40-50 minutes for most individuals. If the respondent does not understand an item, it is acceptable to provide simple definitions of words. If the respondent is unsure about which response option to mark, tell the respondent to select the option which is the closest approximation.

Form HS. The respondent should be provided with a ball point (not soft-tip) pen or *sharp* pencil. Since the Form HS answer sheet is a two part carbonless form, it is necessary that respondents complete their responses with adequate pen/pencil pressure to produce a legible mark on

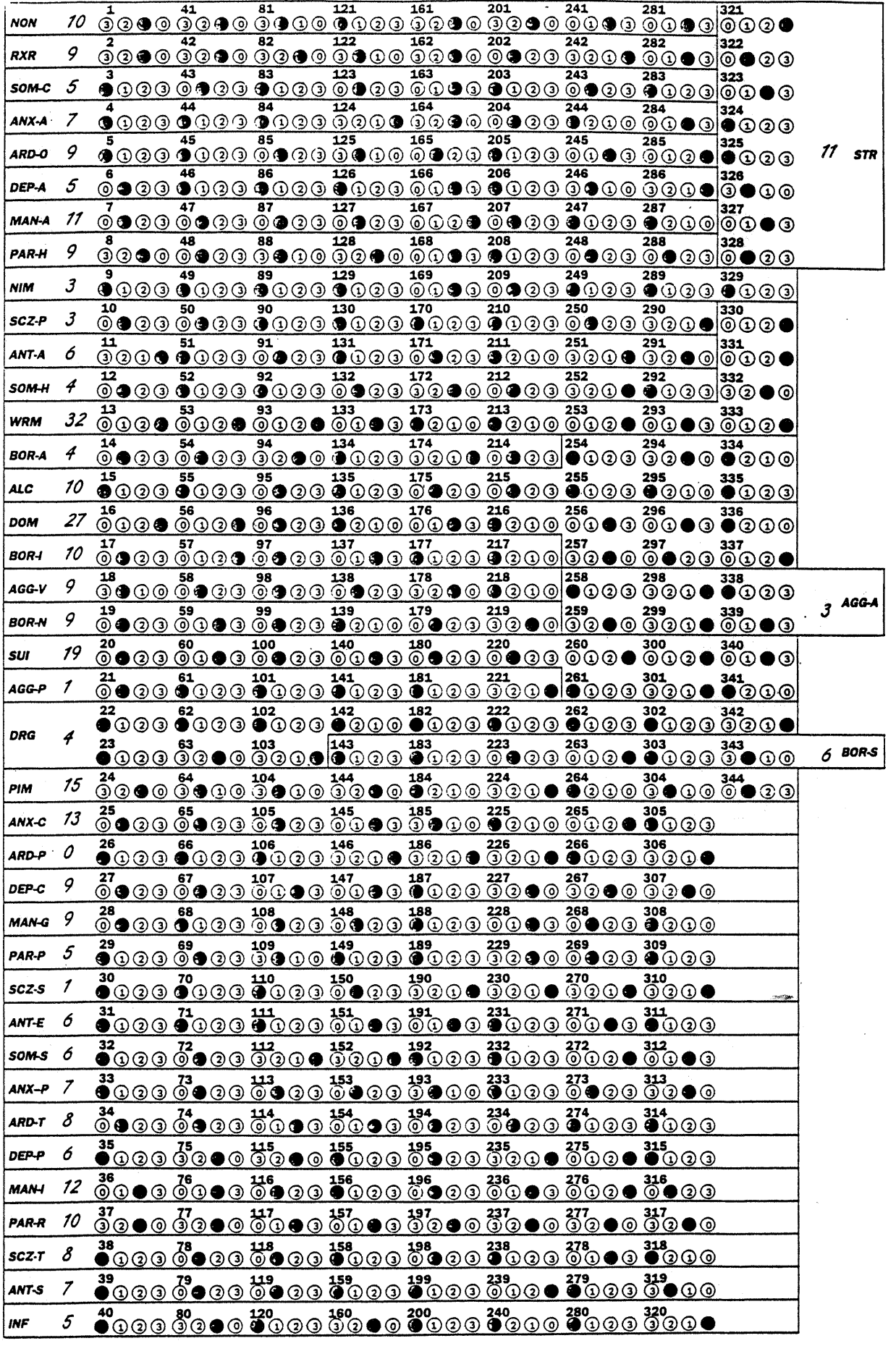
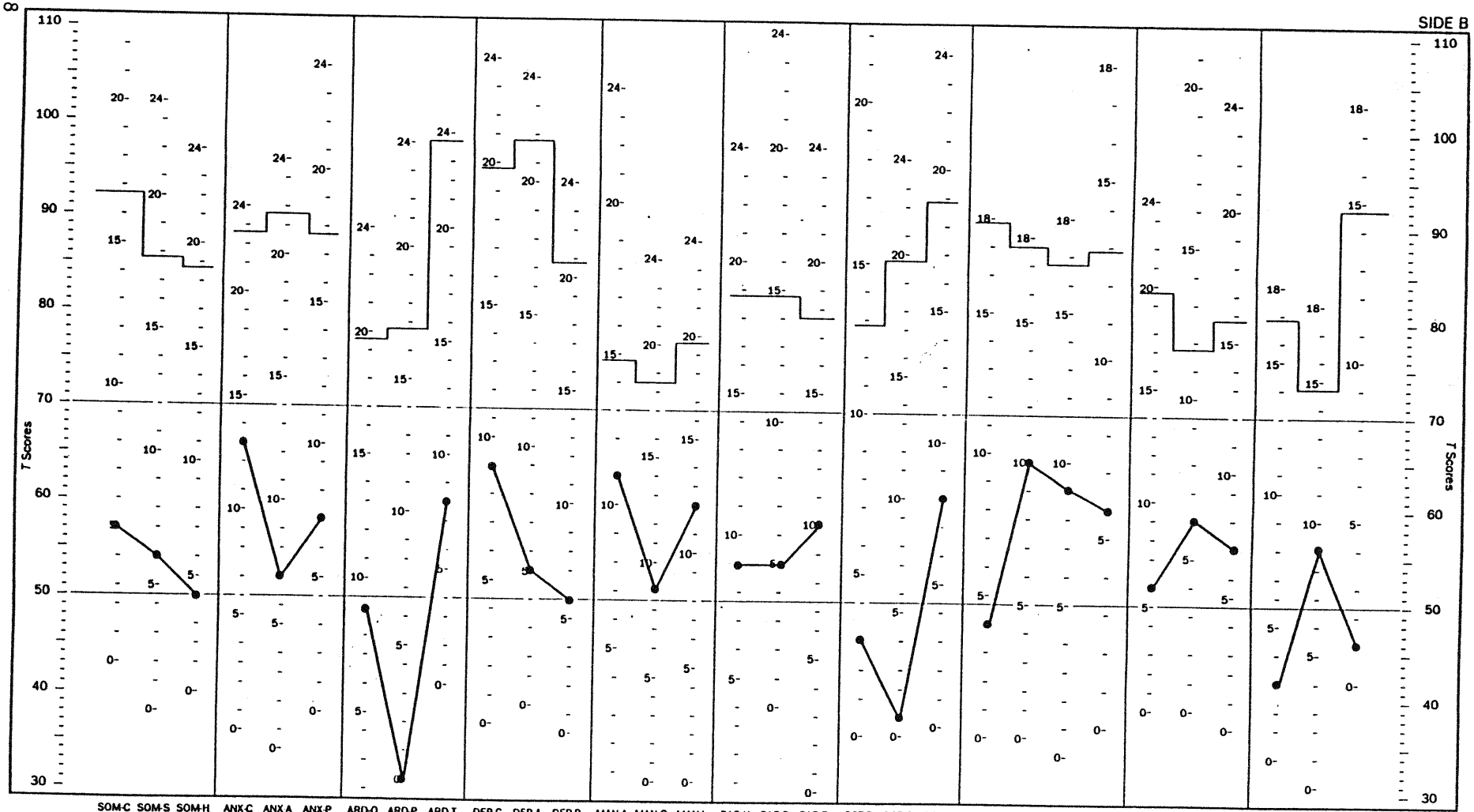


Figure 2-1. Item scores from a sample PAI scoring sheet.

SIDE B



Enter full scale and subscale raw scores from Form HS Answer Sheet. Total subscale scores to obtain full scale scores. Plot full scales on Side A, subscales above.

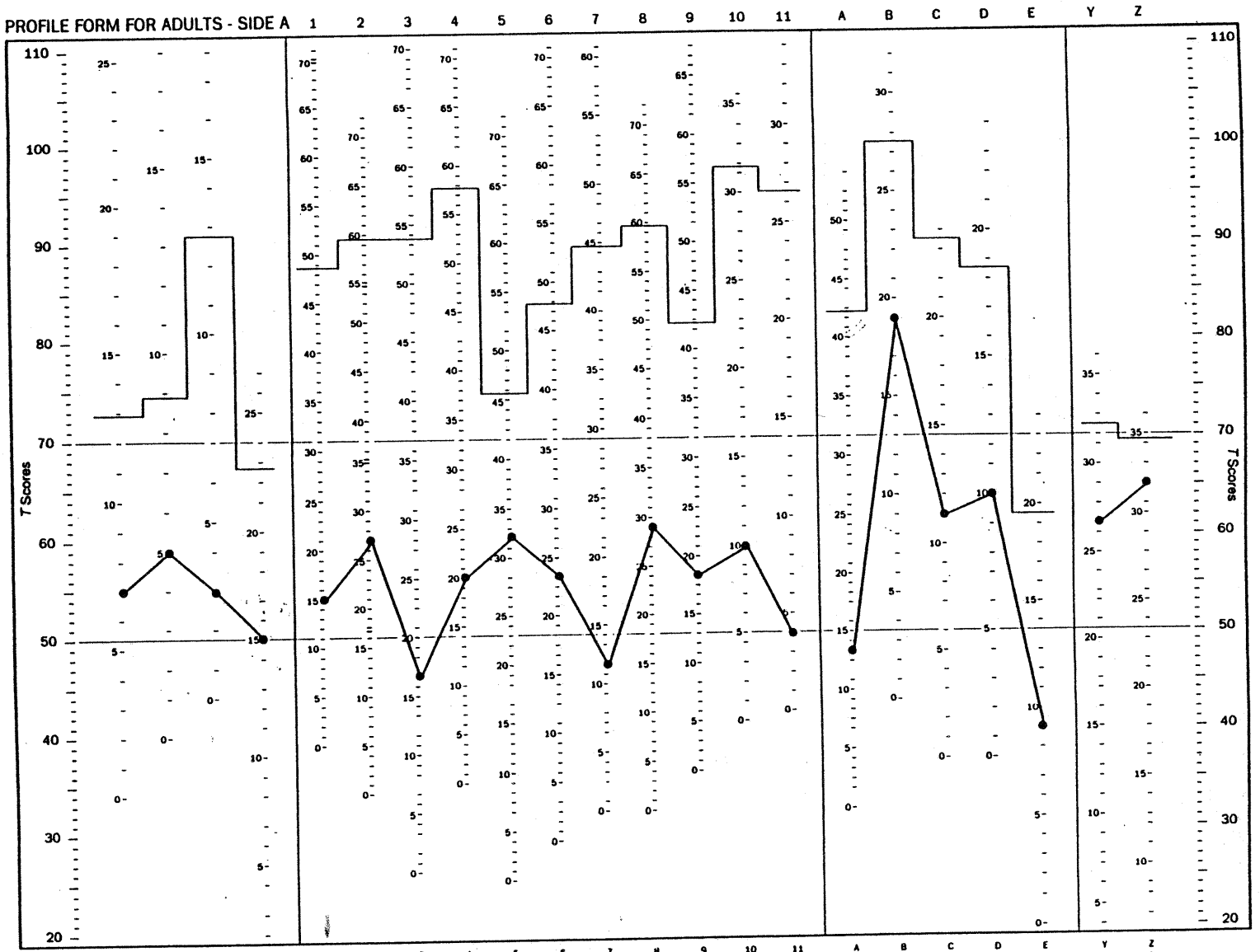
Subscale																								
					5 SOM-C	13 ANX-C	9 ARD-O	9 DEP-C	11 MAN-A	9 PAR-H	3 SCZ-P	4 BOR-A	6 ANT-A			3 AGG-A								
					6 SOM-S	7 ANX-A	0 ARD-P	5 DEP-A	9 MAN-G	5 PAR-P	1 SCZ-S	10 BOR-I	6 ANT-E			9 AGG-V								
					4 SOM-H	7 ANX-P	8 ARD-T	6 DEP-P	12 MAN-I	10 PAR-R	8 SCZ-T	9 BOR-N	7 ANT-S			1 AGG-P								
												6 BOR-S												
Full Scale	7 ICN	5 INF	3 NIM	15 PIM	15 SOM	27 ANX	17 ARD	20 DEP	32 MAN	24 PAR	12 SCZ	29 BOR	19 ANT	10 ALC	4 DRG	13 AGG	19 SUI	11 STR	10 NON	9 RXR	27 DOM	32 WRM			

Raw Score Calculation for ICN

Ab val (#75	1	minus #115	1	) =	0
Ab val (#4	0	minus #44	0	) =	0
Ab val (#60	2	minus #100	1	) =	1
Ab val (#145	2	minus #185	2	) =	0
Ab val (#65	1	minus #246	2	) =	1
Ab val (#102	0	minus #103	0	) =	0
Ab val (#22	0	minus #142	3	) =	3
Ab val (#301	0	minus #140	2	) =	2
Ab val ((3 minus #270	0	) minus #53	3	) =	0
Ab val ((3 minus #190	0	) minus #13	3	) =	0

Raw Score = 7

Figure 2-2. Side B of a sample PAI profile form for adults.



	ICN	INF	NIM	PIM	1 SOM	2 ANX	3 ARD	4 DEP	5 MAN	6 PAR	7 SCZ	8 BOR	9 ANT	10 ALC	11 DRG	A AGG	B SUI	C STR	D NON	E RXR	Y DOM	Z WRM
Raw	7	5	3	15	15	27	17	20	32	24	12	29	19	10	4	13	19	11	10	9	27	32
T	55	59	55	50	54	60	46	56	60	56	47	61	56	59	50	48	82	62	64	40	61	65

Figure 2-3. Side A of a sample PAI profile form for adults.

the bottom sheet. Use of a ball point pen or sharp pencil helps to ensure that the PAI can be easily scored.

Form SS. The respondent should be provided with a number 2 pencil. The optional clinical information located on the back of Form SS should be completed by the professional only *after* the respondent has finished responding to all items. Information fields (e.g., site, diagnosis) in the clinical information section are coded with acronyms and abbreviations to ensure that they do not provide a distraction to the respondent. Definitions of these acronyms and abbreviations are provided with Form SS answer sheets.

Scoring and Profiling

Form HS

General procedure. Examine the answer sheet and count the number of unanswered items. If 18 or more items were left unanswered, ask the respondent to review and complete the unanswered items.

Tear the perforation at the top of the answer sheet and peel away the top page. The bottom (or self-carbon) page provides item scores ranging from 0 to 3 for each of the 344 items. Items belonging to PAI scales and subscales are designated by shading or ruled boxes and are identified by scale/subscale abbreviations (see Figure 2-1 for example). Total the item scores for each scale or subscale (as designated by the shaded or boxed area) and enter the scale/subscale raw score in the appropriate area on Side B of the profile form (see Figure 2-2 for an example). Items left unanswered should receive a score of zero; any scales or subscales for which 20% or more of the items have been left unanswered should not be interpreted. Using the example provided in Figure 2-1, note that items 1, 41, 81, 121, 161, 201, 241, and 281 comprise the eight items for the Nonsupport (*NON*) scale (i.e., these items are identified by a ruled box). Total the item scores in the ruled box and enter the raw score on Side B of the profile form in the box marked *NON* (see Figure 2-2). Repeat this process for each of the scales/subscales. Using the values entered on the profile form, total the subscale raw scores to obtain full scale raw scores for scales *SOM, ANX, ARD, DEP, MAN, PAR, SCZ, BOR, ANT,* and *AGG* (e.g., total the *SOM-C, SOM-S,* and *SOM-H* subscale raw scores to obtain the *SOM* full scale raw score). Full scale raw scores can then be transferred to Side A for profiling (see Figure 2-3). Subscale raw scores are plotted on Side B of the profile form (see Figure 2-2).

Scoring the Inconsistency (ICN) Scale. Calculating the raw score for the Inconsistency scale is somewhat complex and must be carefully done to ensure accuracy. Locate on Side B of the profile form the box labeled *Raw Score Calculation for ICN.* Note that there are spaces for entering the item scores for 10 pairs of items (20 items in all—items 75 and 115, 4 and 44, 60 and 100, ... 190 and 13). Enter the item score for each item in the space provided (e.g., if the item score for item 75 is 2, enter a 2 in the space provided for item 75).

For item pairs 75 and 115 through 301 and 140, calculate the absolute value of the difference in score values for the two items. For example, if the item scores for items 75 and 115 are 1 and 3, respectively, the absolute value is 2. The steps in the calculation are:

1) 1 minus 3 (equals –2)
2) absolute value of –2 (equals 2)

For item pairs 270 and 53, and 190 and 13, the calculation involves three steps: (a) subtracting the score for the first item in the pair from the number 3, (b) subtracting the score for the second item in the pair from the result of step (a), and (c) taking the absolute value of the result from step (b). For example, if the item scores for items 270 and 53 are 3 and 1 respectively, the following calculation would be correct:

1) 3 minus 3 (equals 0)
2) 0 minus 1 (equals –1)
3) absolute value of –1 (equals 1)

The values obtained by these calculations for each of the 10 pairs of items are then summed to obtain a raw score for the Inconsistency scale. Figure 2-4 presents a completed set of calculations as an example.

Form SS

Form SS answer sheets should be sent to the publisher for scoring and interpretation. Information regarding mailing addresses, details of packaging, and mailing procedures are provided with Form SS answer sheets.

Raw Score Calculation for *ICN*

Ab val (#75	1	minus #115	1	) =	0
Ab val (#4	0	minus #44	0	) =	0
Ab val (#60	2	minus #100	1	) =	1
Ab val (#145	2	minus #185	2	) =	0
Ab val (#65	1	minus #246	2	) =	1
Ab val (#102	0	minus #103	0	) =	0
Ab val (#22	0	minus #142	3	) =	3
Ab val (#301	0	minus #140	2	) =	2
Ab val ((3 minus #270	0	) minus #53	3	) =	0
Ab val ((3 minus #190	0	) minus #13	3	) =	0

Raw Score = 7

Figure 2-4. Sample calculations for the *ICN* scale.

CHAPTER 3
Interpretation

Interpretive hypotheses for PAI scores are based on two sources: (a) the nature of the constructs that provided the foundation for the construct validation development strategy of the instrument (as described in Chapter 6) and (b) the available validity evidence for PAI scales and subscales (as described in Chapter 9). This chapter represents an integration of these two sources of information as a first step in the clinical use of PAI profile information. First, the general meaning of *T* scores is reviewed, since these scaled scores serve as the foundation of the PAI profile. Next, use of the PAI validity scales in the evaluation of questionable protocols is described. Then, the diagnostic and interpretive meaning of scores on individual scales is discussed. An introduction to the analysis of profile configurations is then provided. This analysis is based on studies of modal profiles established through the use of multivariate classification methods. Finally, a discussion of the use of critical items in PAI interpretation is presented.

The Meaning of *T* Scores

PAI scale and subscale raw scores are transformed to *T* scores in order to provide interpretation relative to a standardization sample of 1,000 community-dwelling adults. This sample, which was carefully selected to match the 1995 census projections on the basis of gender, race, and age, is described in detail in Chapter 4. For each scale and subscale, the *T* scores have been transformed to have a mean of 50 and a standard deviation of 10. Thus, a *T*-score value greater than 50 lies above the mean in comparison to the scores of subjects in the standardization sample. Roughly 84% of nonclinical subjects will have a *T* score below 60 (one standard deviation above the mean) on most scales, while 98% of nonclinical subjects will have scores below 70 (two standard deviations above the mean). Thus, a *T* score at or above 70 represents a pronounced deviation from the typical responses of adults living in the community.

The *T* score thus provides a useful means for determining if certain problems are clinically significant, since relatively few normal adults will obtain markedly elevated scores. However, in clinical decision-making other comparisons are often of equal importance. For example, nearly all patients report depression at their initial evaluation; the question confronting the clinician considering a diagnosis of major depression is one of *relative* severity of symptomatology. That the patient's score on the PAI *DEP* scale is elevated in comparison to the standardization sample is of value, but a comparison of the elevation relative to a clinical sample may be more critical in forming diagnostic hypotheses. Thus, the PAI profile form also indicates the *T* scores that correspond to marked elevations when referenced against a representative *clinical* sample. The blue profile line on the adult profile form indicates the score for each scale and subscale that represents the raw score that is two standard deviations above the mean for a clinical sample of 1,246 patients (this clinical sample is described in detail in Chapter 4). Thus, roughly 98% of clinical patients will obtain scores below the blue line on the profile form. Scores above the blue line on the profile form represent a marked elevation of scores relative to those of *patients in clinical settings*. Thus, interpretation of PAI profiles can be accomplished in comparison to both normal and clinical samples.

Evaluating Inventories of Questionable Acceptability

The first step in determining whether PAI results can be meaningfully interpreted involves determining the number of items left unanswered. As a general rule, at least 95% of the items should be completed–profiles should not be interpreted if more than 17 items were left unanswered by the respondent.

Four validity scales are provided which assess factors that could distort the results of testing. The second step in interpreting the meaning of a PAI profile is to determine whether any of these factors may have characterized the respondent's approach to responding to the PAI items. An elevated score on any of these scales suggests that interpretation should proceed cautiously. In general, if a respondent obtains a score that is more than two standard deviations above the mean of the *clinical* sample (as indicated by the blue line), the profile is likely to be seriously distorted and should be considered invalid. The following sections discuss the logic and interpretation of the four validity scales. Additional information about the effect of various response sets upon PAI performance is presented in Chapter 9.

Inconsistency (ICN)

The *ICN* scale is an empirically derived scale that reflects the consistency with which the respondent answered items with similar content. The scale is comprised of 10 pairs of items; each item pair has related content. The item pairs selected for the *ICN* scale were those found to be the most empirically similar during the development of the PAI. Although the items in each pair share similar content, the pairs differ in content from one another to the degree that the scale does not reflect any particular construct other than response consistency.

The distribution of scores on the *ICN* scale is fairly similar for both normal and clinical subjects, although clinical subjects tend to score slightly higher (i.e., respond slightly less consistently) than normals. The distributions from clinical and normal subjects are quite dissimilar from that derived by simulations of random responding, as described in Chapter 9. Generally, an *ICN* score below 64*T* suggests that the respondent did respond consistently and attended appropriately to PAI item content. A moderate elevation (64*T* through 72*T*) indicates some inconsistency in responses to similar items, which could arise from a variety of sources ranging from carelessness or confusion to attempts at impression management. Interpretive hypotheses based on other PAI scales should be reviewed with caution if *ICN* is in this range.

A high score on *ICN* (at or above 73*T*) suggests that the respondent did not attend consistently or appropriately to PAI item content; a completely random completion of the PAI would result in an average *ICN* *T* score of approximately 73. There are several potential reasons for scores in this range including carelessness, reading difficulties, confusion, errors in scoring, or failure to follow the test instructions. Regardless of the cause, however, the test results are best assumed to be invalid, and no clinical interpretation of the PAI is recommended when *ICN* scores are in this range.

Infrequency (INF)

The *INF* scale is useful in the identification of individuals who complete the PAI in an atypical way because of random responding, indifference, carelessness, confusion, or reading difficulties. The *INF* scale includes eight items that were designed to be answered similarly by all respondents regardless of clinical status. Four of the items are expected to be answered "False, not at all true" (e.g., "My favorite poet is Raymond Kertezc."), while four would be expected to be answered "Very True" (e.g., "Most people would rather win than lose."). There is no theme in the content of items on the scale. The items were selected on the basis of very low endorsement frequencies in both normal and clinical subjects. The *INF* items are placed evenly throughout the PAI to identify potentially problematic responding at any point of test-taking.

The distribution of *INF* scores is similar for both normal and clinical subjects; both distributions are quite dissimilar from that derived by simulations of random responding, as described in Chapter 9. Generally, a low score (below 60*T*) suggests that the respondent did attend appropriately to PAI item content. A moderate elevation (60*T* through 74*T*) indicates some idiosyncratic responses to *INF* items, and at the higher end of this range (68*T* through 74*T*), one should consider potential sources such as reading difficulties, random responding, confusion, carelessness, indifference, errors in scoring, or failure to follow the test instructions. Any interpretive hypotheses based on the PAI should be reviewed with caution if *INF* is in this range.

High scores on *INF* (at or above 75*T*) suggest that the respondent did not attend appropriately to PAI item content; a completely random completion of the PAI would result in an average *INF* score of 86*T*. Regardless of the cause, the test results should be assumed to be invalid and no clinical interpretation of the PAI should be attempted. However, an examination of specific *INF* items may yield useful information. For example, if the endorsed *INF* items are all from the second half of the test, the subject may have completed the initial half of the instrument appropriately but may have begun responding haphazardly at a later point. In this instance, score estimates for most PAI scales may be extrapolated from the responses to the first 160 items (the short form), as described in Chapter 11.

Negative Impression (NIM)

The Negative Impression (*NIM*) scale contains items which present an exaggerated unfavorable impression or represent extremely bizarre and unlikely symptoms. The items were selected by examining the distributions of scores for normals, outpatients, and inpatients, as well as for research subjects responding under malingering instructional sets. The items were selected on the basis of low endorsement frequencies in both normal and clinical subjects; however, *NIM* items were endorsed with greater frequency in clinical patients than in normal adults. Nonetheless, both groups scored considerably lower than research subjects instructed to simulate the responses of a mentally disordered patient.

Generally, *NIM* scores below 73*T* suggest that the respondent did not attempt to present a more negative impression than the clinical picture would warrant. A moderate elevation (73*T* through 91*T*) suggests some element of exaggeration of complaints and problems. Any interpretive hypotheses based upon clinical scale elevations should be considered with caution, since there is a high probability that the hypotheses will exaggerate the extent and degree of significant test findings. An elevation in this range may be indicative of a "cry for help" or an extremely negative evaluation of self and life in general; some deliberate distortion of the clinical picture may also be present.

A high score on *NIM* (at or above 92*T*) suggests that the respondent attempted to portray himself or herself in an especially negative manner. The item content suggests the strong possibility of either careless responding (elevations on *INF* and *ICN* would also be expected), extremely negative self-presentation, or malingering. Research subjects instructed to malinger obtained an average *NIM* score of 117*T*; a completely random completion of the PAI would result in an average *NIM* score of 96*T*. Regardless of the cause, however, the test results are best assumed to be invalid, and no clinical interpretation of other PAI scales is recommended when scores are in this range.

Positive Impression (PIM)

The content of *PIM* scale items involves the presentation of a very favorable impression or the denial of relatively minor faults. The items were selected by examining the distributions of scores for normals and patients, and for research subjects responding to the PAI under positive impression-enhancement instructional sets. The items were selected on the basis of low endorsement frequencies in both normal and clinical subjects; however, *PIM* items were endorsed with greater frequency in normal adults than in clinical patients. Hence, marked elevations in clinical subjects are particularly rare and are interpretively significant i

obtained. Both patients and normals score considerably lower than research subjects completing the PAI under a positive-impression-enhancement instructional set.

Generally, a *PIM* score below 57*T* suggests that the respondent did not attempt to present an unrealistically favorable impression in completing the test. A moderate elevation (57*T* through 67*T*) suggests that the test-taker responded in a manner to portray himself or herself as relatively free of the common shortcomings to which most individuals will admit. With *PIM* in this range, the accuracy of interpretations based upon the PAI clinical scales profile may be distorted and interpretive hypotheses should be reviewed with caution. It is likely that the PAI profile will underrepresent the extent and degree of significant test findings.

A high score on *PIM* (at or above 68*T*) suggests that the respondent attempted to portray himself or herself as exceptionally free of the common shortcomings to which most individuals will admit. When scores in this range are obtained, the validity of the PAI clinical scale profile is seriously questioned, and no clinical interpretation of other PAI scales is recommended. Research subjects instructed to make a very positive impression obtain an average score of approximately 66*T*.

Interpretation of PAI Clinical Scales

The construct validation strategy used in developing the PAI scales was designed to yield scales that are easily interpreted with respect to the meaning of the underlying construct. Thus, the items on a clinical scale directly reflect the phenomenology and symptomatology of that clinical construct; if a respondent's score is elevated, he or she is reporting the experience of these symptoms at a frequency and/or intensity beyond that of most people. However, most individuals in clinical settings report experiences that would be considered to be atypical in the general population. Thus, it is often informative to determine whether the intensity of reported symptoms is atypical in a *clinical* population as well. In the following sections, the interpretive significance of various *T* scores often varies across different scales as a function of the known distribution of scores in a clinical population. A *T* score of 75 is thus interpreted to be of greater significance if it is rarely obtained in clinical samples than if it is relatively common in clinical settings.

The following interpretive hypotheses must also be considered in light of obtained scores on the validity scales. If *INF* and/or *ICN* are elevated, one must consider that carelessness might be leading to elevations on clinical scales. With *NIM* elevated, the interpretations must be considered in light of the subject's tendency to endorse unusual and somewhat exaggerated expressions of symptomatology. When elevations are obtained on *PIM*, scores on clinical scales must be interpreted in the context of the subject's general reluctance to admit to relatively minor shortcomings. In all cases, the following hypotheses must be considered in the context of all available information about the respondent, including his or her history, observed behavior, and information from collateral sources.

Somatic Complaints (SOM)

The *SOM* scale includes items that reflect concerns about physical functioning and health matters. The item content ranges across various somatoform presentations, extending from repeated problems with relatively minor physical ailments (such as headaches) to major dysfunction in various organ systems (such as paralysis). The scale is comprised of three subscales: Conversion (*SOM-C*), Somatization (*SOM-S*), and Health Concerns (*SOM-H*). The interpretive significance of elevations on each of these subscales is presented in Table 3-1.

An average score on *SOM* (59*T* or below) reflects a person with few bodily complaints. Such individuals are typically seen as optimistic, alert, and effective. Scores ranging from 60*T* through 69*T* indicate some concern about health functioning and will not be uncommon in older subjects or in medical patients with relatively specific organic symptoms. Scores at or above 70*T* suggest significant concerns about somatic functioning and probable impairment arising from somatic symptoms. Individuals scoring in this range are likely to feel that their health is not as good as that of age peers and to believe that their health problems are complex and difficult to treat successfully. Individuals scoring in this range may be seen as unhappy, complaining, and pessimistic. They may be using somatic complaints to control others in a passive-aggressive manner. In this range, at least one subscale is likely to be elevated. The *SOM* subscales should be examined to generate more detailed hypotheses.

SOM scores that are markedly elevated (at or above 88*T*) will likely have elevations on all three subscales, reflecting a large number of somatic complaints affecting most organ systems, including the neurological, gastrointestinal, and musculoskeletal systems. Such complaints are likely to be chronic and accompanied by fatigue and weakness which renders the patient incapable of performing even minimal role expectations. In most instances, scores in this range will reflect a diagnosable somatoform disorder. These patients may be resistant to psychological explanations for problems and may be poor candidates for psychotherapy if there are few accompanying indications of psychological distress.

Table 3-1
Interpretation of High Scores on *SOM* Subscales

Subscale (Abbreviation)	Description of high scorers
Conversion *(SOM–C)*	These individuals report functional impairment due to symptoms associated with sensory or motor dysfunctions.
Somatization *(SOM–S)*	These individuals report the frequent occurrence of various physical symptoms (such as headaches, pain, or gastrointestinal problems) and vague complaints of ill health and fatigue. The physical symptoms are often accompanied by some depression and anxiety.
Health Concerns *(SOM–H)*	These individuals are typically preoccupied with their health status and physical problems. Social interactions and conversations likely focus on their health problems, and their self-image may be largely influenced by beliefs that they are handicapped by their poor health.

Anxiety (ANX)

The *ANX* scale measures clinical features common to the experience of anxiety. The item content ranges across various features of anxiety, including ruminative worry, subjective feelings of apprehension and strain, and physical signs of tension and stress. The scale is comprised of three subscales reflecting three major modalities of the expression of anxiety: Cognitive (*ANX-C*), Affective (*ANX-A*), and Physiological (*ANX-P*). The interpretive significance of elevations on each of these subscales is presented in Table 3-2.

An average score on *ANX* (59*T* or below) reflects a person with few complaints of anxiety or tension. Such individuals are typically seen as calm, optimistic, and effective in dealing with stress. Scores ranging from 60*T* through 69*T* are indicative of a person who may be experiencing some stress and is worried, sensitive, and emotional. Scores at or above 70*T* suggest significant anxiety and tension. With a score in this range, the respondent is probably tense much of the time and ruminative about anticipated misfortune. Such individuals may be seen as high-strung, nervous, timid, and dependent. With scores above 70*T*, at least one subscale is likely to be elevated and subscale scores should be examined to determine the typical modality in which anxiety is expressed.

ANX scores that are markedly elevated (at or above 91*T*) will likely have elevations on all three subscales, reflecting a generalized impairment associated with anxiety. The respondent's life is likely to be seriously constricted; he or she may not be able to meet even minimal role expectations without feeling overwhelmed. Mild stressors are likely to precipitate a crisis, and this pattern may present difficulties for psychotherapy despite the motivating nature of the distress. In most instances, scores in this range will reflect a diagnosable anxiety disorder. Scores on the *ARD* scale may indicate more specific forms of pathology. A lack of elevation on *ARD* suggests that the anxiety is free-floating and generalized.

Anxiety-Related Disorders (ARD)

The *ARD* scale measures clinical features of three different areas of symptomatology related to anxiety disorders. The item content includes specific fears related to objects or situations, encompassing phobias, obsessive-compulsive thoughts and behaviors, and troublesome experiences related to a traumatic event. These symptoms are thus arrayed into three subscales: Obsessive-Compulsive (*ARD-O*), Phobias (*ARD-P*), and Traumatic Stress (*ARD-T*). The interpretive significance of elevations on each of these subscales is presented in Table 3-3.

An average score on *ARD* (59*T* or below) reflects a person who reports little distress across many situations. Such individuals are typically seen as secure, adaptable, and calm under fire. Scores ranging from 60*T* through 69*T* are indicative of a person who may have some specific fears or worries and have little self-confidence. Scores at or above 70*T* suggest impairment associated with fears surrounding some situation; specific subscale elevations should reveal more precisely the nature of these fears. These individuals may be seen as insecure and self-doubting, ruminative, and particularly uncomfortable in social situations.

ARD scores that are markedly elevated (at or above 91*T*) will likely have elevations on all three subscales, reflecting multiple anxiety disorder diagnoses and broad impairment associated with anxiety. Individuals scoring in this range are likely to be in severe psychological turmoil; they are faced with constant rumination and are often guilt-ridden over past transgressions, real or imagined. A number of maladaptive behavior patterns aimed at controlling anxiety are likely to be present, but these patterns probably have little effect in preventing anxiety from intruding into experience and functioning.

Depression (DEP)

The *DEP* scale measures clinical features common to the syndrome of depression. The item content ranges across various features of this syndrome, including pessimism and negative expectations, subjective feelings of unhappiness and apathy, and physical signs such as low energy and changes in sleep and appetite. The scale is comprised of three subscales reflecting three major constellations of depressive symptomatology: Cognitive (*DEP-C*), Affective (*DEP-A*), and Physiological (*DEP-P*). The interpretive significance of elevations on each of these subscales is presented in Table 3-4.

An average score on *DEP* (59*T* or below) reflects a person with few complaints about unhappiness or distress. Such individuals are typically seen as being stable, self-confident, active, and relaxed. Scores ranging from 60*T* through 69*T* are indicative of a person who may be unhappy and is sensitive, pessimistic, and self-doubting. Scores at or above 70*T* suggest prominent dysphoria. With a score in this range, the respondent is probably despondent much of the time and has withdrawn from activities that were previously enjoyable. Such individuals may be described as guilt-ridden, moody, and dissatisfied. With scores above 70*T*, at least one subscale is likely to be elevated and subscale scores should be examined to determine the typical modality in which the depression is manifest. As scores become elevated above 80*T*, there is increasing likelihood of a diagnosis of major depression.

DEP scores that are markedly elevated (at or above 96*T*) will likely have elevations on all three subscales, often reflecting a diagnosis of

Table 3-2
Interpretation of High Scores on *ANX* Subscales

Subscale (Abbreviation)	Description of high scorers
Cognitive *(ANX–C)*	These individuals report prominent worry and concern about current issues; these worries are present to the degree that the ability to concentrate and attend are significantly compromised. Their acquaintances are likely to comment about their overconcern regarding issues and events over which they have no control.
Affective *(ANX–A)*	These individuals report experiencing a great deal of tension, difficulty in relaxing, and the presence of fatigue as a result of high perceived stress.
Physiological *(ANX–P)*	These individuals tend to experience and express stress in somatic form. They are likely to manifest overt physical signs of tension and stress, such as sweaty palms, trembling hands, complaints of irregular heartbeats, and shortness of breath.

Table 3-3
Interpretation of High Scores on *ARD* Subscales

Subscale (Abbreviation)	Description of high scorers
Obsessive–Compulsive *(ARD–O)*	These individuals tend to be fairly rigid and follow their own personal guidelines for conduct in an inflexible manner. Others see these individuals as perfectionistic and constricted. Their excessive attention to detail often inhibits decision–making and renders them unable to perceive the larger significance of decisions that are made. Changes in routine, unexpected events, and contradictory information are likely to generate untoward stress. Such individuals may be afraid of their own impulses and doubt their ability to control them.
Phobias *(ARD–P)*	For these individuals it is likely that phobic behaviors are interfering in some significant way in their life. Such individuals tend to monitor their environment in an unrealistically vigilant fashion to avoid contact with the feared object, and this vigilance is likely to be constricting life activities. Fears may involve social situations, public transportation, heights, enclosed spaces, or other specific objects. High scorers are more likely to have multiple phobias or a more distressing phobia, such as an agoraphobia, than to suffer from a simple phobia.
Traumatic Stress *(ARD–T)*	These individuals have typically experienced a disturbing traumatic event in the past—an event which continues to distress them and produce recurrent episodes of anxiety. They generally report that the event has left them changed or damaged in some fundamental way. While the item content of the PAI does not address specific causes of traumatic stress, possible traumatic events involve victimization (e.g., rape, abuse), combat experiences, life–threatening accidents, and natural disasters (e.g., earthquakes).

major depression. Individuals scoring in this range are likely to feel hopeless, discouraged, and useless. They are socially withdrawn and feel misunderstood by others. Typically, there is little energy and motivation to pursue interests. Suicidal ideation is not uncommon with scores in this range, and particular attention should be given to *SUI* scale elevations when *DEP* is markedly elevated.

Mania (MAN)

The *MAN* scale measures elements of the clinical presentation of mania and hypomania. The item content ranges across various features of these syndromes, including elevated mood, expansiveness and grandiosity, heightened activity levels, and irritability and impatience. The scale is comprised of three subscales reflecting three major aspects of mania: Activity Level (*MAN-A*), Grandiosity (*MAN-G*), and Irritability (*MAN-I*). The interpretive significance of elevations on each of these subscales is presented in Table 3-5.

A *MAN* score of 54*T* or below reflects a person with few features of mania or hypomania. Although depressed individuals are rarely grandiose and do not have heightened activity levels, they are often quite irritable; hence, depression will *not* invariably be associated with very low *MAN* scores. Respondents with scores ranging from 55*T* through 64*T* may be seen as active, outgoing, ambitious, and self-confident; however, toward the upper end of this range they may also be rather impatient and hostile, with a quick temper. Scores in the 65*T* to 74*T* range are associated with increasing restlessness, impulsivity, and high energy levels. Other are likely to perceive individuals with scores in this range as unsympathetic and hotheaded.

MAN scores that are markedly elevated (at or above 75*T*) are typically associated with disorders such as mania, hypomania, or cyclothymia. Individuals scoring in this range are likely to take on more than they can handle and to react in a hostile manner to suggestions that they reduce their activities. They are typically quite impulsive and have little ability to delay gratification; their lack of judgment in such situations is likely to lead to significant impairment in role functioning. They may experience flight of ideas and their grandiosity may be delusional in proportion. Their interactions with others are likely to be problematic, as their self-importance, hostility, and narcissism impede their ability to reciprocate in relationships.

Paranoia (PAR)

The *PAR* scale measures the characteristic phenomenology of the paranoid individual, with respect to both symptomatology and person-

Table 3-4
Interpretation of High Scores on *DEP* Subscales

Subscale (Abbreviation)	Description of high scorers
Cognitive *(DEP–C)*	These individuals report thoughts of worthlessness, hopelessness, and personal failure. Indecisiveness and difficulties in concentration are also likely.
Affective *(DEP–A)*	These individuals report sadness, a loss of interest in normal activities, and a loss of pleasure in things that were previously enjoyed.
Physiological *(DEP–P)*	These individuals tend to experience and express depression in somatic form. They report a change in level of physical functioning, activity, and energy. They are likely to show a disturbance in sleep pattern, a decrease in level of sexual interest, and a loss of appetite and/or weight loss.

ality elements. The item content addresses a vigilance in monitoring the environment for potential harm, a tendency to be resentful and to hold grudges, and a readiness to spot inequities in the way that the respondent has been treated by others. The scale is comprised of three subscales reflecting three elements of a paranoid stance: Hypervigilance (*PAR-H*), Persecution (*PAR-P*), and Resentment (*PAR-R*). The interpretive significance of elevations on each of these subscales is presented in Table 3-6.

An average score on the *PAR* scale (59*T* or below) reflects a person who reports being open and forgiving in relationships with others. Scores ranging from 60*T* through 69*T* are indicative of individuals who may be seen as sensitive, tough-minded, and skeptical. Toward the upper end of this range they may also be rather wary and cautious in their interpersonal relationships. With scores at or above 70*T*, the person is likely to be overtly suspicious and hostile. Such a person tends to be distrustful of close interpersonal relationships and probably has few close friends.

PAR scores that are markedly elevated (at or above 84*T*) are typically associated with paranoia of potentially delusional proportions. Individuals scoring in this range are likely to be bitter and resentful of the way they have been treated by others, and they expect others to attempt to exploit them. Any close relationships that may exist are probably troubled by jealousy and accusations. Ideas of reference and delusions of persecution or grandiosity are not uncommon when scores are in this range.

Table 3-5
Interpretation of High Scores on *MAN* Subscales

Subscale (Abbreviation)	Description of high scorers
Activity Level *(MAN–A)*	These individuals are likely to have an activity and energy level which is perceptibly high to most observers. They may be involved in a wide variety of activities in a somewhat disorganized manner and may experience accelerated thought processes.
Grandiosity *(MAN–G)*	The thought content of these individuals is likely to be marked by elements of inflated self–esteem, expansiveness, or grandiosity, which may range from beliefs of having exceptionally high levels of common skills to beliefs that border on delusional in terms of having special and unique talents that will lead to fame and fortune.
Irritability *(MAN–I)*	These individuals report that their relationships with others are strained due to their frustration with the inability or unwillingness of those around them to keep up with their plans, demands, and possibly unrealistic ideas. At its extreme, this irritability may result in accusations that significant others are attempting to thwart their plans for success and achievement.

Schizophrenia (SCZ)

The *SCZ* scale was designed to measure a number of the different facets of schizophrenia; this multifaceted approach is necessary because the disorder is one of the most heterogeneous of all clinical groups. The item content includes unusual beliefs and perceptions; poor social competence and social anhedonia; and inefficiency and disturbances in attention, concentration, and associational processes. Each of these elements is assessed by one of the three subscales that comprise *SCZ*: Psychotic Experiences (*SCZ-P*), Social Detachment (*SCZ-S*), and Thought Disorder (*SCZ-T*). The interpretive significance of elevations on each of these subscales is presented in Table 3-7.

An average score on *SCZ* (59*T* or below) reflects a person who reports being effective in social relationships and who has no problems with attention or concentration. Scores ranging from 60*T* through 69*T* are indicative of persons who may be seen as being withdrawn, aloof, and unconventional. With scores toward the upper end of this range, they may be quite cautious and hostile in their few interpersonal relationships. Respondents with scores at or above 70*T* are likely to be isolated and feel misunderstood and alienated from others. Some difficulties in thinking, concentration, and decision-making are probable with scores in this range. Specific subscale elevations may reveal the presence of unusual perceptions or beliefs that may be psychotic in nature.

SCZ scores that are markedly elevated (at or above 90*T*) are typically associated with an active schizophrenic episode. Individuals with scores in this range are likely to be confused, withdrawn, and suspicious, and tend to have poor judgment and reality testing. Active

Table 3-6
Interpretation of High Scores on *PAR* Subscales

Subscale (Abbreviation)	Description of high scorers
Hypervigilance *(PAR–H)*	These individuals are likely to closely monitor their environment for evidence that others are trying to harm or discredit them in some devious way. They are likely to question and mistrust the motives of those around them, despite the nature or history of the relationship in question.
Persecution *(PAR–P)*	These individuals are quick to feel that they are being treated inequitably and easily believe that there is a concerted effort by others to undermine their interests.
Resentment *(PAR–R)*	These individuals are likely to be easily insulted or slighted; they typically respond by holding grudges toward others. They are inclined to attribute their own misfortunes to the neglect of others and to discredit the successes of others as being the result of luck or favoritism. They tend to be envious of others and disinclined to assist others in achieving goals and successes.

psychotic symptomatology is likely with scores in this range, and specific elevations on other scales may be helpful in identifying the precise nature of such symptoms. For example, concomitant elevations on the *PAR* scale may indicate the presence of delusions of persecution. With increasing *T*-score elevations, delusions of thought broadcasting, thought insertion, thought withdrawal, and thought control become more likely. These patients often require referral to evaluate the need for psychotropic medications.

Borderline Features (BOR)

The *BOR* scale assesses a number of elements related to severe personality disorder. Although all of these elements are a part of the borderline syndrome, individually they are also common to numerous other disorders. The item content includes indicators of poor control over emotions and anger, intense and often combative interpersonal relationships, confusion around issues of identity and self-worth, and impulsivity that often results in self-destructive behaviors. The scale is comprised of four subscales tapping the different elements of the syndrome: Affective Instability (*BOR-A*), Identity Problems (*BOR-I*), Negative Relationships (*BOR-N*), and Self-Harm (*BOR-S*). The interpretive significance of elevations on each of these four subscales is presented in Table 3-8.

An average score on *BOR* (59*T* or below) reflects a person who reports being emotionally stable and who also has stable relationships. Scores ranging from 60*T* through 69*T* are indicative of a person who may be seen as moody, sensitive, and having some uncertainty about life goals; scores in this range are not uncommon in young adults. Individuals scoring in the upper end of this range may be increasingly angry and dissatisfied with their interpersonal relationships. With a score at or above 70*T*, the respondent is likely to be impulsive and emotionally labile, to feel misunderstood by others (who often perceive the respondent as egocentric), and to find it difficult to sustain close relationships. Such respondents tend to be angry and suspicious while at the same time being anxious and needy, making them quite ambivalent about interactions with others. However, scores in this range do not necessarily suggest a diagnosis of borderline personality disorder unless there are prominent elevations on all four *BOR* subscales, because individual features are common to other disorders.

Table 3-7
Interpretation of High Scores on *SCZ* Subscales

Subscale (Abbreviation)	Description of high scorers
Psychotic Experiences *(SCZ–P)*	These individuals report experiencing unusual perceptions and sensations, magical thinking, and/or other unusual ideas that may involve delusional beliefs.
Social Detachment *(SCZ–S)*	These individuals are likely to be socially isolated and to have few interpersonal relationships that could be described as close and warm. They may have difficulty in interpreting the normal nuances of interpersonal behavior that provide the meaning to personal relationships. Their social isolation and detachment may serve to decrease the sense of discomfort that interpersonal contact fosters.
Thought Disorder *(SCZ–T)*	The thought processes of these individuals are likely to be marked by confusion and difficulties in concentration. In the absence of a clinical elevation of the full *SCZ* scale, this finding can reflect various causes other than schizophrenic disorder. Severe depression, the sequelae of brain injury or disease, the effects of medication, and the consequences of drug or alcohol abuse are all potential causes of elevations on this subscale.

Table 3-8
Interpretation of High Scores on *BOR* Subscales

Subscale (Abbreviation)	Description of high scorers
Affective Instability *(BOR–A)*	These individuals are highly responsive emotionally, typically manifesting rapid and extreme mood swings rather than more cyclic mood changes as seen in affective disorders. These individuals also tend to experience episodes of poorly controlled anger.
Identity Problems *(BOR–I)*	These individuals tend to be uncertain about major life issues and have little sense of purpose. They typically describe themselves as feeling empty, bored, or unfulfilled.
Negative Relationships *(BOR–N)*	These individuals report a history of involvement in ambivalent, intense and unstable relationships. They often feel resentful and betrayed by people who were once close to them.
Self–Harm *(BOR–S)*	These individuals are impulsive in areas that have high potential for negative consequences, such as spending, sex, and/or substance abuse. Such behavior has typically interfered repeatedly with effective social and/or occupational performance. High scorers may also be at increased risk for self-mutilation and suicidal behavior.

BOR scores that are markedly elevated (at or above 92*T*) are typically associated with personality functioning within the borderline range. Individuals scoring in this range typically present in a state of crisis which often involves difficulties in their relationships. With elevations in this range, respondents are invariably hostile, feeling angry and betrayed by the people around them. Symptomatically, they often report being very depressed and anxious in response to their circumstances. They are impulsive and will act in ways that appear to others to be quite self-destructive; for example, they seem to sabotage their own best intentions with acting-out behaviors. These behaviors can include alcohol or drug abuse, suicidal gestures, or aggressive outbursts; scores on the *ALC*, *DRG*, *SUI*, and *AGG* scales should be consulted to identify potential problem areas of this type.

Antisocial Features (ANT)

The *ANT* scale provides an assessment of personality and behavioral features relevant to the constructs of antisocial personality and psychopathy. The item content ranges from indicators of egocentricity, adventuresomeness, and poor empathy to items addressing antisocial attitudes and behaviors. The scale is comprised of three subscales tapping different facets of the syndrome: Antisocial Behaviors (*ANT-A*), Egocentricity (*ANT-E*), and Stimulus-Seeking (*ANT-S*). The interpretive significance of elevations on each of these three subscales is presented in Table 3-9.

Average scores on *ANT* (59*T* or below) reflect persons who report being reasonably empathic and warm in their relationships with others; these individuals typically exhibit reasonable control over impulses and behavior. Scores ranging from 60*T* through 69*T* are indicative of a person who may be seen as being somewhat impulsive and a risk-taker; scores in this range are not uncommon in young adults, particularly in young men. Individuals scoring in the upper end of this range (65*T* through 69*T*) may be increasingly self-centered, skeptical of others' intentions, and unsympathetic in their interpersonal relationships. With scores at or above 70*T*, respondents are likely to be impulsive and hostile, and there may be a history of antisocial acts. Such individuals may be seen by others as exploitative in their relationships and as having few long-lasting friendships.

ANT scores that are markedly elevated (at or above 82*T*) are typically associated with prominent features of antisocial personality disorder. Respondents with scores in this range are likely to be unreliable and irresponsible, and have probably had little sustained success in either social or occupational realms. They tend to have a coldly pragmatic approach to relationships and will exploit such interactions to suit their own needs. Such people tend to be reckless in their approach to life and to have a history of conflicts with authority figures.

Alcohol Problems (ALC)

The *ALC* scale provides an assessment of behaviors and consequences related to alcohol use, abuse, and dependence. The item content ranges from statements of total abstinence through frequent use to severe consequences of drinking, loss of control, and alcohol-related cravings. Questions inquire directly about the use of alcohol; therefore, prominent denial of alcohol problems can suppress scores on the scale. If *ALC* raw scores are very low and there are elevated scores on *PIM* accompanied by some elevations on *BOR* and/or *ANT*, some follow-up inquiry about alcohol use might be merited. In general, however, a direct inquiry about alcohol use will usually provide more accurate data than making inferences from indirect sources.

An average score on *ALC* (59*T* or below) reflects a person who reports moderate alcohol use and few adverse consequences related to drinking. Scores ranging from 60*T* through 69*T* are indicative of a person who may drink regularly and may have experienced some adverse consequences as a result. Toward the upper end of this range (65*T* through 69*T*) there is increasing likelihood that alcohol has caused or is causing problems for the person. With a score at or above 70*T*, the respondent is likely to meet criteria for alcohol abuse. Alcohol is likely to have caused difficulties in interpersonal relationships or in work performance, and the respondent's current functioning is probably compromised.

ALC scores that are markedly elevated (at or above 84*T*, which is the average score for individuals in alcoholism treatment centers) are typically associated with alcohol dependence. Scores at or above 98*T* are likely to be associated with an extreme degree of alcohol dependence.

Table 3-9
Interpretation of High Scores on *ANT* Subscales

Subscale (Abbreviation)	Description of high scorers
Antisocial Behaviors *(ANT–A)*	These individuals tend to have a history of antisocial acts and often manifested a conduct disorder during adolescence. They may have been involved in illegal occupations and/or engaged in criminal acts involving theft, destruction of property, and physical aggression toward others.
Egocentricity *(ANT–E)*	These individuals tend to be seen as egocentric, with little regard for others or the opinions of the society around them. In their desire to satisfy their own goals and impulses, they may take advantage of others, even those who are closest to them. They feel little responsibility for the property of others and have little loyalty to their acquaintances. While such subjects may describe feelings of guilt over past transgressions, they are not likely to feel much remorse of any lasting nature. Such individuals would be expected to place little importance in their role as spouse, parent, or employee.
Stimulus–Seeking *(ANT–S)*	These individuals are likely to manifest behavior that is reckless and potentially dangerous to themselves and/or those around them. They crave excitement and stimulation, and are easily bored by routine and convention.

Individuals with scores at or above 84T are likely to be unable to cut down on their drinking despite repeated attempts at sobriety. They are typically quite guilty about their drinking, but report little ability to control the effect it has on their lives. They likely have a history of social and occupational failures that were related to drinking and have had episodes where they were intoxicated for prolonged periods. Blackouts and physiological signs of dependence and withdrawal are probable with scores in this range.

Drug Problems (DRG)

The *DRG* scale provides an assessment of behaviors and consequences related to drug use, abuse, and dependence. The item content ranges from statements of total abstinence, through frequent use, to severe consequences of drug use. Questions inquire directly about the use of drugs (both prescription and illicit), and thus prominent denial of drug use can suppress scores on the scale. As with *ALC*, if *DRG* raw scores are very low and there are elevated scores on *PIM* accompanied by some elevations on *BOR* and/or *ANT*, some follow-up inquiry about drug use might be merited. In general, however, a direct inquiry about a history of drug use will usually provide more accurate data than will making inferences from indirect sources.

An average score on *DRG* (59T or below) reflects a person who reports using drugs infrequently, if at all. Scores ranging from 60T through 69T are indicative of a person who may use drugs on a fairly regular basis and may have experienced some adverse consequences as a result. Toward the upper end of this range (65T through 69T) there is increasing likelihood that drug use has caused or is causing problems for the person. With scores at or above 70T, the respondent is likely to meet criteria for drug abuse. It is likely that his or her drug use has caused difficulties in interpersonal relationships or in work performance, and current functioning is probably compromised.

DRG scores that are markedly elevated (above 80T, the average score for individuals in treatment for drug abuse) are typically associated with drug dependence. Scores at or above 96T are likely to be associated with an extreme degree of drug dependence. Individuals with scores at or above 80T are likely to be unable to reduce drug use despite repeated attempts, and have little ability to control the effect that the desire for drugs has on their lives. They likely have a history of social and occupational failures that were related to drug use. Depending on the primary substance of abuse, physiological signs of dependence and withdrawal are probable with scores in this range.

Interpretation of PAI Treatment Consideration Scales

Aggression (AGG)

The *AGG* scale provides an assessment of attitudinal and behavioral features relevant to aggression, anger, and hostility. The item content ranges from indicators of verbal assertiveness and poor anger control to violent and assaultive behaviors. The scale is comprised of three subscales tapping different facets of aggression: Aggressive Attitude (*AGG-A*), Verbal Aggression (*AGG-V*), and Physical Aggression (*AGG-P*). The interpretive significance of elevations on each of these subscales is presented in Table 3-10.

Average scores on *AGG* (59T or below) reflect a reasonable control over the expression of anger and hostility; scores below 40T may indicate a very meek and unassertive person. Scores ranging from 60T through 69T are indicative of a person who may be seen as impatient, irritable, and quick-tempered. Toward the upper end of this range (65T through 69T) individuals may be increasingly angry and easily provoked by the actions of others around them. With scores at or above 70T, respondents are likely to be chronically angry and will freely express their anger and hostility. In this range at least one subscale is likely to be elevated and these scores should be examined to determine the typical modality (e.g., verbal or physical) through which the anger is expressed.

AGG scores that are markedly elevated (above 83T) are typically associated with considerable anger and potential for aggression. Such individuals are easily provoked and may show explosive anger when frustrated. If *AGG-V* is low and *AGG-P* is elevated, this expression of anger may come with little warning. Other people are likely to be afraid of the individual's temper, and close relationships will suffer as a result. There is probably a history of fights and other episodes where anger has clouded the respondent's judgment, often leading to legal or occupational difficulties.

Suicidal Ideation (SUI)

The *SUI* scale provides an assessment of thoughts and ideas related to death and suicide. The item content ranges from hopelessness, through general and vague thoughts of dying and suicide, to thoughts representing concrete plans for the suicidal act. Items inquire directly about suicidal ideation; therefore individuals who wish to mask their suicidal intent can suppress their scores on the scale. If *SUI* raw scores are

Table 3-10
Interpretation of High Scores on *AGG* Subscales

Subscale (Abbreviation)	Description of high scorers
Aggressive Attitude *(AGG–A)*	These individuals are easily angered, report having difficulty controlling the expression of their anger, and are likely to be perceived by others as being hostile and readily provoked.
Verbal Aggression *(AGG–V)*	These individuals are not intimidated by confrontation and tend to be verbally aggressive (e.g., critical, insulting, or verbally threatening) with little provocation. They display their anger readily when it is experienced.
Physical Aggression *(AGG–P)*	These individuals are prone to physical displays of anger, including damage to property, physical fights, and threats of violence. It is likely that those around such individuals are intimidated by their temper and potential for violence.

very low and there are elevated scores on *DEP, ANX, NON*, and *STR*, some follow-up inquiry about suicidal intent might be merited. However, a direct inquiry of the type provided by the *SUI* items is often effective in uncovering intentions for self-harm.

An average score on *SUI* (59*T* or below) reflects a person who has few thoughts about death or suicide. Scores ranging from 60*T* through 69*T* are indicative of a person who entertains periodic and transient thoughts about suicide and is pessimistic and unhappy about prospects for the future; scores in or above this range merit follow-up evaluation. With scores at or above 70*T*, the respondent is reporting significant suicidal ideation; such individuals are typically anxious and depressed and see the people around them as unsupportive. A "cry for help" can lead to scores in this range, and it is important that such cries be heeded. A careful evaluation of the individual's intentions, life circumstances, and available support systems is recommended when such scores are obtained.

SUI scores that are markedly elevated (at or above 84*T*, the average score for patients currently on suicide precautions) are often associated with imminent plans for self-harm. The potential for suicide should be evaluated immediately and appropriate interventions should be implemented without delay. These individuals have little hope for the future. They are in despair, believe they are useless to others, and feel unable to help themselves. They may feel rejected by the people around them and are often bitter about the way they have been treated by others. Scores at or above 101*T* are rare even in clinical samples and may suggest a morbid preoccupation with thoughts of suicide.

Stress (STR)

The *STR* scale provides an assessment of life stressors that the respondent is currently experiencing or has recently experienced. Item content includes problems in family relationships, financial hardships, difficulties related to the nature or status of employment, or major life changes that have recently occurred or are about to occur in their life.

An average score on *STR* (59*T* or below) reflects a person who reports his or her life as being stable, predictable, and uneventful. Scores ranging from 60*T* through 69*T* are indicative of a person who may be experiencing a moderate degree of stress as a result of difficulties in some major life area. With scores at or above 70*T*, these difficulties are likely to be having a significant impact upon the respondent. A review of the current work situation, family and close relationships, or financial status will probably reveal circumstances that are a source of worry, rumination, and unhappiness. These individuals are at risk for development of a number of adjustment or reactive disorders; scores on the clinical scales should be reviewed to determine the severity and nature of any such symptomatology.

STR scores that are markedly elevated (77*T* through 91*T*, the maximum score on this scale) indicate that respondents perceive themselves as surrounded by crises; nearly all major life areas are reported to be in turmoil. They feel that they are powerless to control a series of undesirable events that are happening to them. They see themselves as ineffectual, dependent, and at the mercy of those around them, a situation that may lead to some bitterness. Levels of stress in this range make the individual vulnerable to many different clinical disorders. Scores on the clinical scales should be examined to determine the precise nature of the individual's reactions to stresses of this magnitude.

Nonsupport (NON)

The *NON* scale provides a measure of perceived lack of social support, tapping both the availability and quality of the respondent's social relationships. Item content addresses the level and nature of interactions with acquaintances, friends, and family members. The scaling of *NON* is such that low scores reflect high perceived social support, while elevations indicate a perception of the social environment as unsupportive.

An average score on *NON* (59*T* or below) reflects a person who reports close, generally supportive relationships with family and friends. Scores ranging from 60*T* through 69*T* are indicative of a person who may have few close interpersonal relationships or may be dissatisfied with the nature of these relationships. With scores at or above 70*T*, respondents are reporting that their social relationships offer them little support; family relationships may be either distant or combative, while friends are generally seen as unavailable or not helpful when needed.

NON scores that are markedly elevated (at or above 88*T*) indicate that respondents perceive that they have little or no social support system to help them through significant events in their lives. They tend to be highly critical of themselves as well as of other people, whom they perceive as uncaring and rejecting. These individuals have few emotional resources for dealing with crises and are particularly prone to severe reactions to stress.

Treatment Rejection (RXR)

The *RXR* scale provides a measure of attributes and attitudes associated with an interest in personal changes of a psychological or emotional nature. Items tap the relative willingness to participate actively in treatment, acknowledgment of personal problems, and the disposition to accept responsibility for problems in one's life. These items were written to be applicable across different therapeutic modalities. The scaling of *RXR* is such that elevations suggest little motivation for treatment. Also, it should be kept in mind that the *T* scores are referenced against a normative sample of community-dwelling adults, *not* a treatment sample; hence, scores that are typical of normals actually represent little motivation for treatment. Thus, even *T* scores that appear to be within the average range can have negative implications for treatment motivation.

A low score on *RXR* (below 43*T*) suggests that the respondent acknowledges major difficulties in his or her functioning and perceives an acute need for help in dealing with these problems. An average score on *RXR* (from 43*T* through 52*T*) reflects a person who acknowledges the need to make some changes, has a positive attitude toward the possibility of personal change, and accepts the importance of personal responsibility. Scores in the upper portion of this range are somewhat higher than expected in subjects where available information (such as from the history or from other scales of the PAI) suggests some impairment. Scores ranging from 53*T* through 62*T* are indicative of persons who are generally satisfied with themselves as they are and see little need for major changes in their behavior. Individuals scoring in the upper portion of this range would generally have little motivation to enter into psychotherapy and might be at risk for early termination. *RXR* scores at or above 63*T* reflect a person who admits to few difficulties and has no desire to change the status quo. Such individuals are not likely to seek therapy on their own initiative and will likely be resistant if they do begin

treatment. They will probably dispute the value of therapy and have little, if any, involvement in any therapeutic attempts.

Interpretation of PAI Interpersonal Scales

Dominance (DOM)

The *DOM* scale provides a measure of the extent to which a person is controlling, submissive, or autonomous in interpersonal relationships. Item content involves being independent from others, outspoken and assertive, and directive and managerial in relationships. The scale is bipolar; both high and low scores have interpretive significance.

A score on *DOM* that is very low (less than 30*T*) indicates a person who has little confidence in social interactions. Such as person is likely to have difficulty getting needs met in personal relationships and will instead subordinate his or her own interests to those of others. This failure to assert oneself may result in mistreatment or exploitation by others. Scores that are moderately low (ranging from 30*T* through 39*T*) suggest individuals who are rather modest and retiring. They tend to be self-conscious in social interactions and are probably not skilled in asserting themselves when needed. They are likely to be uncomfortable when they are the focus of attention.

Scores on *DOM* that are moderately high (ranging from 60*T* through 69*T*) suggest an individual who is self-assured, confident, and forceful. While not necessarily unfriendly, such individuals are most likely to be described by others as being self-reliant and somewhat controlling. Such individuals are comfortable in social settings, but often prefer to interact with others in situations in which they can be in control. With scores that are markedly elevated (at or above 70*T*), this need for control is quite pronounced and probably taxes the endurance of those who are close to the respondent. Such individuals are generally domineering and tend to have little tolerance for those who disagree with their plans and desires. Others probably view them as being self-important, overbearing, and dictatorial.

Warmth (WRM)

The *WRM* scale provides a measure of the extent to which a person is empathic, engaging, or rejecting and mistrustful in interpersonal relationships. Item content involves being sociable, sympathetic, affectionate, and patient with others. The scale is bipolar; both high and low scores have interpretive significance.

Scores on *WRM* that are very low (less than 30*T*) indicate a person who has little interest or investment in social interactions. These people often seem cold and unfeeling, and they have little patience with the faults of others. Others are likely to see them as unable to display affection or uninterested in making commitments to personal relationships. For such individuals, there are probably only few people who consider them to be anything more than an acquaintance. Scores that are moderately low (from 30*T* through 39*T*) suggest an individual who tends to be somewhat distant in personal relationships. These individuals may not place a high premium on close, lasting relationships, and most social interactions are viewed without much enthusiasm. Others may view these individuals as unsympathetic and stern. Such persons are often less concerned about the opinions of others than is the norm.

Scores on *WRM* that are moderately high (ranging from 60*T* through 69*T*) suggest an individual who is warm, sympathetic, and supportive towards others. These individuals are generally eager to be liked by others and find it hard to be critical of others even when such criticism is merited. Their trusting nature and readiness to forgive the faults of others may place them at risk to be taken advantage of in personal relationships. With scores that are markedly elevated (at or above 70*T*), this need for acceptance is quite pronounced and can result in marked dependency. Others may see the individual as being too trusting and supportive for his or her own good.

Configural Profile Interpretation

The use of single scale elevations is only the first step in the interpretation of the data provided by the PAI. The next interpretive step involves an examination of the configuration or pattern of elevations on the PAI scales. Identical elevations on a particular scale can have differing significance, depending upon the context provided by scores on clinically related scales.

Historically, configural interpretive strategies have been driven by "codetypes" that are determined by the two or three scores on a given inventory that are most elevated. Although the determination of a codetype is quite convenient, use of a codetype invariably ignores much of the critical information in a multi-scale inventory, particularly one such as the PAI which has 22 full scales. In the development of configural interpretive strategies for the PAI, it was decided to use a strategy that would bring a wider array of the available information to bear upon interpretations.

In this process, multivariate techniques known as *cluster analysis* were used to determine modal profiles that can serve as a foundation from which to begin interpretive analysis. The use of these profiles represents a truly configural approach to interpretation, because more of the information contained in the profile is utilized (in contrast to using elevations on only one or two scales as the basis for establishing profile groups). The use of the modal profile interpretive strategy has been made possible by the important methodological developments that have taken place in the past decades. The procedure by which these profiles were developed is described in Chapter 10.

The following material describes the interpretive meaning and common correlates of 10 empirically determined PAI configurations. These descriptions can serve only as a basic introduction to the myriad of possible configurations that can be obtained. Additional information on the relationship between profile configuration and diagnosis may be found in Chapter 9, which presents the mean profile associated with several diverse disorders, and in Appendix J, which lists different diagnoses associated with the codetypes.

The statistical procedures used to derive the following modal profiles were designed to yield profiles that were commonly observed and representative of homogeneous subgroups within the sample as a whole. Thus, a rst step in configural interpretation can involve a comparison between a particular protocol and these modal profiles to determine the significance of the modal profile that is most similar to the case in consideration. A quantitative procedure for making this similarity determination is described in Chapter 10.

Cluster 1

The mean profiles for the Cluster 1 modal profile are presented in Figures 3-1 and 3-2 for the full scales and subscales, respectively. This profile is distinguished by a lack of prominent elevations—no full scale or subscale averages at or above 60*T*. Of the patients assigned to this cluster, a large majority (78%) had no clinical scales elevated at or above 70*T*. The most elevated full scale for the mean Cluster 1 profile is *STR*; also, *RXR* tends to be a bit higher than is typically observed in patients.

This pattern suggests a person who is reporting some turmoil in life which might be a source of stress, but not to the point where prominent symptoms are observed. Such individuals may feel unhappy or tense at times, but in general their self-esteem is intact and they report that the stress is having little impact on their ability to function. It is worth noting that their scores on *PIM*, although typical for normal subjects, are somewhat higher than is generally seen for patients. This suggests that, if indeed the respondent is presenting for evaluation or treatment in a clinical setting, some denial may be responsible for the generally trouble-free picture they are reporting.

Of the patients who were assigned to this cluster, a majority had never previously been in any form of psychological treatment. Relatively few of these patients were receiving any type of psychotropic medication. Clinicians reported some concerns that these patients were at risk for early termination and were not very compliant with treatment; again, this would need to be considered as a function of the type of setting (e.g., clinical vs. nonclinical) in which the respondent was seen. By far, the most common diagnosis in these patients involved an adjustment reaction, although there were some patients with antisocial, narcissistic, or paranoid features who obtained this profile as well. The general picture of satisfactory functioning and personal comfort reported by individuals with this profile type should be evaluated in the context of any biographical material available for consideration.

Cluster 2

The mean profiles for the Cluster 2 modal profile are presented in Figures 3-3 and 3-4 for the full scales and subscales, respectively. This profile is distinguished by prominent elevations on *DEP* and *SUI*, with *SCZ*, *STR*, *NON*, *BOR* and the neurotic scales of *SOM*, *ANX*, and *ARD* all elevated above 65*T*. Many (about 43%) of the subjects assigned to this cluster had a clinical scale codetype involving *DEP* as the highest scale. All three of the *DEP* subscales were elevated, and the Social Detachment subscale of *SCZ* and Traumatic Stress subscale of *ARD* approached 70*T*.

This pattern suggests a person who is severely depressed and withdrawn. Such individuals are unhappy with their life circumstances and report experiencing the effects of major stressors in both the past and present. They see little hope for improvement in their circumstances and think about suicide as a solution to their problems. They feel cut off from the people around them, whom they see as unsupportive and uncaring; they probably harbor a fair degree of resentment toward the few people in their lives who are close to them. Their self-esteem is quite low and they view themselves as ineffectual and powerless to change the direction of their lives. They have difficulty in concentrating and making decisions, and their preoccupations and anxiety are likely to impair their ability to think clearly. They also experience what appear to be a number of somatic manifestations of their current stress.

Of the clinical subjects who were assigned to this cluster, a majority had previously been in some form of psychological treatment prior to the current episode. Most of the patients (73%) were receiving some type of psychotropic medication, with antidepressant (38%) and antipsychotic (21%) medications being most frequently prescribed. Clinicians reported that these patients were generally compliant and there were few concerns about manipulativeness or antagonistic behaviors, although some of the patients were identified as being at risk for misusing prescription drugs. The most common diagnoses for these patients involved major depression (20%), dysthymia (23%), or an anxiety disorder (23%), most of whom had been diagnosed with post-traumatic stress disorder. A subgroup of these patients who tended to have higher elevations on *SCZ* also received diagnoses of schizophrenia or schizoaffective disorder—this was one of the most common profile patterns for such patients.

Cluster 3

The mean profiles for the Cluster 3 modal profile are presented in Figures 3-5 and 3-6 for the full scales and subscales, respectively. This profile is distinguished by prominent elevations on *ALC* and *SOM*, with *DEP*, *STR*, and *ANX* all elevated above 65*T*. A majority of the subjects assigned to this cluster had a clinical scale codetype involving *ALC* as the highest scale. The subscales for *SOM*, *ANX*, and *DEP* were all elevated fairly evenly in the range from 65*T* to 70*T*.

This pattern suggests a person who has a severe drinking problem and experiences a number of physiological problems that may be partially related to drinking (for example, withdrawal symptoms or medical complications). Alcohol abuse is probably causing severe disruptions in personal relationships and work performance, and these difficulties are serving as additional sources of stress. These individuals are likely to feel quite guilty about their drinking and the effect that it is having on the people around them. They report prominent anxiety, and alcohol may be playing a functional role in tension reduction for these subjects. Their perceived level of social support, while not high in comparison to normal subjects, is somewhat better than that observed for many alcoholics, and suggests that family interventions may hold some promise. These subjects tended to be "pure" alcoholics and were less likely to abuse drugs than were other substance abuse profiles that were obtained.

Of the clinical subjects who were assigned to this cluster, a majority had been in some form of psychological treatment prior to the current episode. Visual hallucinations tended to be more common in this group than in other groups, and were probably related to detoxification rather than a psychotic disorder. Of the 10 profile types, this configuration was most associated with clinicians' impressions of some central nervous system dysfunction; 28% of the patients in this group had confirmed or suspected brain damage. Clinicians generally predicted a complicated treatment course for these individuals, because of the likelihood of alcohol abuse during treatment. However, in most respects they were seen as fairly compliant with treatment. By far, the most common diagnosis in these patients was alcohol abuse or dependence (62%); none of these patients were diagnosed as dependent upon other drugs. The alcoholism diagnosis was often accompanied by a diagnosis of major depression (19%) or dysthymic disorder (19%).

Cluster 4

The mean profiles for the Cluster 4 modal profile are presented in Figures 3-7 and 3-8 for the full scales and subscales, respectively. This

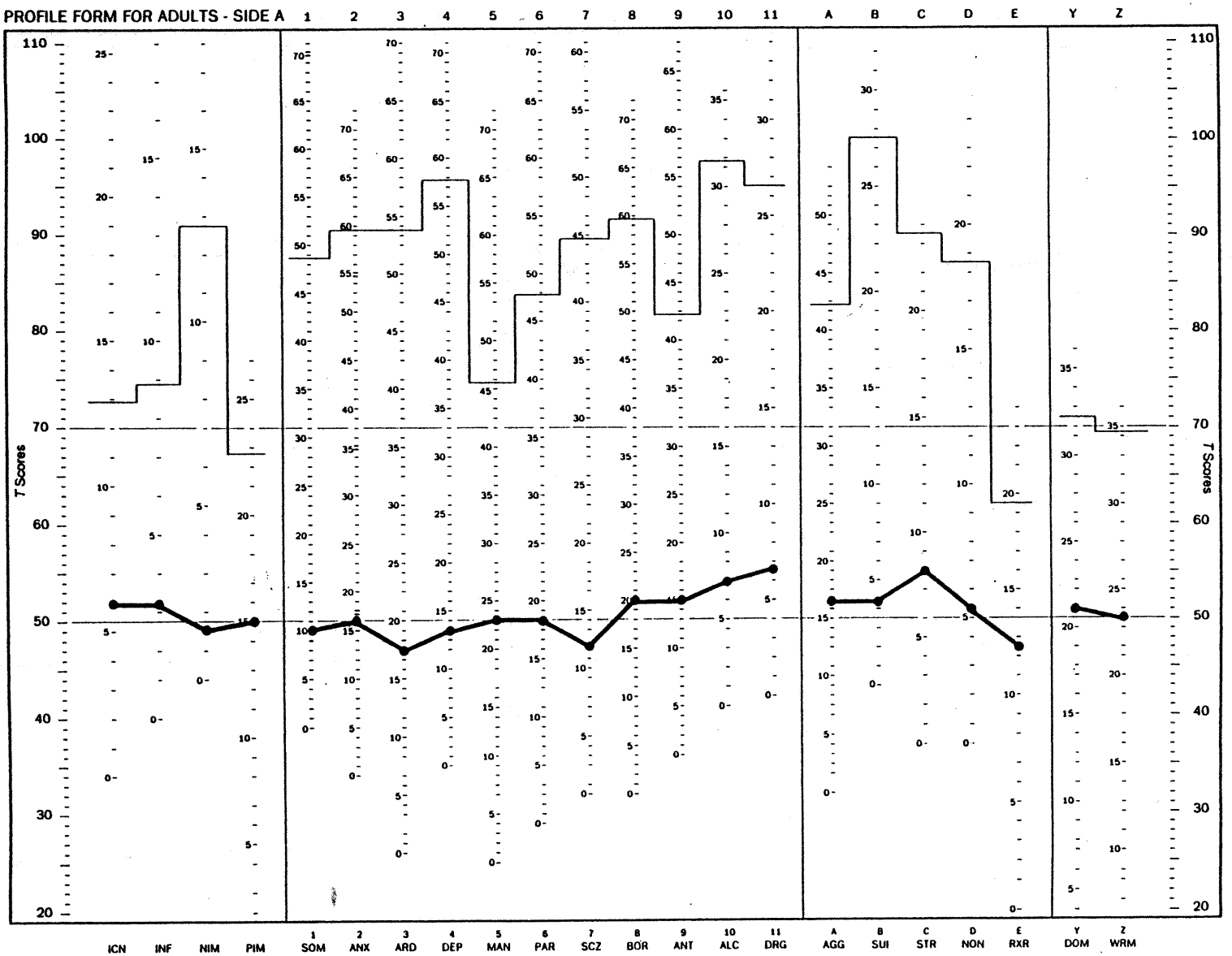


Figure 3-1. Cluster 1 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

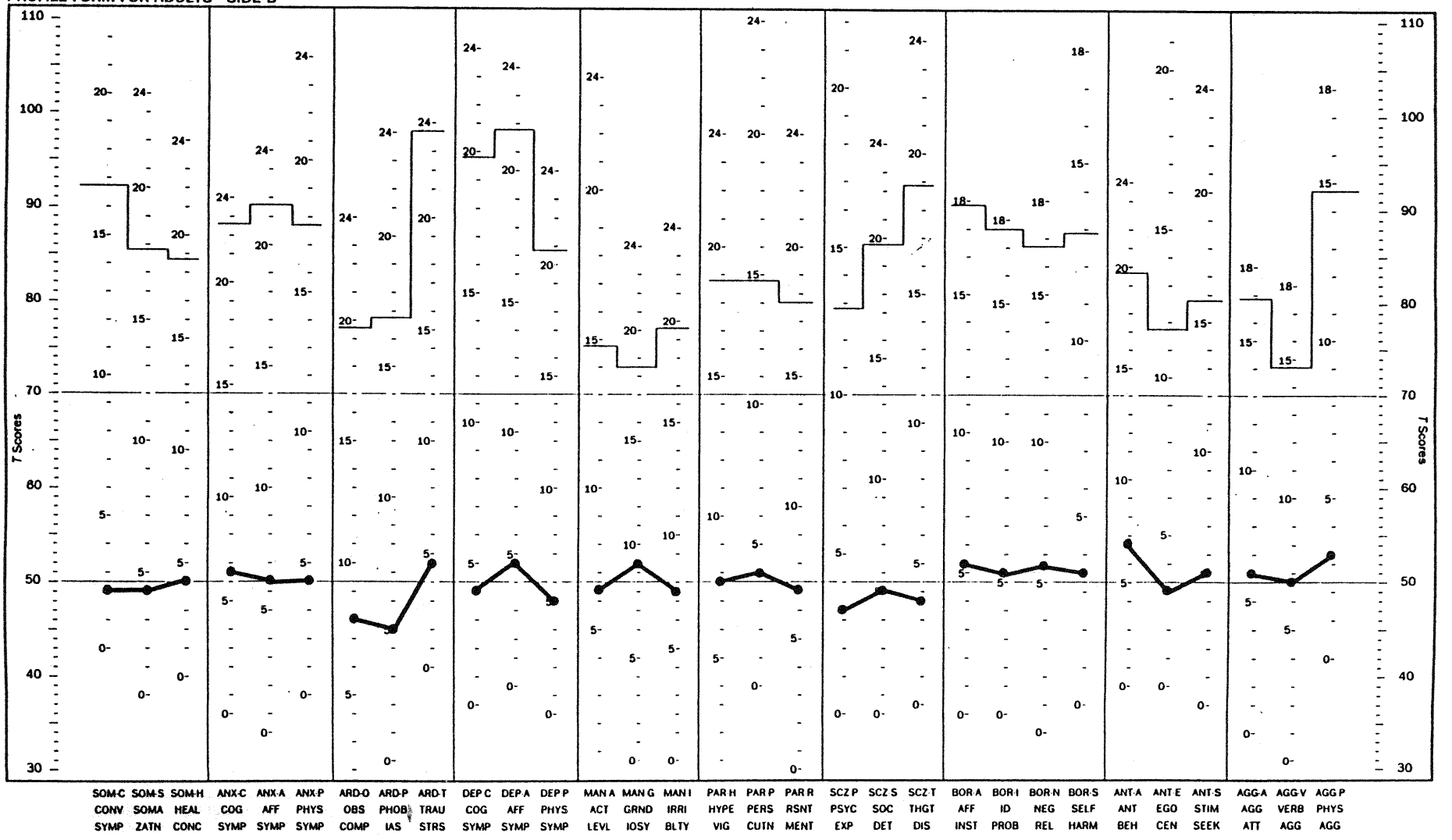


Figure 3-2. Cluster 1 Modal Profile on the PAI subscales.

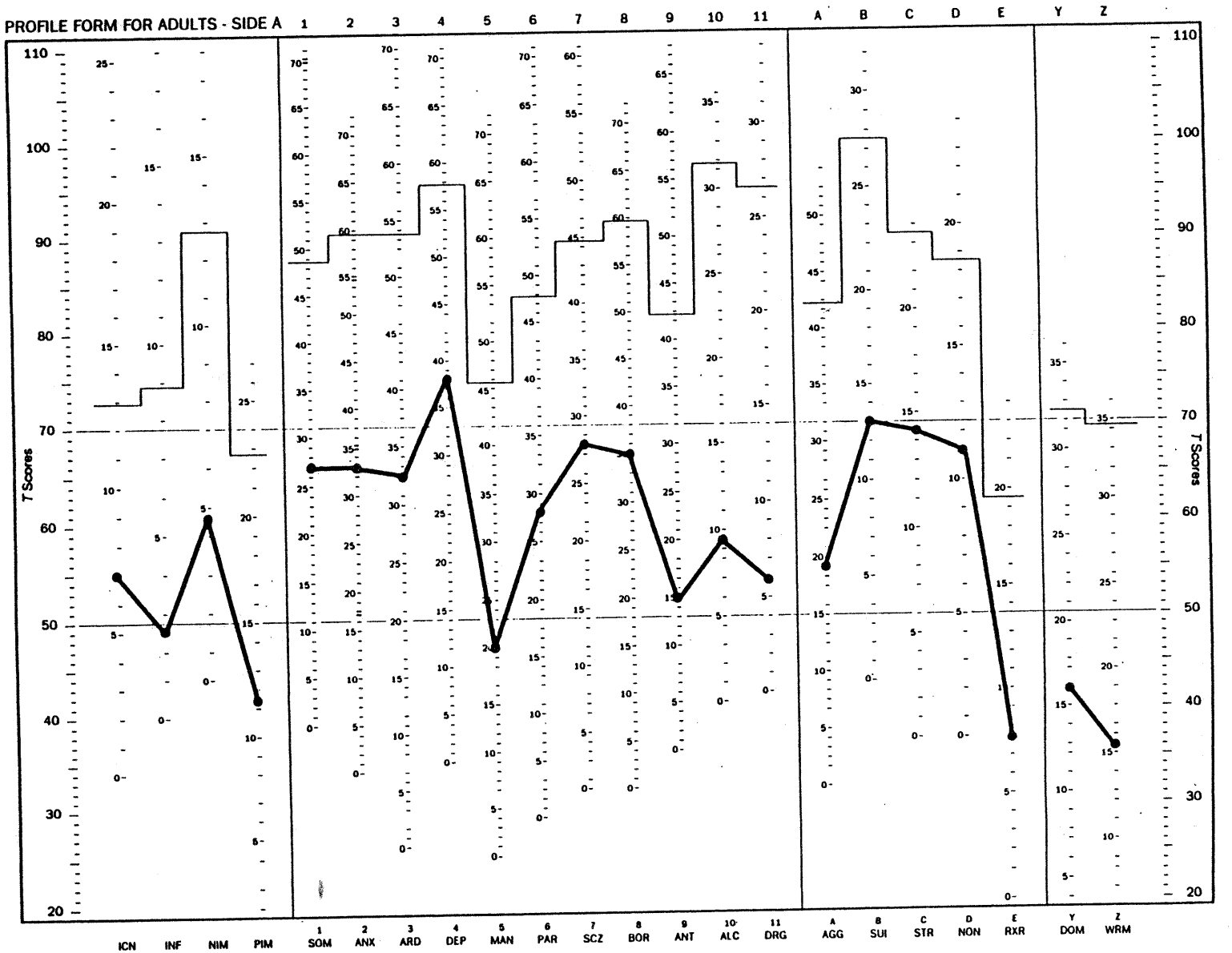


Figure 3-3. Cluster 2 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

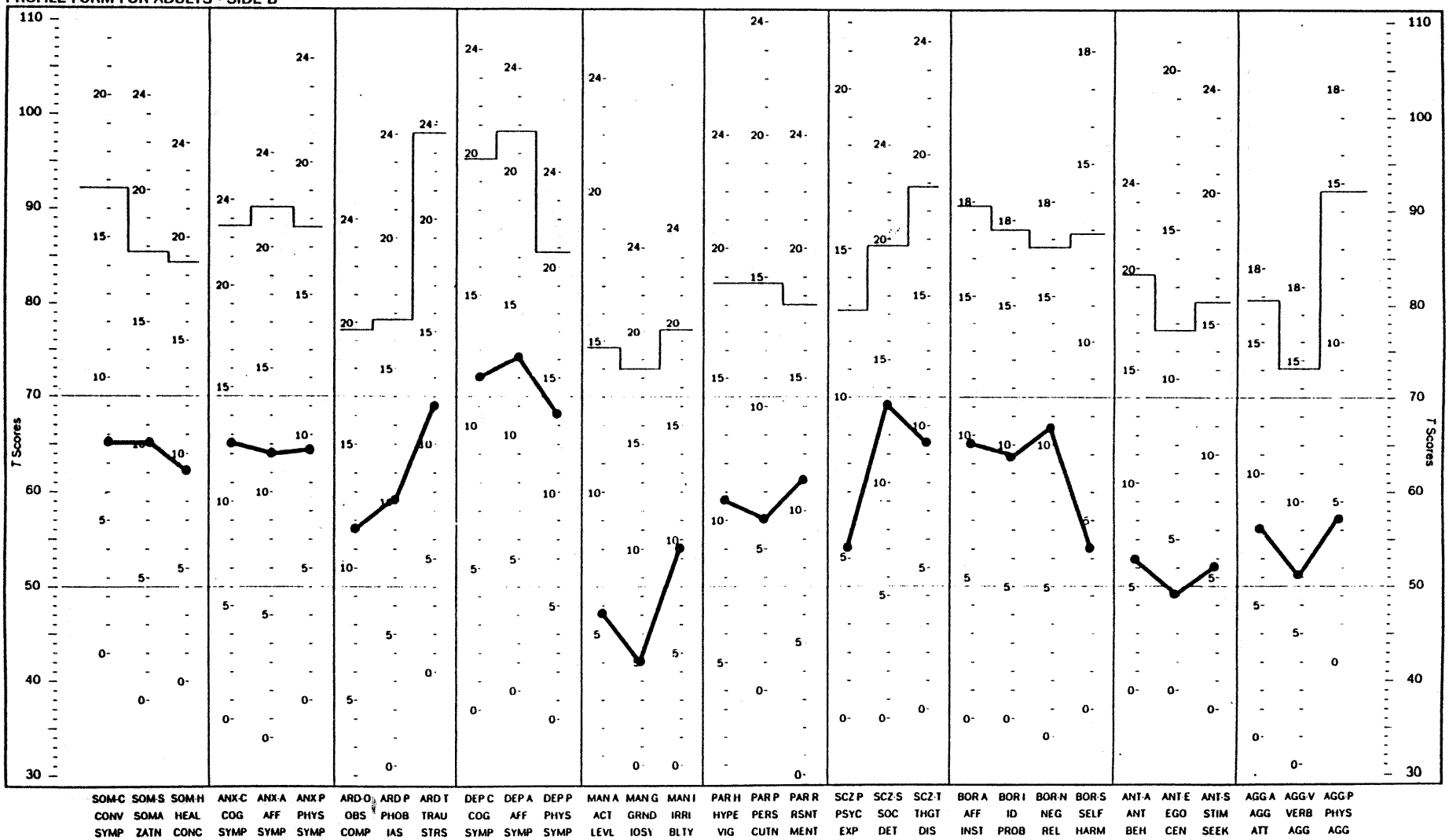


Figure 3-4. Cluster 2 Modal Profile on the PAI subscales.

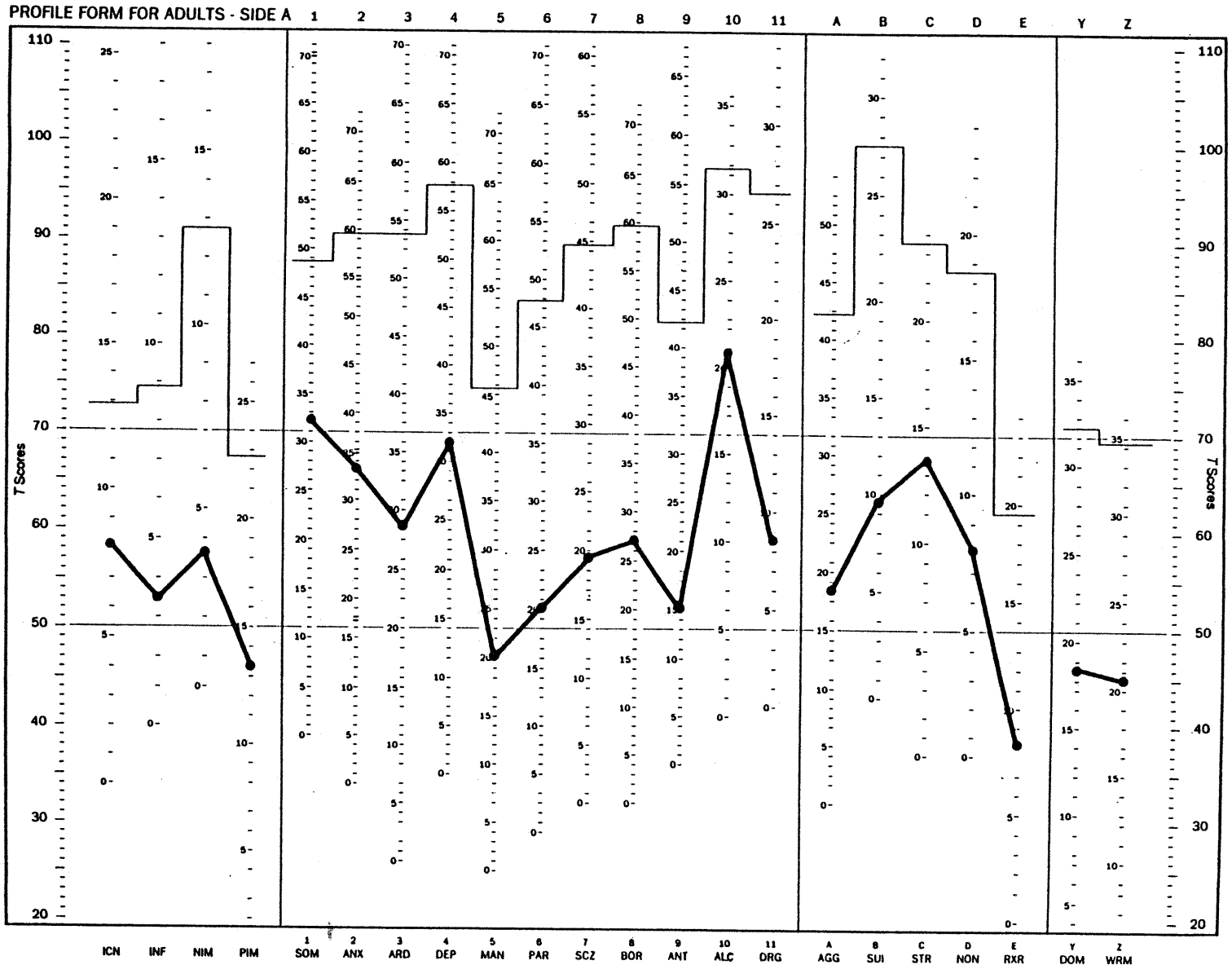


Figure 3-5. Cluster 3 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

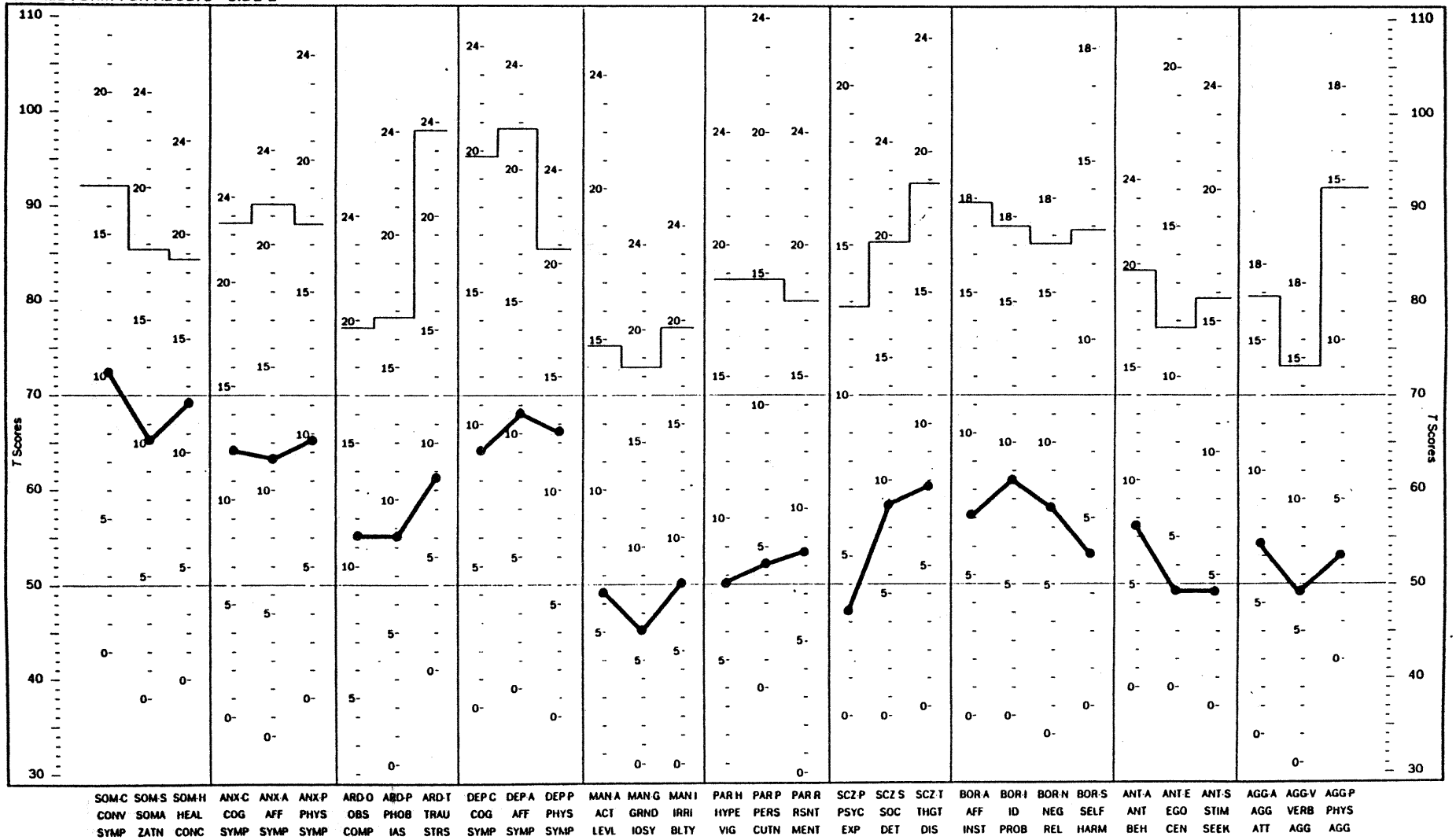


Figure 3-6. Cluster 3 Modal Profile on the PAI subscales.

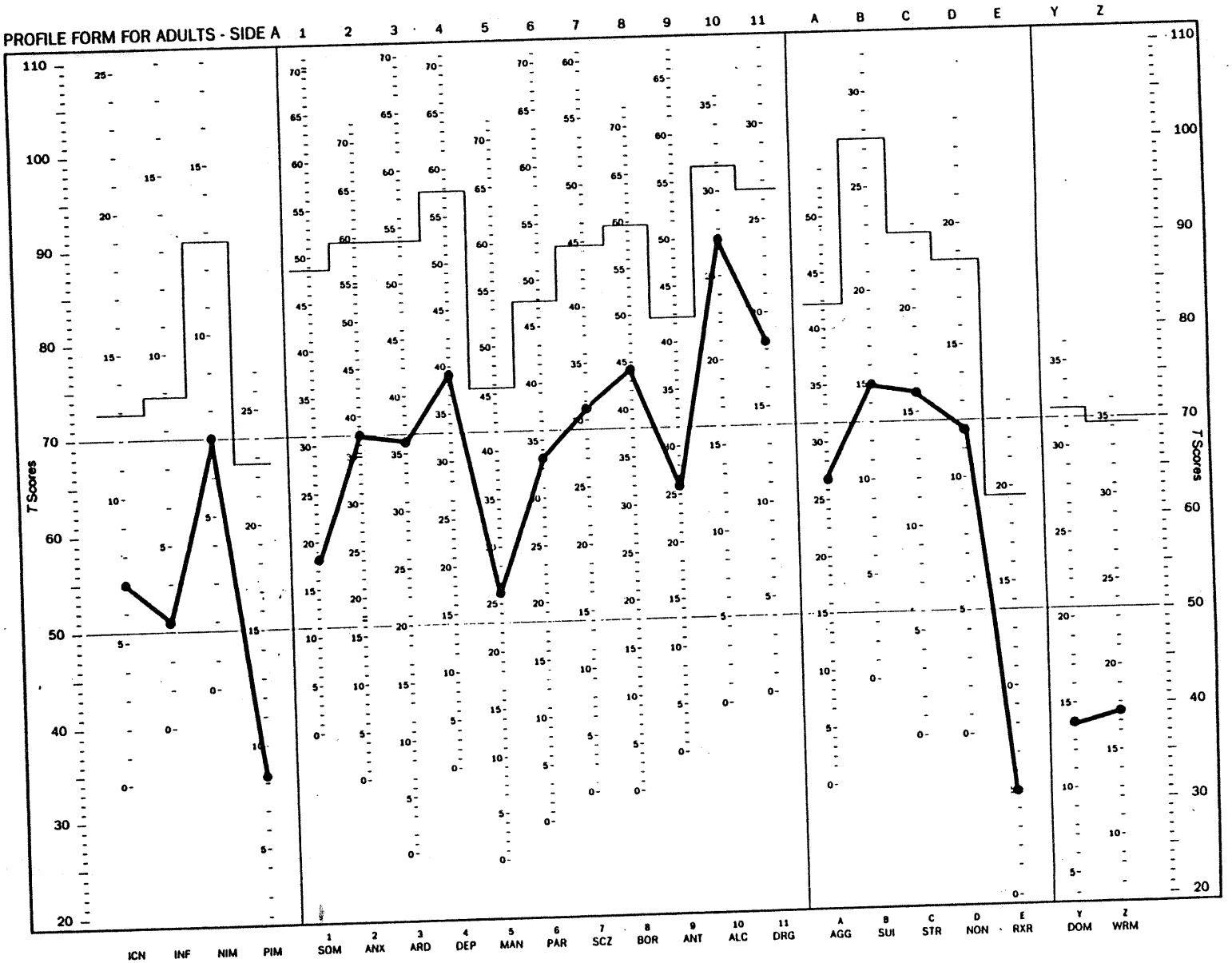


Figure 3-7. Cluster 4 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

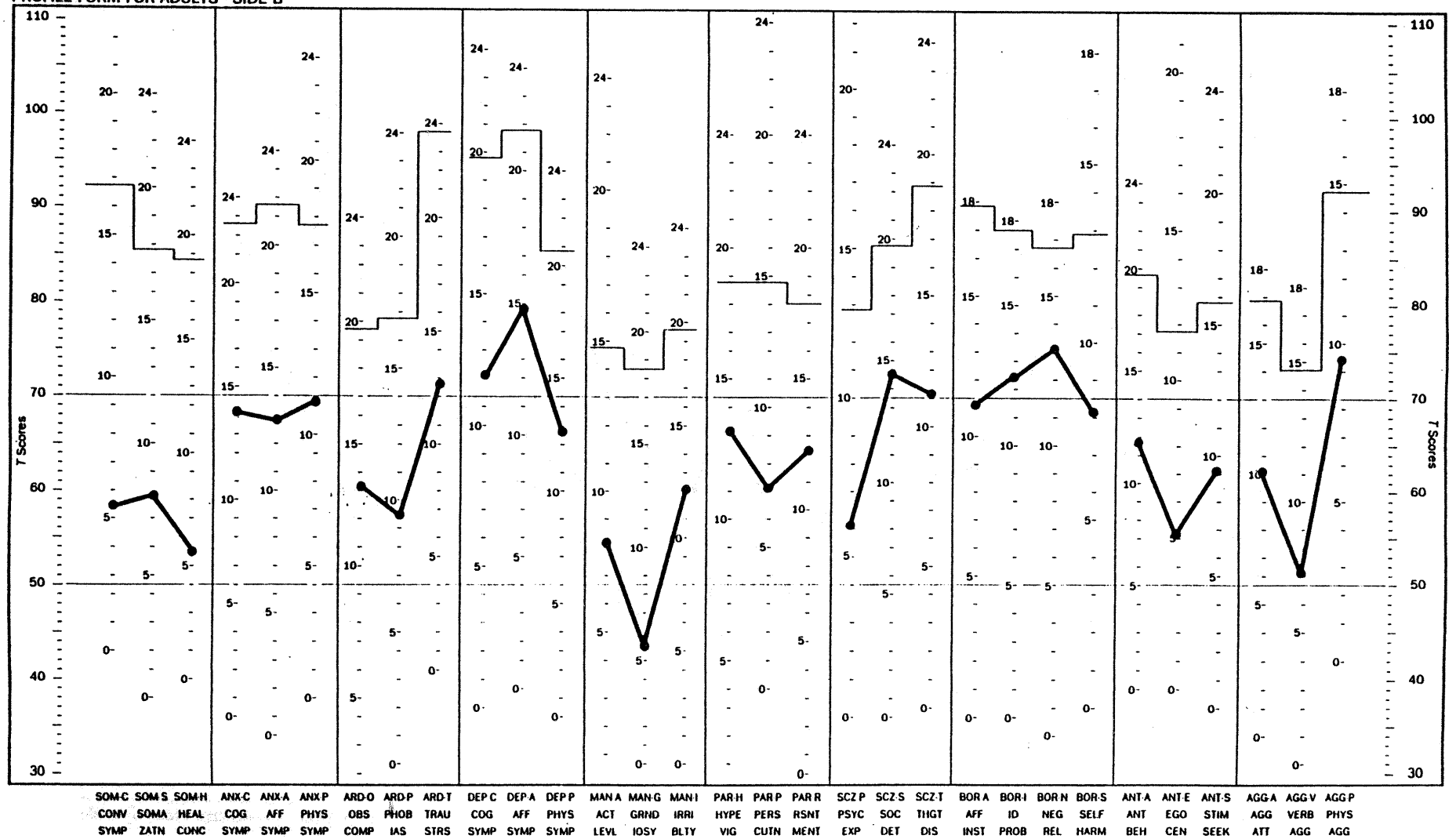


Figure 3-8. Cluster 4 Modal Profile on the PAI subscales.

profile is distinguished by extreme elevations on *ALC* and *DRG* and prominent elevations on *DEP, BOR, SUI, SCZ, STR*, and *ANX*. The mean *NIM* score was rather high at 70*T*. Every patient assigned to this cluster had a clinical scale codetype involving either *ALC* or *DRG* as the highest scale. A number of subscales were elevated, including *DEP-A* (Affective), *DEP-C* (Cognitive), *ARD-T* (Traumatic Stress), *BOR-N* (Negative Relationships), *BOR-I* (Identity Problems), *SCZ-S* (Social Detachment), *SCZ-T* (Thought Disorder), and *AGG-P* (Physical Aggression).

This pattern suggests a person with a history of acting-out behavior, most notably in the area of substance abuse but probably involving other behaviors as well. In such individuals, substance abuse problems have led to severe impairment in their ability to maintain social role expectations; their recklessness has probably alienated most of the people who were once close to them. They are likely to be angry much of the time, but not likely to express their anger unless disinhibited by alcohol or drugs. Under such circumstances they may be physically violent. They are impulsive and rather thrill-seeking, and they report concentration and attention problems that probably further impair their already suspect judgment. They see others as having given up on them, and, to a certain extent, they appear to have given up on themselves. They have low self-esteem and are pessimistic about the prospects for change; suicidal ideation was prominent in these patients.

Of the clinical subjects who were assigned to this cluster, a vast majority (87%) had been in treatment prior to the current episode. A substantial percentage of these patients had a history of assaultive behavior (27%) and/or an arrest history for assault (20%) or other criminal behaviors (26%). Most of these patients had received some form of psychotropic medication in the past, with antidepressants being the most common; minor tranquilizers were infrequently prescribed, probably because of the potential for abuse. Of the 10 profile groups, this group had the highest proportions of individuals identified as being at risk for potential harm to self (20%) or others (13%). Clinicians tended to view these patients as manipulative and predicted a complicated treatment course. Common diagnoses in these patients included alcohol abuse/dependence (56%), drug abuse/dependence (25%), and antisocial personality (13%).

Cluster 5

The mean profiles for the Cluster 5 modal profile are presented in Figures 3-9 and 3-10 for the full scales and subscales, respectively. This profile is distinguished by peaks on *ANX* and *STR*, with *BOR* also above 60*T*. Roughly half of the patients in this cluster had no clinical scales elevated above 70*T*; the remainder had clinical scale codetypes that typically involved *ANX* as one of the high points. All of the *ANX* subscales were elevated in the vicinity of 65*T*.

This pattern suggests a person experiencing a more or less acute reaction to current stressors, with anxiety and moodiness being the most prominent complaints. Such individuals are interested in and committed to their personal relationships, but some of these relationships are probably not going well; this may be an important source of their current distress. The disruptions in their lives have left them uncertain about their goals and priorities and tense about what the future may hold; however, their self-esteem appears to be reasonably intact and they continue to be effective in their social interactions.

Of the clinical subjects who were assigned to this cluster, a majority had never previously been in any form of psychological treatment. About half of these patients had received some type of psychotropic medication, with antidepressants the most frequently prescribed. Clinicians generally predicted a smooth and uncomplicated treatment course for these patients and saw them as cooperative and nonmanipulative. The most common diagnosis for these patients was generalized anxiety disorder (20%), although dysthymic disorder (16%) and major depression (16%) were also assigned (sometimes conjointly with the anxiety diagnosis).

Cluster 6

The mean profiles for the Cluster 6 modal profile are presented in Figures 3-11 and 3-12 for the full scales and subscales, respectively. This profile is distinguished by moderate elevations on *SCZ* and *BOR*, with *STR, NON*, and *ANT* all elevated above 60*T*. Many of the subjects assigned to this cluster had no prominent elevations (58%); of those who did have such elevations, most had a clinical scale codetype involving *SCZ* as the highest scale. An examination of subscales revealed that Thought Disorder (*SCZ-T*), Negative Relationships (*BOR-N*), Identity Problems (*BOR-I*), and Traumatic Stress (*ARD-T*) were each elevated above 60*T*.

This pattern suggests a person who is somewhat socially isolated and experiencing some confusion and difficulties in thinking and concentration. Such individuals may harbor some peculiar beliefs and attitudes not shared by those around them. They report having few friends and may have ambivalent and/or hostile feelings about the friends they do have. Other people are likely to see these individuals as cold and unempathic; consequently, such individuals tend to approach relationships cautiously and with an expectation of rejection. These individuals also tended to have a history of acting out and/or self-destructive behavior, perhaps arising from a combination of impulsivity and poor judgment.

The clinical subjects who were assigned to this cluster were somewhat more likely to have psychotic symptomatology than those in most of the other clusters, with vague persecutory beliefs being foremost among these symptoms. A significant percentage (24%) of these patients had a history of aggressive or assaultive behavior, and other antisocial acts were also observed in this group with some frequency; sexual acting out was observed in 16% of these patients. Clinicians tended to view these patients as manipulative and antagonistic and generally predicted a complicated course of treatment. Patients in this group received a variety of diagnoses, including borderline personality (17%), antisocial personality (14%), schizoid/schizotypal personality (11%), and post-traumatic stress disorder (12%). There were some patients (5%) who presented with this basic configuration, but at a higher level of elevation, who received the diagnosis of schizophrenia.

Cluster 7

The mean profiles for the Cluster 7 modal profile are presented in Figures 3-13 and 3-14 for the full scales and subscales, respectively. This profile is distinguished by marked elevations on *DEP, ANX, ARD*, and *SUI*, with *BOR* and *STR* also elevated above 70*T*. Most (about 81%) of the subjects assigned to this cluster had a clinical scale codetype involving *DEP* as the highest scale. All three of the *DEP* subscales and all three *ANX* subscales were prominently elevated, as were the Traumatic Stress subscale of *ARD*, the Identity Problems and Affective Instability subscales of *BOR*, and the Social Detachment subscale of *SCZ*.

This pattern suggests a person who is severely depressed, anxious, and agitated. Such individuals tend to ruminate about the problems

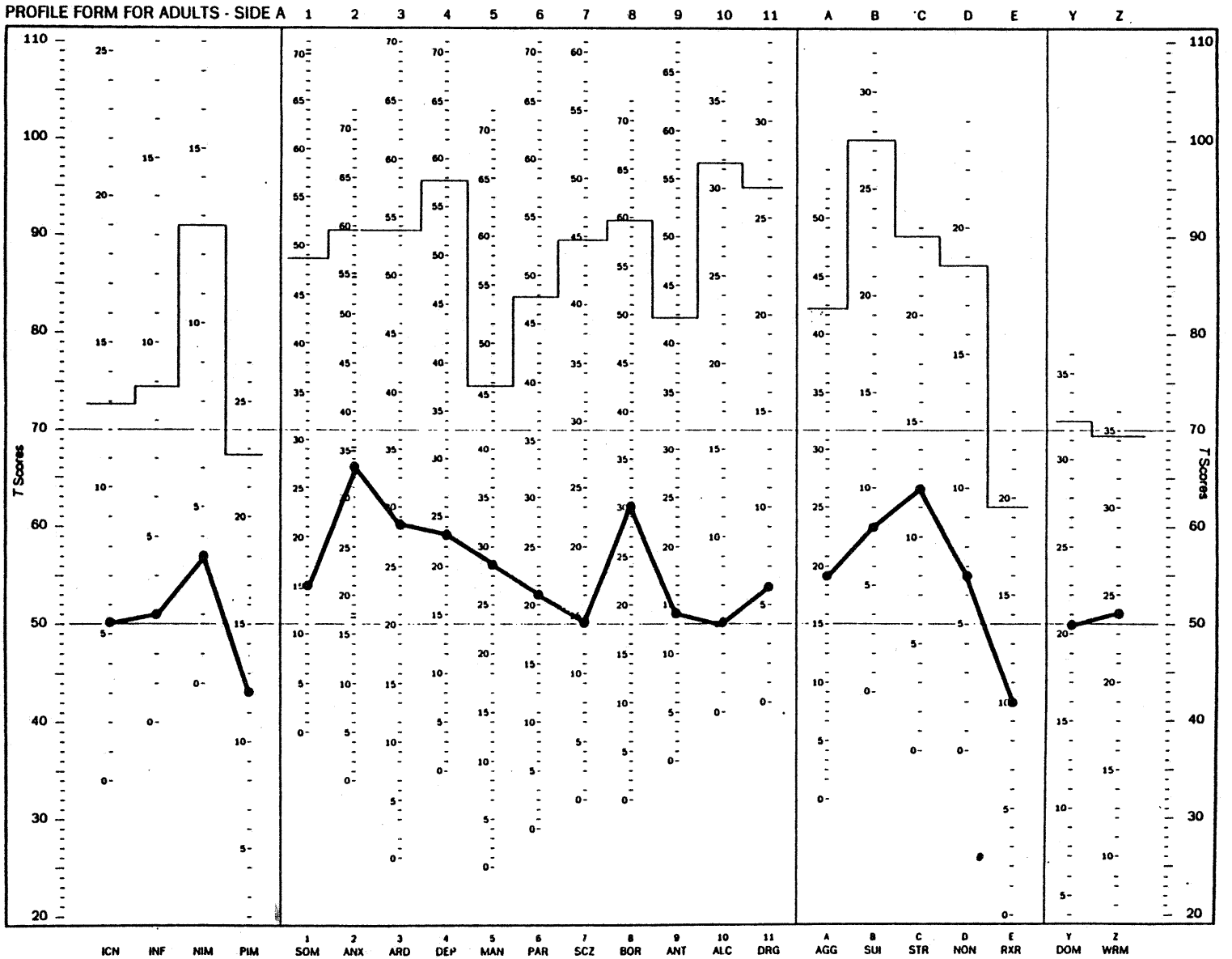


Figure 3-9. Cluster 5 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

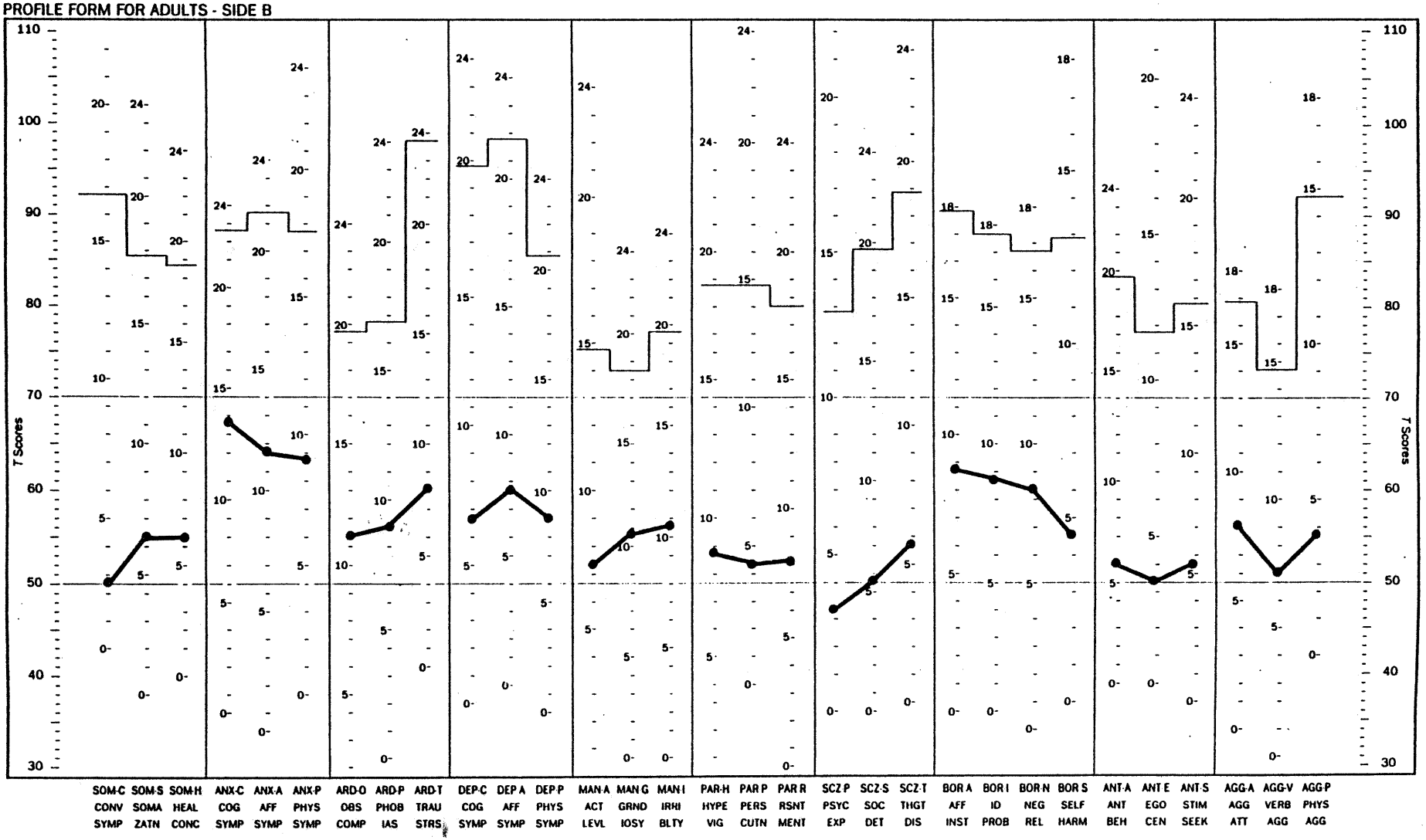


Figure 3-10. Cluster 5 Modal Profile on the PAI subscales.

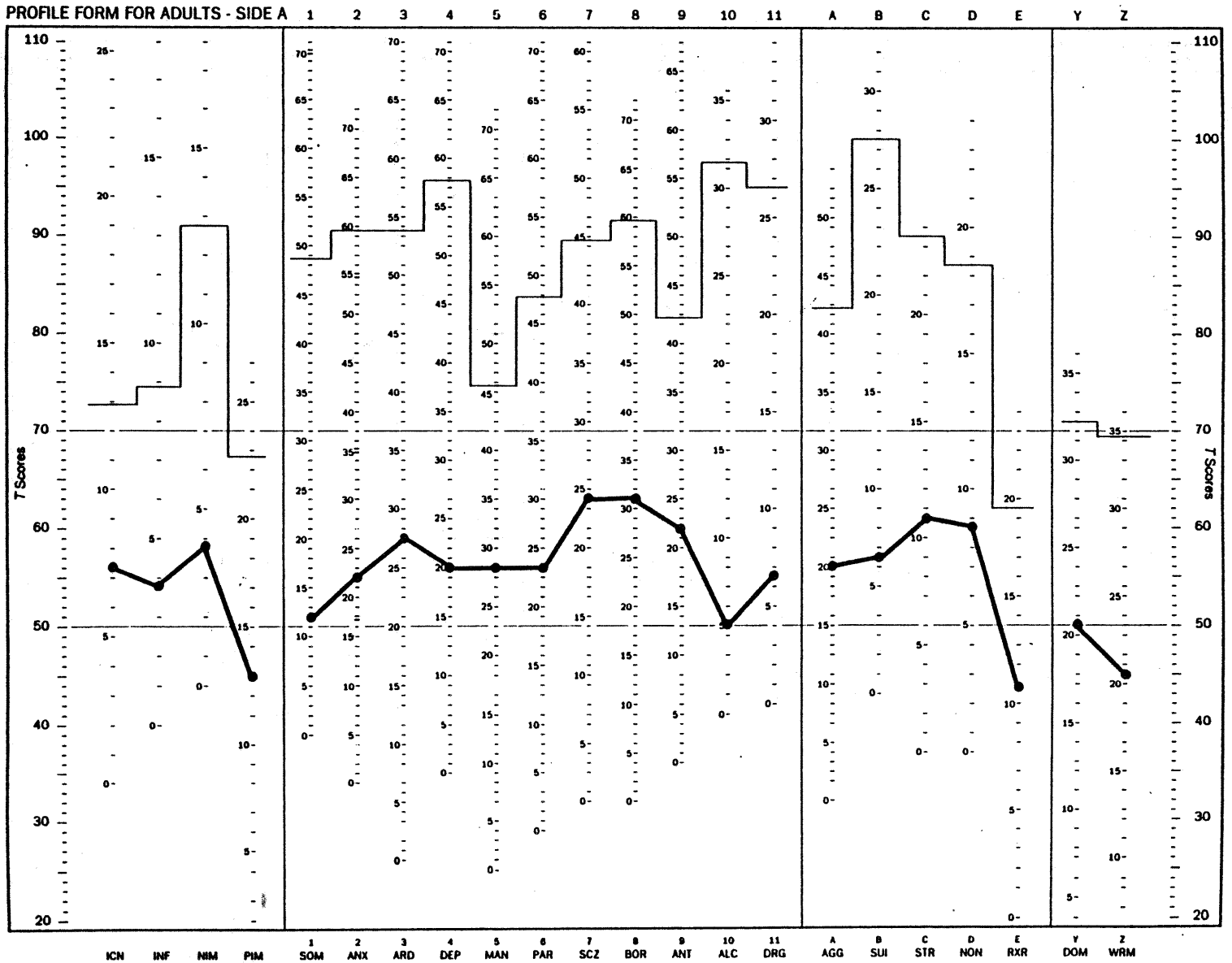


Figure 3-11. Cluster 6 Modal Profile on the PAI full scales.

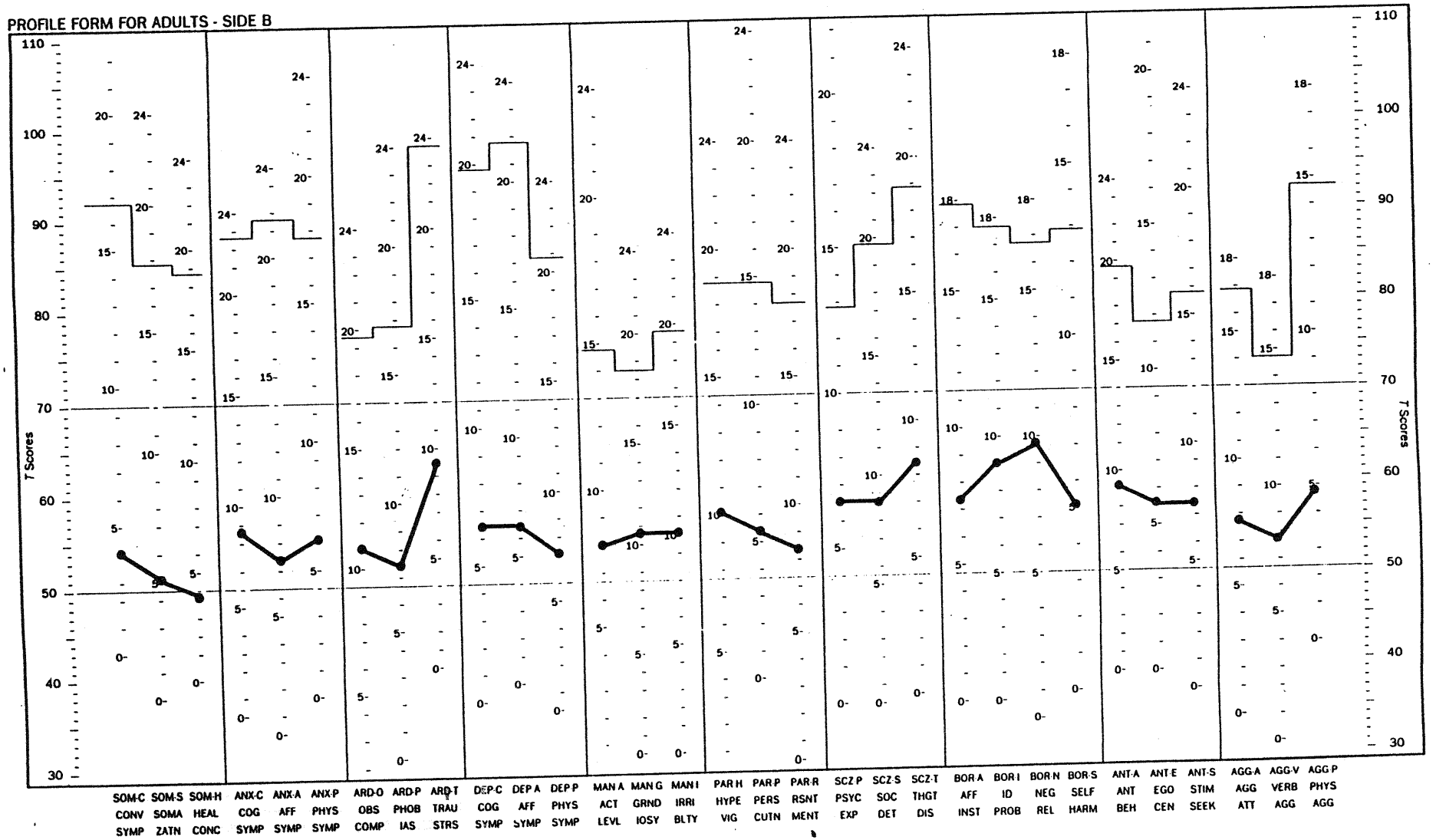


Figure 3-12. Cluster 6 Modal Profile on the PAI subscales.

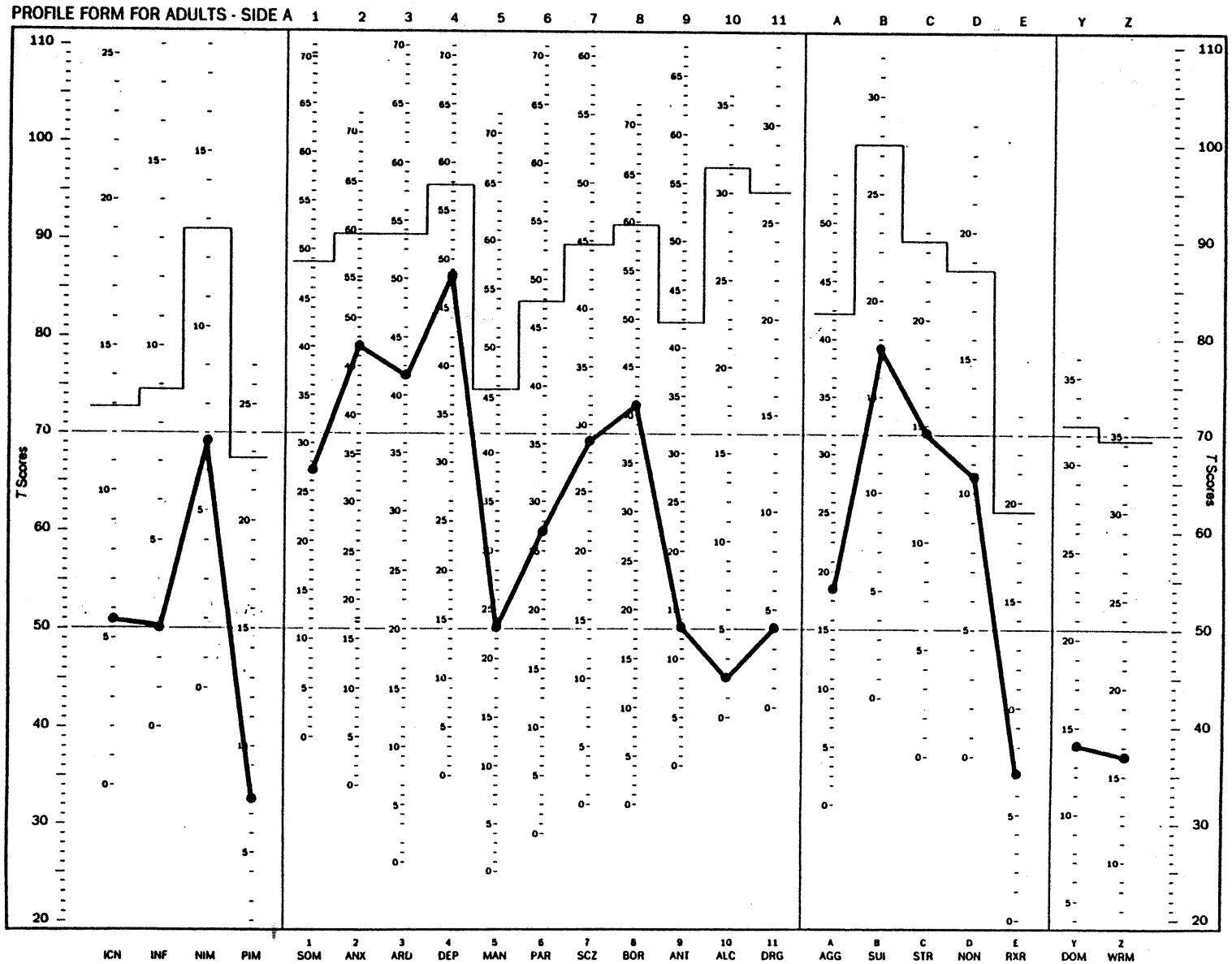


Figure 3-13. Cluster 7 Modal Profile on the PAI full scales.

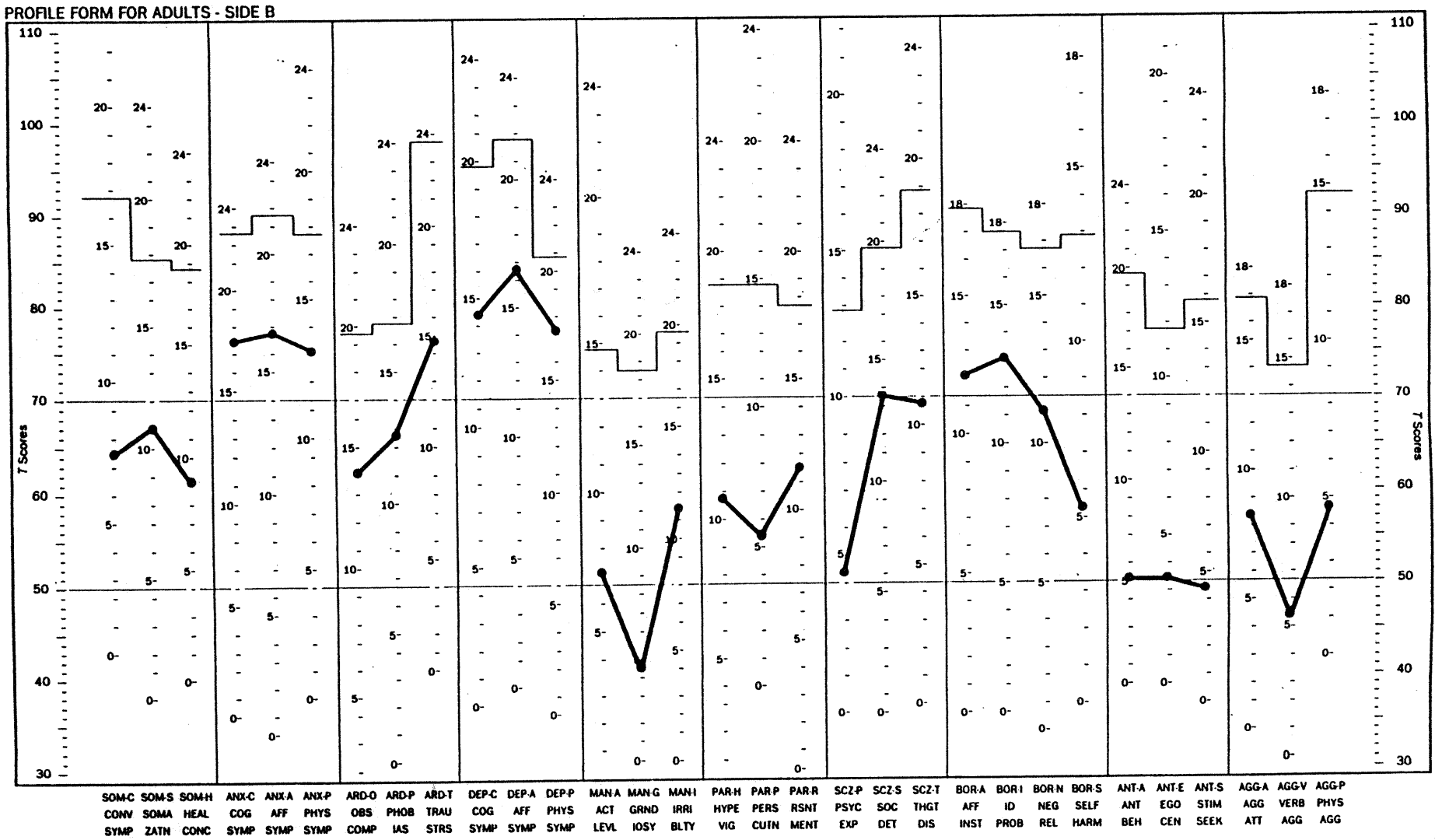


Figure 3-14. Cluster 7 Modal Profile on the PAI subscales.

in their lives and about their perceived shortcomings; as part of this constant rumination they are likely to have frequent thoughts about suicide. The combination of suicidal ideation with the hopelessness, agitation, confusion, and stress apparent in their scores make this group of patients at particular risk for self-harm. They are acutely aware of their need for help, but their low energy levels, passivity, and withdrawal may make them difficult to engage in treatment. Their self-esteem is quite low and they view themselves as ineffectual and powerless to change the direction of their lives. They report marked difficulties in concentrating and making decisions, and their preoccupations and anxiety are likely to impair their ability to think clearly. They are experiencing high levels of stress currently, and they also describe major stressors occurring in the past which have continued to trouble them.

The clinical subjects who were assigned to this cluster were more likely to be suicide risks than those in most of the other clusters; 12% of these patients were on suicide precautions at the time of evaluation and 21% had made a suicidal attempt or gesture in the previous six months. Despite the severity of their depression, few of these patients were experiencing any hallucinations or delusions. Most of the patients (65%) were receiving some type of psychotropic medication, with antidepressant (35%) and antianxiety (23%) medications being most frequently prescribed. Clinicians reported that these patients were generally cooperative and there were few concerns about manipulativeness or antagonistic behavior. However, there were concerns about the possibility of treatment complications involving self-harm.

The most common diagnoses for these patients involved major depression (23%), dysthymia (42%), or an anxiety disorder (23%), about half of whom had been diagnosed with post-traumatic stress disorder. With respect to personality functioning, a number of these patients (15%) received a diagnosis of dependent personality disorder.

Cluster 8

The mean profiles for the Cluster 8 modal profile are presented in Figures 3-15 and 3-16 for the full scales and subscales, respectively. This profile is distinguished by a marked elevation on *SOM*, with *DEP* and *ANX* also elevated above 70*T*. A vast majority of the subjects (87%) assigned to this cluster had a clinical scale codetype involving *SOM* as the highest scale. The subscales for *SOM*, *ANX*, and *DEP* all tended to be elevated, although the Cognitive subscales for both *DEP* and *ANX* tended to be less elevated than the Affective and Physiological subscales.

This pattern suggests a person who is reporting marked concerns about physical functioning. Such individuals see their lives as severely disrupted by a variety of physical problems, some of which are rather unusual and possibly related to emotional or interpersonal conflict. Although their somatic problems are a source of considerable distress, they are more reluctant to admit to psychological problems and tend to localize their difficulties to physical problems or to sources external to themselves. Their somatic afflictions have left them somewhat irritable and resentful; it is likely that this has led to some friction in their close relationships. Although they perceive others as being reasonably supportive, it is likely that these same others see the patient as complaining and demanding.

Nearly all of the clinical subjects who were assigned to this cluster presented with somatic complaints. In some cases, the complaints were apparently quite extreme, as this cluster contained some individuals identified by clinicians as having somatic delusions. There were some cases in this cluster where central nervous system dysfunction might have been involved; 20% of the patients in this group had confirmed or suspected brain damage. A vast majority (87%) of these individuals were receiving some form of medication; among psychotropic medications antidepressants were most common (33%), although these patients tended to receive a number of other medications for various somatic ailments as well. Clinicians were likely to see these patients as manipulative relative to those in other clusters, although they were also viewed as being generally compliant and not antagonistic. Patients in this group received a variety of diagnoses, including somatoform disorders (19%), adjustment reaction (20%), and dysthymic disorder (25%).

Cluster 9

The mean profiles for the Cluster 9 modal profile are presented in Figures 3-17 and 3-18 for the full scales and subscales, respectively. This profile is distinguished by a marked elevation on *ALC* and prominent elevations on *DRG*; no other score was above 65*T* in this profile. Virtually all of the subjects assigned to this cluster (97%) had a clinical scale codetype involving *ALC* as the highest scale. The only subscales elevated above 60*T* for this profile were Antisocial Behaviors of *ANT* and Physical Aggression from *AGG*.

This pattern suggests a person who has a severe drinking problem and is experiencing a number of adverse consequences related to drinking, including disruptions in personal relationships and work performance. These individuals also use other substances in addition to alcohol, although the extent of their involvement with these drugs does not seem as extensive as with alcohol. When disinhibited by alcohol or drugs, they may be physically aggressive, and such patients are likely to have a history of legal difficulties in which alcohol or drugs may have played a role. Despite their readiness to admit to the problems that alcohol has caused for them, they seem reluctant to admit to psychological problems; they report little anxiety or guilt surrounding their drinking and describe their relationships as generally smooth and satisfying. Given the many alcohol-related consequences they describe, the relatively trouble-free psychological picture they present may involve considerable denial.

Of the clinical subjects who were assigned to this cluster, a majority (68%) had been in some form of psychological treatment prior to the current episode. A substantial percentage of these patients had a history of assaultive behavior (24%) and/or an arrest history for assault (26%) or other criminal behaviors (21%). Clinicians predicted a very complicated treatment course for these individuals, primarily because of the potential for alcohol or drug abuse or other forms of antisocial behaviors. By far, the most common diagnoses in these patients included alcohol abuse/dependence (66%) or drug abuse/dependence (26%); antisocial personality was also diagnosed in 14% of the patients. Very few other diagnoses were given to the patients in this group.

Cluster 10

The mean profiles for the Cluster 10 modal profile are presented in Figures 3-19 and 3-20 for the full scales and subscales, respectively. This profile is distinguished by marked elevations on *SUI*, *BOR*, and *DEP*, with *SCZ*, *PAR*, *NON*, *ANX*, and *ARD* also demonstrating significant elevations. Also noteworthy is a rather prominent elevation on *NIM*. The subjects assigned to this cluster had a variety of clinical scale codetypes, with *BOR* and *SCZ* typically being the highest scales. Three of the four *BOR* subscales were elevated, as were Thought Disorder from *SCZ*,

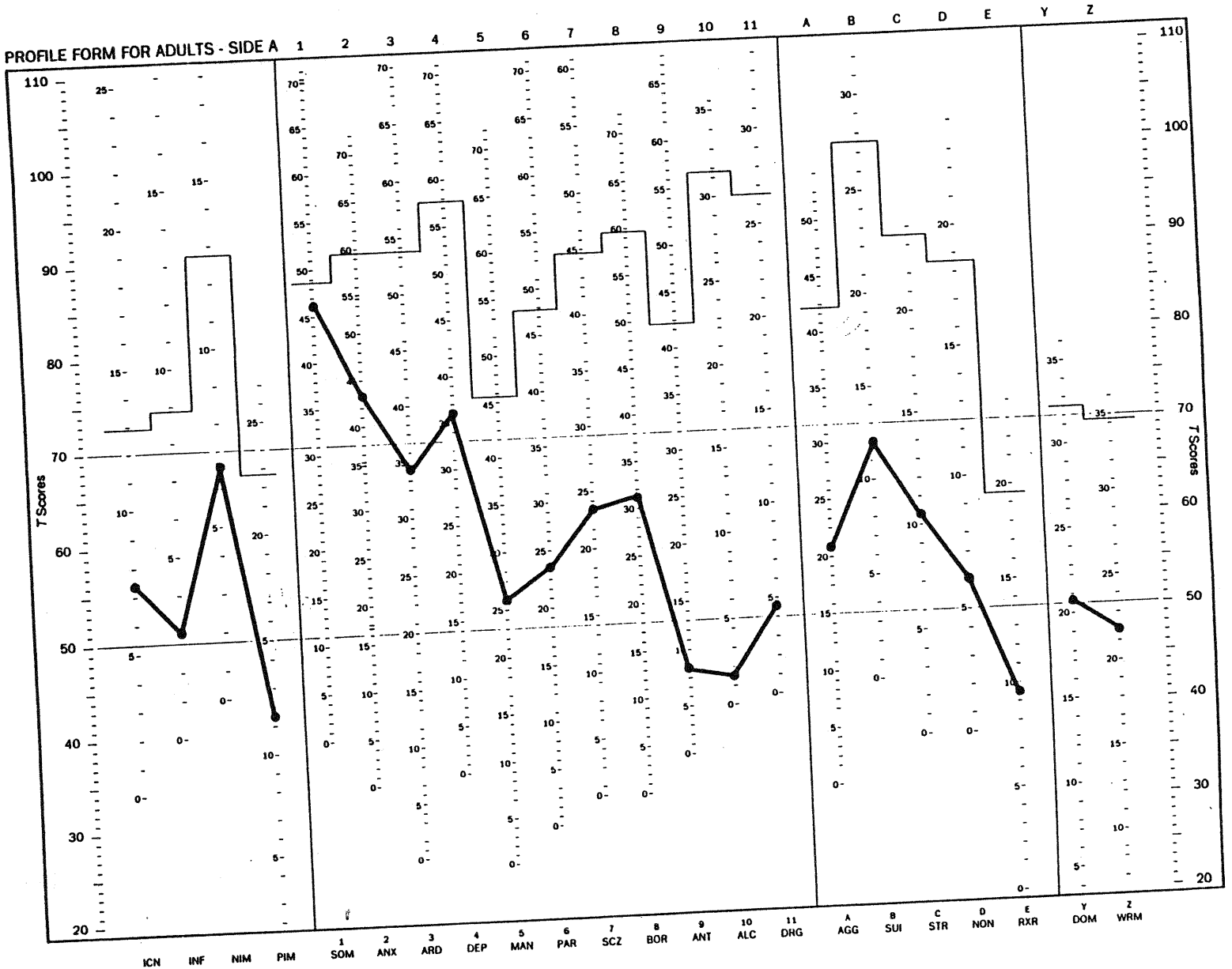


Figure 3-15. Cluster 8 Modal Profile on the PAI full scales.

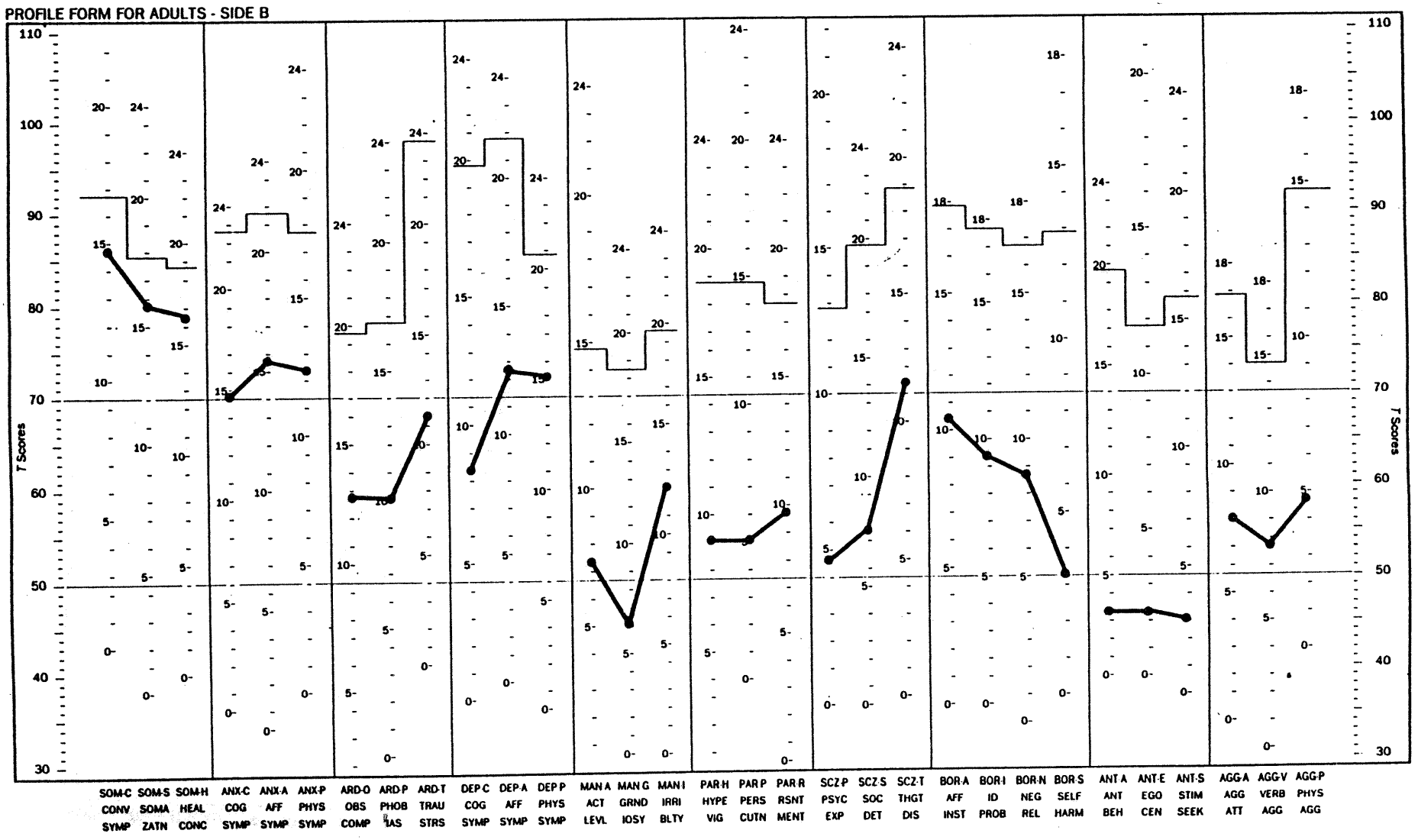


Figure 3-16. Cluster 8 Modal Profile on the PAI subscales.

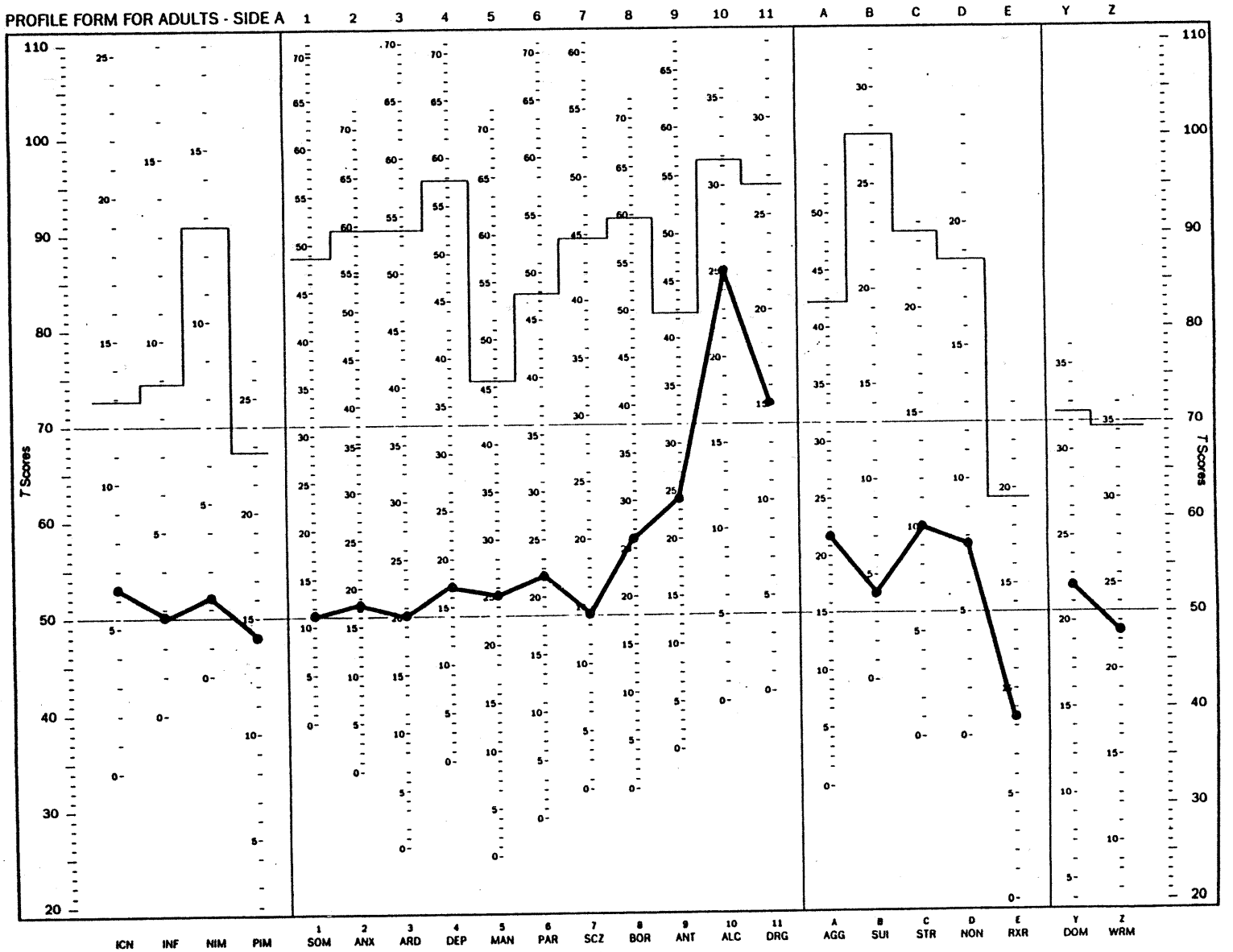


Figure 3-17. Cluster 9 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

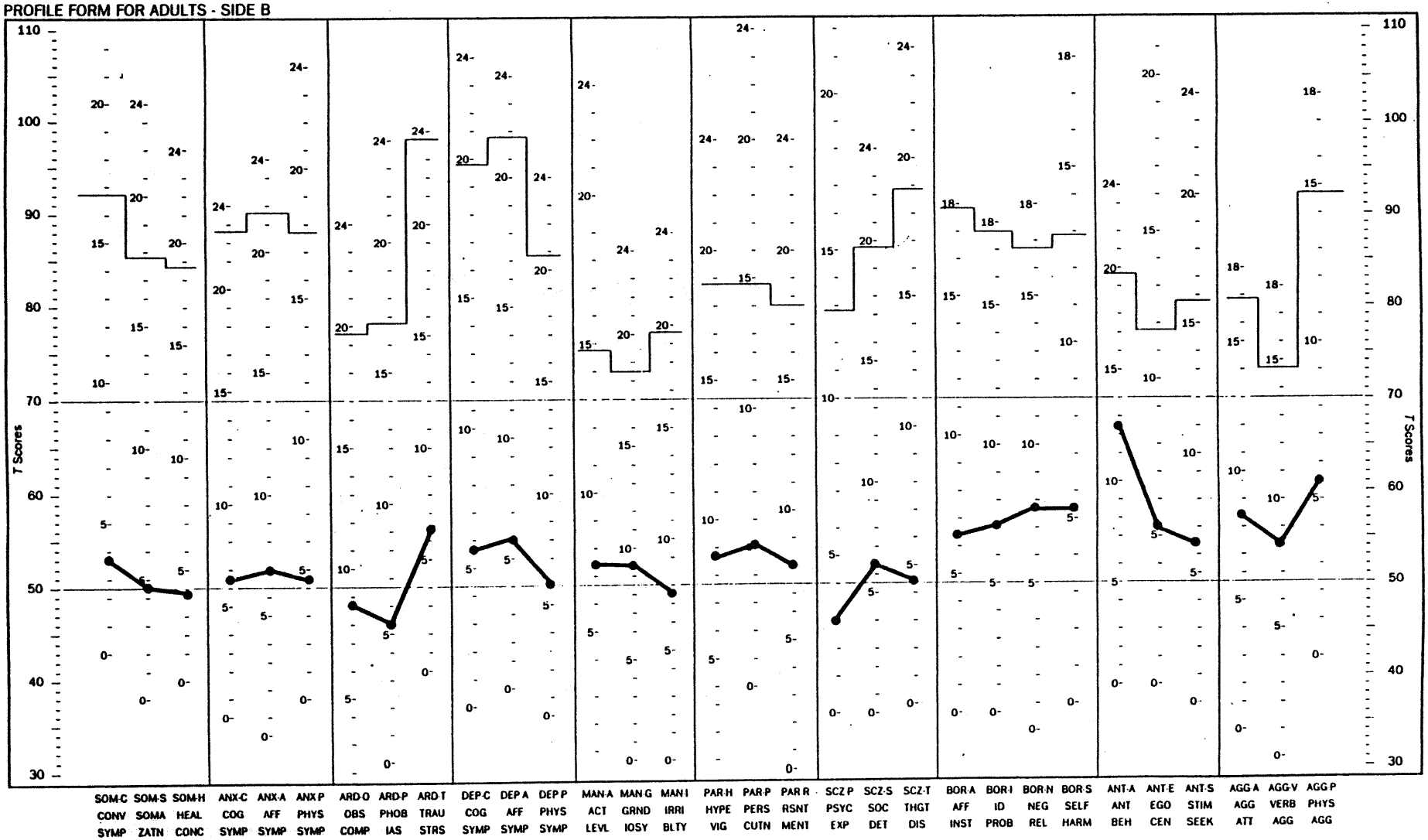


Figure 3-18. Cluster 9 Modal Profile on the PAI subscales.

Persecution and Hypervigilance from *PAR*, Traumatic Stress from *ARD* and the *DEP* Cognitive and Affective subscales.

This pattern suggests a person who is unhappy, angry, resentful, and confused. Individuals with this profile typically present in a state of crisis and marked distress. Suicidal ideation is prominent in this group of individuals, and this is often associated with difficulties or rejection (perceived or actual) in their interpersonal relationships. These subjects often feel betrayed by those close to them. They are bitter and angry, and tend to lash out impulsively at others they feel have slighted them in some way. Because of their unhappiness, resentment, impulsivity, and poor judgment, these individuals should clearly be considered at risk for suicidal gestures or attempts. Other self-destructive or acting out behaviors are also potential problems.

Subjects with this pattern are probably having difficulty in concentrating and making decisions, and their preoccupations and bitterness are likely to impair their ability to think clearly. Their resentment and suspiciousness of others may approach delusional proportions, and such subjects may experience brief psychotic episodes during which their judgment deteriorates markedly. Subjects with this profile are experiencing high levels of stress currently, and they also describe major stressors occurring in the past that have continued to trouble them. However, they view themselves as ineffectual and powerless to deal with these stressors and they despair of ever being able to resolve the repeated crises that seem to characterize their lives.

A great majority (78%) of the clinical subjects who were assigned to this cluster had been in treatment on previous occasions. They were more likely to be suicide risks than those in the other clusters; 37% of these patients had made a suicidal attempt or gesture in the previous six months, and 21% had manifested self-mutilating behaviors at some point in their lives. According to data provided by their clinicians, auditory hallucinations (24%), paranoid ideation (29%) and persecutory delusions (14%) were fairly common among these subjects. Many of the patients (29%) had a history of assaultive behavior, although few of these instances led to an arrest. Clinicians saw these patients as quite manipulative and predicted a treatment course potentially complicated by self-injurious behavior. Given the clinical picture, it is not surprising that the most common clinical diagnosis in this group was borderline personality (28%), often accompanied by dysthymic disorder (24%). The diagnosis of schizoaffective disorder (14%) was also assigned much more frequently to subjects in this cluster relative to other groups.

Use of Critical Items

Another step in the comprehensive interpretation of a PAI protocol involves the examination of item endorsements. The emphasis on content coverage within the development of the PAI led to the inclusion of a number of items designed to be of immediate importance in clinical evaluations. A total of 27 critical items, distributed across seven content areas, are presented in Table 3-11. These items were selected as being critical by two criteria: (a) conceptual importance of content as an indicator of potential crisis situations; and (b) very low endorsement rates (i.e., item means of 0.5 or below) among normal samples. All of the critical items are keyed in the "true" direction (i.e., none are reverse-scored), so that there can be no ambiguity about the interpretation or meaning of a "true" response. Thus, even a response of "Slightly True" (equal to an item score of 1) on any of these items is an atypical response with reference to the census-matched normative sample.

All of the critical items suggest the existence of behavior or psychopathology that may demand immediate attention. It is recommended that positive responses to any of the items in Table 3-11 receive careful scrutiny and that further inquiry be conducted. A useful means for performing this follow-up involves a discussion of each positive response with the respondent to determine the extent and nature of his or her symptoms and behaviors in these areas. Because of the limited number of critical items and the relatively low endorsement rates for these items, such follow-up can be accomplished fairly quickly, and this investment of time is clearly merited given the nature of the issues involved.

Interpretation of the critical items is straightforward, although the nature of follow-up interventions will vary according to the content of items endorsed. In some cases (for example, Potential for Aggression, Potential for Self-Harm, or Delusions and Hallucinations), immediate action may be necessary to intervene in a crisis situation. Other content areas (such as Substance Abuse or Traumatic Stressors) may require further evaluation to clarify problem situations that may otherwise be overlooked. Individuals endorsing items suggesting Unreliability/Resistance are likely to be poor risks for following through with treatment plans and they may require careful monitoring. Finally, when individuals endorse items suggestive of Potential Malingering, this merits further evaluation to determine whether their presentation involves deception, exaggeration, or actual symptomatology (perhaps associated with rare dissociative or organic disorders).

Table 3-11
PAI Critical Items and Mean Item Scores

Item no.	Scale	Item content	Item mean
		Delusions and Hallucinations	
90	*SCZ–P*	Sometimes it seems that my thoughts are broadcast so that others can hear them.	0.3
130	*SCZ–P*	Others can read my thoughts.	0.4
170	*SCZ–P*	I've heard voices that no one else could hear.	0.1
210	*SCZ–P*	There are people who try to control my thoughts.	0.2
309	*PAR–P*	I'm the target of a conspiracy.	0.1
		Potential for Self–Harm	
100	*SUI*	I've made plans about how to kill myself.	0.1
183	*BOR–S*	When I'm upset, I typically do something to hurt myself.	0.1
206	*DEP–A*	I have no interest in life.	0.1
220	*SUI*	Death would be a relief.	0.2
340	*SUI*	I'm considering suicide.	0.1
		Potential for Aggression	
21	*AGG–P*	People are afraid of my temper.	0.4
61	*AGG–P*	Sometimes my temper explodes and I completely lose control.	0.5
101	*AGG–P*	Sometimes I'm very violent.	0.2
181	*AGG–P*	I've threatened to hurt people.	0.3
		Substance Abuse	
55	*ALC*	I have trouble controlling my use of alcohol.	0.2
222	*DRG*	My drug use is out of control.	0.1
		Potential Malingering	
9	*NIM*	Sometimes I cannot remember who I am.	0.1
49	*NIM*	I have visions in which I see myself forced to commit crimes.	0.1
129	*NIM*	I think I have three or four completely different personalities inside of me.	0.2
249	*NIM*	Sometimes my vision is only in black and white.	0.1
		Unreliability/Resistance	
31	*ANT–E*	I've borrowed money knowing I wouldn't pay it back.	0.1
71	*ANT–E*	I'll take advantage of others if they leave themselves open to it.	0.2
311	*ANT–E*	When I make a promise, I really don't need to keep it.	0.1
		Traumatic Stressors	
34	*ARD–T*	I keep reliving something horrible that happened to me.	0.3
114	*ARD–T*	I've been troubled by memories of a bad experience for a long time.	0.4
194	*ARD–T*	I have had some horrible experiences that make me feel guilty.	0.4
274	*ARD–T*	Since I had a very bad experience, I am no longer interested in some things that I used to enjoy.	0.3

Note. Based on the census–matched sample of 1,000 community-dwelling adults.

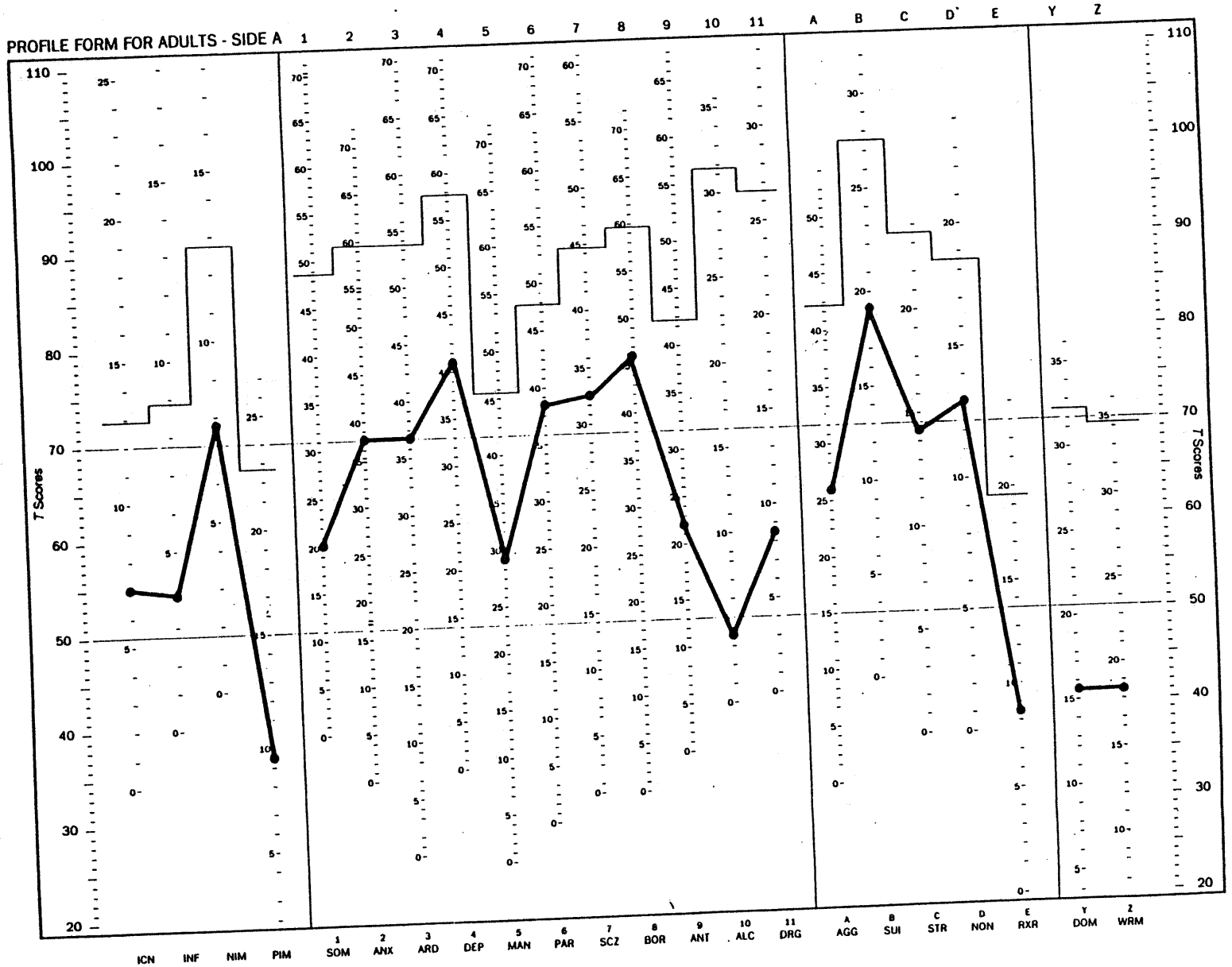


Figure 3-19. Cluster 10 Modal Profile on the PAI full scales.

PROFILE FORM FOR ADULTS - SIDE B

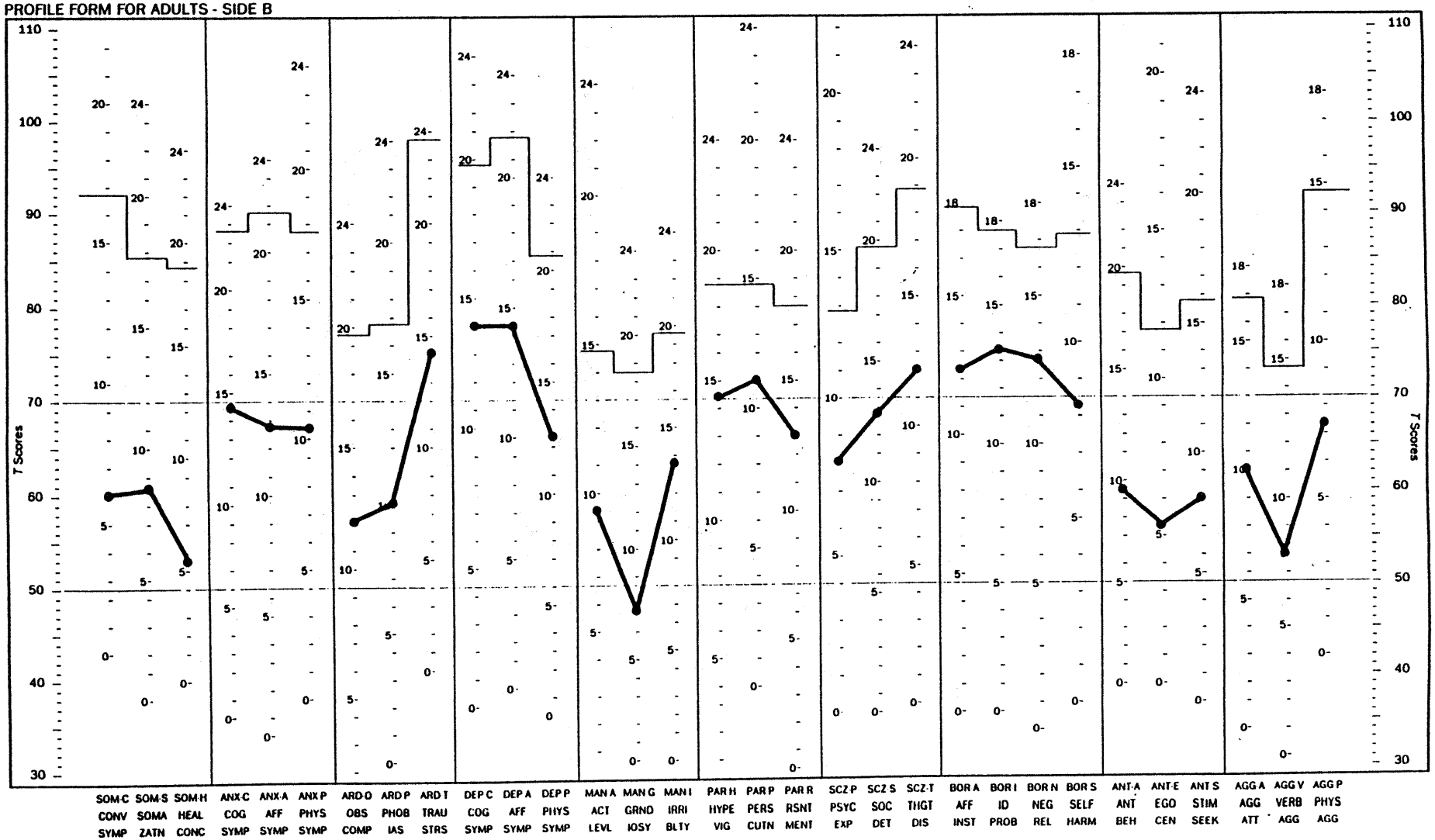


Figure 3-20. Cluster 10 Modal Profile on the PAI subscales.