Recognition of the central role that case formulation plays in psychotherapy planning and intervention has increased since the first edition of this handbook. Evidence for this claim includes the publication of several books that focus exclusively or primarily on case formulation, including those by Bruch and Bond (1998), Horowitz (1997, 2005), Hersen and Porzelius (2002), Meier (2003), Needleman (1999), and Nezu, Nezu, and Lombardo (2004), as well as the publication of several books on methods of psychotherapy that include chapters on formulation as a key step in the method (e.g., Benjamin, 2003; Binder, 2004; Silberschatz, 2005). In addition, significant research and methodological/theoretical articles on the topic of case formulation have been published (Bieling & Kuyken, 2003; Eells, Lombart, Kendjelic, Turner, & Lucas, 2005; Caspar, Berger, & Hautle, 2004; Eells & Lombart, 2003; Tarrier & Calam, 2002; Westmeyer, 2003), and two peer-reviewed journals focusing on case presentations and review have started (Fishman, 2000; Hersen, 2002). Both involve the presentation of cases in a standard format that includes a section on case formulation.

With these developments in mind, my task in this chapter is to trace the history of the concept of formulation in psychotherapy. My primary goal is to provide a context in which to better understand the chapters on specific case formulation methods that follow. I begin with a working definition and then review major historical and contemporary influences on the form and content of a psychotherapy case formulation. Next, I propose five tensions that influence the psychotherapy case formulation process. Finally,
I discuss the psychotherapy case formulation as an object of and a tool for scientific study. A guiding theme throughout the chapter is that case formulation is a core psychotherapy skill that lies at an intersection of diagnosis and treatment, theory and practice, science and art, and etiology and description.

A WORKING DEFINITION

A psychotherapy case formulation is a hypothesis about the causes, precipitants, and maintaining influences of a person’s psychological, interpersonal, and behavioral problems. A case formulation helps organize information about a person, particularly when that information contains contradictions or inconsistencies in behavior, emotion, and thought content. Ideally, it contains structures that permit the therapist to understand these contradictions and to categorize important classes of information within a sufficiently encompassing view of the patient. A case formulation also serves as a blueprint guiding treatment and as a marker for change. It should help the therapist experience greater empathy for the patient and anticipate possible ruptures in the therapy alliance (Safran, Muran, Samstag, & Stevens, 2002; Samstag, Muran, & Safran, 2004).

As a hypothesis, a case formulation may include inferences about predisposing or antecedent vulnerabilities based on early childhood traumas, a pathogenic learning history, biological or genetic influences, sociocultural influences, currently operating contingencies of reinforcement, or maladaptive schemas and beliefs about the self or others. The nature of this hypothesis can vary widely depending on which theory of psychotherapy and psychopathology the clinician uses. Psychodynamic approaches focus primarily on unconscious mental processes and conflicts (Messer & Wolitzky, Chapter 3, this volume; Perry, Cooper, & Michels, 1987; Summers, 2003); a cognitive therapy formulation might focus on maladaptive thoughts and beliefs about the self, others, the world, or the future (e.g., Beck, 1995; Freeman, 1992; Persons & Tompkins, Chapter 10, this volume); in contrast, a behavioral formulation traditionally does not emphasize intrapsychic events but, rather, focuses on the individual’s learning history and a functional analysis related to environmental contingencies of reinforcement and inferences about stimulus–response pairings (Haynes & O’Brien, 1990; Wolpe & Turkat, 1985). Contemporary behavioral formulations increasingly incorporate cognition and affect as components in the functional analysis (Nezu, Nezu, & Cos, Chapter 12, this volume; Persons & Tompkins, Chapter 10, this volume). Biological explanations might also be interwoven into a case formulation. Some experts advocate pursuing rigorous causal connections between a psychopathological condition and its determinants (Haynes, Spain, & Oliveira, 1993), whereas others stress...
achieving an explanatory narrative that may not have a factual basis in “historical truth,” but is nevertheless therapeutic in that it provides a conceptual account of the patient’s condition and a procedure for improving it (Frank & Frank, 1991; Spence, 1982). As a hypothesis, a case formulation is also subject to revision as new information emerges, as tests of the working hypothesis indicate, and as a clinician views the patient through the lens of an alternate theoretical framework.

Case formulation involves both content and process aspects. Content aspects comprise several components that together paint a holistic picture of the individual and his or her problems. They may also include a prescriptive component that flows directly from the earlier descriptions and hypotheses and proposes a plan for treatment (Sperry, Gudeman, Blackwell, & Faulkner, 1992). The treatment plan may include details such as the type of therapy or interventions recommended, the frequency and duration of meetings, therapy goals, obstacles toward achieving these goals, a prognosis, and a referral for adjunctive interventions such as pharmacotherapy, group therapy, substance abuse treatment, or a medical evaluation. Alternatively, interventions other than psychotherapy, or no interventions at all, might be recommended.

The process aspects of case formulation refer to the clinician’s activities aimed at eliciting the information required to develop the formulation content; typically, this process primarily involves conducting a clinical interview. Two general categories of information should be kept in mind during a formulation-eliciting interview. The first is descriptive information, which includes demographics; the presenting problems; coping steps taken by the patient; any history of previous mental health problems or care; medical history; and developmental, social, educational, and work history. Although the selection of descriptive information can never be free of the influence of theory or perception, there is usually no attempt to interpret or infer meaning in this section; instead, the emphasis is on providing a reliable information base. The second category is personal meaning information, which refers to how the patient experienced and interprets the events described. To elicit this information, the therapist asks and observes how descriptive events affected the patient’s thoughts, feelings, and behavior. The therapist can also infer personal meaning information from narratives the patient tells.

HISTORICAL AND CONTEMPORARY INFLUENCES

In this section I review five influences on the psychotherapy case formulation. These are the medical examination and case history, models of psychopathology and its classification, models of psychotherapy, psychometric assessment, and case formulation research.
The Medical Examination and Case History

The major influences on the form and logic of the psychotherapy case formulation are the medical examination and case study, which have their roots in Hippocratic and Galenic medicine. The rise of Hippocratic medicine in the 5th century B.C. marked a repudiation of polytheism and mythology as sources of illness or cure. It also signaled an embrace of reason, logic, and observation in understanding illness, and the conviction that only natural forces are at play in disease. The Hippocratic physicians believed that diagnosis must rest on a firm footing of observation and employed prognostication as a means of corroborating their diagnoses. They took a holistic view of disease, viewing the patient as an active participant in his or her cure. Foreshadowing contemporary physicians who propound “wellness” and psychotherapists advocating a focus on patients’ “problems in living” (Sullivan, 1954), the Hippocratics viewed disease as an event occurring in the full context of the patient’s life. Their treatment efforts were aimed at restoring a balance of natural forces in the patient.

Working within erroneous theoretical assumptions involving humoral interaction, vitalism, and “innate heat,” the basic task of the Hippocratic physician was to determine the nature of a patient’s humor imbalance. Toward this end, a highly sophisticated physical examination developed in which the physician, using his five senses, sought objective evidence to determine the underlying cause of the observed symptoms. According to Nuland (1988), Hippocratic case reports included descriptions of changes in body temperature, color, facial expression, breathing pattern, body position, skin, hair, nails, and abdominal contour. In addition, Hippocratic physicians tasted blood and urine; they examined skin secretions, ear wax, nasal mucus, tears, sputum, and pus; they smelled stool; and observed stickiness of the sweat. Once the physician had gathered and integrated this information, he used it to infer the source of humoral imbalance and how far the disease had progressed. Only then was an intervention prescribed. The main point to be appreciated is the empirical quality of this examination. Symptoms were not taken at face value, nor were they assumed to be the product of divine intervention; instead, objective evidence of the body’s ailment was sought.

The focus on observation and empiricism by Hippocrates and his students laid the foundation for physical examinations performed today. It also serves as a worthwhile credo for the modern psychotherapy case formulation. Importantly, the Hippocratics also provide modern psychotherapy case formulators with the caveat that even concerted efforts at objectivity and empiricism can fall prey to an overbelief in a theoretical framework into which observations are organized.

Before it could be described as modern, the Hippocratic ethos required two additional ingredients: a focus on anatomical (and subanatomical)
structure and function as the foundation of disease, and the establishment of planned experimentation as a means of understanding anatomy and disease. These ingredients were supplied more than 500 years after Hippocrates by another Greek physician, Galen of Pergamon. Before Galen, a detailed knowledge of the body’s anatomy and how disease disrupts it was considered ancillary information in medical training, at best. Galen’s emphasis on anatomy and structure can be seen as a physiological precursor to current psychological theories that posit central roles for mental structures. These include psychodynamic concepts of id, ego, and superego, as well as self-representations, or schemas, which both cognitive and some psychodynamic theorists and researchers emphasize (Segal & Blatt, 1993).

Galen was the first to prize experimentation as a method for understanding anatomy. In a series of simple and elegant experiments, he proved that arteries contain blood, and that arterial pulsations originate in the heart. Consistent with this Galenian spirit, experimentation to test formulations about the “psychological anatomy” of individual psychotherapy patients has been proposed by several psychotherapy researchers and methodologists (e.g., Barlow & Hersen, 1984; Carey, Flasher, Maisto, & Turlkat, 1984; Edelson, 1988; Edwards, Dattilio, & Bromley, 2004; Fishman, 2002; Morgan & Morgan, 2001; Stiles, 2003). Note also that many of the authors of chapters in this volume explicitly link their case formulation methods to empirically supported psychotherapies and to a tradition of empiricism.

Another significant advance in medical science with regard to diagnosis occurred many centuries after Galen. This was the publication, in 1769, of Giovanni Morgagni’s De Sedibus et Causis Morborum per Anatomen (The Seats and Causes of Disease Investigated by Anatomy). Morgagni’s work is a compilation of over 700 well-indexed clinical case histories, each linking a patient’s symptom presentation to a report of pathology found at autopsy and any relevant experiments that had been conducted. De Sedibus was a remarkable achievement in that it firmly established Galen’s “anatomical concept of disease.” Although we now understand that illness is not only the product of diseased organs but also of pathological processes occurring in tissues and cellular and subcellular structures, the reductionist concept of disease still predominates. An 18th century physician using De Sedibus to treat a patient could use the index to look up his patient’s symptoms, which could be cross-referenced to a list of pathological processes that may be involved. Morgagni’s credo, that symptoms are the “cry of suffering organs,” parallels the guiding assumption of some psychotherapy case formulation approaches that symptoms represent the “cry” of underlying psychopathological structures and processes.

A second accomplishment of Morgagni’s is his foundation of the clinicopathological method of medical research, in which correspondences are examined between a patient’s symptoms and underlying pathology re-
revealed at autopsy. Although there is no psychological equivalent of the conclusive autopsy, the advent of the clinicopathological method foreshadowed an emphasis on obtaining independent, corroborating evidence to substantiate hypothesized relationships in psychology. Morgagni’s *De Sedibus* also demonstrated how advances in medical science can occur on a case-by-case basis, and how the integration and organization of existing information can advance a science. The creation of online case study journals, such as *Pragmatic Case Studies in Psychotherapy* (Fishman, 2000), provides a database of psychotherapy cases with standard, researchable categories of information included. Such efforts may mark the beginning of a psychological *De Sedibus*.

By extending the reach of our five senses, the tools and technologies of medicine have also added immensely to diagnostic precision; in doing so, medicine has provided a model for psychotherapy case formulations. Examples of developments in medicine that aided diagnosis include Laennec’s invention of the stethoscope in the early 19th century, Roentgen’s discovery of x-rays, and recent developments in brain imaging techniques. If parallels exist in psychology, one might cite Freud’s free association, Skinner’s demonstration of the power of stimulus control over behavior, the technology of behavior genetics, and the advent of psychometrics. Each of these “technologies” has added to our understanding of individual psychological and psychopathological functioning. Later in this chapter, I discuss the potential for structured case formulation methods to serve as research tools.

As this review of the medical examination and case study has shown, the structure and logic of a traditional psychotherapy case formulation are modeled closely after medicine. Specific aspects borrowed include an emphasis on observation; the assumption that symptoms reflect underlying disease processes; experimentation as a means of discovery; an ideal of postmortem (or posttreatment) confirmation of the formulation; and an increasing reliance upon technology to aid in diagnosis.

**Models of Psychopathology and Its Classification**

A clinician’s assumptions about what constitutes psychopathology and how psychopathological states develop, are maintained, and are organized, will frame how that clinician formulates cases. These assumptions impose a set of axiological constraints about what the clinician views as “wrong” with a person, what needs to change, how possible change is, and how change might be effected. Although an extended discussion of the nature and classification of psychopathology is beyond the scope of this chapter, three themes that underlie ongoing debates on this topic are relevant to case formulation. (For an expanded discussion, see Blashfield, 1984; Kendell, 1975; or Millon, 1996.)
Etiology Versus Description

Throughout its history, psychiatry has oscillated between descriptive and etiological models of psychopathology (Mack, Forman, Brown, & Frances, 1994). The tension between these approaches to nosology reflects both dissatisfaction with descriptive models and the scientific inadequacy of past etiological models. During the 20th century, this trend is seen as Kraepelin’s descriptive psychiatry gave way to a psychosocial focus inspired by Adolf Meyer and Karl Menninger, as well as a Freudian emphasis on unconscious determinants of behavior. A focus on description to the virtual exclusion of etiology was revived in 1980 with the publication of DSM-III. With etiological considerations relegated to the background at present, a conceptual vacuum has been created that case formulation attempts to fill, perhaps as an interim measure until a more empirically sound etiological nosology is established.

Categorical versus Dimensional Models

Just as psychopathologists have oscillated between etiological and descriptive nosologies, so have they debated the merits of categorical versus dimensional models of psychopathology. The categorical or “syndromal” view is that mental disorders are qualitatively distinct from each other and from “normal” psychological functioning. The categorical approach expresses the “medical model” of psychopathology, which, in addition to viewing disease as discrete pathological entities, also adheres to the following precepts: (1) diseases have predictable causes, courses, and outcomes; (2) symptoms are expressions of underlying pathogenic structures and processes; (3) the primary but not exclusive province of medicine is disease, not health; and (4) disease is fundamentally an individual phenomenon, not social or cultural. The categorical approach to psychopathology is traceable in recent history to Kraepelin’s “disease concept” and is embodied in DSM-III and its successors. In recent years it has exerted a pervasive influence on psychopathology and psychotherapy research and clinical practice (Wilson, 1993).

Those advocating a dimensional approach claim that psychopathology is better viewed as a set of continua from normal to abnormal. Widiger and Frances (1994) argue that dimensional approaches help resolve classification dilemmas, especially regarding “poorly fitting” cases; that they retain more information than categorical models about “subclinical” functioning; and that they are more flexible in that cutoff scores can be used to create categories when clinical or research goals require them.

With regard to case formulation, what difference does it make whether a nosology is dimensional or categorical? Three factors can be identified:
potential for stigmatization, goodness-of-fit to one's view of personality organization, and ease of use.

Compared to dimensional models, categorical approaches may be more prone to stigmatize patients due to a greater tendency to reify what is actually a theoretical construct. For example, being told that one “has” a personality disorder can produce or exacerbate feelings of being defective, especially when proffered as an “explanation” of one’s condition. This “formulation” can also have an unnecessarily demoralizing effect on the therapist. Dimensional approaches may be less prone toward stigmatization because dimensions are assumed to vary from normal to abnormal ranges and are not assumed to represent discrete psychological conditions.

When expressed in experience-near, functional, and context-specific terms, a case formulation can serve as a therapeutic adjunct to a categorical system, thus reducing the potential for stigmatization. For example, instead of labeling a person as having a personality disorder, the therapist might offer formulation-based interventions such as, “Could it be that when threatened by abandonment, you hurt yourself in an attempt to bring others close; but instead, you only drive them away?”; or “I wonder if you are letting others decide how you feel, instead of deciding for yourself.”

The dimensional–categorical debate also has implications for the case formulator’s frame of reference in understanding personality. If one views personality in an intraindividual context (Valsiner, 1986, 1987), that is, as an internally organized system of interconnecting parts, then the categorical approach is a closer fit. This view of personality is consistent with those offered by Allport (1961) and Millon (1996), among others. The categorical approach assumes that signs, symptoms, and traits cluster together, forming a whole that constitutes an organization greater than the sum of its parts. Thus, from the intraindividual standpoint, if a patient exhibits grandiosity in an interview, suggesting narcissistic personality disorder, the case formulator might examine more closely for interpersonal exploitativeness or entitlement, which are other features of this disorder. Reaching beyond DSM-IV-TR to other accounts of narcissism, the interviewer might also prepare for sudden fluctuations in the individual’s self-esteem or for depressive episodes that come and go quickly, or he or she might examine for evidence of using others as “selfobject” (Kohut, 1971, 1977, 1984).

On the other hand, the dimensional approach is the better fit if one views individual personality in an interindividual frame of reference (Valsiner, 1986, 1987); that is, as an array of traits that do not necessarily interrelate and which are best understood according to how they compare with their expression in other individuals. Dimensional approaches such as the five-factor model (Costa & Widiger, 1994) are built on the assumption that the dimensions are not correlated. Thus, an individual’s score on the trait “agreeableness” would not help one predict his degree of “conscientious-
ness.” A clinician working from an interindividual frame might propose a set of cardinal traits as comprising the core of a case formulation.

Ease of use is another consideration relevant to case formulation, as a case formulation must often be done quickly. As Widiger and Frances (1994) note, the categorical approach is better adapted to clinical decision making, which usually involves discrete decisions, such as to treat or not, to make intervention A or intervention B, and so on. Because the case formulation process involves a similar style of decision making, it may be more compatible with a categorical system. Categories may also have greater ease of use in helping a therapist and patient identify and label experiences. For example, a patient's salient “states of mind” might be incorporated into the case formulation and introduced into the therapy at an appropriate time (Horowitz & Eells, Chapter 5, this volume).

**Normality versus Abnormality**

Related to the issue of dimensional versus categorical models of psychopathology are decisions as to what is and what is not normal behavior and experience. These decisions are central to the task of psychotherapy case formulation. They not only guide the structure and content of the formulation, and the process by which the case formulation is identified, but also the clinician’s intervention strategies and goals for treatment. First, it is important to recognize that all conceptions of psychopathology are social constructions, at least to some extent (Millon, 1996). They reflect culturally derived and consensually held views as to what is to be considered abnormal and what is not.

Several criteria can help in making decisions about what is normal or not. These include the following: statistical deviation from normative behavior, personal distress, causing distress in others, violation of social norms, deviation from an ideal of mental health, personality inflexibility, poor adaptation to stress, and irrationality (e.g., Millon, 1996; Widiger & Trull, 1991). These criteria provide a baseline and a context against which the patient’s behavior and experiences can be compared. They enable the case formulator to better understand patients by comparing their stress responses to normative stress responses and to assess the separate contributions of dispositional versus situational, cultural, social, and economic factors to a patient’s clinical presentation. The case formulator does not act as judge of the patient's experiences but uses knowledge about consensual views of normality and abnormality to help the patient adapt.

In sum, the content and structure of a psychotherapy case formulation is inextricably linked to the therapist’s implicit or explicit views regarding the etiology of emotional problems, the dimensional versus categorical debate about mental disorders, and assumptions about what is normal and abnormal in one’s psychological functioning.
Models of Psychotherapy

The therapist’s approach to psychotherapy will, of course, greatly influence the case formulation process and end product. In this section, I review four major models of psychotherapy with a focus on their contributions to case formulation. These approaches are psychoanalytic, humanistic, behavior, and cognitive therapies.

Psychoanalysis

Psychoanalysis has had at least three major influences on the psychotherapy case formulation process. The principal contribution is that Freud and his successors developed models of personality and psychopathology that have significantly shaped our understanding of normal and abnormal human experience and behavior. Among the most significant psychoanalytic concepts are psychic determinism and the notion of a dynamic unconscious; the overdetermination, idiogenesis, and symbolic meaning of symptoms; symptom production as a compromise formation; ego defense mechanisms as maintainers of psychic equilibrium; and the tripartite structural model of the mind. Beginning with the early formulation that “hysterics suffer mainly from reminiscences” (Breuer & Freud, 1893/1955, p. 7), psychoanalysis has provided therapists with a general framework for understanding experiences that patients report in psychotherapy. More recent formulations by object relations theorists (e.g., Kernberg, 1975, 1984) and self psychologists (Kohut, 1971, 1977, 1984) have added to our understanding of individuals with personality disorders.

A second contribution of psychoanalysis to case formulation relates to an expanded view of the psychotherapy interview. Before Freud, the psychiatric interview was viewed similarly to an interview in a medical examination. It was highly structured and focused on obtaining a history and mental status review, reaching a diagnosis, and planning treatment (Gill, Newman, & Redlich, 1954). Since Freud, therapists recognize that patients often enact their psychological problems, and especially interpersonal problems, in the course of describing them to the therapist. The interview process itself became an important source of information for the formulation. That is, the manner in which patients organize their self-presentations and thoughts, approach or avoid certain topics, and behave nonverbally has become part of what the therapist formulates.

A third contribution of psychoanalysis to formulation is its emphasis on the case study. Although the value of the case history continues to be debated (e.g., Morgan & Morgan, 2001; Runyan, 1982; Stiles, 2003), there is little question that Freud elevated the method’s scientific profile. The case study was the principal vehicle through which Freud presented and supported psychoanalytic precepts.
Interestingly, psychoanalysis has not traditionally incorporated the concept of a medical diagnosis into a formulation (Gill et al., 1954). Freud's own disinterest in diagnosis is revealed in the index of the *Standard Edition* of his complete works, which shows no entries for “diagnosis” or “formulation,” although a few under “anamnesis.” Pasnau (1987) and Wilson (1993) argue that psychoanalysts’ lack of emphasis on diagnosis contributed to the “demedicalization” of psychiatry earlier this century. These writers argue that the “disease concept” was not seen as compatible or relevant to psychoanalysts’ focus on unconscious psychological determinants of symptoms as opposed to organic determinants, nor to an emphasis on motivational states, early life history, or interpersonal relationship patterns. Along with its contributions to case formulation, psychoanalysts have also been criticized for applying general formulations to patients when they do not fit. One prominent example may be Freud's case study of Dora (see Lakoff, 1990). Psychoanalytic formulations have also been criticized for being overly speculative (Masson, 1984), for exhibiting a male bias (Horney, 1967), and for lack of scientific rigor (Grunbaum, 1984).

**Humanistic Therapy**

Proponents of humanistically oriented psychotherapies have traditionally taken the view that case formulation, or at least “psychological diagnosis” is unnecessary and even harmful. According to Carl Rogers (1951), “psychological diagnosis . . . is unnecessary for [client-centered] psychotherapy, and may actually be detrimental to the therapeutic process” (p. 220). Rogers was concerned that formulation places the therapist in a “one up” position in relation to the client and may introduce an unhealthy dependency into the therapy relationship, thus impeding a client’s efforts to assume responsibility for solving his or her own problems. In Rogers’s (1951) words, “There is a degree of loss of personhood as the individual acquires the belief that only the expert can accurately evaluate him, and that therefore the measure of his personal worth lies in the hands of another” (p. 224). Rogers (1951) also expressed the social philosophical objection that diagnosis may in the long run place “social control of the many [in the hands of] the few” (p. 224). While Rogers’s criticisms serve as a caveat, they also seem based on the assumption that the practice of “psychological diagnosis” necessarily places the therapist and patient in a noncollaborative relationship in which the formulation is imposed in a peremptory fashion rather than reached jointly and modified as necessary. It is also noteworthy that contemporary exponents of phenomenological therapies are less rejecting of formulation than was Rogers but tend to emphasize formulation of the moment-to-moment experiences of the client rather than proposing global patterns that describe a client (Greenberg & Goldman, Chapter 13, this volume).
Contributions of humanistic psychology to case formulation include its emphasis on the client as a person instead of a “disorder” that is “treated,” its focus on the here-and-now aspect of a human encounter rather than an intellectualized “formulation,” and its view of the therapist and client as equals in their relationship. Humanistic psychology also takes a holistic rather than a reductionist view of humankind. Methodologically, humanistic approaches have also contributed techniques that facilitate insight and a deepening of experience and, therefore, contribute to a case formulation. These include role playing and the “empty chair” technique. Taken as a whole, these influences have tempered what some have viewed as the potential dehumanizing effects of case formulation.

Behavior Therapy

Behavior therapists have historically tended to neglect assessment (Goldfried & Pomeranz, 1968) and criticize the concept of diagnosis for similar reasons. These include an emphasis on unobservable mental entities or forces, a focus on classification per se, and concerns about lack of utility in helping individuals (Hayes & Follette, 1992). These therapists prefer to focus on a “functional analysis” of behavior, which involves identifying relevant characteristics of the individual in question, his or her behavior, and environmental contingencies or reinforcement, then applying behavioral principles to make alterations. Some behaviorists have acknowledged limitations in the functional analysis approach to case formulation, primarily due to difficulties in replicability and resulting problems in studying patients scientifically (Hayes & Follette, 1992). More recently, behavior therapists have broadened the notion of functional analysis and focused it into a case formulation format (Haynes & Williams, 2003; Nezu, Nezu, & Cos, Chapter 12, this volume).

Notwithstanding the criticisms just cited, behaviorists have made at least three major contributions to the case formulation process. First is an emphasis on symptoms. Behaviorists have strived to understand the “topography” of symptomatology, including relevant stimulus–response associations and contingencies of reinforcement. In contrast to dynamic thinkers who view symptoms as symbolic of a more fundamental problem, behaviorists focus on symptoms as the problem and aim directly at symptom relief. Second, more than other practitioners, behaviorists have emphasized environmental sources of distress. As a consequence, greater attention has been placed on changing the environment rather than the individual. A formulation that is more balanced in attributing maladaptive behavior to the individual and his or her environment is less stigmatizing. Third, behaviorists have emphasized empirical demonstrations to support the effectiveness of their approaches. This includes measuring symptomatology, isolating
potential causal variables, and systematically varying them and examining the effects on behavior. This tradition dates back to Watson’s demonstration with Little Albert that specific phobias can be produced and extinguished according to principles of classical conditioning.

Cognitive Therapy

In a series of influential volumes, Beck and his colleagues have set forth general formulations about the causes, precipitants, and maintaining influences in depression (Beck, Freeman, Davis, & Associates, 2004), anxiety disorders (Beck, Emery, & Greenberg, 1985), personality disorders (Beck, Rush, Shaw, & Emery, 1979), and substance abuse (Beck, Wright, Newman, & Liese, 1993). Within the cognitive framework, specific mechanisms have been theorized for specific disorders such as panic disorder (Clark, 1986) and social phobia (Clark & Wells, 1995). These formulations emphasize a set of cognitive patterns, schemas, and faulty information processes, each specific to the type of disorder. Depressed individuals, for example, tend to view themselves as defective and inadequate, the world as excessively demanding and as presenting insuperable obstacles to reaching goals, and the future as hopeless. The thought processes of depressed individuals are described as revealing characteristic errors, including making arbitrary inferences, selectively abstracting from the specific to the general, overgeneralizing, and dichotomizing. In contrast, formulations of anxious individuals tend to center around the theme of vulnerability, and those of substance-abusing individuals may focus on automatic thoughts regarding the anticipation of gratification and increased efficacy when using drugs or symptom relief that will follow drug intake. Until recently, cognitive psychologists tended to focus on general formulations for these disorders rather than individualistic variations constructed for a specific patient (Persons & Tompkins, Chapter 10, this volume). Since Persons (1989) published her book on case formulation from the cognitive-behavioral perspective, there is increased interest on individualized formulations (e.g., Tarrier & Calam, 2002). As Persons and Tompkins (Chapter 10, this volume) note, the jury is still out on whether individualized formulations have a differential impact on the outcome of cognitive-behavioral therapy than when generalized formulations are used.

Psychometric Assessment

Among clinical psychology’s contributions to understanding psychopathology are the development of reliable and valid personality tests, standards for constructing and administering these tests, and the application of probability theory to assessment. The influence of these developments on psycho-
therapy case formulation has been indirect, however, and not what it potentially might be. One reason may be a tendency among many clinical psychologists to see psychotherapy and psychometric assessment as separate, and perhaps incompatible, enterprises. Second, questions have regularly arisen about the practical value of psychological assessment for psychotherapy (e.g., Bersoff, 1973; Hayes, Nelson, & Jarrett, 1987; Korchin & Schulberg, 1981; Meehl, 1958). In fact, very little research has examined the incremental benefit of psychological assessment on treatment planning, implementation, and outcome, despite the availability of research strategies for addressing this issue (Hayes et al., 1987).

What are the potential contributions of psychometrics and psychometric thinking to psychotherapy case formulation? First is the use of validated personality and symptom measures themselves in the case formulation process. As the reader of this volume will see, several authors routinely use symptom measures as part of their case formulation method. Other authors have discussed psychotherapy applications of frequently used measures, including the Minnesota Multiphasic Personality Inventory—Second Edition (Butcher, 1993), Rorschach (Aronow, Rezinikoff, & Moreland, 1994), and Thematic Apperception Test (Bellak, 1993). In addition, Widiger and Sanderson (1995) advocate the use of semistructured interviews to assess the presence of personality disorders more reliably. Quantitative approaches to evaluating psychopathology and life history events might also provide a powerful means of understanding a patient’s dynamics, as suggested by Meehl (1958) and developed by Bruhn (1995) with regard to early memories and by Shedler and Westen with regard to personality disorders (Shedler & Westen, 1998; Westen & Shedler, 1999a, 1999b).

A second potential contribution to case formulation relates to the way of thinking that is associated with psychometric assessment. An awareness of concepts such as reliability, validity, and standardization of administration of a measure may increase the fit of a case formulation to the individual in question. For example, just as standardized administration of psychological tests is important for a reliable and valid interpretation of the results, so might it be important for the therapist to adopt a standard approach in an assessment interview to understand the client more accurately and empathically. In accomplishing this goal, the therapist should not be rigid or wooden in an attempt to adopt a standardized approach but, instead, should strive to be close enough to the patient’s thoughts and feelings while also sufficiently distant as to remain a reliable instrument for assessing the patient’s problems, including the possible expression of those problems in the therapy relationship. Maintaining such a stance is particularly important during the psychotherapy interview because it is the most frequently used tool for assessing psychotherapy patients and is also highly subject to problems with reliability (Beutler, 1995).
Case Formulation Research

The value of a case formulation is relative to its reliability and validity. Reliability here refers to how well clinicians can independently construct similar formulations based on the same clinical material; it can also refer to the extent to which they agree as to how well an already-constructed formulation or its components fit a particular set of clinical material. Predictive validity refers to how well the formulation predicts psychotherapy process events or outcome.

In 1966, a Chicago psychoanalyst, Philip Seitz (1966), published an article detailing the efforts of a small research group to study what he termed “the consensus problem in psychoanalytic research” (p. 209). For 3 years, the group of six psychoanalysts independently reviewed either detailed interview notes from a single case of psychotherapy or dreams taken from several psychotherapy cases. Each formulator wrote an essay-style narrative addressing the precipitating situation, focal conflict, and defense mechanisms at play in the clinical material. The participants also reported their interpretive reasoning and evidence both supporting and opposing their formulation. After the formulations were written, they were distributed to each member of the group who then had the opportunity to revise his formulation in light of clues provided in the formulations of others. The group met weekly to review its findings. Despite the group’s initial enthusiasm, the results were disappointing, even if predictable. Seitz reported that satisfactory consensus was achieved on very few of the formulations.

The primary value of Seitz’s paper is that it alerted the community of psychotherapy researchers and practitioners to the “consensus problem.” If psychotherapy research aspired to be a scientific enterprise, progress had to be made in the consistency with which clinicians describe a patient’s problems and way of managing them. Seitz’s (1966) paper is also valuable for its presentation of why the clinicians had difficulty obtaining agreement. A general reason was the “inadequacy of our interpretive methods” (p. 214). One of these inadequacies was the tendency of group members to make inferences at an overly deep level, for example making references to “phallic-Oedipal rivalry” and “castration fears.” Seitz (1966) also recognized that the group placed “excessive reliance upon intuitive impressions and insufficient attention to the systematic and critical checking of our interpretations” (p. 216). These remarks foreshadowed those of current researchers who have identified limitations and biases in human information-processing capacities (Kahneman, Slovic, & Tversky, 1982; Turk & Salovey, 1988).

In the years following the publication of Seitz’s paper, multiple researchers focused on improving the reliability and validity of psychotherapy case formulations. The first to successfully achieve this was Lester Luborsky (1977; Luborsky & Barrett, Chapter 4, this volume) with his
core conflictual relationship theme (CCRT) method. Over 15 structured case formulations methods have been proposed in the literature (Luborsky et al., 1993). Although most of these methods were developed within a psychodynamic framework, methods from behavioral, cognitive-behavioral, cognitive-analytic, and eclectic/integrative schools have also been proposed. The reliability and validity of several have been tested (Barber & Crits-Christoph, 1993). A sampling of these methods includes the CCRT (Luborsky & Crits-Christoph, 1990), the plan formulation method (Curtis, Silberschatz, Sampson, Weiss, & Rosenberg, 1988), the role relationship model configuration method (Horowitz, 1989, 1991), the cyclic maladaptive pattern (Johnson, Popp, Schacht, Mellon, & Strupp, 1989; Schacht & Henry, 1994), the idiographic conflict formulation method (Perry, 1994; Perry, Augusto, & Cooper, 1989), the consensual response formulation method (Horowitz, Rosenberg, Ureño, Kalehzan, & O’Halloran, 1989), cognitive-behavioral case formulation (Persons, 1989, 1995), and Plan Analysis (Caspar, 1995). Several of these methods are described in detail in this volume and their commonalities are discussed in the last chapter.

A surprising amount of research has been conducted on the topic of case formulation, in addition to that on reliability and validity of formulations. This work may be categorized broadly as focusing either on outcomes or processes (Westmeyer, 2003). The former category is by far the greater of the two, and investigates a formulation as a completed product, which, essentially, is a putative hypothesis about an individual’s psychological functioning. From this standpoint, investigators have assessed the psychometric properties of case formulation methods, specifically their reliability and validity, as discussed earlier (Barber & Crits-Christoph, 1993; Luborsky & Crits-Christoph, 1998; Persons & Bertagnolli, 1999); the contribution of case formulations to psychotherapy processes (Messer, Tishby, & Spillman, 1992; Silberschatz, Curtis, & Nathans, 1989; Silberschatz, Fretter, & Curtis, 1986) and outcomes (Chadwick, Williams, & Mackenzie, 2003; Tarrier & Calam, 2002); and the value of case formulations as explanatory models of specific psychological processes, for example, symptom formation (L. Luborsky, 1996), grief (Fridhandler, Eells, & Horowitz, 1999; Horowitz et al., 1993), and role reversal (Eells, 1995).

Case formulation from the process standpoint focuses on questions such as “How do therapists actually construct formulations?” (Eells, Kendjelic, & Lucas, 1998), “Are more experienced or expert therapists better at case formulation than novices?” (Eells, Lombart, Kendjelic, Turner, & Lucas, 2005; Mayfield, Kardash, & Kivlighan, 1999), and “How can one best train therapists in case formulation?” (Caspar, Berger, & Hautle, 2004; Lauterbach & Newman, 1999).

Further evidence that the scientific aspects of case formulation are being given greater attention recently is the development of a new online journal, *Pragmatic Case Studies in Psychotherapy*, that provides innovative,
quantitative, and qualitative knowledge about psychotherapy processes and outcomes, based on a case formulation methodology (Fishman, 2000). An exciting aspect of this effort is the creation of a large database of therapy case studies, each of which will be organized under common headings, including one addressing the therapist’s formulation of the client. This database may provide opportunities for research and insights into psychotherapy processes and outcomes that other methodologies have not. In addition, some psychotherapy researchers are calling for more systematic study of case formulations (e.g., Bieling & Kuyken, 2003; Tarrier & Calam, 2002). Theoretical rationales for programs of single-subject, case formulation research have been offered by Kuyken (in press), Westmeyer (2003), and Eells (1991).

In this section, I have traced historical and contemporary influences that have shaped the process and content of the psychotherapy case formulation to what it is today. As reviewed, its form and structure originated in Hellenic days and are deeply embedded in medicine but have also been altered in significant ways by psychoanalytic, humanistic, behavioral, and cognitive psychology. Psychotherapy case formulation has also been influenced by how psychopathology is understood, by the development of psychometric assessment, and by recent research in which the reliability and validity of a case formulation have been examined.

TENSIONS INHERENT IN THE CASE FORMULATION PROCESS

I now examine five tensions that must be handled in developing a comprehensive case formulation. Each tension represents competing and incompatible goals faced by the clinician in attempting to understand a patient. The clinician must reconcile each of these tensions if the case formulation is to serve as an effective tool for psychotherapy.

Immediacy versus Comprehensiveness

The task of case formulation is foremost a pragmatic one. From the first hour of therapy, the clinician needs to develop an idea of the patient’s symptoms, core problems, goals, obstacles, coping or defense mechanisms, interpersonal style, maladaptive behavior patterns, life situation, and so on. For this reason, a case formulation is needed relatively early in treatment. At the same time, the more comprehensive a case formulation is, without loss of clarity or focus, the better it will serve the clinician and patient. The priority given to practicality necessarily exacts a cost in comprehensiveness.

Some writers have advised that a case formulation should be completed in a single hour session with a patient (Kaplan & Sadock, 1998;
Morrison, 1993). It may be unrealistic, however, to produce a sufficiently comprehensive case formulation on the basis of a single hour. Nevertheless, it is worth noting that experienced physicians begin to entertain and rule out diagnostic possibilities from the earliest minutes of medical interviewing (Elstein et al., 1978). The same may be the case for experienced psychotherapists.

Another aspect of the tension between immediacy versus comprehensiveness is that the clinician observes a restricted behavior sample in a relatively controlled interview context. This may promote a selection bias and obscure a patient’s capabilities and limitations that would be apparent in other contexts.

In sum, as the therapist seeks to balance the goals of immediacy and comprehensiveness, he or she must efficiently identify what is needed to help the patient and avoid areas that may be intriguing or interesting but have little to do directly with helping the patient get better.

Complexity versus Simplicity

One can construe the case formulation task in relatively simple or complex terms. If an overly simple construction is offered, important dimensions of the person’s problems may go unrecognized or misunderstood. If overly complex, the formulation may be unwieldy, too time-consuming, and impractical. In addition, the more complex a case formulation method, the more difficult it may be to demonstrate its reliability and validity. Thus, a balance between complexity and simplicity is an important aim in case formulation construction.

Of course, even the most complex of formulations falls far short of the complexity of the actual person one interviews. As the writer Robertson Davies (1994) asks, then answers: “How many interviewers, I wonder, have any conception of the complexity of the creature they are interrogating? Do they really believe that what they can evoke from their subject is the whole of their ‘story’? Not the best interviewers, surely” (p. 20).

Clinician Bias versus Objectivity

A third tension in the case formulation process is between a therapist’s efforts at accurate understanding of a patient and inherent human flaws in every therapist’s ability to do so. There is a long tradition of research demonstrating the limits of clinical judgment, inference, and reasoning (Garb, 1998; Kahneman et al., 1982; Kleinmuntz, 1968; Meehl, 1954; Turk & Salovey, 1988). These errors include heuristic biases, illusory correlation, neglecting base rates, and “halo” and recency effects. Meehl (1973) identifies multiple examples of logical and statistical errors that can undermine clinical judgment. These include either overpathologizing patients on the
basis of their “differentness” from the clinician or underpathologizing them on the basis of their “sameness”; presuming merely on the basis of the coexistence of symptoms and intrapsychic conflict that the latter are causing the former; conflating “softheartedness” with “softheadedness”; and treating all clinical evidence as equally good.

Psychoanalysts have also long been aware of how distortions in a therapist’s understanding of a patient can affect the therapy. This awareness is reflected in terms such as “countertransference,” “projection,” and “suggestion” (see also Meehl, 1983).

Observation versus Inference

Fourth, all case formulations are built on both observation and inference about psychological processes that organize and maintain an individual’s symptoms and problematic behavioral patterns. If a clinician relies too heavily on observable behavior, he or she may overlook meaningful patterns organizing a patient’s symptoms and problems in living. If the clinician weights the formulation excessively on inference, the risk of losing its empirical basis increases. Thus, a clinician must achieve a balance between observation and inference. The clinician should be able to provide an empirical link between psychological processes that are inferred and patient phenomena that are observed. It may aid the clinician to label inferences according to how close or distant to observable phenomena they lie.

Individual versus General Formulations

A case formulation is fundamentally a statement about an individual and is thus tailored to that specific individual’s life circumstances, needs, wishes, goals, blind spots, fears, thought patterns, and so on. Nevertheless, in arriving at a conceptualization of a patient, the therapist must rely on his or her general knowledge about psychology and knowledge of the psychotherapy and psychopathology research literature, as well as past experiences working with other individuals, especially those who seem similar to the person in question. The goodness-of-fit from the general or theoretical to the specific or individual is never perfect.

When attempting to balance the individual and the general in constructing case formulations, two kinds of errors are possible. First is the error of attempting to make a patient fit a generalized formulation that really does not fit. As mentioned earlier, Freud’s analysis of Dora has been criticized on this point. Examples are not restricted to psychoanalysis. In the cognitive-behavioral realm, for example, attributing a patient’s panic symptoms entirely to catastrophic interpretations of bodily sensations may neglect significant life history events or relationship patterns that also contribute to the onset and maintenance of the symptoms, as well as to the
meaning they have for the patient. Overgeneralizing can also result from stereotyping patients on the basis of ethnicity, age, gender, appearance, socioeconomic background, or education.

A second kind of error is to overindividualize a formulation, neglecting one’s knowledge of psychology, psychopathology, and past work with psychotherapy patients. If each patient is taken as a complete tabula rasa with experiences that are so unique that the therapist must throw away all previous knowledge, then the therapist is doing the patient a disservice.

Thus, a balance must be reached between an individual and general formulation. Humility is an asset in this respect. The match between any model and any individual is inherently imperfect, and the formulation is never more than an approximation of the individual in distress.

CASE FORMULATION AS A SCIENTIFIC TOOL

Earlier, I discussed how psychotherapy case formulations have become objects of scientific scrutiny through studies of their reliability and validity. As objects of study, one can also investigate study case formulation from the interindividual framework—for example, by comparing differences between expert and novice case formulators regarding the process of case formulation (Eells & Lombart, 2003; Eells et al., 2005) or by evaluating methods of training case formulators (e.g., Caspar, Berger, & Hautle, 2004; Kendjelic & Eells, 2006).

With demonstrations of the reliability and validity of case formulation methods, one can also use a case formulation as a research tool, that is, as a means through which knowledge about individual psychological functioning might be advanced. Although case study research in psychology has traditionally been viewed as within the discovery rather than the confirmation context of science, other scientific disciplines and even some within psychology have benefited from the aggregation of individual case studies within the confirmation context. Notable examples include medicine (Nuland, 1988), ethnography (Rosenblatt, 1981), and neuropsychology (Shallice, 1989). Single-participant research has a long history in experimental psychology; in fact, the entire operant conditioning research tradition is built on it (Morgan & Morgan, 2001).

Within psychotherapy and psychopathology research, a number of epistemological questions arise as one considers the possibility that a case formulation might serve as a tool in both the discovery and the confirmation phases of science. One of these questions is, How might the use of case formulations as research tools affect the nature of the scientific knowledge that subsequently accumulates? A complete answer to this question depends on many factors, not the least of which is the ingenuity, structure, design, comprehensiveness, reliability, and validity of the specific case formulation
method in question. Nevertheless, there may be two classes of psychological knowledge for which a structured case formulation method would be particularly well suited.

One of these is knowledge about intraindividual psychological functioning. As noted earlier, the intraindividual frame of reference focuses on the individual as an internally organized system of interconnecting parts. Because a case formulation focuses on one person and how the internal organization of that person has gone awry to produce distress, research designs based on case formulations may permit the study of individuals while preserving the systemic nature of those individuals. Such an approach would diverge from the dominant research strategies in psychology, which Valsiner (1986) describes as based on an interindividual frame of reference. According to Valsiner (1986), the interindividual frame involves "comparison of an individual subject (or samples of subjects) with other individuals (samples) in order to determine the standing of these subjects relative to one another" (p. 396). Statements such as "The experimental group scored higher on variable X than the control group" or "John obtained a WAIS-R IQ of 112, which is at the 79th percentile" reflect an interindividual frame of reference. These conclusions provide comparative information, but do not address intraindividual issues such as how variable X interacts with variables Y or Z within any individual; nor do they address John's preferred problem-solving strategies, or how well his intelligence, affective style, or motivations are integrated. In sum, although useful for answering questions about differences between systems, the interindividual frame does not address variation within the systems that are compared, except as error variance.

The distinction between the intraindividual and interindividual frames of reference is particularly important in light of a significant body of literature addressing epistemological problems that arise when one conflates these two frames (Eells, 1991; Hilliard, 1993; Kim & Rosenberg, 1980; Kraemer, 1978; Lewin, 1931; Morgan & Morgan, 2001; Sidman, 1952; Thorngate, 1986; Tukey & Borgida, 1983). In clinical psychology, this conflation typically takes the form of a mismatch between the research questions and the means used to answer them. In an informal review, Eells (1991) found that most articles in a prestigious psychology journal framed research questions in terms of intraindividual psychological functioning, analyzed these questions from the interindividual frame, then returned to the intraindividual frame of reference when interpreting the results. At first glance, this incongruity between hypothesis, method, and interpretation may appear innocuous, as interindividual methodologies such as analysis of variance and correlational analysis dominate the research training of most psychologists, and hence, we are in the habit of "thinking interindividually" even about intraindividual problems. However, a variety of studies suggests harmful consequences of such mismatches (e.g., Kim & Rosenberg, 1980;
Kraemer, 1978; Tukey & Borgida, 1983). Each of these studies explored a research question from within the interindividual frame and then explored the same question from the intraindividual frame using the same sample of individuals. In each study, the results from each frame led to widely divergent conclusions. The logical basis for this divergence has been discussed by Sidman (1952), Thorngate (1986), Valsiner (1986), and others.

Although a psychotherapy case formulation can facilitate the construction of hypotheses at the intraindividual level of analysis and can provide a framework for the interpretation of results, there is also a need to apply methodologies that are appropriate for analyzing data at the level of the individual. Several such methods have been developed, proposed, or demonstrated (e.g., Bakeman & Gottman, 1986; Barlow & Hersen, 1984; Eells, 1995; Eells, Fridhandler, & Horowitz, 1995; Fonagy & Moran, 1993; Gottman 1980; Jones, Cumming, & Pulos, 1993; Rosenberg, 1977; Rudy & Merluzzi, 1984).

The second class of psychological knowledge for which the use of case formulations as research tools might be well suited is that growing from an “individual–socioecological” frame of reference (Valsiner, 1986). According to Valsiner, this frame emphasizes individuals in transactions with others, focusing on how assistance from one individual influences problem solving that emerges when two individuals interact. Problems are viewed as both created and constrained by the structure of the interpersonal environment and by the goals of the individual in question. “In this reference frame, an individual’s actions and thinking to solve a problem that has emerged in the person–environment transaction is not a solitary, but a social event” (Valsiner, 1986, p. 400). One example of research from the individual–socioecological frame is Vygotsky’s “zone of proximal development” (Van der Veer & Valsiner, 1991; Wertsch, 1985.)

The development of a case-formulation-based program of research from the individual–socioecological frame may be particularly helpful in improving our understanding of the therapeutic alliance, which is one of the most powerful predictors of outcome (Horvath & Greenberg, 1994). Such a program could also help us better understand individual changes processes in psychotherapy and how processes such as imitation, introjection, identification, and role reversal may create conditions for both psychopathology as well as psychological health.

CONCLUSIONS

At the outset of this chapter, I described psychotherapy case formulation as lying at an intersection of diagnosis and treatment, theory and practice, science and art, and etiology and description. To conclude the chapter, I return to this point. With respect to diagnosis and treatment, a case formu-
lation provides a pragmatic tool to supplement and apply a diagnosis to the specifics of an individual’s life. It also serves as a vehicle for converting a diagnosis into a plan for treatment, in terms of both general treatment strategies as well as “tactics” with respect to one’s choice of specific interventions. A psychotherapy case formulation provides a link between theories of psychotherapy and psychopathology, on the one hand, and the application of these theories to a specific individual, on the other. The case formulation reflects a transposition of theory into practice. As both science and art, a case formulation should embody scientific principles and findings but also an appreciation of the singularity and humanity of the person in question. In sum, a psychotherapy case formulation is an integrative tool. In the hands of a psychotherapist who knows how to construct and use it, a case formulation is indispensable.

NOTE

1. Much of the material in this section is based on Nuland (1988).

REFERENCES


