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4

Integrating Clinical and Empirical Approaches to Personality

The Shedler- Westen Assessment Procedure (SWAP)

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> *It is well known that [Paul Meehl] not only thinks it important for a psychologist to work as a responsible professional with real-life clinical problems but, further, considers the purely 'theoretical' personality research of academic psychologists to be unusually naïve and unrealistic when the researcher is not a seasoned, practicing clinician.*
>
> —Paul Meehl, *Why I Never Attend Case Conferences*

Key Points

- There has been a disconnect between clinical and research approaches to personality. Empirical research has not built on clinical knowledge and understanding.
- The Shedler-Westen Assessment Procedure (SWAP) is an assessment method that integrates the strengths of clinical and empirical approaches.
- SWAP provides a standard vocabulary for clinical case description, preserving the richness and complexity of clinical case formulation while allowing clinicians to describe personality functioning in a systematic and quantifiable way.
- SWAP relies on what clinicians do best: describe individual patients they know well. It relies on statistical methods to do what they do best: combine information optimally to maximize reliability and validity.
- SWAP research in large patient samples has identified a taxonomy of personality diagnoses that is empirically based and captures the richness and complexity

of clinical understanding. The empirically based diagnostic taxonomy validates descriptions of personality syndromes found in the clinical literature.
- The SWAP instrument provides diagnostic scores for DSM-5 personality disorder diagnoses, diagnostic scores for the empirically based diagnostic taxonomy, and narrative case descriptions that can guide clinical treatment.
- The use of SWAP for both diagnosis and clinical case formulation is illustrated via a case of a patient in treatment for personality pathology.
- The clinical richness and relevance of the empirically derived personality taxonomy is illustrated via the borderline personality diagnosis.
- Evidence for reliability and validity is reviewed.

Introduction

There is often a disconnect between clinical knowledge and empirical research. This disconnect is pronounced when it comes to conceptualizing personality. For expert clinicians, personality assessment generally means *clinical case formulation*: understanding the patterns of thought, feeling, motivation, defenses, interpersonal functioning, experiencing self and others, and so on, that make a person unique and (if they are a patient) underlie their suffering.

Expert clinicians attend not only to what patients say but *how* they say it, drawing inferences from patients' accounts of their lives and relationships, from their interactions with the clinician in the consulting room, and from their own emotional responses to the patient.[1,2,3]

For example, skilled clinicians do not assess lack of empathy, a central feature of narcissistic personality, by administering questionnaires or asking direct questions about empathy. A moment's reflection reveals the dilemma: it would be a rare narcissistic patient who could report their own lack of empathy. More likely, the patient would describe themselves as a wonderful friend, perhaps the best ever. An initial sign of lack of empathy on the part of the patient may be a subtle feeling *in the clinician* of being interchangeable or replaceable, of feeling devalued, or being used as little more than a sounding board.[1,3,4]

The clinician's emotional responses become a data source for generating clinical hypotheses. The clinician might go on to consider whether they frequently feel this way with this patient and whether such feelings are usual in their clinical role. They might then become aware that the patient describes others more in terms of the functions they serve than who they are as people. The clinician might go on to consider how these observations dovetail with the patient's history and the problems that brought them to treatment. This kind of thinking lies at the heart of clinical case formulation.

In contrast, research-based approaches to personality eschew clinical judgment and inference. In psychiatry, successive editions of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) have minimized the role of inference, treating personality diagnosis as an essentially technical task of tabulating readily observable diagnostic criteria.[5]

In academic psychology, personality research has focused on dimensional trait models, notably the Five Factor Model and its variants.[6] The model derives from factor anal-ysis of questionnaires and was developed without input from clinical practitioners. While it has been useful for many purposes and generative for research,

clinicians expert in treating personality pathology see it as removed from their clinical understanding and concerns.[7–10]

The Science–Practice Schism

There is no reason we must choose between clinical depth and scientific rigor. Good clinical case formulation and good science have much in common. Clinical case formulation involves an ongoing, cyclical process of data collection, hypothesis generation, hypothesis testing, and hypothesis revision. Empirical research involves clinically informed (one hopes) judgment and inference at every step, from what to study, to how to conceptualize and operationalize it, to how to interpret findings and revise hypotheses as new data emerge.

Ideally, both activities involve a reciprocal interplay between the observations and judgments necessary to generate sound hypotheses and the investigation necessary to test them—what philosopher of science Hans Reichenbach[11] termed the *context of discovery* and the *context of justification*. Without a credible context of justification, clinical personality theory can look to empirical researchers like unfalsifiable conjecture. Without a credible context of discovery, empirical personality research can be clinically naïve and unhelpful to practitioners.[12,13]

Diagnosis and Case Formulation, Clinical and Statistical

The approach to personality described here, based on the *Q-cdler-Westen Assessment Procedure* (SWAP), bridges clinical and empirical approaches to personality and integrates the strengths of each. The approach relies on clinicians to do what clinicians do best: observe and describe individual patients they know well. It relies on statistical methods to do what they do best: combine information optimally to maximize reliability, validity, and predictive accuracy.[14–16] The goal is to provide a means of conceptualizing and assessing personality that is both clinically relevant and scientifically sound.

The remainder of this chapter will (a) discuss the challenges of incorporating clinical observation and inference in research; (b) describe the development of the SWAP as a method for systematizing clinical case description; (c) illustrate its use for both diagnosis and clinical case formulation; and (d) describe a diagnostic system for personality that is both empirically and clinically valid.

The Challenge of Clinical Data

It is a truism that "clinical judgment is unreliable," but truisms are not truths. The problem with clinical observation and inference is *not* that they are unreliable, as researchers often repeat.[16] The problem, rather, is that they come in a form difficult to work with. Rulers measure in inches and scales measure in pounds, but what metric do clinical assessors share? Consider three clinicians describing the same case. One might speak of beliefs and schemas, another of learning and conditioning, and the third, perhaps, of transference and resistance. It is not readily apparent whether the clinicians can or cannot make the same observations and inferences.

There are three possibilities: (1) The clinicians may be observing the same thing but using different language and metaphor systems to describe it; (2) they may be attending to different aspects of the clinical material, as in the parable of the elephant and the blind men; or (3) they may not, in fact, be able to make the same observations. *To find out whether the clinicians can make the same observations and inferences, we must ensure they speak the same language and attend to the full range of relevant clinical phenomena.*

A Standard Vocabulary for Case Description

The Shedler-Westen Assessment Procedure (SWAP) is a tool for personality diagnosis and case formulation that provides clinicians of all theoretical orientations with a common vocabulary for case description.[5,17–21] The vocabulary consists of 200 personality-descriptive statements, each of which may describe a given patient very well, somewhat, or not at all. A clinician describes a patient by ranking the statements into eight categories, from most descriptive of the patient (scored 7) to not descriptive or irrelevant (scored 0). Thus, SWAP yields a score from 0 to 7 for 200 personality-descriptive variables.

The "standard vocabulary" of the SWAP allows clinicians to provide comprehensive, in-depth psychological descriptions of patients in a form that is systematic and quantifiable. SWAP statements stay close to the clinical data (e.g., "Tends to get into power struggles," or "Is capable of sustaining meaningful relationships characterized by genuine intimacy and caring"), and statements that require inference or deduction are written in clear, jargon-free language (for example, "Tends to see own unacceptable feelings or impulses in other people instead of in him/herself" or "Tends to express anger in passive and indirect ways [e.g., may make mistakes, procrastinate, forget, become sulky, etc.]).

The major editions of the SWAP instrument are the SWAP-200 and the revised SWAP-II (their precursor was the SWAP-167).[22] In this chapter, I use the acronym *SWAP* to refer to concepts and findings that apply to both major editions of the instrument and specify SWAP-200 or SWAP-II where the information applies to a specific edition. Clinicians can complete a SWAP-200 assessment online and receive a comprehensive assessment report at www.SWAPassessment.org. (Versions of the SWAP have also been developed for adolescent personality assessment[23,24] but are beyond the scope of this chapter.)

SWAP Item Set

The initial SWAP item pool was drawn from a range of sources including: clinical literature on personality pathology written over the past 50 years[4,25–28]; DSM Axis II diagnostic criteria included in DSM-III through DSM-5; selected DSM Axis I criteria that could reflect enduring dispositions (for example, depression and anxiety); research on coping, defense, and affect regulation[13,29–31]; research on interpersonal functioning in patients with personality disorders[32,33]; research on personality traits in non-clinical populations[34–36]; research on personality pathology conducted since the development of DSM Axis II[37]; pilot studies in which observers watched videotaped interviews of patients with personality disorders and described them using draft versions of the SWAP item set; and the clinical experience of the SWAP authors.

Most important, the current SWAP item set is the product of a 16-year iterative item revision process that incorporated the feedback of thousands of clinician-consultants of all theoretical orientations who used earlier versions of the instrument to describe their patients. We asked each clinician-consultant one crucial question: "Were you able to describe the things you consider psychologically important about your patient?" If the answer was "no," we asked the clinician to describe what they could not express with the SWAP items. We added, rewrote, and revised items based on this feedback, then asked new clinician-consultants to describe new patients. We repeated this process over many iterations until most clinicians could answer "yes" most of the time.[21]

The methods used to develop and refine the SWAP item set ensured inclusion of clinically crucial concepts that are not addressed by other personality item sets. For example, virtually all clinical theorists regard the defense of projection as a central, defining feature of paranoid personality, but neither DSM nor dimensional trait models address it. SWAP captures and quantifies projection with the item, "Tends to see own unacceptable feelings or impulses in other people instead of in himself/herself."

Similarly, clinical theorists have identified the phenomena of *splitting* and *projective identification* as central, pathognomonic features of borderline personality,[2,4,25,38,39] but they are strikingly absent from both the DSM and from dimensional trait models of personality. SWAP-II addresses splitting with items like, "When upset, has trouble perceiving both positive and negative qualities in the same person at the same time (e.g., may see others in black or white terms, shift suddenly from seeing someone as caring to seeing him/her as malevolent and intentionally hurtful, etc.)," and "Expresses contradictory feelings or beliefs without being disturbed by the inconsistency; has little need to reconcile or resolve contradictory ideas." It addresses projective identification with items like, "Manages to elicit in others feelings similar to those s/he is experiencing (e.g., when angry, acts in such a way as to provoke anger in others; when anxious, acts in such a way as to induce anxiety in others)," and "Tends to draw others into scenarios, or 'pull' them into roles, that feel alien or unfamiliar (e.g., being uncharacteristically insensitive or cruel, feeling like the only person in the world who can help, etc.)."

I provide these examples to illustrate that it is possible to conduct systematic empirical research without sacrificing clinical richness and complexity, and possible to operationalize clinical (in this instance, psychodynamic) constructs that many empirical investigators dismiss as not researchable. I am not (yet) making claims about the validity of the underlying clinical theories. I am making the point that such clinical concepts, which reflect the accrued experience of generations of clinically skilled observers, *deserve to be taken seriously as research hypotheses to test*. Neither DSM-based structured interviews nor Five Factor Model instruments can provide data to confirm or disconfirm the clinical hypotheses because they make no effort to address them.

The methods used to develop and refine the SWAP item set were successful in creating a relatively comprehensive vocabulary for clinical case description. In a sample of 1,201 psychologists and psychiatrists who used SWAP-II to describe a current patient, 84 percent agreed or strongly agreed "The SWAP-II allowed me to express the things I consider important about my patient's personality" (fewer than 5 percent disagreed).

Scoring SWAP

The SWAP is based on the Q-Sort method, which requires assessors to assign each score (0 to 7) a specified number of times (i.e., it uses a "fixed" score distribution). The fixed score distribution is asymmetric, with many items receiving low scores and progressively fewer items receiving higher scores. The shape of the fixed distribution mirrors the naturally occurring distribution in the population. Use of a fixed distribution has psychometric advantages, including reducing measurement error or noise inherent in standard rating scales (for discussion of this and other psychometric issues see [40–42]).

When SWAP is used in the context of psychotherapy, an experienced clinician can score the instrument after a minimum of six clinical contact hours with a patient. If a patient or subject is seen for assessment only—for example, in research, forensic, or per-sonnel assessment contexts—SWAP can be scored on the basis of the Clinical Diagnostic Interview (CDI; available at www.SWAPassessment.org), which systematizes and compresses into an approximately 2½-hour time frame the kind of interviewing expert clinicians engage in to assess personality.[16,43–45] SWAP can also be scored reliably from other comparably psychologically rich interview sources.[46]

Capturing Complexity and Nuance

Just as academic researchers tend to be skeptical about clinical inference, clinicians sometimes express skepticism that *any* structured instrument can do justice to the richness, complexity, and uniqueness of a person's psychology. However, SWAP statements can be combined in virtually infinite patterns to capture complex, nuanced psychological phenomena, and convey meanings that transcend the content of individual items. The configuration of items is more than the sum of its parts.

Consider the meaning of the SWAP item, "Tends to be sexually seductive or provocative." Considered in isolation, the implications for personality diagnosis are unclear. However, if a patient receives a high score on this item along with high scores on the items, "Has an exaggerated sense of self-importance (e.g., feels special, superior, grand, or envied)" and "Seems to treat others primarily as an audience to witness own importance, brilliance, beauty, etc.," a portrait begins to emerge of a narcissistically organized person who seeks sexual attention to bolster their sense of importance and desirability.

If the same patient also receives high scores on the items, "Tends to feel s/he is not his/her true self with others; may feel false or fraudulent" and "Tends to feel s/he is inadequate, inferior, or a failure," a more complex portrait begins to emerge. The items, in combination, indicate that grandiosity co-exists with feelings of inadequacy, and suggests the clinical hypothesis that grandiosity masks or compensates for painful feelings of inadequacy. This duality is central to narcissistic personality dynamics.[47]

If the item "Tends to be sexually seductive or provocative" is instead combined with the items, "Tends to fear s/he will be rejected or abandoned," "Appears to fear being alone; may go to great lengths to avoid being alone," and "Tends to be ingratiating or submissive (e.g., consents to things s/he does not want to do, in the hope of getting support or approval)," a portrait begins to emerge of a person with a dependent personality style, who may rely on sexuality as a means of maintaining attachments in the face of feared rejection.

If the sexual seductiveness item is instead combined with the items, "Tends to act impulsively (e.g., acts without forethought or concern for consequences)," "Takes advantage of others; has little investment in moral values (e.g., puts own needs first, uses or exploits people with little regard for their feelings or welfare, etc.)," and "Experiences little or no remorse for harm or injury caused to others," a portrait begins to emerge of a person with a psychopathic personality style who seeks immediate gratification and has no qualms about exploiting others sexually.

These examples illustrate how SWAP items can be combined to communicate complex clinical concepts and how a single SWAP item can convey a range of different meanings depending on the items that surround and contextualize it. I will further illustrate this with a case example (see section, Bridging Diagnosis and Clinical Case Formulation).

Diagnosis, Syndromal and Dimensional

SWAP- 200 generates 37 diagnostic scale scores organized into three score profiles. (Computational algorithms for SWAP-II differ from those of SWAP-200.[21,48]) The score profiles provide (1) dimensional scores for DSM-5 personality disorder diagnoses; (2) dimensional scores for an alternative set of empirically identified personality syndromes (see the section, An Improved System for Personality Diagnosis, below); and (3) dimensional trait scores derived via factor analysis of the SWAP item set.[49] SWAP also provides a Psychological Health Index which measures adaptive psychological resources and capacities, or ego strengths. The SWAP *National Security Edition* includes the Dispositional Indicators of Risk Exposure (DIRE) scale, developed in collaboration with agencies of the United States federal government to assess potential for destructive or high-risk behavior in personnel being evaluated for sensitive positions such as those requiring access to classified information.[50]

SWAP diagnostic scores are expressed as T- scores (Mean = 50, SD = 10) and graphed to create score profiles (see Figure 4.1). Each Personality Disorder scale score measures the similarity or "match" between a patient and a *diagnostic prototype* representing the DSM personality disorder in its pure or "ideal" form (for example, a prototypical patient with paranoid personality disorder). Thus, personality disorders are assessed on a continuum: low scores indicate the patient does not resemble or match the diagnostic prototype and high scores indicate a strong match.

Where categorical diagnosis is desired (e.g., to facilitate clinical communication, or for "backward compatibility" with the categorical approach of DSM), a score of $T \geq 60$ provides a threshold for assigning a categorical diagnosis and a score of $T \geq 55$ warrants a diagnosis of "traits" or "features" of a personality disorder. Thus, the patient represented by the solid line in Figure 4.1 would receive a DSM diagnosis of "borderline personality disorder with antisocial and histrionic traits."

This approach to dimensional diagnosis preserves a *syndromal* understanding of personality. That is, it views personality as a configuration of functionally interrelated psychological processes (encompassing, for example, interrelated patterns of thinking, feeling, motivation, interpersonal functioning, coping, and defending), not as independent dimensions. *Functionally related* means the personality processes are interdependent, causally linked, and form a psychologically coherent and recognizable configuration or pattern.[51–53]

Dimensional diagnosis follows from the recognition that all personality syndromes fall on a continuum from relatively healthy through severely disturbed.

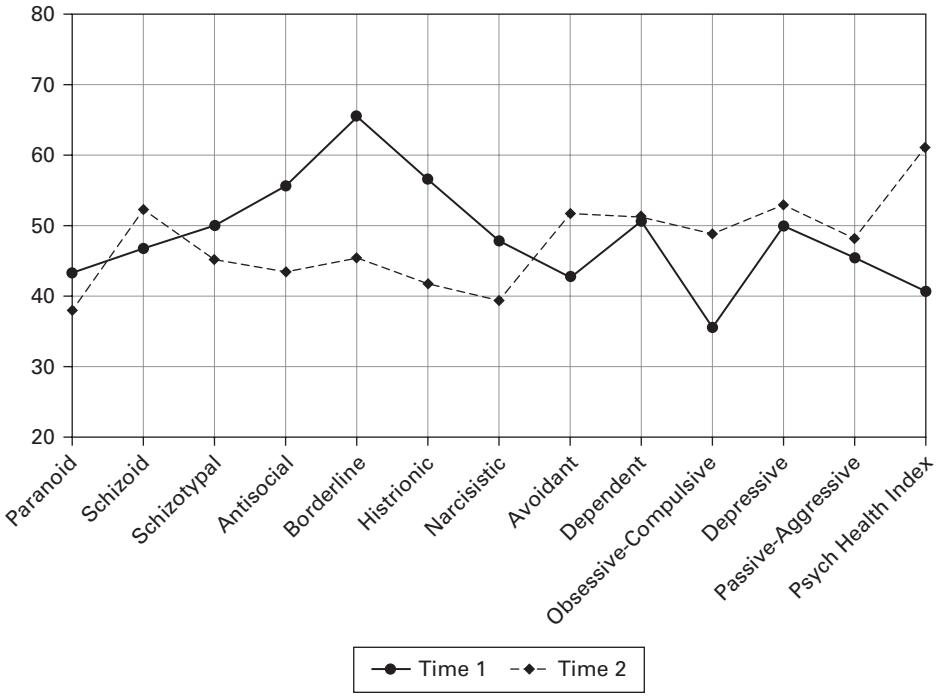

Figure 4.1. SWAP-200 Personality Disorder Score Profile (DSM-5 diagnoses)

For example, a relatively healthy person with an obsessional personality style might be precise, orderly, logical, more comfortable with ideas than feelings, a bit more concerned than most with authority and control, and somewhat rigid in certain areas of thought and behavior. Toward the more severe end of the obsessional continuum, we find individuals who are rigidly dogmatic, have little access to affect, are preoccupied with control, and misapply logic in ways that lead them to miss the forest for the trees. The latter might properly be described as having a "disorder," but the threshold for diagnosing a disorder is a somewhat arbitrary point on a continuum. This is similar to many medical diagnoses, where variables like blood pressure are measured on a continuum, but certain ranges are described categorically as "borderline" or "high."

Although I am emphasizing here the utility of a syndromal approach to personality, SWAP also provides dimensional trait scores, derived via factor analysis of the SWAP item set. Factor analysis of the SWAP item sets yields clinically and empirically coherent personality factors, 12 in the case of SWAP-200[18] and 14 in the case of SWAP- II.[48] These dimensional trait or factor scores provide additional information to supplement syndromal diagnoses and offer another lens through which to view a person.

Syndromal and trait models of personality serve different purposes. Among other things, the former is *person-centered* (focusing on kinds of people) and the latter is *variable-centered* (focusing on kinds of variables). Elsewhere, I have suggested that a diagnostic system is like a good map, in that it must accurately depict the territory.[9] However, sometimes one requires a roadmap, sometimes a topographical map depicting elevations, and sometimes a political map. A roadmap, regardless of its validity, is of little use to a mountaineer. A topographical map is of little

use to a motorist. One consequence of the science–practice schism in the field of personality is that there has been virtually no constructive discussion about what kind of map is useful to whom. Academic researchers have lobbied for maps that serve their purposes, citing reliability and validity but failing to recognize that the wrong kind of reliable and valid map may be useless to a clinician with different needs.

The Case of Melania: Bridging Diagnosis and Clinical Case Formulation

Descriptive diagnosis and clinical case formulation are often viewed as separate activities. SWAP bridges these activities, allowing clinicians and investigators to both make psychiatric diagnoses and derive detailed clinical case formulations from the same data set. I will illustrate with a clinical case example.

Background

Melania is a 30- year-old woman with chief complaints of substance abuse and inability to extricate herself from an abusive relationship. She was diagnosed with substance abuse based on the SCID structured interview, and diagnosed with Borderline Personality Disorder with histrionic traits on the SCID-II. She received a Global Assessment of Functioning score of 45 at intake, indicating significant impairment in functioning.

Melania's early family environment was one of neglect and family strife. A recurring scenario is illustrative: Melania's mother would scream at her husband and say she was leaving him, then lock herself in her room, leaving Melania frightened and in tears. Both parents would then ignore Melania and often forget to feed her. By adolescence, Melania was skipping school and spending her days sleeping or wandering the streets. At age 18 she left home and began "life on the streets," entering a series of chaotic sexual relationships, abusing street drugs, and engaging in petty theft. In her mid-twenties, she moved in with her boyfriend, a small-time drug dealer. She periodically prostituted herself to obtain money or drugs for him.

Melania began psychodynamic therapy at a frequency of three sessions per week. The first 10 sessions were recorded and transcribed. Two clinicians, blind to other data, reviewed the transcripts and scored the SWAP-200 based on the session transcripts. The SWAP-200 item scores were averaged across the two clinical judges to enhance reliability. After two years of psychotherapy, 10 consecutive psychotherapy sessions were again recorded and transcribed, and the SWAP evaluation was repeated.

Descriptive Diagnosis

The solid line in Figure 4.1 (Time 1) shows Melania's SWAP-200 scores profile for DSM-5 personality disorder diagnoses. Higher scale scores indicate more severe personality pathology. The Psychological Health Index is graphed as well, which reflects clinicians' consensual understanding of healthy personality functioning.[19] Higher scores on the Psychological Health Index indicate greater psychological strengths and resources.

Melania's score profile shows a marked elevation for borderline personality (T = 65, or one and a half standard deviations above the mean of the clinical reference sample), with secondary elevations for histrionic personality PD (T = 57) and antisocial personality (T = 56). Applying the recommended cut-scores of T ≥ 60 for making a categorical personality disorder diagnosis and T ≥ 55 for diagnosing traits or features, Melania's DSM-5 diagnosis at the start of treatment (Time 1) is "borderline personality disorder with histrionic and antisocial traits." Also noteworthy is the low T-Score of 41 on the Psychological Health Index, nearly a standard deviation below the mean in a reference sample of patients with personality disorder diagnoses. The low score indicates significant dysfunction.

Narrative Case Description

To move from diagnosis to individualized case description, we shift our focus from diagnostic scale scores to individual SWAP items. We can create a narrative description simply by listing the 30 SWAP items with the highest scores (i.e., those scored 5, 6, or 7) and arranging them in paragraph form.

The narrative description for Melania, below, illustrates this approach. The description is constructed exclusively from the 30 SWAP items with scores of 5 or above. To aid the flow of the text, I have grouped conceptually related items, made minor grammatical edits, and added some topic sentences and connecting text (italicized).

> *Melania experiences severe depression and dysphoria*. She tends to feel unhappy, depressed, or despondent, appears to find little or no pleasure or satisfaction in life's activities, feels life is without meaning, and tends to feel like an outcast or outsider. She tends to feel guilty, and to feel inadequate, inferior, or a failure. Her behavior is often self-defeating and self-destructive. She appears inhibited about pursuing goals or successes, is insufficiently concerned with meeting her own needs, and seems not to feel entitled to get or ask for things she deserves. She appears to want to "punish" herself by creating situations that lead to unhappiness or actively avoiding opportunities for pleasure and gratification. *Specific self-destructive tendencies include* getting drawn into and remaining in relationships in which she is emotionally or physically abused, abusing illicit drugs, and acting impulsively and without regard for consequences. She shows little concern for consequences generally.
>
> *Melania has personality features associated specifically with borderline personality.* Her relationships are unstable, chaotic, and rapidly changing. She has little empathy and seems unable to understand or respond to others' needs and feelings unless they coincide with her own. Moreover, she tends to confuse her own thoughts, feelings, and personality traits with those of others. She often acts in such a way as to elicit her own feelings in other people (for example, provoking anger when she herself is angry, or inducing anxiety in others when she herself is anxious), and she tends to draw people into scenarios or "pull" them into roles that they experience as alien and unfamiliar (e.g., being uncharacteristically cruel, or feeling like the only person in the world who can help).
>
> When upset, Melania has difficulty perceiving positive and negative qualities in the same person at the same time (e.g., she sees others in black or white terms and may shift suddenly from seeing someone as caring to and seeing them as malevolent). She

expresses contradictory feelings without being disturbed by the inconsistency and seems to have little need to reconcile or resolve contradictory ideas. She lacks a stable image of who she is or would like to be (e.g., her attitudes, values, goals, and feelings about self are unstable and changing), and she tends to feel empty inside. *Her affect regulation is poor:* She tends to become irrational when strong emotions are stirred up and shows a noticeable decline from her customary level of functioning. She seems unable to soothe or comfort herself when distressed and requires the involvement of another person to help her regulate affect. Both her living arrangements and her work life tend to be chaotic and unstable.

Finally, Melania's attitudes toward men and sexuality are problematic and conflictual. She tends to be hostile toward members of the opposite sex (whether consciously or unconsciously), and she associates sexual activity with danger (e.g., injury or punishment). She appears afraid of commitment to a long-term love relationship, instead choosing partners who seem inappropriate in terms of age, status (e.g., social, economic, intellectual, or other factors).

This narrative case description provides an in-depth portrait of a troubled patient with borderline personality pathology, highlighting personality features such as splitting, projective identification, identity diffusion, and affect dysregulation. The description illustrates the difference between descriptive psychiatry (aimed at establishing a diagnosis) and clinical case formulation (aimed at understanding the psychological makeup of a specific individual). However, all the findings presented here are derived from the same quantitative SWAP data.

Melania's case has a happy ending. The dashed line in Figure 4.1 shows Melania's personality disorder scores after two years of psychodynamic psychotherapy (Time 2). Her scores on the Borderline, Histrionic, and Antisocial dimensions have dropped below T = 50, and she no longer warrants a DSM-5 personality disorder diagnosis. Her score on the Psychological Health Index has increased by two standard deviations, from 41 to 61, indicating the development of substantial psychological resources and capacities.[54]

Reliability and Validity

Inter-rater reliability of SWAP diagnostic scale scores is above .80 in all studies to date and often above .90.[40,45,46] Median test-retest reliability of SWAP-II personality disorder scales over four to six months is .90, with a range of .86 to .96 for individual scales. Median test-retest reliability for SWAP-II factor (dimensional trait) scales is .85, with a range of .77 to .96.[41] Median alpha reliability (Cronbach's *alpha*) for diagnostic scales for SWAP-II empirically derived personality syndromes is .79, with a range of .72 to .94 (see the section, An Improved System for Personality Diagnosis). These reliability coefficients are at least as strong as those of structured interviews and questionnaires that seek to minimize or eliminate clinical inference. The take-home message is that clinical judgment is highly reliable—when "harnessed" and quantified with appropriate methods.

With respect to validity, SWAP diagnostic scales show predicted relations with an extensive range of external criterion variables in both adult and adolescent samples, including genetic history variables such as psychosis and substance abuse in first- and second-degree biological relatives; developmental history variables such as childhood physical abuse, sexual abuse, animal torture, fire setting, truancy, and

other school-related problems; life events such as psychiatric hospitalizations, suicide attempts, arrests, violent criminal behavior, and perpetrating domestic abuse; ratings of occupational functioning, social functioning, and global adaptive functioning; response to mental health treatment; and numerous other measures.[16,18–20,24,41,43,45,46]

There is a well-established literature on the inadequacies of clinical judgment and it is fair to ask why SWAP yields strong reliability and validity findings that are inconsistent with this literature. The answers are straightforward. First, studies of "clinical judgment" have too often asked clinicians to make predictions about things that fall well outside their legitimate expertise[16] (unfortunately, some clinicians have been all too willing to offer such prognostications). In contrast, SWAP does not ask clinicians to *predict* anything, only to describe patients they know, based on psychological information readily available to them. Second, studies of clinical judgment rarely use appropriate psychometric methods to quantify clinical judgment in a reliable way. Third, studies of clinical judgment typically conflate clinicians' ability to provide accurate information about their patients (which they do well) with their ability to combine and weight variables to make predictions (a task *necessarily* performed better by statistical methods).

In fact, a substantial literature documents the reliability and validity of clinical observation and inference *when it is quantified and utilized appropriately*.[15] It is unfortunate, and telling, that research on the limitations of clinical judgment is widely cited by researchers while compelling research on its strengths often goes overlooked.

The SWAP differs from other assessment approaches in that it harnesses clinical judgment using psychometric methods designed for this purpose, then applies statistical and actuarial methods to the resulting quantitative data. In short, it relies on clinicians to do what they do best, namely describing individual patients they know well. It relies on statistical algorithms to do what they do best, namely combining data optimally to derive reliable and valid scales and maximize prediction. In the framework of Paul Meehl's classic text on *Clinical Versus Statistical Prediction*, SWAP would be considered an example of *statistical* prediction.[14]

An Improved Taxonomy for Personality Diagnosis

The system for personality diagnosis provided by DSM finds little favor with either clinicians or researchers.[8,17,19] The DSM-5 Personality and Personality Disorders Work Group attempted to replace it entirely, but ideological conflicts prevented the Work Group from producing a viable alternative. As a result, DSM-5 diagnostic categories and criteria remained unchanged from DSM-IV and the opportunity for an improved and officially sanctioned system for personality diagnosis was lost.

An optimal diagnostic system should (1) "carve nature at the joints" as closely as nature reveals them and available research methods permit; (2) provide descriptions of personality syndromes that are *clinically* useful and relevant—ideally, they should facilitate a level of understanding that can guide treatment; and (3) provide a sound, workable method for making diagnoses in day-to-day clinical practice. In this section, I describe the findings of a 25-year research effort aimed at developing a diagnostic system meeting these requirements.[21]

An alternative to developing a diagnostic system by committee (with the unavoidable influences of group dynamics, politics, ideology, and other biases) is to derive a diagnostic taxonomy empirically, by conducting comprehensive assessments

of personality in large, clinically representative patient samples, then employing statistical methods to identify and describe naturally occurring diagnostic groupings, assuming such groupings exist.

My co-investigators and I first described a diagnostic system based on such an approach in 1999, identifying naturally occurring diagnostic groupings in a national sample of personality-disordered patients assessed with the SWAP-200.[20] In this section, I summarize the findings of newer research using the SWAP-II in a larger, more representative sample of N = 1,201 adult patients.[21] We used the method of Q-factor analysis to identify naturally occurring diagnostic groupings in the patient sample. Q-factor analysis is computationally identical to factor analysis, with the difference that factor analysis identifies groupings of similar *variables* whereas Q-factor analysis identifies groupings of similar *cases* or *people*. The resulting diagnostic groupings are data-driven and not the product of theoretical conjecture or decision by committee.

Data were provided by 1,201 licensed psychologists or psychiatrists, each of whom used the SWAP-II to describe a single, randomly selected current patient. The clinicians were instructed to describe "an adult patient you are currently treating or evaluating who has enduring patterns of thoughts, feelings, motivation, or behavior — that is, personality patterns— that cause distress or dysfunction." To ensure a clinically representative sample, the instructions emphasized that patients need *not* have a DSM personality disorder diagnosis. The methods are described in our original research report.[21]

An Empirically Derived Personality Taxonomy

The analysis identified 10 distinct, empirically and clinically coherent personality syn-dromes (Q-factors) organized hierarchically under superordinate groupings or broad personality spectra. Figure 4.2 illustrates the hierarchical structure of the empirically derived diagnostic system. At the level of broad superordinate groupings, the analysis identified an *internalizing* spectrum of personality syndromes, an *externalizing* spectrum, a *borderline-dysregulated* spectrum, and a spectrum we labeled *neurotic styles*.

Individuals with syndromes in the *internalizing* spectrum experience chronic painful emotions, especially depression and anxiety; tend to be emotionally constricted and socially avoidant; and tend to blame themselves for their difficulties. The spectrum subsumes the diagnoses of Depressive Personality, Anxious-Avoidant

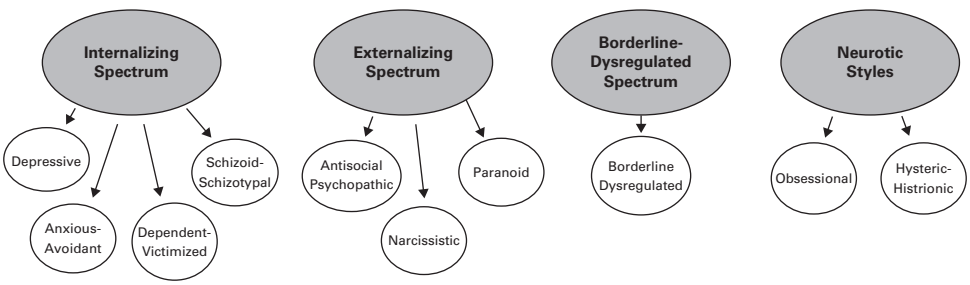

Figure 4.2. Hierarchical Structure of Personality Diagnoses

Personality, Dependent-Victimized Personality, and Schizoid-Schizotypal Personality. Individuals with syndromes in the *externalizing* spectrum cause others pain. They are angry or hostile, self-centered and lacking in empathy, and blame others for their difficulties. The spectrum subsumes the diagnoses of Antisocial-Psychopathic Personality, Narcissistic Personality, and Paranoid Personality.

Individuals in the *borderline-dysregulated* spectrum are qualitatively distinct from stable internalizers or stable externalizers. Their perceptions of self and others are unstable and changeable, and they have difficulty regulating emotion. As a result, they tend to oscillate between emotions characteristic of both internalizing and externalizing spectrum pathology (for example, depression, anxiety, rage). They may best be described as "stably unstable."[55] The salience of affect dysregulation in the clinical picture led us to hyphenate the name of the syndrome and add *dysregulated* to the more familiar term *borderline*.

The *neurotic styles* spectrum subsumes the diagnoses of Obsessional Personality and Hysteric-Histrionic Personality. The name of the spectrum reflects the recognition that individuals with these personality syndromes are, on average, higher functioning than those in the other diagnostic groupings and often do not show a level of dysfunction that warrants the term *disorder*. The two personality syndromes resemble "neurotic styles" described in the clinical literature[2,28,56] more than they resemble DSM descriptions of obsessive-compulsive and histrionic personality "disorders." The framers of DSM-III amplified the level of pathology of these two personality syndromes to fit them into a medical-model taxonomy of "disorders." Unfortunately, the resulting DSM criterion sets described caricatures, not the characteristics of patients most often seen in real-world practice.

Empirically Derived Descriptions of Personality Syndromes

In addition to identifying naturally occurring personality syndromes, our research method allowed us to generate an empirically derived description of each personality syndrome. A description of the core, defining features of each diagnostic grouping or syndrome is obtained simply by listing the SWAP items with the highest factor scores for the syndrome. I will use borderline-dysregulated personality for illustration.

Box 4.1 lists the 24 SWAP items with the highest factor scores for borderline-dysregulated personality (the items most central to the syndrome). To facilitate understanding of this complex syndrome, I have grouped the items under several broad themes. A number of findings are noteworthy. First, the empirical emergence of this diagnostic grouping validates the concept of borderline personality as a diagnostic entity. It confirms the existence of a distinct group of patients with common psychological characteristics. Second, the SWAP items describe a psychologically richer and more complex syndrome than described by DSM. Third, the description addresses internal psychological processes and aspects of inner experience crucial to understanding and treating this syndrome.

The findings validate clinical theories that view splitting, projective identification, and related psychological processes as central to borderline personality. Overall, the empirically derived personality syndrome more closely resembles the concept of borderline personality *organization* described in the clinical literature than the DSM description of borderline personality *disorder*.[2,4,25,38]

Box 4.1 Empirically Derived Description of Borderline-Dysregulated Personality

Affect Dysregulation

Emotions tend to change rapidly and unpredictably.
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, etc.
Tends to become irrational when strong emotions are stirred up; may show a significant decline from customary level of functioning.
Is prone to intense anger, out of proportion to the situation at hand (e.g., has episodes of rage).
Is unable to soothe or comfort him/herself without the help of another person (i.e., has difficulty regulating own emotions).
Tends to "catastrophize"; is prone to see problems as disastrous, unsolvable, etc.
Tends to feel unhappy, depressed, or despondent.

Splitting

When upset, has trouble perceiving both positive and negative qualities in the same person at the same time; sees others in black or white terms (e.g., may swing from seeing someone as caring to seeing him/her as malevolent and intentionally hurtful).
Tends to stir up conflict or animosity between other people (e.g., may portray a situation differently to different people, leading them to form contradictory views or work at cross purposes).

Projective Identification

Manages to elicit in others feelings similar to those s/he is experiencing (e.g., when angry, acts in such a way as to provoke anger in others; when anxious, acts in such a way as to induce anxiety in others).
Tends to draw others into scenarios, or "pull" them into roles, that feel alien or unfamiliar (e.g., being uncharacteristically insensitive or cruel, feeling like the only person in the world who can help, etc.).

Identity Diffusion

Lacks a stable sense of who s/he is (e.g., attitudes, values, goals, and feelings about self seem unstable or ever-changing).
Is prone to painful feelings of emptiness (e.g., may feel lost, bereft, abjectly alone even in the presence of others, etc.).

Insecure Attachment

Tends to be needy or dependent.
Appears to fear being alone; may go to great lengths to avoid being alone.
Tends to fear s/he will be rejected or abandoned.

Tends to become attached quickly or intensely; develops feelings, expectations, etc. that are not warranted by the history or context of the relationship.
Tends to feel misunderstood, mistreated, or victimized.

Self-Harm (Desperate efforts to self-regulate)

Tends to engage in self-mutilating behavior (e.g., self-cutting, self-burning, etc.).
Tends to make repeated suicidal threats or gestures, either as a "cry for help" or as an effort to manipulate others.
Struggles with genuine wishes to kill him/herself.

Behavioral Sequelae

Relationships tend to be unstable, chaotic, and rapidly changing.
Work life and/or living arrangements tend to be chaotic or unstable (e.g., job or housing situation seems always temporary, transitional, or ill-defined).
Tends to be impulsive.

The items or personality features comprising the description of Borderline-Dysregulated Personality (and all other empirically identified syndromes) cannot be explained away as artifacts of clinicians' theoretical preconceptions. They emerged repeatedly when we stratified the sample by the theoretical orientation of the reporting clinicians, with the same items ranked highly by psychodynamic, cognitive-behavioral, humanistic, and biologically-oriented clinicians.

Psychometric Assessment with the SWAP

We developed SWAP-II diagnostic scales to assess the empirically derived diagnostic syndromes by summing the most descriptive SWAP-II items for each syndrome (thus, the diagnostic scale for borderline-dysregulated personality comprises the 24 items listed in Box 4.1). The number of scale items ranges from a low of 14 (for paranoid personality) to a high of 24 (for borderline-dysregulated personality), with the number of items reflecting the complexity of the syndrome. Alpha reliabilities for the diagnostic scales range from .72 to .94 with a median reliability of .79. To facilitate test interpretation, all diagnostic scores are scaled as normalized T-scores (Mean = 50, SD = 10).

An empirically derived Psychological Health Index was created by the same method, yielding an additional scale assessing global personality health/dysfunction. All personality syndromes fall on a continuum of functioning, and the score on the Psychological Health Index provides a context for interpreting other SWAP scale scores. An elevated score for a personality syndrome, coupled with a high Psychological Health Index score, indicates that the person is functioning at the healthier end of the health–pathology continuum for that syndrome, and a low score on the Psychological Health Index indicates the opposite. For example, a patient with an elevated score for paranoid personality and

a high Psychological Health Index score has meaningful psychological resources or ego strengths and may be able to make constructive use of psychotherapy. A patient with the same paranoid personality score and a low Psychological Health Index score may prove untreatable. Both patients are likely to incorporate the therapist into a paranoid worldview and suspect the therapist of nefarious motives. However, the first patient will likely retain a capacity to reflect on their experience of the therapist and call their perceptions into question, whereas the second patient may not.

Diagnosis in Day-to-Day Practice

When maximum psychometric precision is required or where there are challenging diagnostic dilemmas, assessors can describe patients using the SWAP and obtain quantitative diagnostic scale scores for all the empirically derived personality syndromes (as well as for DSM-5 personality disorder diagnoses, and for SWAP factors or personality trait dimensions). For day-to-day diagnosis, my co-investigators and I have proposed a diagnostic system based on "prototype matching."[57]

In prototype matching diagnosis, the descriptions of the empirically derived personality syndromes are presented in paragraph rather than list form, to create a narrative description of each syndrome. The narrative descriptions constitute *diagnostic prototypes* that describe each personality syndrome in its "ideal" or pure form. The diagnostic prototypes are made up of the SWAP-II items that are empirically most defining of each syndrome (the same items used to construct the psychometric scales), organized and edited to create narratively coherent paragraphs. Each prototype description is preceded by a single-sentence summary statement intended to orient the diagnostician and convey telegraphically the core features of the syndrome.

The diagnostician's task is to consider the prototype description as a whole—as a configuration or pattern—and rate the *overall* similarity or match between a specific patient and the diagnostic prototype. The resulting diagnosis is dimensional (a 1–5 rating), but the scale can be dichotomized when a categorical (present/absent) diagnosis is desired, with ratings ≥ 4 indicating "caseness."

Box 4.2 illustrates the prototype matching approach to personality diagnosis using depressive personality as an example. Despite its omission from DSM, depressive personality emerged consistently in our research as the most prevalent personality syndrome seen in clinical practice.[20] Diagnostic prototypes for all of the empirically derived personality syndromes are presented in Chapter 1, as well as in our original research report.[21] A quick reference guide containing all the prototypes is available for download from www.SWAPassessment.org/prototypes.

Prototype matching works *with*, rather than against, naturally occurring cognitive decision processes of diagnosticians and has considerable advantages over the criterion-counting approach of DSM. Among other advantages, it results in improved diagnostic reliability and validity, and it reduces comorbidity among personality disorder diagnoses. In head-to-head comparisons, clinicians rated SWAP prototype matching as more clinically useful and relevant than both the DSM diagnostic system and dimensional trait models of personality.[8,10] The conceptual rationale for the prototype matching method and the research evidence supporting it are described in detail elsewhere.[17,58–60]

Box 4.2 Depressive Personality Prototype

Summary statement: Individuals with Depressive Personality are prone to feelings of depression and inadequacy, tend to be self-critical or self-punitive, and may be preoccupied with concerns about abandonment or loss.

Individuals who match this prototype tend to feel depressed or despondent and to feel inadequate, inferior, or a failure. They tend to find little pleasure or satisfaction in life's activities and to feel life has no meaning. They are insufficiently concerned with meeting their own needs, disavowing or squelching their hopes and desires to protect against disappointment. They appear conflicted about experiencing pleasure, inhibiting feelings of excitement, joy, or pride. They may likewise be conflicted or inhibited about achievement or success (e.g., failing to reach their potential or sabotaging themselves when success is at hand). Individuals who match this prototype are generally self-critical, holding themselves to unrealistic standards and feeling guilty and blaming themselves for bad things that happen. They appear to want to "punish" themselves by creating situations that lead to unhappiness or avoiding opportunities for pleasure and gratification. They have trouble acknowledging or expressing anger and instead become depressed, self-critical, or self-punitive. Individuals who match this prototype often fear that they will be rejected or abandoned, are prone to painful feelings of emptiness, and may feel bereft or abjectly alone even in the presence of others. They may have a pervasive sense that someone or something necessary for happiness has been lost forever (e.g., a relationship, youth, beauty, success).

Please form an overall impression of the type of person described, then rate the extent to which your patient matches or resembles this prototype.

5 very good match (patient ***exemplifies*** this disorder; prototypical case)	**Diagnosis**
4 good match (patient ***has*** this disorder; diagnosis applies)	
3 moderate match (patient has ***significant features*** of this disorder)	**Features**
2 slight match (patient has minor features of this disorder)	
1 no match (description does not apply)	

Conclusion: Integrating Clinical and Empirical Perspectives

A clinically useful diagnostic system should encompass the spectrum of personality syndromes seen in clinical practice and have meaningful treatment implications. An empirically sound diagnostic system should facilitate reliable and valid diagnoses: independent clinicians should be able to arrive at the same diagnosis, diagnoses should be distinct, and each diagnosis should be associated with conceptually meaningful correlates, antecedents, and sequelae.

An obstacle to achieving this ideal has been the persistent schism in the mental health professions between science and practice. Too often, empirical research has been conducted in isolation from the crucial data of clinical observation. Too often, clinical

Box 4.3 Resources

- Clinicians can complete a SWAP assessment online and receive computer-generated interpretive reports at https://swapassessment.org/.
- A bibliography of SWAP research with downloadable PDFs is available at https://swapassessment.org/bibliography/.
- A three-page Quick Reference Guide containing all the diagnostic prototypes can be downloaded from https://swapassessment.org/prototypes/.

theory has developed without regard for empirical credibility. Empirical researchers and clinical practitioners tend to talk past rather than with one another.

SWAP research represents an effort to bridge the science– practice schism by quanti-fying clinical observation and expertise, making clinical constructs accessible to empir-ical study. It relies on clinicians to make observations and inferences about individual patients they know, and on quantitative methods to reveal relationships and combine data in optimal ways.

The SWAP provides a "language" for clinical case description that is both psychomet-rically sound and clinically rich enough to describe the complexities of real patients. There remains a sizeable schism between science and practice. The SWAP instrument provides a language all parties can speak.

See Box 4.3 for additional resources.

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