

Winter 1996

Therapist Orientation and Circularity-Linearity of Causality, Responsibility, Intentionality, and Blame for Clinical Problems

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THERAPIST ORIENTATION AND CIRCULARITY-LINEARITY OF
CAUSALITY, RESPONSIBILITY, INTENTIONALITY, AND BLAME
FOR CLINICAL PROBLEMS

by

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A Dissertation Submitted to the Faculties of

The College of William and Mary
Eastern Virginia Medical School
Norfolk State University
Old Dominion University

in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PSYCHOLOGY
IN
CLINICAL PSYCHOLOGY

VIRGINIA CONSORTIUM FOR PROFESSIONAL PSYCHOLOGY
December, 1996

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ABSTRACT

THERAPIST ORIENTATION AND CIRCULARITY-LINEARITY OF CAUSALITY, RESPONSIBILITY, INTENTIONALITY, AND BLAME FOR CLINICAL PROBLEMS

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Virginia Consortium for Professional Psychology, 1997
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Differences in circularity of attributions of causality, responsibility, intentionality and blame for clinical problems by therapists of psychodynamic, behavioral and systems orientations, a psychiatrist group, and an attorney control group were investigated using the Circularity-Linearity Attribution Scale (CLAS). Respondents' judgments about the sufficiency of a single cause for the problem, circular conceptualization of the problem, and linear conceptualization of the presented problems were also solicited. Responses were compared for two problems, schizophrenia and domestic violence. It was hypothesized that the systems-oriented therapists' attributions would be more circular than those of other therapist groups on all dependent variables. It was also hypothesized that there would be an interaction between professional group and problem type, with systems therapists making relatively more circular attributions of causality across problems, and psychiatrists making relatively more linear attributions of causality for schizophrenia than for domestic violence.

Circularity-Linearity Attribution scores for the groups were analyzed using a series of non-parametric statistical tests because the data did not meet assumptions for

parametric analysis. Results did not support the major hypotheses. However, significant differences were found between attributions for the two problems by the total sample with domestic violence ranked more circularly on attributions of causality and sufficiency of a single cause, and domestic violence ranked more linearly on attributions of moral responsibility and blame. When attributions were analyzed within groups for the two problems, attorneys attributed moral responsibility and blame more linearly for domestic violence.

A significant difference was found between males and females in the psychodynamic therapist group on one dependent variable. On circular conceptualization of the problem, the female psychodynamic therapists rated the schizophrenia problem as better represented by the circular conceptualization diagram than the males in that group.

Limitations of the study were cited. Results were discussed in terms of implications for systems theory and utility of the CLAS.

This work is dedicated to my family. Your support and encouragement, especially through the past few years, have enabled me to complete this project. More important, you have been and continue to be a boundless source of joy.

ACKNOWLEDGMENTS

I would like to thank my committee for their support and assistance in the completion of this work. I particularly want to acknowledge Dr. Neill Watson, whose patience has helped me to persevere. His clarity of thought and skill as an editor have assisted immeasurably in making this document readable.

I also want to express my gratitude to my friends and colleagues for their support, consultations, and occasional and welcome prodding toward the accomplishment of this goal. And thank you for the laughter.

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INTRODUCTION

The existence of a fundamental difference between systemic thinking, as espoused by family systems and other systemic therapies, and the thinking of more traditional models of therapy has been taken for granted for some years (Dell, 1986a; Fish, 1990; Hoffman, 1981). Hoffman (1981) described the advent of family systems therapy as not just a movement in the field of mental health, but a much larger epistemological shift necessitating a new approach to human behavior and a new language for describing it. One of the essential principles that differentiates the “new” from the “old” epistemology is the view of what causes and maintains the occurrence of mental health problems. The traditional reliance on linear cause-and-effect has been replaced in systemic perception by an emphasis on a nonlinear framework, frequently termed circular causality.

Traditionally, psychological and psychiatric diagnosis has been based in the beliefs of therapists that the roots of mental health problems lie in causal events in the past that have the effect of determining behavior in the present. In a systemic framework the causes and effects are seen as more complex and interactive. The factors are believed to be communicated in the present among the members of a system in interweaving and redundant verbal and nonverbal patterns. Diagnosis can be seen as a complex behavior of questioning, ordering information, and categorizing, which is based on the a priori assumptions held by the therapist about the causes of mental health problems (i.e., the therapist’s orientation). Diagnosis, in this sense, is directly related to the subsequent conduct of the therapy. The information that is gathered, the

way in which it is ordered, and the categories utilized guide the course of therapy and ultimately, the assessment of its outcome.

In the context of the diagnostic process, the therapist takes an active role in construing the problem that guides the therapy. Bloch (cited in Gurman, 1987, p. 568), taking a systemic view of the process, has said, "the map and the mapmaker are recursively and indissolubly linked." Relying on his or her learned assumptions, the therapist making an assessment regarding the causes of the presented problem to some extent creates the problem to be addressed in therapy by the way he or she defines it. The clinician then develops interventions that are guided by the definition of the problem, and, moreover, makes judgments about therapeutic efficacy that are based on solving the problem-as-defined.

It has been alleged by systemic therapists that their "new epistemology" results in a distinctly different way of viewing problems of mental health that is based on assumptions of circular causality. A research problem, then, is whether systemic therapists construe problems differently from other therapists, and if so, in which ways.

The present research attempted to examine a specific part of the diagnostic process, that in which the clinician defines or attributes the causes of a presented mental health problem. The study attempted to determine if there are differences among the causal attributions made by clinicians of different therapeutic orientations which may be related to a worldview of linear cause-and-effect versus the "new epistemology" of circular causality.

Circular Causality

Family systems therapy has come to be closely identified with the explanation of the etiology and maintenance of psychological problems known as circular causality. Historically, the ideas underpinning the new conception have developed from the writings of a diverse array of scientists and theoreticians.

General system theory, developed by such scientists as von Bertalanffy (1968) and Laszlo (1972) views individuals as lower level systems which are integral and interacting parts of an environment composed of higher level systems. General system theory views all living systems as having structural properties, parts or subsystems that are interdependent and whose combined action enables the system to function as a cohesive unit. A living system is also viewed as having integrative properties including a tendency to maintain its organization within certain bounds. The system uses transactions within the system and with the larger ecosystemic milieu or "field," to provide itself with matter or energy for sustenance, to incorporate information needed to sustain itself through its characteristic life cycle, and to produce a situation conducive to repetition of the life cycle through reproduction. This contextual, cyclic view of the biological ecosystem created a conceptual basis from which social scientists developed a view of behavior as having recursive, complementary patterns of interaction known as circular causality.

One of the most significant aspects of human systems has been described as an ability to use complex symbols such as language to communicate. Anthropologist Gregory Bateson (1972) applied ideas from general system theory as well as ideas from

information theory and cybernetics to develop a systemic view of human communication and by extension, psychopathology. Bateson's ideas led the field of family therapy into a systemic paradigm that defined the family as analogous to a homeostatic cybernetic system governed by rules of circular causality. Bateson and his followers have maintained that in such circularly organized and connected systems "no part of such an internally interactive system can have unilateral control over the remainder or any other part" (1972, p. 315).

The assumptions of circular causality have brought about what Hoffman (1981) calls an epistemological revolution in the thinking of therapists who have adopted this worldview. Challenges to the entrenched Western, post-Aristotelian beliefs in linear causality have questioned doctrines of purely individual motivation which have largely characterized psychology since its inception.

Western ideas of linear causality have been described simplistically as A causes B causes C. Circular causality, on the other hand, takes the mutual and recursive form, also simplistically expressed, of A causes B causes A.

In a psychodynamic, linear frame of reference, mental health problems are caused by childhood trauma that produces repressed memories, which in turn cause symptoms. Or in a medical model, mental health problems are caused by genetic or otherwise preexisting aberrant physical processes that result in symptoms. In a radical behavioral view, the behavior follows an antecedent and is followed by a consequence which may reinforce the behavior and increase the likelihood of the behavior's increased occurrence. The behavioral stance might be considered in some ways similar

to ideas of circular causality because of the apparent interaction over time between the occurrence of the target behavior and the presence of the reinforcing event. In fact, the epistemology that underlies behaviorism is a Lockean one. In such a linear conceptualization, defended by Wolpe (1978), the context has an effect.

By contrast, in a circular epistemology the context of a problem situation both causes and becomes the effect in the recursively sustaining pattern that the Batesonian worldview describes. Outside the systemic milieu, only social learning theorist Albert Bandura (1978) has approached the circular conceptualization. He described a causal process, which he called reciprocal determinism, in which “behavior, internal personal factors and environmental influences all operate as interlocking determinants of each other” (p. 346). He illustrated how “the same behavioral event can be an antecedent stimulus, a response, or a reinforcing consequence depending on where one arbitrarily begins the analysis in the flow of a social interaction” (p. 348).

Over the past decades, systemic ideology has continued to develop and change. Theories of homeostasis, negative feedback and positive feedback were developed to account for behaviors observed in family systems. From a systems perspective, each family member’s actions equally and reciprocally influence each other family member’s behavior in a pattern that reflects and produces the problem. As time has passed, questions and objections to such ideas have been raised regarding the implications of such a view of family problems. Linking ideas of cause and change, Williamson wrote in 1981 that, “with linear causality, at least one knew at whom to point and about what to feel indignant. But now since the buck is in constant circulation, it stops nowhere.

Therefore, responsibility for behavior can be located nowhere. If responsibility for behavior is nowhere, then where can one look for change?" (p. 47).

Two major objections that follow Williamson's line of thought were voiced during the 1980s. The first objection raised by Taggart (1985), Imber-Black (1986) and others highlights the drawbacks of seeing problems in such a "no-fault" way. In issues regarding family violence and the role of women in the family, ideas of power and control as factors in problem occurrence have become important in what may be thought of as the politics of epistemology. From this perspective, the circular view that all members of the system participate in perpetuating the problem, and the idea that no part of the system can have unilateral control over other part or parts are wrong. Such systemic ideas have been seen both as blaming the victim and as flying in the face of the reality that, due to size, age, or social position, some members of a system do in fact appear to exert greater control than other members.

The other major objection to the "buck stops nowhere" causality has been a conceptual one raised by Paul Dell. In his pursuit and development of systemic ideas, Dell (1982a, 1982b) has disputed the concept of causation, per se, as an epistemological error which results in "flawed and erroneous" accounts of phenomena, including the descriptions of systemic change. To Dell, the crucial point is not the distinction between linear and circular causality, but rather the idea of the loss of flow in the process of existence that occurs when a phenomenon is punctuated by descriptions of cause, linear or otherwise. Dell (1982b) employed ideas from Maturana and Varela (1980), who hypothesized that living systems are autopoietic, that is, they

are autonomous, self-constructing closed systems whose only reference is to themselves. Therefore, according to the theory, all behavior of a living system is determined by its pre-established structure, a concept known as structure determinism. Dell stated that, "The problem...lies not with lineal causality, but with the idea of causality itself. Interactions do not involve Newtonian efficient causation, but rather a relativistic structure determinism" (p. 64). However, even Dell, though he has sometimes eschewed "causality", has consistently assumed a clear break between his ecosystemic ideas and past Aristotelian or Newtonian notions of cause utilized by nonsystemic models of psychopathology. Despite the objections of some systemic theorists to the concept, discussion of the function and usefulness of ideas of causality has continued, resurrected in part by Vincent Fish (1990, 1991). Fish contested the repudiation of ideas of causal relationships in his development of a "modified systemic paradigm" which he based on the cybernetic theories of W. Ross Ashby (1956) rather than the more frequently used Batesonian ideology. In his defense of causality, Fish proposed re-emphasizing the variable of time as introducing a component of quasi-linear structure into the circular causal framework, which allows for acceptance within ecosystemic thinking of issues of short-term unbalanced power or control.

Fish (1990), like Dell, cited writings of Maturana and Varela. However, Fish emphasized alternative aspects of their theory and interpreted its application to social systems differently. Fish stressed the importance of the concept of structural coupling which may occur during interaction among living systems. Maturana and Varela stated that, "whenever the conduct of two or more unities is such that there is a domain in

which the conduct of each one is a function of the conduct of the others, it is said that they are coupled in that domain” (1980, p. 107). The structural coupling is a function of “mutual modifications that interacting identities undergo in the course of their interactions without loss of identity” (p. 108).

Fish (1990) asserted that the work of these biological theorists supported his contention that the existing dichotomy in systemic causal theory was a false one. He rejected arguments which demanded that behavior be solely context-determined or solely structure-determined. Using the ideas he developed in his review, Fish (1990) stated:

It is possible to conclude that the behavior of one autopoietic system may serve as a condition or part of the ‘real cause’ ... for the behavior of another autopoietic system with which it is structurally coupled. The behavior of the second system is not uniquely determined by the behavior of the first [as suggested by Imber-Black], but neither is it solely determined by its own structure [as Dell had maintained]. Its behavior is uniquely determined by its own structure in combination with the specific deformation it undergoes from the behavior of the other system (p. 33).

Cottone and Greenwell (1992) joined the call for a shift in the systemic paradigm. They performed a critical analysis of the concepts of linearity, distinguishing three meanings of the term, including proportionality, unilaterality and temporality. They also distinguished two primary connotations of circularity as the term has been applied to causality. These are holicity or simultaneous mutual influence, and

recursivity, which relates to events connected through time. Cottone and Greenwell concluded that the field of family therapy has confused certain aspects of linearity and circularity. In their view, such confusion led to the disagreements during the 1980s about the utility of the ideas of circularity. The authors suggest the need for a refined theoretical framework or a new one altogether which would draw on the positive aspects of systems thinking as it has developed, and which also would acknowledge individual responsibility.

Systems theorists have continued to adopt ideas from other disciplines in efforts to refine the concepts underpinning the movement. With the flow into popular awareness of nonlinear dynamics, also called chaos theory, from the physical sciences (Gleick, 1988), members of the psychological community have begun to adapt the ideas about complex, unpredictable systems from the realms of physics and meteorology to the complex, unpredictable systems of human behavior. The ideas have taken form as analogies used by psychologists to describe such processes as the evolution of consciousness (Vandervert, 1995) and cognition and memory (Barton, 1994). There has been speculation about the possibility that nonlinear dynamical mathematics holds some future possibility for developing mathematical models of human behavior (Luce, 1995). The possibilities within chaos theory and the mathematical paradigms such as chaotic attractors also lend themselves well to systems theorists. Chubb (1990) described his view of chaos as involving three elements: “1) a nonlinear interactive process, 2) behavior that is unpredictable in detail, and 3) the irregular recurrence of clusters of behavior as the result of the dynamics of the interactive process in its

context” (p. 171). He also finds that, “The systems that family therapists work with are elegant examples of chaotic process” (p. 172). However, several writers including those cited above also make strong statements about the need to approach the new paradigm with caution in speculation and with unfolding scientific rigor.

Despite the sometimes dramatically stated objections to various aspects of the circular epistemology during its evolution, there has been no subsequent proposal of an alternative guiding theory for systemic therapists. Several of the most widely used approaches to systemic therapy, including the Brief Therapy of the Mental Research Institute, the Structural and the Strategic models, and the Systemic Therapy of the Milan Group have drawn directly on cybernetic ideas in their foundation and development. Such therapists continue to embrace the assumptions of circular causality to construct their therapeutic framework, and in doing so, continue to highlight a distinction between themselves and therapists of nonsystemic orientations.

Therapist Orientation

Differences among the attitudes and practices of psychotherapists of different orientations has been a source of research interest for decades (e.g., Garfield and Kurtz, 1976; Kelly, 1961; Plous & Zimbardo, 1986). A large portion of early research was directed at identifying the proportions of therapists who adhered to particular theories of therapy. In surveys of psychotherapists (Garfield and Kurtz, 1974; Kelly 1961), it was established that a majority of practitioners identified themselves as eclectics. A great diversity of combinations of theoretical views and therapeutic techniques was utilized by those espousing eclectic modalities. This has caused some

difficulty in formulating research that assesses attitudes, procedures and outcomes based on the theoretical orientation of the therapist.

However, some studies have compared responses of practitioners who did identify themselves as following one major orientation. These studies have found some clear differences in opinion and behavior, which are frequently described as aspects of therapeutic style.

In a 1964 study, Wallach and Strupp compared responses of four therapist groups, which they called orthodox Freudian, psychoanalytic general, Sullivanian, and client-centered, on self-reported items of therapeutic style. The researchers found consistency among individual therapist groups on such factors as level of interpersonal involvement and preference for intensive therapy.

Rice, Gurman and Razin (1974) performed a factorial study of therapist groups that they called analytic, phenomenological, and rational-behavioral. The authors found no main effects attributable to therapist orientation, but did report a significant interaction between groups and certain self-reported aspects of style such as interest in the history of a patient, therapeutic anonymity and emphasis of the feelings of the clients.

In another 1974 study, Raskin used raters to analyze the therapeutic behavior of six expert therapists of different stated orientations. He concluded, "these expert therapists, then, who gave themselves different labels are experienced here [by 83 therapist-raters] as indeed different from one another, while seen as least unlike in the dimension of genuineness (congruence) and of self-confidence" (p. 14).

It also appears that the clinical impressions formed by therapists are affected by the tenets of theoretical orientations in which they are trained. Langer and Abelson (1974) compared behavioral and analytic clinicians on their views of a videotaped interview. In one condition the interviewee was described as a “job applicant” and in the other, he was described as a “patient”. While behavior therapists described the man as fairly well adjusted regardless of label, the psychodynamically oriented clinicians’ descriptions of the man were rated as significantly more disturbed when he was labeled as a patient than when he was described as a job applicant. The authors surmised that the behavior therapists were less affected by the “patient” label because their training encourages observation independent of such background information. The analytic group, on the other hand, responded differentially to the two groups, perhaps because of a learned “filter” related to their idea of mental illness.

In another comparison between psychodynamic and behavioral groups, Houts (1984) explored the effects of theoretical orientation on the pessimism or optimism of initial therapeutic judgments of clinical trainees. Trainees identified as psychodynamic responded significantly more pessimistically than both cognitive and behavioral clinicians with regard to the prognosis for a problem of fear of elevators.

Theoretical beliefs not only have effect on therapist impressions of the person under observation and the problem’s severity, but also seem to be related to certain attributional dimensions. Garfield and Kurtz (1976) surveyed psychologists who were asked to identify their theoretical orientation. Of those psychologists who identified themselves as psychoanalytic, neo-Freudian and Sullivanian, on the one hand, or as

learning theory adherents on the other, the authors found two clear factors on which the groups differed. The two factor subscales included high proportions of questions that addressed opinion of the general etiology of mental illness and opinions regarding appropriate treatment. Opinions held in common within each of the two groups appeared consistent with the theoretical ideas of the orientation the clinicians professed to hold.

Snyder (1977) reanalyzed data from Langer and Abelson's 1974 study. Snyder had raters examine the responses to determine whether the two theoretical orientations of the clinician participants were related to the perceived locus of the problem as person-based or environment-based. The results indicated that the psychodynamically trained clinicians saw the problem as being more person-based than behavioral clinicians.

Plous and Zimbardo (1986) assessed what they termed "attributional style" of psychoanalysts, behavior therapists and nontherapists. Raters categorized responses on two dimensions: physical-psychological and situational-dispositional. Psychoanalysts made significantly more dispositional attributions than other groups. Among psychoanalysts, those with medical degrees made more physical as opposed to psychological attributions.

In conclusion, research evidence demonstrates that there are constellations of attitudes and practices among clinicians within certain therapeutic orientations that distinguish them from clinicians who subscribe to other orientations. Among the studies are a few which have demonstrated that therapists of different orientations vary

along certain attributional dimensions. However, to date there have been no attributional studies that include systems-oriented therapists. Nor have there been studies of therapist attributions along a linear-circular causal dimension.

Causal Attribution

Although research about the assumptions of causality utilized by therapists to guide their work is relatively scarce, social psychologists have been engaged for decades in developing theory and testing hypotheses about the process persons use to assign cause for behavioral events. The term causal attribution is used in social psychology to refer to this ubiquitous human activity. Heider (1958), among other attribution theorists, has observed that people are constantly making causal attributions in order to understand, predict and thereby control events.

Shaver (1983) described causal attribution as a process in which people create sense out of the behavioral regularities that they observe. He maintained that an active process of perception is central to the formation of causal attributions. The perceiver has the task of creating an integrated impression of the situation from the complex of stimuli. Shaver says, "The perceiver is not just passively encoding all of the information available to him. He is, instead, actively constructing an impression consistent with his needs and social categories" (1983, p. 125). The process implies rules for classifying incoming information. The rules by which a perceiver integrates the information affect his or her assessment of a situation, and therefore affect his or her subsequent actions.

Ordering information according to different a priori decision rules, observers develop divergent opinions about appropriate interpretations for the same event (e.g., Jackson and Sandberg, 1985). The process often results in a situation in which a point of view established by one individual or group may be regarded as erroneous by other observers. Perceptions of social interactions are particularly prone to differences in interpretation, partly because of their complexity.

Certain sources of bias in making causal attribution have been identified by social psychologists. Heider (1958) first distinguished between attributions to internal and external forces as causes of events. He pointed out that attributers have a strong tendency to ascribe causality to people, while environmental forces fade into the background. Ross (1977) called this the “fundamental attribution error”. The work of Gilbert and Jones (1986), among others, demonstrates that, indeed, observers do tend to concentrate on an actor’s behavior rather than on situational factors. Observers, therefore, may overlook important situational determinants of the person’s actions and may overattribute the cause of actions to internal traits or characteristics.

Jones (Gilbert and Jones, 1986; Jones, 1990) uses the term correspondence bias to refer to the consistent finding that people routinely draw dispositional inferences from the behavior of others even if that behavior is in fact a response to situational pressures.

Gilbert, Pelham and Krull (1988) have argued that social perceptions are formed in a three-step process. The first step, categorization, involves applying a category term that fits the behavior of the actor, describing what the actor is doing.

The second, characterization, involves inferring a personal trait of the actor implied by the action. The last, correction, describes the process of analyzing the situational constraints that may have influenced the action. Gilbert et al. hypothesized and found that, at least in some instances, the amount of cognitive attention devoted by the perceiver to the task of interpreting behavior affects the level of correspondence bias. Unrelated cognitive “busyness” appears to inhibit the use of information about situational constraints and increases the level of correspondence bias. One consequence of this tendency to misattribute cause to internal reasons is its persistence. Once a perceiver has assigned an internal disposition or trait to an individual, it may tend to color his subsequent perceptions of the individual in a misleading manner.

It is plausible to assume that psychotherapists, like other individuals, actively encode the information available, constructing a clinical picture consistent with their therapeutic directions and diagnostic dimensions. A therapist’s theoretical beliefs concerning how symptoms develop and how they may best be addressed in therapy are organizing elements in the perception of therapeutic problems and may contribute to causal biases. Furthermore, like other persons, therapists are likely to make attributions consistent with their biases. These biases may in turn affect subsequent perceptions, interactions and treatment plans. In therapy, treatment plans are based in part on the attribution of the therapist as to whether the problems of the client are primarily due to characteristics within the individual or to external forces such as situational events.

An empirical demonstration of how a tendency to sustain an internally attributed characteristic might affect clinical decisions was given by the work of Rosenhan (1973). In an interesting field study Rosenhan and his colleagues feigned symptoms of mental illness in order to gain admission to mental hospitals. Once diagnosed and in the institutions, the “pseudopatients” dropped the pretense of mental illness and acted normally. However, staff members continued to view them as seriously disturbed and interpreted normal actions on their part as symptoms consistent with the view of the pseudopatients as mentally ill.

Research by Snyder (1977) and Plous and Zimbardo (1986) has demonstrated that attributions by a diagnosing therapist depend partly on his or her therapeutic orientation. Using data from Langer and Abelson’s 1974 study, Snyder compared psychodynamically and behaviorally trained clinicians on attributions of the locus of a problem presented in a videotaped interview. Locus refers to attribution of cause identified on a continuum as “located” in personal traits or characteristics on one hand or in external characteristics of the situation on the other. Half of each group of clinicians were told that the interviewee was a job applicant and the other half were told that the man was a patient. Clinicians’ written responses to questions about the reasons for the man’s attitudes were rated by graduate students who were blind to the conditions and purposes of the study. Ratings were made on a 9-point scale with regard to the locus of the interviewees’ problem. Psychodynamic clinicians in general saw the problem as being significantly more person-based than behavioral clinicians. The difference was even more pronounced in the “patient” condition.

Plous and Zimbardo's 1986 survey of psychoanalysts, behavior therapists and nontherapists requested explanations for the cause of three clinical problems. Results showed that psychoanalysts gave more dispositional explanations than situational explanations; the reverse was true for behavior therapists and nontherapists.

Psychoanalysts holding medical degrees also gave fewer psychological attributions and more physical attributions than behavior therapists or psychoanalysts with nonmedical doctorate degrees. The authors concluded that psychoanalytic training may prompt a bias toward making dispositional attributions and that medical training may induce a tendency toward physiological explanations for behavior problems. The implication is that therapist orientation and training may exert a bias on the way common problems are attributed, on the locus of perceived sources of change and consequently on the strategies utilized to effect change.

These studies indicate that there is a relationship between the diagnostic attributions of therapists who subscribe to certain different therapeutic orientations and the ideologies of the professed orientations. It has been asserted by systems-oriented therapists that they define clinical problems differently from therapists of other orientations because they utilize a way of thinking about causality which is markedly distinct from traditional linear conceptions based in European culture. This assertion has not been empirically investigated.

Assessment of Causal Attributions

Comparing the causal attributions of systems-oriented therapists with those of therapists of other orientations and with the causal attributions of nontherapists offers a

means of testing the oft stated assumption that systemically oriented therapists define problems in a way which is distinctly different from that of other therapists and which is related to the new epistemology of circular causality.

If one is to assess systematically the causal attributions made by therapists, then there is a need for a useful tool with which to measure. Little is known about the attribution process in clinical diagnosis, and there are no well established instruments to assess it.

Measures which have been tried with therapists or other participants include structured checklist formats and open-ended paragraph formats. Some authors developed structured questionnaires based on the specific needs of the theory or population with which they were working. Jackson and Sandberg (1985), studying how rural attorneys and judges attributed blame in incest cases, used a 20-item scale they developed specifically for the measurement of attribution of blame in incest. Each item was related to the court process involved in determining guilt or innocence in incest cases. The items were answered on a 6-point "strongly disagree" to "strongly agree" scale. The responses were factor analyzed, resulting in four factors: Offender, Situational, Societal and Victim.

Fincham and Bradbury (1987) developed a questionnaire of 24 items that tapped causal dimensions of locus (attribution to a person or situation), stability (permanence of causes over time) and globality (extent to which the causes of conflict affect the entire relationship) with regard to mother-child conflicts. The authors also assessed efficacy expectations. Respondents, mothers of fifth graders, rated the items

on a 5-point scale from “strongly agree” to “strongly disagree”. Data were then analyzed to assess the fit of the responses with theoretical models of conflict in close relationships.

Fincham and O’Leary (1983) tried blends of structured and free response questions. The authors asked couples to state a major cause of each of 12 commonly occurring marital behaviors. However, participants were instructed, even if there might be multiple causes, to “pick only one—the major cause if this happened to you” (p. 47). Subjects then rated on 7-point scales whether the cause reflected something about the spouse, and whether it was stable, global or controllable by either spouse. The causes themselves were varied and were not analyzed. They were elicited as a vehicle to obtain subjective ratings on the causal dimensions in which the authors were interested.

Other authors have used free response methods with raters or coders to analyze the data. Howe’s 1987 study reveals some of the difficulty involved in creating such measures for dimensions of causal attribution. Howe focused on the locus of the attributions. His study asked psychology undergraduates to respond to four open-ended questions regarding the cause of couple arguments. Three coders of attributional locus were instructed to code responses to each question somewhat differently because of the varying complexity of responses received. Interrater agreement varied across questions from 53.7% (poor) to 92.6% (excellent). Howe then used several strategies to create quantitative measures of causal attribution. On the first question, proportions of husband-focused, wife-focused, and joint-focused clauses were calculated. Also on the first question, a “range of cause locus” variable

was created on an index that varied from 1 to 7. The extremes reflected cause attributed totally to the wife or totally to the husband. The remaining three questions were coded: 0 or 1, as individual versus joint cause, and as 1 (wife as the cause), 2 (joint cause) or 3 (husband as the cause). Separate ratings by participants themselves were used to assess attributions of responsibility. Participants rated both husband and wife on a 7-point scale from “totally responsible” to “no responsibility.” Howe’s scoring complexity highlights problems that must be addressed when responses are not restricted either by the structure of the measure or otherwise constrained by researchers.

Langer and Abelson (1974) used a free response format in their study of therapeutic orientations with graduate students, residents and faculty of schools of clinical psychology and psychiatry. The authors asked the participants to describe the factors which explained a videotaped interviewee’s outlook on life. Five graduate students who were blind to experimental hypotheses and conditions of the study each rated the descriptive replies. The ratings were made on a scale from very disturbed to very well adjusted. The interrater correlations were described collectively as a mean of .76. Ratings of the five coders were then averaged to yield an adjustment rating for each clinician questionnaire.

Plous and Zimbardo (1986) also used a free response/rater format in their survey of psychoanalysts, behavior therapists and student nontherapists. They attempted to control the complexity of responses by gently restricting the respondents to “two explanations of what could be causing the problem” (p. 568). Judges then

classified responses along physical-psychological and situational-dispositional dimensions. Both dimensions included a category of “other” or “cannot say” for responses that could not be categorized within the framework. Three raters evaluated the responses. One rater analyzed therapist responses, another analyzed student attributions and a third analyzed all responses. High interrater agreement was found between the judges of the therapists attributions and between the judges of the student attributions. Consequently, Plous and Zimbardo’s decision was to base their subsequent analyses on the rating of the first two judges. The decision was not otherwise explained.

All the instruments described above have significant limitations such as specific area of utility, restriction of responses or difficulty of scoring. They illustrate the difficulty of developing means of assessing attributions made by therapists about problems of their clients which may have complex roots or may involve several people. And none of the methods offers the possibility of capturing in an objectively scored format a reflection of a systemic worldview if and when it exists.

The present reviewer located only one instrument that met the requirements of this research. The questionnaire to be used was developed by Belmont, Watson, Rohrbaugh, and McCall (1990) who utilized Shaver’s model of attribution processes (1983) to assess whether participants in therapy attributed problems in a fashion more consistent with circular or with linear thinking. Belmont et al. used the measure to test whether circular questioning, a technique of the Milan school of family therapy, teaches clients to adopt a systemic epistemology in their explanations of their family problems.

This questionnaire minimizes the drawbacks cited in previous studies. It allows virtual free response regarding the type and number of causes attributed. It provides a format capable of assessing attributions about complex situations involving several people. It is simple to score and provides quantitative data, producing good consistency of scoring without the additional complications of training multiple raters to a criterion of agreement. Moreover, it was designed specifically to measure circularity of causal attributions.

The attributional process delineated by Kelly Shaver (1985) offers a model that includes separate ascription of causality, responsibility, intentionality and blame, which have been shown to be distinct concepts (Critchlow, 1985; Harvey and Rule, 1978). Shaver's model utilizes two philosophical literatures, that of the idea of causation as it has developed in the Western philosophies of science and that of moral philosophy, building on a foundation of theory and research in the attribution of causality and responsibility. The theory was explicitly designed to describe the ways in which a perceiver attributes blame to another person. Because attributions of blame have been shown to have impact on interpersonal actions (Jackson and Sandberg, 1985), Shaver's theory offers utility as a basis for addressing attributional issues in the diagnostic process of psychotherapy, which also has important interpersonal sequelae.

The "new epistemology" of circular causality espoused by systemic theorists precludes linear cause-and-effect attributions. The therapist who bases his or her assessment on systemic ideas would define a problem as the result of the interaction among all the factors present in the problem system. A person making a systemic

attribution would describe each of the human and nonhuman factors as equally causal, and each of the human factors as equally responsible for, and equally intending to cause the problem, and equally blameworthy. Similarly, a systemically oriented therapist would also express such broad etiological scope by designating no person or event as being primarily the cause, primarily responsible for, intending, or to blame for the occurrence of the problem. The precise number of causal factors which are constructed is not of importance. Rather, the relationship between the factors is the significant element which tells whether the underlying epistemology is circular or linear.

Belmont et al. (1990) developed a scoring system for the questionnaire based on these ideas. In responding, participants first list all the causes to which they attribute the presenting problem. Each respondent rates each cause he or she has listed for its importance to the occurrence of the problem on a 7-point scale. The ratings are transformed mathematically into a single score designed to reflect the circularity-linearity of the respondent's attributions. Similarly, scores are generated for moral responsibility, intention and blame.

Belmont et al. (1990) did not find significant results on the measure with their study. There are a number of possible explanations for the lack of findings. One limitation was the small sample size of the study. Another possibility is that the circular questioning technique simply does not produce the shift toward a systemic epistemology that was expected. In addition, an important error was discovered in the scoring method used by Belmont et al. (K.G. Shaver, personal communication, June 28, 1993), which would have had the effect of obscuring a circular epistemology if

indeed it were present. A revised scoring method has been developed for this research which redresses the error.

Hypotheses

The present research used data collected with the Belmont et al. (1990) questionnaire to address hypotheses developed from the theoretical literature on circular causality. The study was designed to compare in a systematic way attributional responses of therapists who identified themselves as following one of the systems-oriented therapies with the attributions of three other therapist groups, and one nontherapist control group. A nontherapist control group was used to identify possible differences which may be the result of general psychological training.

It was hypothesized that there would be differences among the types of attributions made by the comparison groups regarding the causes for two clinical problems, schizophrenia and domestic violence. Two different problems were included to identify any differences among group responses which might be a function of problem type. The two problems are considered to be different in severity and chronicity. One is conventionally viewed as having a medical origin, while the other is generally considered to be of a psychosocial nature.

Specifically, the hypotheses were:

1. That the psychologist group identified as systems-oriented would make attributions of causality, moral responsibility, intentionality, blame, and sufficiency of a single cause to produce the problem, that are significantly more circular than those of other therapist groups and the nontherapist control group, as indicated by

circularity-linearity scores on the Circularity-Linearity Attribution Scale (CLAS).

Systems therapists were also expected to describe the problems as less well represented by the linear problem conceptualization diagram and better represented by the circular conceptualization diagram than other groups.

2. That there would be an interaction between therapist group and problem type on the circularity-linearity score relating to the cause of the problem. It was hypothesized that there would be greater differences in attribution of causality across problem by medically oriented psychiatrists than by systems-oriented psychologists. Medically oriented psychiatrists were expected to give more linear attributions of causality to the schizophrenia problem (see Appendix A) than to the domestic violence problem (see Appendix B). This hypothesis was based on the belief that medically trained therapists would be likely to interpret the presented schizophrenia problem in a more linear way because of the general belief that there is a strong genetic or biochemical basis for this disorder. Since an established physiological basis is lacking for the problem of domestic violence, the responses of medically oriented psychiatrists for that problem were expected to be more similar to the circular level of the systems-oriented group on attributions of cause.

Systems-oriented psychologists were also expected to show less difference in the circularity of their attributions across problem type than other therapists and the nontherapist control group. According to the theoretical literature, systems-oriented psychologists would be likely to rate all problems as circularly caused. To

support this hypothesis, the group's scores should show a consistently more circular response across both problems than those of other therapist groups.

METHOD

Participants

There were five groups of participants. One hundred packets of research materials were sent out to candidates preselected as belonging to each group, making a total of 500 participants solicited. Table 1 summarizes the solicitations and response data according to groups. Packets were sent to individuals in all contiguous states of the country, and completed packets were returned from every major geographic area.

The response rates for the groups were calculated as the percentage of completed contacts with eligible respondents that resulted in completed questionnaires, as suggested by Dillman (1978). The response rates for the groups were: 16.25% for the behavioral group; 14.29% for the psychodynamic group; 14.29 for the systems group; 10.98 for the psychiatrist group; and 18.56% for the attorney group.

Of the total group 66 respondents returned useable data. The final sample was composed of 33 females and 33 males. They ranged in age from 28 to 62, and the mean age was 45.30. Of the total group, 65 identified themselves ethnically as white, and 1 as black, who expressed a preference for the term African American. The participants reported years of professional experience that ranged from 3 to 30, with a mean of 16.24 for the total sample.

Table 2 presents the demographic data for the five participant groups. Differences between groups were analyzed with univariate ANOVAs for the age and years of experience variables. Race and gender were analyzed with chi-square. No

significant differences were found among groups on any of the variables named above ($p_s > .05$).

Participant Selection. The method of selecting participants for the present study was based on methods used by Brunink and Schroeder (1979), Larson (1980), Plous and Zimbardo (1986), and Wallach and Strupp (1964) in previous research on therapist orientation. A method of selecting participants often used in research comparing practitioners from major schools of therapy (Larson, 1980; Plous and Zimbardo, 1986; Wallach and Strupp, 1964) is to require respondents to identify themselves as subscribing to a particular school of therapy. Wallach and Strupp used this method in their 1964 study of therapists' attitudes about their practice. Although the researchers did not describe the format of their questionnaire, they reported that subjects were identified through questionnaire surveys as belonging to groups described as orthodox Freudian, psychoanalytic general, client centered, and a combined group of neo-Freudian and all others. Both Larson (1980) and Plous and Zimbardo (1986) used checklist formats in their comparisons. Larson's list had fourteen categories and asked the participants to identify their primary orientation or orientations ranking them by number. Plous and Zimbardo's survey used five categories including "other", and asked for the major theoretical orientation of the respondent.

The self-report identification sometimes has been combined with other criteria to enhance the probability of identifying participants with considerable adherence to a particular school. Plous and Zimbardo (1986), Larson (1980), and Brunink and Schroeder (1979) used multiple criterion approaches that included both preselection

strategies for identifying potentially homogeneous groups and separate inclusion criteria for identifying the final sample. Plous and Zimbardo preselected their psychoanalytic and behavioral groups by surveying senior authors from leading psychoanalytic and behavior therapy journals, and further required them to identify themselves as adhering to one of the two orientations. Larson preselected his participants by professional group affiliation. He included in the final sample only those respondents who indicated on the therapist orientation checklist question the same orientation for which they were preselected. Brunink and Schroeder initially chose their participants on their reputations as experts in the fields of psychoanalysis, gestalt therapy and behavior therapy. These researchers also asked respondents to indicate which authors in psychotherapy most influenced their present approach, which theoretical orientation was closest to their present approach, and which theoretical orientation their training supervisors used. Inclusion criteria for the Brunink and Schroeder study were that answers for two of the three questions had to be consistent with the theoretical orientation for which they were initially selected.

Three groups in the present study were composed of licensed psychologists holding either the Ph.D., Psy.D., or Ed.D. degree. Psychologist participants were identified initially through professional association listings. The participant pool was drawn from groups composed of a high percentage of the identified group. For example, some potential participants for the systems-oriented group were drawn from the American Psychological Association's Division of Family Psychology, some candidates for the behavioral group were preselected from the Division for the

Experimental Analysis of Behavior, and some psychodynamic candidates were preselected from the Division of Psychoanalysis. With the aim of achieving homogenous groups, further selection was accomplished through elimination of those members with a declared career specialty (e.g., neuropsychological assessment) that was inconsistent with the goal of assessing the responses of psychotherapists. Other potential participants were identified initially through their professional reputations as working primarily in one orientation.

Appropriate participants were identified by means of questions included in the Demographic Survey sent to them in the research packet (see Appendix C). To be included in the final sample, respondents from the three psychologist groups must have described themselves on the demographic survey as working primarily in one of the identified orientations. In addition, two of three authors named by the respondent as important to his or her professional development had to be recognized as consistent with the declared primary theoretical orientation. Only those participants who reported that they were involved in at least five hours per week of direct clinical service were included. This requirement assured a minimal level of ongoing experience in diagnostic assessment. Only data collected from participants who met criteria for inclusion were used for the study.

The first psychologist group was composed of those who described themselves as primarily behavioral or cognitive-behavioral. Of the candidates preselected as belonging to this group, 5 females and 8 males returned usable questionnaires. Twelve packets were returned as undeliverable by the post office. Six

candidates who returned packets were excluded from participation because they identified themselves as eclectic, or because two of the three named influential authors did not match the stated theoretical orientation. Two packets were eliminated because there were answers missing or because answers given were deemed unscorable. Nine packets were returned in which the candidates noted their decision not to participate, and the remainder were not returned.

The second group was composed of psychologists who described themselves as primarily psychodynamic or psychoanalytic in orientation. Of these, 9 females and 4 males returned usable packets. Six packets were returned as not deliverable by the post office. Three packets in this group had answers missing or deemed unscorable and were not included. Six of the packets were returned with statements that the individual declined to participate, and the remainder were not returned.

The third group of psychologists identified themselves as having primarily a family systems or other systemic orientation. Of these, 4 females and 8 males returned usable packets. Six packets were returned as undeliverable by the post office. Seven packets in this group were excluded from participation because of stated eclectic or mixed orientation. Three packets were excluded because of missing or unscorable responses. The remaining packets were not returned.

A fourth group was composed of psychiatrists with a medical orientation to their practices. That is, in responding to the demographic questionnaire for psychiatrists (see Appendix D), they identified the prescription and monitoring of psychoactive medications as one primary responsibility of their positions. These

participants also reported that they engage in at least five hours of direct clinical service to patients each week. Of this group, 6 females and 4 males returned usable packets. Six packets were returned as undeliverable by the post office. Two packets were excluded because the participants identified only verbal psychotherapy or other as primary responsibilities of their positions. Nine respondents in this group returned statements declining to participate and the remainder of the packets were not returned.

In addition, there was a control group of nontherapists. A nontherapist group was included to account for possible effects that might be the result of general psychotherapeutic training. To hold constant, as much as possible, level of education and level of professional interaction with other persons, the nontherapist group was composed of attorneys-at-law. These participants also reported that they are involved in at least five hours of direct service to clients each week. Of this group 9 females and 9 males, including the only African American participant in the total group, returned usable packets. Three packets were not deliverable by the post office. Six packets included statements that the individual declined to participate. The remainder were not returned.

Participants who were included in the study indicated their consent to participate by returning the completed materials to the researcher.

Materials

Demographic Survey. These questionnaires, each consisting of nine questions (full text in Appendixes C, D, and E) were developed for the purposes of this study. There are three forms: one designed for psychologists, one for psychiatrists and one for

attorneys. One purpose of these questionnaires was to gather information about standard demographic variables, such as age, sex, race or ethnicity, education, length of professional experience, and number of hours of interaction with clients, to insure reasonable comparability across subject groups and to insure that participants met minimum inclusion criteria.

The demographic questionnaire for psychologists (Appendix C) also was used to identify participants appropriate for this study through statement of the clinician's therapeutic orientation. The questionnaire requested information regarding the primary professional orientation of therapists in a free-response format. Although checklist formats have been used by some authors in previous research (Larson, 1980; Plous and Zimbardo, 1986), the free-response format was chosen for this study because it provides the least information to participants regarding the purposes of the study. In the absence of identified groups, participants were less likely to know which groups were being compared. Such knowledge could have affected responses. In addition, it was believed that a more homogeneous grouping of self-identified members of a particular orientation could be achieved by free-choice than by forced-choice methods.

Also included in the demographic questionnaire for this study was a question regarding the respondent's choice of his or her three most influential authors. It has been suggested (Larson, 1980; Sundland, 1977) that by using both "school" labels and names of influential authors to identify participants as belonging to a particular orientation, it might be possible to arrive at more cohesive therapist orientation groups.

The form for psychiatrists (see Appendix D) requested information about the respondent's current primary duties (i.e., verbal psychotherapy, medication management, and other) in a checklist format.

The form for attorneys (see Appendix E) also requested their primary legal specialty and included a question about influential authors. Although the legal specialty data and attorneys' author data was not used directly in this study, these questions for attorneys paralleled the questions regarding theoretical orientations and influential authors for clinicians and allows for close comparability of questionnaires.

Vignettes. Two fictional written vignettes developed for the present research were used to provide participants with stimulus problems (see Appendixes A and B). The vignettes were presented as simulated excerpts of similar length from interviews with a single therapist and were written in script format. The vignettes were each designed to describe families of four members. Each portrayed two external stressors on the system and one possible physiological contributor to the problem. In each vignette a therapist was portrayed interviewing the client and performing collateral interviews with one or more family members. One problem presented involved psychotic symptoms of schizophrenia, generally thought of as having a strong genetic or biochemical component to the etiology. The second portrayed a problem of domestic violence which is more frequently considered to have a psychosocial origin.

Circularity-Linearity Attribution Scale. (CLAS) Attributions for problems were assessed by a questionnaire which yielded Circularity-Linearity Attribution scores.

The Circularity-Linearity Attribution Scale (see Appendix F) is a series of 7-point scales originally developed for previous research (Belmont et. al., 1990).

For the purposes of this research, the CLAS was expected to function as an indirect reflection of the process of psychodiagnosis as performed by clinicians. To respond to the scale and make attributions about various aspects of a problem, clinicians had to yield to the implicit task demand of the instrument. They needed to define the problem itself.

Clinicians were expected to define the problem according to their learned biases and diagnostic dimensions. It was anticipated that the groups would respond differentially to questions of the CLAS about causality, moral responsibility, intentionality, blame, the possibility of a single sufficient cause for the problem, and to circular and linear conceptualizations of the problem. As suggested by the theoretical and research literature, their attributions might differ because their views of the problem would differ based on the particular epistemologies to which the clinicians subscribe.

Systems-oriented psychologists were expected define the problem more broadly than clinicians of other orientations. A systemically defined “problem” includes many elements and events. To parallel that inclusive problem definition, responses to questions about causes should reflect interaction among many elements in the system. Consistent with their contextual epistemology, systems-oriented clinicians should consider the causes to have equivalent importance. Similarly, because of the broad scope of “problem” as defined by the circular epistemology, systems-oriented clinicians

would be expected to consider it unlikely that any single causal element would make “the problem” occur.

The CLAS seemed to be uniquely capable of reflecting these characteristics of systemic thinking. It was also believed to be capable of discriminating linear elements in problem definition.

Several modifications were made to the CLAS for the present study. The wording of instructions was changed slightly. Belmont et al. (1990) used the phrase, “list who or what you feel is the cause or causes of the problem. List as few or as many causes as you feel apply.” For the current research the wording was simplified to read, “please list the cause or causes of the problem. You may list none or as many causes as you believe apply.”

The lower end of the scale was modified to read “minimally important,” replacing “not at all important” used by Belmont et al. (1990). This semantic change was made in the belief that if a cause were not at all important, it would not be cited.

A brief instruction was added in the new version for the respondent who wished to list more than six factors for which there were printed blanks.

Belmont et al. (1990) had inserted an explicitly worded rating following three question sections, which requested the respondent to state how strongly he or she agreed that the interaction between the factors was the cause, responsible for, or to blame for the problem. In the present study, those questions were eliminated in the belief that they were too transparent to the purpose of this study for a sophisticated therapist population, and would have had the potential for affecting subsequent

responses. Belmont et al.'s "interaction" questions were replaced with two diagrams, one that depicted a linear conceptualization of the problem and one that depicted an interactive circular conceptualization of the problem (see Appendix G).

The most significant modification of the CLAS was made in response to the discovery of flaws in the scoring system used by Belmont et al. (1990). The description of the scoring method for the "linearity score" of Belmont et al. was as follows. "The ratings assigned to each listed person or thing were transformed into a Linearity score by dividing the sum of the differences of all possible dyads by the number of possible dyads". This scoring convention had the defect of obscuring differences between defined circular and linear positions in certain situations. Scoring for the new version was modified in the following way. Rather than use all possible pairs, in the new scoring format the differences are calculated only between the highest listed rating and each of the other ratings. The complete scoring procedure is described below.

In other ways, the procedure followed that of Belmont et al. (1990). Participants were asked to list factors which they believed caused the problem. Next, they rated the listed factors for their importance in causing the problem on a 7-point scale. The ratings ranged from "minimally important", scored as 1, to "extremely important", scored as 7. Then, participants rated any persons named as factors according to their moral responsibility for the problem, intention regarding the occurrence of the problem, and blame for the problem. Circularity-Linearity

Attribution Scores were calculated separately for each participant's responses regarding causality, moral responsibility, intentionality and blame for the problem.

The ratings which respondents assigned to the listed causes were transformed into Circularity-Linearity scores by the following revised method. For each respondent, pairs were formed between the highest numerical rating of importance of the factors cited by the respondent and the ratings of each other factor he or she named. The difference between ratings within each pair was subtracted. The values of the differences were summed and then divided by the number of pairs. This procedure produced a score that reflected an average of the differences between importance ratings of all factors generated by a given respondent. Thus, a large score reflected large disparities in rated importance of listed causes, such as would occur if a respondent rated one cause as "extremely important" and all other identified causes as "minimally important."

As Belmont et al. (1990) suggested, a more circular or systemic response would reflect an attribution of equal distribution of causality, moral responsibility, intention, and blame among factors listed. Therefore, the lower the score yielded by this formula, the more circular (systemic) it was considered to be.

Circularity-Linearity Attribution scores were based on the idea that systemic theory would promote attribution of causality that accounts for the development and maintenance of problems from a broader frame of reference than attributions promoted by theories that focus on narrower and presumably more linear concepts of etiology.

Following Belmont et al. (1990), two scoring conventions were utilized when a single response did not produce a dyad and therefore could not be transformed according to the formula. A score of 7, the highest (therefore most linear) transformed score possible was assigned to a response that listed only one discrete etiological factor as causal. A response of a single causal factor would logically eliminate the possibility of an interaction among factors required by the premise of circularity.

With similar reasoning, a single response of an abstraction which stated or implied an interaction among possible causes was assigned a transformed score of zero, equal to the lowest possible transformed score. Such a score would indicate the most circular attribution. Examples of such abstract responses would be, “the relationship between family members,” “the interdependent behavior of the family,” or “the interaction among all possible causes.”

Using the new scoring procedures, individual Circularity-Linearity Attribution scores, identical in concept to the Attribution-Linearity score of Belmont et al. (1990), were generated for each of the first four sections of the seven part questionnaire, those regarding causality, moral responsibility, intentionality and blame.

Two completely new sets of questions were added to the revised form of the CLAS. These sets of questions were placed in a separate subsection, Packet C, to be answered at the end of the procedure.

The first set contained two questions, one for each problem (see Appendix H). The questions asked the respondent to rate on a 7-point scale the likelihood that any one of the causes of the problem that had previously listed by the respondent would, by

itself, be sufficient to make that problem occur. The respondent was then requested to list every cause that he or she considered sufficient. The two questions were presented in the same order as the two vignettes in that package.

The second set presented two diagrams (see Appendix G) and asked the respondent to rate on a 7-point scale how well each diagram represented the events in one vignette, and then asked the same questions for the other vignette. One diagram was designed to represent a linear problem conceptualization, and the other was designed to represent a circular problem conceptualization. There were two forms for each vignette so that the order of the diagrams could be counterbalanced.

The questions about the sufficiency of a single cause, linear conceptualization of the problem and circular conceptualization of the problem were scored on 7-point scale from 1 to 7, according to the response made by each participant.

Procedure and Design

Permission to conduct the study was obtained following the ethics procedures of the College of William and Mary. A pool of potential participants was compiled from membership rosters of the American Psychological Association and the Directory of Board Certified Medical Specialists. Other participants were solicited who were known by local or national reputation to fit the stated criteria for participation.

A numbered package of materials was mailed to each potential participant. In the package was a letter to the candidate, a general explanation of the research, instructions, a demographic survey, three sections identified as Packet A, Packet B,

and Packet C, a debriefing note, a return postcard, and a stamped return envelope (see Appendix I).

The letter requested the candidate's participation in the study. The letter also described the confidential nature of the study and stated that a separate list of names with identifying numbers would be maintained by the researcher. If the candidate was willing to participate, he or she was asked to follow directions for the remaining items. Instructions indicated that completing the questionnaire would serve as voluntary consent to participate in the study.

Packets A and B each contained a different vignette which portrayed a clinical problem and its context, a copy of the Circularity-Linearity Attribution Scale, and a question rating the current level of functioning of the identified client. The order of presentation of the vignettes within the packets was alternated to control for effects of order on the outcome.

Packet C contained two sets of the new questions described above regarding sufficiency of a single cause, circular conceptualization of the problem and linear conceptualization of the problem. The order of the questions in each set matched the order of the presentation of the vignettes in Packets A and B in that package. The order of presentation of the circular conceptualization diagram and the linear conceptualization diagram was varied. Half of the mailed packets presented the circular diagram first. The other half presented the linear diagram first.

Written instructions included in the package (see Appendix I), requested that the participants read the first vignette and respond to the included questionnaire. Once

they had completed their responses to Packet A, participants were instructed to make no further changes to their responses for that packet. Respondents were instructed to repeat the procedure for Packet B and then to make no further changes to that packet.

Next, participants followed instructions for Packet C. They were asked to respond to the questions in the order presented. The participants answered the questions concerning single sufficient causes about the vignette in Packet A, and then answered the same questions about the vignette in Packet B. Then respondents answered the set of diagram questions about each vignette in turn. Participants were informed that they could refer back to the vignettes or to their previous responses if they wished to do so in order to answer the questions in Packet C.

The participants returned the packets, which were identified with numbers, in the stamped envelope provided.

Each participant was offered the opportunity to have an abstract of the study mailed to him or her upon completion of the study. Respondents requested this by mailing a stamped addressed postcard included in the packet.

A follow-up letter (Appendix J) was sent to participants who did not respond within one month to the first mailing.

For the reliability study, an additional package of materials was sent to 35 respondents who had completed an initial survey. The package was identical to the first except that it contained a different letter to the participants (Appendix K) and did not contain a demographic survey.

RESULTS

A Group x Gender x Problem multivariate analysis of variance (MANOVA) with repeated measures on the problem factor was originally planned to analyze the data. To determine whether the data were amenable to MANOVA, Box's M test was used to test the assumption of homogeneity of the dispersion matrices. Box's M test could not be done because of the number of cells with a singular variance-covariance matrix on the dependent variables moral responsibility, intention, blame, and sufficiency of a single cause (See Table 3 for cells which have zero SD). For the remaining dependent variables, cause, linear conceptualization of the problem, and circular conceptualization of the problem, the data proved inappropriate for inclusion in a MANOVA because the data violated the assumption of equal variance-covariance matrices on the between-subjects variable (group) (Box's M = 160.54488, X^2 (84, N = 66) = 106.58893, p = .049).

On the dependent variables moral responsibility, intention, blame and sufficiency of a single cause, for at least one of the problems, there was zero variance in one or more cells (see Table 3 for cells with zero SD). Therefore, univariate parametric analyses of those data were ruled out. Levene tests were performed on the three remaining dependent variables, cause, circular conceptualization of the problem and linear conceptualization of the problem, to determine whether those portions of the data were appropriate for univariate parametric analyses. The Levene test indicated a significant departure from homogeneity of variance of some cells on the cause dependent variable for the schizophrenia problem, (p = .0017) and on the linear

conceptualization of the problem dependent variable for the domestic violence problem ($p = .0031$). On further inspection, the remaining dependent variable, circular conceptualization of the problem, had several cells that showed bimodal distributions or other significant departures from normality of distribution as indicated by significant results on the Lilliefors and/or Shapiro-Wilks tests ($p < .01$). Therefore, the data for these variables did not meet the assumptions necessary for the use of MANOVA or univariate parametric tests.

Because MANOVA and univariate parametric analyses were demonstrated to be inappropriate, multiple nonparametric analyses were used. The Kruskal-Wallis H test was used on between-subjects variables involving more than two groups (i.e., the independent variable group). Between-subjects variables involving only two groups (i.e., the independent variable gender) were analyzed using the Mann Whitney U - Wilcoxon Rank Sum W test. Comparisons involving the within-subjects variable (i. e., the independent variable problem) were made using the Wilcoxon Matched-Pairs Signed-Ranks test.

The number of separate analyses was calculated by adding the total number of comparisons required to analyze the data sorted by group, by gender and/or by problem, as needed, for each dependent variable. Comparing the groups for each problem on each dependent variable (2 problems x 7 dependent variables) required 14 tests. Comparing the females and males within each group for each problem on each dependent variable (5 groups x 2 problems x 7 dependent variables) required 70 tests. Comparing females and males collapsed across groups for each problem on each

dependent variable (2 problems x 7 dependent variables) required 14 tests. Comparing the problems for each group and gender on each dependent variable (5 groups x 2 genders x 7 dependent variables) required 70 tests. Comparing the problems for each group for each dependent variable (5 groups x 7 dependent variables) required 35 tests. Comparing the problems with participants collapsed across groups and gender on each dependent variable (7 dependent variables) required seven tests. The total number of tests run was 210.

Because of the large number of analyses, a significance level of $p = .01$ was established. At an alpha level of .01, with 210 total analyses, it is estimated that two to three significant analyses would be expected by chance alone. Therefore, the number of analyses that were computed as significant at the $p \leq .01$ level were ranked. The three comparisons with the highest p -values were assumed to have occurred by chance and were eliminated from interpretation. The remaining results at lower p -values were interpreted as statistically significant.

To address the primary hypothesis that systems-oriented psychologists would make attributions that were significantly more circular than the other therapist groups and the attorney control group, Kruskal-Wallis H tests were performed for each problem separately to compare the groups on circularity-linearity attributions of causality, moral responsibility, intention, and blame, as well as sufficiency of a single cause, the circular conceptualization of the problem, and linear conceptualization of the problem. None was significant, $ps > .07$ (see Table 4 for group medians, means and standard deviations).

Gender differences were examined by comparing the 33 female and 33 male participants, collapsed across groups, with Mann-Whitney \underline{U} - Wilcoxon Rank Sum \underline{W} tests. No significant gender differences were found on any dependent variable (see Table 5 for medians, means and standard deviations by gender). When gender differences were analyzed within each therapist group and the control group, one comparison showed a significant difference. On the circular conceptualization variable, the nine female psychologists who identified themselves as psychodynamic conceptualized the schizophrenia problem as significantly better represented by the circular conceptualization diagram than did the four male psychodynamic psychologists ($\underline{U} = .00$, $\underline{W} = 46.0$, corrected for ties $p = .0045$). This gender difference raised the issue of whether gender differences were confounded with results of the analyses of group differences reported above, which were collapsed across gender. Examining the Group x Gender x Problem ANOVAs offered a way of reviewing this issue, although the results of the ANOVAs were not reliably interpretable due to the data abnormalities discussed above. Similar to the nonparametric analyses cited above, the ANOVA on the circular conceptualization variable showed a Group x Gender effect, $\underline{F}(4, 56) = 5.63$, $p = .001$; no significant main effect for gender, $\underline{F}(1, 56) < .01$, $p = 1.00$) and no significant main effect for group, $\underline{F}(4, 56) = 1.97$, $p = .112$. The results of this analysis indicated that there was still no main effect for group when the Group x Gender interaction was controlled. One additional gender difference within group approached significance. On the causality variable, the six female psychiatrists tended to make more circular attributions of cause than the four male psychiatrists ($\underline{U} = .00$, $\underline{W} = 34.0$,

corrected for ties $p = .0098$). Similar to the nonparametric analyses cited above, the ANOVA on the cause variable showed a weak tendency toward significance for the Group x Gender effect, $F(4, 56) = 2.17, p = .084$; no significant main effect for gender, $F(1, 56) = .05, p = .83$; and no significant main effect for group, $F(4, 56) = 1.08, p = .374$. The results of this analysis also indicated no main effect for group when the Group x Gender interaction is controlled. Therefore, gender differences within groups did not appear to be confounded with the absence of group differences obtained in analyses collapsed across gender.

The hypothesis that there would be greater differences in attribution of causality across problem by medically oriented psychiatrists than by systems-oriented psychologists could not be tested by examining interaction effects in Group x Problem ANOVAs, because the data did not meet assumptions for parametric tests. As an alternative set of analyses, Kruskal-Wallis H tests were used to compare the groups on each problem. No significant differences were found between the groups on any dependent variable, $p_s > .07$. Then, Wilcoxon Matched-Pairs Signed-Ranks tests were used to compare the two problem types within each therapist group and the attorney control group. When differences between the schizophrenia problem and the domestic violence problem were analyzed separately for each group on the seven dependent variables, significant differences were found within the attorney control group. Attorney participants attributed moral responsibility differently between the two problems, with the domestic violence problem rated in a significantly more linear direction ($Z = -1.66, p = .0035$). Attorney participants also attributed blame differently

between the two problems with the domestic violence problem rated in a significantly more linear direction ($Z = -3.08$, $p = .0021$). In the behavioral psychologist group there was a tendency toward a difference between problems on attribution of moral responsibility ($Z = -2.67$, $p = .0077$), with behavioral psychologists tending to make more linear attributions about domestic violence.

With the data collapsed across groups, Wilcoxon Matched-Pairs Signed-Ranks tests showed that participants made attributions differently between the two problems on several dependent variables. On attributions of causality, domestic violence was ranked in a significantly more circular direction ($Z = -3.21$, $p = .0013$). On attributions of moral responsibility, domestic violence was ranked in a significantly more linear direction ($Z = -4.92$, $p < .0001$). On attributions of intentionality, no significant difference was found between the problems ($Z = -2.78$, $p = .0054$). On attributions of blame, domestic violence was ranked in a significantly more linear direction ($Z = -4.54$, $p < .0001$). On attributions of a single sufficient cause, the domestic violence problem was significantly less likely to be generated by a single sufficient cause than the schizophrenia problem ($Z = -3.82$, $p = .0001$). On circular problem conceptualization, participants rated the events in the domestic violence problem as significantly better represented by the circular diagram than those in the schizophrenia problem ($Z = -3.08$, $p = .0021$). However, no significant difference was found between problems when participants rated them as linear conceptualizations ($Z = -2.06$, $p = .0397$).

An examination of test-retest reliability of the CLAS originally had been planned by asking randomly selected respondents to repeat the study in a second

mailing timed two weeks after the first response was received. The reliability question was not addressed because of the small number of responses (2 out of 35) to the second mailing.

DISCUSSION

The primary hypothesis of the present study was that systems-oriented psychologists would make attributions that would be significantly more circular than attributions made by the behavioral, psychodynamic, medically-oriented, or attorney groups. It was anticipated that these differences would occur on all dependent variables: causality, responsibility, intentionality, blame, sufficiency of a single cause to make the problem occur, linear conceptualization of the problem, and circular conceptualization of the problem. This study did not confirm the hypothesis that the systems-oriented group would make more circular attributions than the other therapist groups or the attorney group. There were no significant differences between the systems-oriented group and the other groups on any measure of circularity-linearity provided by the CLAS.

A second hypothesis proposed that there would be more consistently circular attributions of causality across the two problems of schizophrenia and domestic violence by systems-oriented psychologists than by psychiatrists. It was also expected that systems-oriented psychologists would report more consistently circular attributions across problems on all dependent variables than the other participant groups. The hypotheses could not be tested directly by interactions in parametric analyses, because the data did not meet the assumptions of these tests. However, two findings of separate nonparametric tests suggest that there is no support for this hypothesis. When the groups were compared on each problem, no significant differences between the groups were found on attribution of causality for either problem. When the problem

types were compared within each group, no significant differences were found on any dependent variable for any of the therapist groups. Taken together, the results of the two separate nonparametric tests offer no evident support for the interaction hypothesis.

The results of this study contrast with what would be expected from the theoretical literature. The results do not support the idea that systems psychologists understand and interpret clinical problems from a unique perspective that is related to a circular explanation for their causes. The findings also contrast with previous studies that concluded that attributional differences of some types exist among psychologists of different orientations (Garfield and Kurtz, 1976; Snyder, 1977; Plous and Zimbardo, 1986). However, other studies have not examined the idea of circular causality.

Additional findings, although they are not directly related to the hypotheses, cast further doubt on the idea that systems-oriented psychologists make attributions in a uniquely circular way. The results suggest that systems-oriented psychologists and psychologists of two other orientations, as well as medically oriented psychiatrists, view schizophrenia and domestic violence as problems that are distinct in several ways, making different attributions when the therapists are presented with a clinical picture of the two problems. The therapists attributed cause more linearly for schizophrenia than domestic violence. On the other hand, they attributed moral responsibility and blame more linearly for domestic violence. Domestic violence was rated as less likely to be generated by a single cause than schizophrenia, and was conceptualized more

circularly, as well. These findings appear to be consistent with the general belief that schizophrenia has a singular genetic or other biological basis.

There appeared to be some differences related to professional group affiliation in attributions of moral responsibility and blame. There were no significant differences between attributions when therapists and attorneys were compared on attributions for each problem separately. However, there were differences in the way the two groups responded when the two problems were compared within groups. None of the therapist groups distinguished between the two problems in attributions of moral responsibility or blame. That is, they singled out no one person as predominately responsible or to blame for either problem. Attorneys, on the other hand, attributed moral responsibility and blame more linearly for domestic violence. That is, they were more likely to identify one person as predominately responsible or to blame for the domestic violence problem than for the schizophrenia problem. The absence of differences within therapist orientations groups may be due to the small sample sizes. With adequate sample sizes, some therapist groups might show differences in attributions between the two problems. However, a few psychologists commented specifically that attributions of moral responsibility and blame were not helpful or applicable to a clinical understanding of the case. It may be that therapeutic training discourages the use of those attributions about clients, either for ethical or for pragmatic reasons. In addition, perhaps legal training promotes attributions of moral responsibility and blame toward a single person when the person demonstrates no apparent cognitive impairment.

Additional findings and tendencies suggest possible gender differences in attribution of circularity-linearity. Although there were no differences in attribution between males and females in the combined sample, there were some gender differences when the participants were sorted by professional groups. When presented with a descriptive interactive diagram, female psychodynamic psychologists conceptualized schizophrenia more circularly than did male psychodynamic psychologists. The results also showed a tendency toward a gender difference between female and male psychiatrists on attributions of causality, with female psychiatrists attributing cause slightly more circularly than male psychiatrists. Both of these results may be due to sampling error because of small sample sizes. However, they are somewhat similar to the finding of Belmont et. al. (1990) that females clients are more likely than males to attribute blame for family problems to the interaction among individuals. Therefore, they do suggest the need for taking gender into account in similar research in the future.

Theoretical and Clinical Implications

Pauli Dell once asked the questions, “Why are family therapists talking about epistemology? Is epistemology relevant to theory? Is it relevant to practice?” (1982b, p. 57). The results of this study suggest that the answer is still to be found for systems theorists and for systems therapists. Systems-oriented psychologists were not different from psychologists of other orientations on measures of circular epistemology.

A number of possible interpretations may account for the results. One possibility may be that the notion of circular causality is not the radically different way

of interpreting life events that systems theorists have claimed. Another possible explanation for the results is that, although the theory of circular causality may be substantially different from previous theories of causality, the ideas are not applied in practice even by psychologists educated about the constructs. Another alternative explanation may be that systems-oriented therapists do not differ from therapists of other orientations because the others have adopted some ideas related to circular causality.

If either of the former explanations applies, then a need for continuing revision of the framework that underlies systems therapies may be suggested. Perhaps the construct of circular causality needs to be refined in ways that would make the ideas more relevant to psychological practice and accessible to practitioners.

The majority of significant differences in attribution were found in the comparison between problems. The results demonstrate some ways in which clinicians, whether they are medical practitioners or psychologists, make different attributions for schizophrenia and domestic violence.

Despite the unexpected pattern of findings, with continued development this scale appears to have some potential utility for researchers who wish to investigate the area of attributions. The present research attempted to connect systems theory to a component of practice, the process of diagnosis. The project, using Belmont et al.'s (1990) attribution questionnaire, may provide an initial step in the development of a research instrument suitable for continued use in examining the attributions of therapists regarding different types of psychological disorders.

Limitations of the Study

A major limitation of this study was the small sample size. This limited the power of the study to detect relationships among the variables. Only a small percentage of selected candidates returned completed, eligible questionnaires. The response rates across groups ranged from 10.98% for the medically oriented group to 18.56% for the attorney group. Mail surveys are commonly subject to low response rates. However, a response rate below 50% is not considered to be scientifically acceptable because the majority of the sample is not represented in the results (Mangione, 1995). There is no way of knowing what factors affected the response rates, or whether those who responded differ in some significant ways from those who did not. The only hints come from rare comments from those who returned the materials but declined to participate. Some of these comments involved the difficulty or length of the questionnaire. Some stated that certain questions were unclear, for example that moral responsibility seemed to equate with blame, or that the diagram questions did not seem to make sense. The only suggestion that there could be reasons for not participating that might be related to therapeutic viewpoint came from one systems-oriented individual. He commented that one “cannot know any causes, who’s to blame, who’s morally responsible, so I couldn’t answer the questionnaire. . . . Linking causes is antithetical to my views of doing therapy.” Revising the questionnaire toward brevity for future use may be one way to address the low response rate. Response rate might also be increased by having future surveys include planned follow-up procedures such as those suggested by Dillman (1978).

Another problem was the distribution of scores on most of the variables. The unusual nature of the distributions was extreme in some cases, either in the direction of a high frequency of identical scores, or in marked bimodality of the distributions. The unusual variances ruled out the use of parametric tests for interactions. The nonparametric statistical tests that were used were less powerful than the originally planned parametric tests. Also, the large number of tests needed increased the possibility of Type I error. Although the significance test was chosen to provide some balance in addressing these two problems, the existence of the unusual data distributions also argues for caution in interpreting these findings.

Another sampling problem was the imbalance in males and females in some of the groups. Although such imbalance does not seem to have significantly affected overall results in this case, the tendency toward differences in some of the groups indicates that gender is a factor that should be accounted for in future research of this type.

Besides sampling issues, problems with the instrument may have affected results. The present study was unable to demonstrate reliability of this instrument because of the very poor response rate on the reliability portion of the study. Although the consistently significant differences across problems that were noted seem to make intuitive sense, the validity and reliability of the instrument remain questionable. The question remains whether this survey taps concepts that relate to the construct of circular causality.

Other limitations of the instrument include the possibility that the written vignettes may not have been similar enough to actual diagnostic interviews in which a practitioner may choose his or her own questions. Also, the present study chose problems that lay at extremes of the biological versus psychosocial spectrum. Presenting problems in which there might be greater controversy about the causes of the disorder may have elicited some differences among groups.

Future Directions for Research

This project has demonstrated a number of areas for future research. The results suggest avenues for additional research in further development of the instrument that would help address some of the weaknesses cited in the previous section. Test-retest reliability remains to be established. This measure of temporal stability could be accomplished by having the questionnaire administered to a group of therapists, and then re-administered to the same group after a period of time had elapsed.

The construct validity of the instrument needs to be strengthened. Future studies might select as participants recognized experts in systems therapies and compare their responses on the CLAS with those of experts in other orientations.

To further explore possible differences between causal attributions of systems therapists and others, researchers might operationalize the construct of circular causality differently. For example, the concept of circular versus linear causality might be assessed using a completely free response paragraph format, with sophisticated raters to determine the presence of circular or linear characteristics in the responses. Future surveys also could explore attributions about other clinical problems that

involve a complex combination of psychosocial and biochemical changes, such as depression.

Summary and Conclusions

The present study was designed to investigate whether systems-oriented psychologists make attributions about clinical problems that are related to the theoretical world-view known as circular causality as it has been proposed by theorists within the family- and systems-therapy movement (Dell, 1982a, 1982b, 1982c; Fish, 1990; Haley, 1976, Hoffman, 1981; Keeney, 1979, Minuchin and Fishman, 1981). The results failed to support the hypothesis that systems-oriented psychologists attribute cause for clinical problems in a distinctly different way from other therapists. Other results demonstrated that therapists make different attributions of circularity-linearity related to two types of problems, schizophrenia and domestic violence. These results suggest that therapists of all orientations view these two problems as distinct types, and make attributions based on that assessment.

Several limitations to the study were cited. They include the lack of established reliability and validity of the assessment instrument, the low response rate which resulted in small samples, and the unusual distributions of scores. These areas also suggest the value of additional research aimed at clarifying the findings of this research and at improving an instrument that has begun to demonstrate its utility.

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Table 1

Summary of Participant Solicitations and Response Data by Group

Participants Solicited and Response Data								
Group	Total Packets		Returned as	Declined to	Did Not Meet	Not returned	Included in Final	
	Mailed		Undeliverable	Complete	Criteria		Sample	
	Female	Male					Female	Male
Behavioral	33	67	12	9	8	58	5	8
Psychodynamic	56	44	6	6	3	72	9	4
Systems	45	55	6	0	10	72	4	8
Psychiatrist	29	71	6	9	2	73	6	4
Attorney	38	62	3	6	0	73	9	9

Table 2

Demographic Data for Groups

Demographic Data									
Group	n	Age		Race or Ethnic Group		Gender		Years of Experience	
		M	SD			Female	Male	M	SD
Behavioral	13	44.31	5.17	White	13	5	8	15.39	6.06
Psychodynamic	13	46.00	6.31	White	13	9	4	15.08	4.59
Systems	12	46.00	5.01	White	12	4	8	17.33	5.45
Psychiatrist	10	46.90	7.64	White	12	6	4	18.60	6.77
Attorney	18	44.17		White	17	9	9	15.67	6.68
				Black	1				

Table 3

Medians, Means, and Standard Deviations for Circularity-Linearity Attribution Scores of Groups by Gender for Schizophrenia and Domestic Violence

Group	Attribution														
	Cause		Moral Responsibility		Intentionality		Blame		Sufficiency of Single Cause		Linear Concept of Problem		Circular Concept of Problem		
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Behavioral^a															
Schizophrenia															
Median	2.37	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	6.50	2.00	4.50	5.00	2.00
<u>M</u>	3.99	3.25	1.40	0.00	0.00	0.00	0.00	0.88	5.00	5.63	2.60	4.38	4.20	2.75	
<u>SD</u>	2.76	3.15	3.13	0.00	0.00	0.00	0.00	2.48	2.00	2.13	1.82	1.77	1.92	2.19	
Domestic Violence															
Median	1.67	2.00	3.00	2.75	0.00	0.00	0.00	2.50	4.00	5.00	2.00	2.50	5.00	4.50	
<u>M</u>	1.53	2.52	3.40	2.85	1.20	0.00	1.60	3.08	4.80	4.00	3.00	2.25	4.60	4.00	
<u>SD</u>	0.95	1.93	3.50	2.26	2.68	0.00	2.19	2.97	2.17	2.56	2.55	1.17	0.55	1.20	

(table continues)

Table 3 Continued

Group	Cause		Moral Responsibility		Intentionality		Blame		Sufficiency of Single Cause		Linear Concept of Problem		Circular Concept of Problem	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
	Psychodynamic ^b													
Schizophrenia														
Median	5.00	2.53	0.00	0.00	0.00	0.00	0.00	0.00	7.00	1.50	5.00	2.00	2.00	5.50
<u>M</u>	4.61	2.27	0.78	0.75	0.00	1.75	0.78	1.75	5.33	2.75	4.33	2.00	2.44	5.50
<u>SD</u>	2.26	1.67	2.33	1.50	0.00	3.50	2.33	3.50	2.55	2.87	1.80	0.82	0.88	0.58
Domestic Violence														
Median	2.00	1.90	5.00	1.17	0.00	0.00	0.00	1.17	5.00	2.00	2.00	3.00	5.00	5.00
<u>M</u>	2.17	1.70	4.35	2.33	0.93	1.75	1.67	1.83	4.78	1.75	2.67	3.00	4.00	4.75
<u>SD</u>	2.12	1.45	2.83	3.16	2.32	3.50	2.45	2.19	2.05	0.50	1.87	1.83	1.80	1.26

(table continues)

Table 3 Continued

Group	Cause		Moral Responsibility		Intentionality		Blame		Sufficiency of Single Cause		Linear Concept of Problem		Circular Concept of Problem	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
	Systems^c													
Schizophrenia														
Median	3.33	0.56	0.00	0.50	0.00	0.00	0.00	0.00	6.00	2.50	2.50	2.00	4.00	5.50
<u>M</u>	2.79	1.17	0.00	1.25	0.00	0.00	0.00	0.00	5.75	3.50	2.50	2.00	3.75	5.13
<u>SD</u>	1.20	1.73	0.00	2.38	0.00	0.00	0.00	0.00	1.50	2.83	1.29	1.07	1.26	1.64
Domestic Violence														
Median	2.44	1.23	1.50	1.50	0.00	0.00	1.25	0.00	5.00	2.00	1.00	1.00	5.00	5.50
<u>M</u>	2.05	1.25	2.00	2.04	0.00	0.00	1.38	1.63	4.00	3.00	1.25	1.75	5.00	5.38
<u>SD</u>	1.44	1.14	2.16	2.45	0.00	0.00	1.60	2.62	2.00	2.62	0.50	1.17	1.16	1.41

(table continues)

Table 3 Continued

Group	Cause		Moral Responsibility		Intentionality		Blame		Sufficiency of Single Cause		Linear Concept of Problem		Circular Concept of Problem	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
	Psychiatrist^d													
Schizophrenia														
Median	2.00	6.17	0.00	0.00	0.00	0.00	0.00	0.00	6.50	7.00	2.50	6.00	3.00	2.50
<u>M</u>	2.17	6.08	0.00	1.75	0.00	0.00	0.00	0.00	6.33	7.00	2.67	6.00	3.83	3.50
<u>SD</u>	1.17	1.06	0.00	3.50	00.0	0.00	0.00	0.00	0.82	0.00	1.37	0.82	1.84	2.38
Domestic Violence														
Median	2.00	1.67	3.00	2.50	0.00	0.00	2.92	3.50	2.50	5.50	2.50	2.50	4.50	6.00
<u>M</u>	1.95	1.90	3.78	2.50	1.67	1.75	2.47	3.50	3.17	4.75	2.17	3.50	4.50	6.00
<u>SD</u>	0.62	0.81	2.07	2.08	2.88	3.50	2.08	4.04	2.48	2.63	0.98	2.38	1.87	0.82

(table continues)

Table 3 Continued

Group	Cause		Moral Responsibility		Intentionality		Blame		Sufficiency of Single Cause		Linear Concept of Problem		Circular Concept of Problem	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Attorney ^e														
Schizophrenia														
Median	1.60	2.33	0.00	0.00	0.00	0.00	0.00	0.00	5.00	7.00	2.00	2.00	5.00	1.00
<u>M</u>	3.03	2.98	0.78	1.56	0.00	0.00	0.11	1.44	4.67	5.78	3.00	2.22	4.33	2.22
<u>SD</u>	3.07	2.60	2.33	3.09	0.00	0.00	0.33	2.46	2.50	1.92	2.35	1.48	2.00	1.92
Domestic Violence														
Median	1.60	1.67	5.00	4.00	0.00	0.00	2.00	4.00	5.00	4.00	2.00	5.00	5.00	1.00
<u>M</u>	1.74	2.10	4.56	4.22	2.06	1.89	2.61	4.22	4.00	4.22	2.67	3.44	5.00	2.44
<u>SD</u>	0.96	2.03	2.54	2.73	2.98	3.06	2.67	2.73	2.24	2.59	1.80	2.35	1.23	2.13

Note. The lower the score is, the more circular the attribution for all dependent variables except Circular Concept of Problem. On that variable a higher score is more circular.

^afemale $n = 5$; male $n = 8$. ^bfemale $n = 9$; male $n = 4$. ^cfemale $n = 4$; male $n = 8$. ^dfemale $n = 6$; male $n = 4$. ^efemale $n = 9$; male $n = 9$.

Table 4

Medians, Means, and Standard Deviations for Circularity-Linearity Attribution Scores of Groups for Schizophrenia and Domestic Violence

Group	Attribution						
	Causality	Moral Responsibility	Intentionality	Blame	Sufficiency of Single Cause	Linear Concept of Problem	Circular Concept of Problem
Behavioral^a							
Schizophrenia							
Median	2.00	0.00	0.00	0.00	6.00	4.00	3.00
<u>M</u>	3.54	0.54	0.00	0.55	5.38	3.69	3.31
<u>SD</u>	2.91	1.94	0.00	1.94	2.02	1.93	2.14
Domestic Violence							
Median	2.00	3.00	0.00	1.00	5.00	2.00	5.00
<u>M</u>	2.14	3.06	0.46	2.51	4.31	2.54	4.23
<u>SD</u>	1.65	2.68	1.66	2.70	2.36	1.76	1.01

(table continues)

Table 4 Continued

Group	Cause	Moral Responsibility	Intentionality	Blame	Sufficiency of Single Cause	Linear Concept of Problem	Circular Concept of Problem
Psychodynamic^b							
Schizophrenia							
Median	3.00	0.00	0.00	0.00	6.00	4.00	3.00
<u>M</u>	3.89	0.77	0.54	1.08	4.54	3.62	3.38
<u>SD</u>	2.32	2.05	1.94	2.63	2.82	1.89	1.66
Domestic Violence							
Median	2.00	2.67	0.00	1.00	5.00	2.00	5.00
<u>M</u>	2.02	3.73	1.18	1.72	3.85	2.77	4.23
<u>SD</u>	1.89	2.96	2.61	2.28	2.23	1.79	1.64

(table continues)

Table 4 Continued

Group	Cause	Moral Responsibility	Intentionality	Blame	Sufficiency of Single Cause	Linear Concept of Problem	Circular Concept of Problem
Systems^c							
Schizophrenia							
Median	1.16	0.00	0.00	0.00	4.50	2.50	4.50
<u>M</u>	1.71	0.83	0.00	0.00	4.25	2.17	4.64
<u>SD</u>	1.71	1.99	0.00	0.00	2.63	1.11	1.61
Domestic Violence							
Median	1.31	1.50	0.00	0.00	3.00	1.00	5.50
<u>M</u>	1.52	2.03	0.00	1.54	3.33	1.58	5.25
<u>SD</u>	1.25	2.26	0.00	2.25	2.39	1.00	1.29

(table continues)

Table 4 Continued

Group	Cause	Moral Responsibility	Intentionality	Blame	Sufficiency of Single Cause	Linear Concept of Problem	Circular Concept of Problem
Psychiatrist^d							
Schizophrenia							
Median	3.50	0.00	0.00	0.00	7.00	4.00	3.00
<u>M</u>	3.73	0.70	0.00	0.00	6.60	4.00	3.70
<u>SD</u>	2.29	2.21	0.00	0.00	0.70	2.05	1.95
Domestic Violence							
Median	2.00	3.00	0.00	2.92	4.50	2.50	5.50
<u>M</u>	1.93	3.27	1.70	2.88	3.80	2.70	5.10
<u>SD</u>	0.66	2.06	2.95	2.85	2.53	1.70	1.66

(table continues)

Table 4 Continued

Group	Cause	Moral Responsibility	Intentionality	Blame	Sufficiency of Single Cause	Linear Concept of Problem	Circular Concept of Problem
Attorney^c							
Schizophrenia							
Median	2.17	0.00	0.00	0.00	6.50	2.00	2.00
<u>M</u>	3.01	1.67	0.00	0.78	5.22	2.61	3.28
<u>SD</u>	2.76	2.68	0.00	1.84	2.24	1.94	2.19
Domestic Violence							
Median	1.64	4.50	0.00	2.50	4.50	2.50	4.00
<u>M</u>	1.92	4.39	1.97	3.42	4.11	3.06	3.72
<u>SD</u>	1.55	2.56	2.93	2.75	2.35	2.07	2.14

Note. The lower the score is, the more circular the attribution for all dependent variables except Circular Concept of Problem. On that variable a higher score is more circular.

^an = 13. ^bn = 13. ^cn = 12. ^dn = 10. ^en = 18.

Table 5

Medians, Means, and Standard Deviations of Circularity-Linearity Attribution Scores by Gender for Schizophrenia and Domestic Violence

Attribution	Schizophrenia		Domestic Violence	
	Female	Male	Female	Male ^a
Causality				
Median	3.00	2.00	2.00	1.50
<u>M</u>	3.42	2.90	1.90	1.92
<u>SD</u>	5.77	2.64	1.33	1.61
Moral Responsibility				
Median	0.00	0.00	3.00	2.33
<u>M</u>	0.64	1.03	3.87	2.92
<u>SD</u>	2.04	2.32	2.63	2.53
Intentionality				
Median	0.00	0.00	0.00	0.00
<u>M</u>	0.00	0.21	1.30	0.94
<u>SD</u>	0.00	1.22	2.49	2.34
Blame				
Median	0.00	0.00	2.00	2.00
<u>M</u>	0.24	0.82	2.03	2.94
<u>SD</u>	1.23	2.12	2.25	2.89
Sufficiency of Single Cause				
Median	6.00	6.00	5.00	3.00
<u>M</u>	5.33	4.97	4.18	3.64
<u>SD</u>	2.89	2.53	2.14	2.47

(table continues)

Table 5 continued

	Schizophrenia		Domestic Violence	
	Female	Male	Female	Male
Linear Concept of Problem				
Median	3.00	3.00	2.00	2.00
<u>M</u>	3.18	3.12	2.45	2.70
<u>SD</u>	1.90	1.93	1.72	1.83
Circular Concept of Problem				
Median	3.00	3.00	5.00	5.00
<u>M</u>	3.64	3.61	4.58	4.24
<u>SD</u>	1.71	2.21	1.44	1.94

Note. The lower the score is, the more circular the attribution for all dependent variables except Circular Concept of Problem. On that variable a higher score is more circular.

^aMeasures are repeated for schizophrenia problem and domestic violence problem: female $n = 33$ and male $n = 33$.

APPENDIX A
(Schizophrenia)

VIGNETTE

The client is 27 year old Bob F., a high school graduate, who now lives with his parents and his 17 year old sister in a middle class area of a medium size Atlantic coast city.

In the telephone call to the clinic, made by the mother of the client, the mother requested services for her son because he had been "acting strange, and wasn't himself." She stated that he refused to talk to the rest of the family about what was wrong, and said that she and her husband had decided to have him see a professional because he recently had gone several days at a time without showering or changing his clothes, and also slept in them.

Excerpt from interview with client:

Therapist: Your mother has told me a little bit about the situation that has brought you here when she called on the phone to make the appointment. Could you give me your view of what things have been happening lately that have been problems for you?

Bob: Things that have been problems? Well, I lost my job.

Th: Can you tell me a little more about that?

Bob: They were talking about me all the time, and I just could not do anything without it and then the foreman said that was it.

Th: Who was talking about you, Bob?

Bob: The two.....(the client appears perplexed and is silent for approximately one minute.)

Th: What happened just then, Bob?

Bob: Happened just then? They took my thoughts away. I can't... I don't know, they are all part of it. Its the mob, they are all dealing drugs.

Th: So, you say that someone is talking about you. What kind of things do they talk about?

Bob: They talk about the kind of things that I do, all the time. Whatever I'm doing. Sometimes they laugh and say 'He's a fool,' or 'He better watch it, he'll sure get in trouble for that.' Back and forth. But I'm the only one who can save things, with the help of God. And then I look to the lord and he tells me what I need to do. Only he formulates me what I need to do. Formulation of no fornication. I will wrestle with devils and I will enlightning the world to the preferment of all of mankind. You read the bible, Doc?

Excerpts from collateral interviews with parents:

Therapist: Would you two help to fill me in a bit more completely on what kinds of things have been going on with Bob that made you decide to bring him in?

Mrs. F.: Well, looking back on it it seems like it all started last year, right after Bobby lost that job, I guess, with the mill and then he had to move back in with us because he lost his apartment. Then he talked about getting that job that we thought was way beneath his level. We told him he ought to get something better than that, you know, but everything he looked at better was way above his level, if you know what I mean. Now Bob senior here's a foreman at the paper mill, but with Bobby's grades back in school and all, well, we thought that maybe he might even go to college. But anyway, Bobby got another job, though it's not a very good one and it's not full time, and then for a while it looked like he was going to get an apartment. But then he just started staying even more to himself than usual and he started talking strange.

Th: You say he was talking strange?

Mrs F.: (looks at husband) Well, like there was one time when we just couldn't understand what he was trying to say, it just didn't make sense. He was talking about some old friends of ours and trying to say they were selling drugs or something, real crazy talk. We told him how silly that was. But he wouldn't listen, he won't listen to us at all anymore. And we think he may be hearing things (looks at husband). Bob senior had an uncle that use to hear things.

Mr. F.: He had bad nerves, they said. My daddy said he was just lazy. Didn't hardly work a lick.

Th: What is it that makes you think that Bobby has been hearing things?

Mrs. F.: Well sometimes he just stares for a while like at nothing. And one time he said just out of the blue, "Leave me alone." Nobody was even talking to him or near him.

Th: Mr. F., your wife has mentioned several things that have been problems that seem to be happening with Bob, Jr.. I wonder if as you've been listening you pretty much agree or are there some things you might like to add?

Mr. F.: Well, yes, what she says is true. But, well, my wife is a religious person, active in her church, you understand. But Bobby, he, well, he has sort of gone off the deep end with it.

Th: Uh huh.

Mr. F.: Well, I really don't go to church very often. But Bobby-he's joined the _____ Congregation down over off 33. Now he spends a lot of his time doing what he calls consecrations. He talks about drug dealers and devil worshipers. He was standing out in the cold last week with no coat on, holding his arms out like a cross. Said he had to "challenge the sun to save the world." I tried to get him to come in but he wouldn't come in. Now, I'll tell you I didn't know what to do.

Mrs. F.: I've told him I didn't approve of that church. Some of the things they believe and ways they act are just strange, what they call speaking in tongues, you know. It's sort of a 'holy roller' type place. What's the matter with the good old ordinary Methodists is what I asked him.

Th: When did these problems that you have noticed begin?

Mrs. F.: I don't remember noticing anything before Nanna got sick, do you?

Mr. F.: No. Seems like he started getting real religious and all right after her funeral, I guess. My wife's mother died of cancer a while back, last part of May. She was ill for quite some time. She was right special to him, though my wife or the rest of us didn't get along with her too well.

Th: And you mentioned something about your daughter?

Mrs. F.: They used to get along so good and now she's embarassed, and says she cannot bring her friends to the house anymore. She's tried to talk him out of acting this way. We all have. He won't listen to any of us.

APPENDIX B
(Domestic Violence)

VIGNETTE

The client is 35 year old Jim P. who lives with his wife, Frances, 36, and step-children, John, 17, and Heather, 14. The family lives in a suburban area of a medium size Atlantic coast city.

In the initial telephone call to the clinic, Jim had stated that he had been ordered by the court to get counseling because his wife had had him arrested for assault and battery.

Excerpt from interview with client:

Therapist: I understand that the court has ordered you to come in for counseling. Can you tell me something about how I can be of help to you?

Jim: Well, it's not just the court, you know. I really want to stop this, to find out why I did this. I really love my wife, and I never wanted to hurt her. I didn't mean to do it. It's really like it wasn't me, you know. Like when I got that mad, I just lost control of myself and it's like I didn't know what I was doing.

Th: Is this the first time this ever happened?

Jim: Oh, well, we've had fights before, but I never really hurt her before this...I guess I got a little carried away and when I hit her she fell into the mantle over the fireplace and cut the side of her head. I got scared and left and her son took her to the emergency room, they told me later.

Jim: I've just got this temper. And I just can't control it. It's like I go from zero to sixty in no time flat.

Th: So your temper got you in trouble with your wife and the court. Are there other times you lose your temper?

Jim: Yeah. Sometimes I feel like a bomb walking around waiting to explode. There was this assistant at work, young guy. If I hadn't been laid off when I was I'd have probably busted his head open sooner or later. Sometimes I'd just boil. If the boss hadn't been around...like I said, it wouldn't have taken much. One day he'd have looked at me wrong one too many times, and, you know, like Jackie Gleason, Pow! To the moon!

Jim: No, I don't drink, not a drop. My dad was a drinker and that turned me off of it for good. When he was drunk, my dad

would lose it every time.

Th: What do you mean when you say he would lose it?

Jim: He had a bad temper, like me. He would throw things sometimes or start hitting on my mom or one of us kids.

Th: And how did this last argument start?

Jim: Well, like I said, I've been laid off for about three or four months. And I have this old back injury that bothers me sometimes, and when it does, I can't do much of anything anyway. So, that day she came home from work late. Again. She no sooner got in the door than she started complaining about this and that. And asking why I didn't make the kids do their chores. Well, they're her kids anyway, not mine. And if I do tell them what to do she gets mad and says there's no need to holler at them.

Well my back was out and I'd had about as much as I could take. But I said, 'Baby, take it easy,' and she said something like, 'I can't take it easy, somebody's got to do something around here.' And I could feel myself getting madder. And she wouldn't look at me, so I got up off the couch and went over to her just to make her look at me. And she held her arm up over her face. I hadn't even touched her. But that made me so mad, I tried to knock it away.

Excerpts from interview with wife, Frances:

Frances: I was hoping taking him to court would put a stop to it. I just want Jim to get some help. I'm worried about the kids seeing this. You know, Jim can be the sweetest, most charming guy. When things are going good, I don't have a thing to complain about.

Therapist: How long have the two of you been married?

Frances: It'll be three years this March.

Th: Is this the first time something like this has happened?

Frances: Oh, he's hit me before, shoved me. I never had anything worse than bruises before. And then, I guess, well...he's threatened to kill me. He did it once when he had a kitchen knife in his hand. He was holding me around the neck from the back and said he'd kill me with the knife. It was a long bread knife,

sharp, with those scalloped edges? I thought he was going to do it that time, but he didn't. I told him 'go ahead, if you're going to do it just go ahead.' He didn't, he pulled that knife across my throat so it just grazed my skin and he said, 'You're not worth it,' and then he put it down and just left.

Well, the other time was with the gun, he has a pistol collection. He held the gun to my head, but he didn't fire it.

Th: You said that he worries about you? Would you explain that to me a little?

Frances: Honestly, I wish I could explain it to myself. I suppose it's because, before Jim and I met, I went out a couple of times with one of the fellows I work with. Now, if I'm the least bit late, he thinks I'm spending time with him. I'm not, but the facts don't seem to make any difference..... The other thing we fight about is my kids. He just cannot seem to get along with them. He flies off the handle at the least thing. If it's not their radio station, it's their clothes. I mean, I don't like that heavy metal stuff either, and I don't like it when they're mouthy, but the way Jim handles it doesn't help at all. They've just gotten worse and worse.

APPENDIX C

DEMOGRAPHIC SURVEY

(for psychologist groups)

Please respond to the following questions. You may withhold any information if you choose to. However, information which is collected will not be used individually nor used to identify you.

Age: _____

Sex: _____

Race/ ethnic background: American Indian, Eskimo or Aleut _____
 Asian or Pacific Islander _____
 Black _____
 Hispanic origin _____
 White _____
 Other _____

Highest academic degree attained: _____

License or certification held: _____

Number of years of clinical experience: _____

Average number of client contact hours per week: _____

Primary therapeutic orientation: _____

Please name three authors who have been most important to your development as a therapist:

_____, _____, _____

APPENDIX D

DEMOGRAPHIC SURVEY

(for psychiatrists)

Please respond to the following questions. You may withhold any information if you choose to. However, information which is collected will not be used individually nor used to identify you.

Age: _____

Sex: _____

Race/ ethnic background: American Indian, Eskimo or Aleut _____
 Asian or Pacific Islander _____
 Black _____
 Hispanic origin _____
 White _____
 Other _____

Highest academic degree attained: _____

License or certification held: _____

Number of years of clinical experience: _____

Average number of client contact hours per week: _____

The primary duty of my position is: (please check)

Verbal psychotherapy _____, medication management _____, other _____

Please name three authors who have been most important to your development as a clinician:

_____, _____, _____

APPENDIX E

DEMOGRAPHIC SURVEY

(for attorneys)

Please respond to the following questions. You may withhold any information if you choose to. However, information which is collected will not be used individually nor used to identify you.

Age: _____

Sex: _____

Race/ ethnic background: American Indian, Eskimo or Aleut _____
 Asian or Pacific Islander _____
 Black _____
 Hispanic origin _____
 White _____
 Other _____

Highest academic degree attained: _____

License or certification held: _____

Number of years of legal experience: _____

Average number client contact hours per week: _____

Primary legal specialty: _____

Please name three authors who have been most important to your professional development:

_____, _____, _____

APPENDIX F
(Circularity-Linearity Attribution Scale)

QUESTIONNAIRE

In the spaces below, please list the cause or causes of the problem. You may list none or as many causes as you believe apply.

<u>Cause</u>	<u>Minimally</u> <u>Important</u>							<u>Extremely</u> <u>Important</u>
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	

If you wish to list additional causes, please duplicate the format printed above. You may use the bottom of the page or the back.

For each cause you have listed, please rate how important that cause is to the occurrence of the problem. Using the scale marked 1 through 7, circle the appropriate number. A rating of 1 indicates minimal importance and a rating of 7 indicates extreme importance.

In the spaces below, please list any person or persons you believe are morally responsible for the the occurrence of the problem. You may list none or as many as you believe apply.

<u>Person who is morally responsible</u>	<u>Minimally Responsible</u>							<u>Extremely Responsible</u>
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	

If you wish to list additional persons who are morally responsible, please duplicate the format printed above. You may use the bottom of the page or the back.

For each person you have listed, please rate the extent of that person's responsibility for the occurrence of the problem. Using the scale marked 1 through 7, circle the appropriate number. A rating of 1 indicates minimal responsibility and a rating of 7 indicates extreme responsibility.

In the spaces below, please list any person or persons who you believe intended to cause the problem to occur. You may list none or as many as you believe apply.

<u>Person who intended to cause the problem</u>	<u>Minimally Important</u>							<u>Extremely Important</u>
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	

If you wish to list additional persons who intended to cause the problem, please duplicate the format printed above. You may use the bottom of the page or the back.

For each person you have listed, please rate how important the intentions of that person are to the occurrence of the problem. Using the scale marked 1 through 7, circle the appropriate number. A rating of 1 indicates minimal importance and a rating of 7 indicates extreme importance.

In the spaces below, please list any person or persons you believe are to blame for the occurrence of the problem. You may list none or as many as you believe apply.

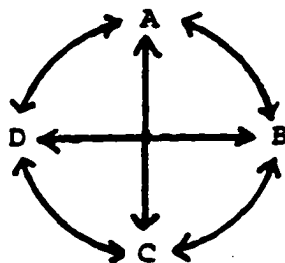
<u>Person who is to blame for the occurrence of the problem</u>	<u>Minimally to blame</u>							<u>Extremely to blame</u>
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	

If you wish to list additional persons who are to blame, please duplicate the format printed above. You may use the bottom of the page or the back.

For each person you have listed, please rate how blameworthy each person is for the occurrence of the problem. Using the scale marked 1 through 7, circle the appropriate number. A rating of 1 indicates that a person is minimally to blame for the occurrence of the problem and a rating of 7 indicates that a person is extremely to blame.

To respond to the questions on this page, please circle the appropriate number.

How well do you think the following diagram represents the events portrayed in the vignette about Bob E. and his parents?



Very poorly 1 2 3 4 5 6 Very well
7

How well do you think the following diagram represents the events portrayed in the vignette about Bob E. and his parents?



Very poorly 1 2 3 4 5 6 Very well
7

APPENDIX H
(Sufficiency of Single Cause Questions)

Think about the problem portrayed in the vignette about Bob E. and his parents. In your opinion, how likely is it that any one of the causes you listed would by itself be sufficient to make the problem occur? Please circle the appropriate number.

Very
unlikely

Very
likely

1

2

3

4

5

6

7

Please list every cause you believe would be sufficient by itself to make the problem occur. You may list none or as many as you believe apply.

If you wish, you may list additional causes below or on the back of the page.

Think about the problem portrayed in the vignette about Jim P. and his wife. In your opinion, how likely is it that any one of the causes you listed would by itself be sufficient to make the problem occur? Please circle the appropriate number.

Very
unlikely

Very
likely

1

2

3

4

5

6

7

Please list every cause you believe would be sufficient by itself to make the problem occur. You may list none or as many as you believe apply.

If you wish, you may list additional causes below or on the back of the page.

APPENDIX I
(Additional Contents of Research Materials Package)

Dear Participant:

I am writing to request your participation in my dissertation research which is being conducted in partial completion of requirements toward a Doctor of Psychology degree to be awarded by the Virginia Consortium for Professional Psychology. The focus of the research is to investigate therapists' views of clinical problems.

If you agree to participate, you will be asked to complete a short demographic questionnaire. Next, you will be asked to read two vignettes which portray problems presented in a therapeutic setting. After reading each vignette you will be asked to respond to questions regarding the problems portrayed. The total time that this will require of you is approximately one half hour or less. You will be offered the opportunity to request an abstract of the study which will be available once the study is completed.

Your confidentiality will be preserved. If you choose to participate, any materials which may identify you by name will be kept separate from other research materials you return. A separate list of names with identifying numbers will be kept to allow the researcher to recontact participants if necessary. Data will be identified by number only and will be analyzed to provide group results. You may decline to answer any question and you may withdraw from the study at any time.

The research has been reviewed and approved according to the ethics procedures of the College of William and Mary in Virginia. You may report any dissatisfaction with this process to the Department of Psychology, College of William and Mary, Williamsburg, Virginia 23185, or by telephone at (804) 221-3870. You may also contact the chairman of my dissertation committee, Neill Watson, PhD, at the above address or by telephone at (804) 221-3889.

If you are willing to participate please continue as directed. Completing and returning the questionnaire will serve as your voluntary consent to participate in this study. If you have any questions at any time during the research you may phone me at work at (804) 220-3200, or at home at (804) 898-1717, or you may write to me at 104 Brandywine Drive, Grafton, Virginia 23692.

Thank you in advance for your participation.

Sincerely,



Helen A. Jones, MA

GENERAL EXPLANATION TO PARTICIPANTS

You have agreed to participate in research regarding therapists' opinions about problems presented in a therapeutic context. This study is being conducted by Helen A. Jones, MA, in partial completion of requirements toward a Doctor of Psychology degree to be awarded by the Virginia Consortium for Professional Psychology. You will be asked to read two fictional vignettes which portray problems presented in a therapeutic setting. After reading each vignette you will be asked to respond to a questionnaire about the problems portrayed. The time required for participation is probably one half-hour or less. You may withdraw from the study at any point. If you do withdraw, please return all materials in the stamped addressed envelope marked Return Envelope, and enclose a statement simply stating your decision to withdraw.

Please continue to Instructions sheet.

INSTRUCTIONS

I.
Please complete the demographic survey.

II.
Part A: Please find the packet marked Packet A which contains one written vignette and one questionnaire. Read the vignette; then respond to the questionnaire. Once you have completed this portion of the study, please do not make any further changes to your responses. You may refer back to the vignette or to your responses, if you need to do so in order to complete Part C.

Part B: Please find the packet marked Packet B which contains one written vignette and one questionnaire. Read the vignette; then respond to the questionnaire. Once you have completed this portion of the study, please do not make any further changes to your responses. You may refer back to the vignette or to your responses, if you need to do so in order to complete Part C.

Part C: Please find the packet marked Packet C which contains additional questions. Please respond to the questions in the order presented.

III.
Please place all completed materials in the stamped addressed Return Envelope. Seal Return Envelope.

Please mail completed materials to researcher as quickly as possible.

PACKET A

PACKET B

PACKET C

DEBRIEFING NOTE

Thank you for your participation in this research. Please do not discuss your responses with any other individuals who have been asked to participate. If you would like to receive an abstract of this study after its completion, please fill in your name and address on the enclosed stamped addressed postcard and mail it back to the researcher.

APPENDIX J
(Follow-up Letter)

104 Brandywine Drive
Grafton, Virginia

Dear Participant,

I recently sent you a packet of research materials. Perhaps you have been intending to participate and set the packet aside to complete later. I am writing to let you know that I am still collecting data and I would very much appreciate your participation in my study.

You may reach me with any questions at work at (804)220-3200, or at home at (804)898-1717.

Sincerely,



Helen A. Jones

APPENDIX K
(Letter for Reliability Study)

104 Brandywine Drive
Grafton, Virginia 23692

Dear Participant:

Thank you for taking part in my dissertation research by completing and returning the previous package of questionnaires.

I am writing some participants to request that you complete parts of the survey again. Your continued participation is very important to the study. To do so, please follow the directions on the instructions page.

Your confidentiality will be preserved. If you choose to continue your participation, any materials which may identify you by name will be kept separate from other research materials you return. Data will be identified by number only and will be analyzed to provide group results. You may decline to answer any question and you may withdraw from the study at any time.

The research has been reviewed and approved according to the ethics procedures of the College of William and Mary in Virginia. You may report any dissatisfaction with this process to the Department of Psychology, College of William and Mary, Williamsburg, Virginia 23185, or by telephone at (804) 221-3870. You may also contact the chairman of my dissertation committee, Neill Watson, PhD, at the above address or by telephone at (804) 221-3889. You may contact me by telephone at work at (804) 220-3200 or at home at (804) 898-1717.

If you decide to respond to this part of the survey, I want to thank you again for your continued interest and participation.

Sincerely,



Helen Jones, M.A.

APPENDIX L

Raw Data	stium 1-2 group 4 age 6-7 gender 9 race 11 degree 13 exp 15-16 hours 18-19 because 21-24 bresp 26-29 hnt 31-34 bhblame 36-39 bgaf 41-42 bsufl 44 bcire 46 blinear 48 jcause 50-53 jresp 55-58 jnt 60-63 jblame 65-68 jgaf 70-71 jsufl 73 jeire 75 jlneat 77
01	1.36 1.5 2.06 2.0 7.00 0.00 0.00 0.00 30.6 1.5 2.30 7.00 0.00 4.00 60.4 5.1
02	1.41 1.5 2.15 2.7 1.60 0.00 0.00 0.00 40.4 4.1 0.00 0.00 0.00 0.00 50.4 4.1
03	1.44 2.5 1.15 1.5 1.00 0.00 0.00 0.00 35.1 1.6 2.00 0.00 0.00 0.00 50.1 5.1
04	1.51 2.5 2.20 2.5 1.00 0.00 0.00 0.00 45.3 3.2 0.00 7.00 0.00 5.1 3.3
05	1.41 2.5 2.10 0.6 7.00 0.00 0.00 0.00 25.6 2.6 1.00 0.00 1.00 0.00 51.6 5.3
06	1.46 1.5 2.22 2.0 7.00 0.00 0.00 0.00 30.7 6.4 1.67 0.00 6.00 0.00 41.7 5.7
07	1.44 2.5 2.20 2.7 7.00 0.00 0.00 0.00 25.7 1.4 1.00 4.33 0.00 4.67 50.1 4.1
08	1.53 2.5 2.27 4.0 7.00 0.00 0.00 0.00 30.7 1.6 2.33 3.00 0.00 7.00 40.7 3.4
09	1.50 2.5 2.17 1.0 2.00 0.00 0.00 0.00 25.6 5.7 0.00 2.50 0.00 0.00 45.5 5.3
10	1.42 2.5 2.16 3.4 0.00 0.00 0.00 0.00 21.4 7.1 3.00 4.00 0.00 4.00 58.5 5.1
11	1.4 50.2 5.4 22.2 0.2 0.00 0.00 0.00 40.7 1.1 1.67 4.00 0.00 4.00 40.1 1.1
12	4.46 1.5 4.16 1.0 1.60 0.00 0.00 0.00 38.2 7.1 1.60 1.00 0.00 0.00 40.5 6.2
13	4.45 2.4 20.2 0.2 3.3 7.00 0.00 0.00 3.50 60.6 1.1 7.00 6.00 0.00 10.7 1.1
14	4.40 1.5 4.15 2.0 1.00 0.00 0.00 0.00 45.7 7.2 0.00 5.00 0.00 7.00 62.6 3.6
15	4.53 2.3 4.20 5.0 2.75 0.00 0.00 2.50 21.2 2.4 1.20 0.00 0.00 1.00 20.2 2.5
16	4.62 2.5 4.27 4.0 0.00 0.00 0.00 0.00 40.7 1.1 0.00 7.00 0.00 0.00 60.1 1.1
17	4.42 1.5 4.18 2.0 1.20 7.00 0.00 0.00 35.2 5.2 3.60 7.00 0.00 7.00 42.1 5.1
18	4.51 2.5 4.20 2.5 0.00 0.00 0.00 0.00 30.7 1.1 0.50 2.00 0.00 2.00 65.7 1.1
19	4.39 1.5 4.05 10.0 0.00 0.00 0.00 0.00 50.4 5.1 1.00 7.00 0.00 0.00 62.2 5.3
20	4.39 1.5 4.17 3.0 7.00 0.00 0.00 0.00 30.7 4.1 2.20 7.00 3.00 3.00 40.7 4.1
21	4.33 1.5 4.06 0.5 0.00 0.00 0.00 0.00 30.7 2.7 0.69 2.50 7.00 1.50 50.2 7.1
22	4.41 1.5 4.05 1.5 7.00 0.00 0.00 0.00 19.5 2.5 0.60 2.00 7.00 1.00 32.5 5.2
23	4.28 1.5 4.03 2.5 0.00 0.00 1.00 2.1 1.5 2.2 2.50 2.50 1.50 2.00 38.2 4.5
24	4.47 2.5 4.14 2.3 7.00 0.00 0.00 0.00 30.7 2.2 2.00 7.00 3.00 4.00 41.7 6.6
25	4.46 1.5 4.17 2.0 7.00 0.00 0.00 0.00 30.7 2.6 1.50 7.00 0.00 2.00 15.6 6.3
26	4.42 2.5 4.17 4.0 4.00 0.00 0.00 0.00 25.6 1.5 2.80 4.00 0.00 7.00 50.6 3.5
27	4.45 2.5 4.20 3.0 7.00 0.00 0.00 0.00 21.7 6.2 2.25 7.00 7.00 7.00 51.4 1.6
28	2.54 2.5 2.20 2.5 2.66 0.00 0.00 0.00 28.1 5.2 1.00 7.00 7.00 5.00 50.2 5.4
29	2.45 2.5 2.15 2.5 4.00 0.00 0.00 0.00 35.7 5.3 3.00 1.00 0.00 1.00 55.2 3.5
30	2.42 1.5 2.10 2.0 3.00 0.00 0.00 0.00 25.7 2.5 0.00 7.00 0.00 2.00 10.7 5.2
30	2.39 1.5 2.10 3.0 5.00 0.00 0.00 0.00 30.5 2.5 7.00 7.00 0.00 0.00 45.5 5.2
32	2.40 1.5 2.18 3.5 6.00 0.00 0.00 0.00 11.7 3.6 3.50 7.00 7.00 4.00 45.5 4.4
33	2.42 1.5 1.15 2.0 1.50 7.00 0.00 0.00 15.1 4.4 0.50 1.50 0.00 0.00 20.5 5.1
34	2.46 1.5 2.20 2.5 7.00 0.00 0.00 0.00 15.7 2.6 0.50 2.00 1.33 2.00 41.5 6.2
35	2.51 1.5 1.15 3.2 7.00 0.00 0.00 0.00 25.1 3.1 1.50 2.67 0.00 0.00 45.1 4.1

(data continues in next column)

36	2.58 1.5 2.22 7.0 7.00 0.00 0.00 0.00 20.7 2.4 2.00 7.00 0.00 0.00 50.7 1.5
37	2.41 1.5 2.09 3.0 2.00 0.00 0.00 7.00 20.6 3.2 2.50 5.00 0.00 7.00 20.5 5.1
38	2.48 2.5 2.12 3.5 0.00 0.00 0.00 0.00 25.1 6.1 0.00 0.00 0.00 0.00 35.1 6.1
39	2.39 2.5 2.10 3.5 2.40 3.00 7.00 7.00 31.2 6.2 2.80 1.33 0.00 1.33 45.2 5.2
40	2.53 1.5 2.20 3.5 3.00 0.00 0.00 0.00 30.7 1.6 2.00 0.00 0.00 0.00 50.6 1.6
41	3.42 2.5 3.18 1.0 0.00 0.00 0.00 0.00 30.1 7.1 1.00 7.00 0.00 7.00 65.3 7.1
42	3.36 2.5 2.20 0.00 0.00 0.00 0.00 45.1 7.1 0.00 0.00 0.00 0.00 60.1 7.1
43	3.45 2.5 3.18 5.5 1.20 0.00 0.00 0.00 21.3 1.25 1.00 0.00 2.00 70.1 3.1
44	3.47 2.5 3.20 2.5 1.12 1.00 0.00 0.00 30.1 6.1 1.38 2.00 0.00 0.00 15.1 6.1
45	3.39 2.5 2.11 2.4 2.00 0.00 0.00 0.00 25.4 3.0 0.00 0.00 0.00 0.00 57.1 5.2
46	3.45 1.5 2.23 3.0 3.50 0.00 0.00 0.00 37.4 1.3 3.3 5.00 0.00 3.00 50.5 4.1
47	3.50 2.5 2.25 0.00 7.00 0.00 0.00 0.00 23.4 3.3 3.67 0.00 0.00 0.00 53.7 5.1
48	3.46 1.5 2.14 2.2 3.33 0.00 0.00 0.00 25.2 4.2 2.67 0.00 0.00 0.00 50.5 6.2
49	4.46 2.5 4.20 0.5 1.75 7.00 0.00 7.00 45.3 5.3 1.50 1.00 0.00 7.00 50.3 6.5
50	1.43 1.5 1.07 3.0 2.37 7.00 0.00 0.00 30.6 5.1 2.33 7.00 0.00 4.00 45.7 4.4
51	3.50 2.5 2.22 1.2 5.00 1.00 0.00 0.00 30.6 5.3 1.50 4.00 0.00 4.00 60.3 4.4
52	3.52 1.5 2.15 1.0 3.33 0.00 0.00 0.00 30.7 5.3 2.20 2.00 0.00 2.50 60.1 6.1
53	3.52 1.5 2.10 1.0 0.00 0.00 0.00 0.00 20.7 4.2 0.00 1.00 0.00 0.00 50.5 4.1
54	3.48 2.5 3.20 2.0 0.00 1.00 0.00 0.00 30.7 6.3 1.20 2.33 0.00 0.00 60.7 6.3
55	1.48 2.5 2.15 3.0 1.00 0.00 0.00 7.00 30.7 2.4 1.80 1.00 0.00 1.00 40.6 2.2
56	5.50 1.5 2.20 4.0 0.00 0.00 0.00 0.00 30.6 3.2 2.67 3.00 3.00 3.33 50.6 4.3
57	5.45 1.5 5.19 2.0 2.00 0.00 0.00 0.00 32.6 7.1 1.50 3.00 0.00 0.00 20.1 7.1
58	5.40 1.5 5.14 4.0 2.00 0.00 0.00 0.00 28.5 3.5 2.00 2.00 0.00 2.50 50.4 6.3
59	5.55 2.5 5.25 5.0 5.00 0.00 0.00 0.00 25.7 2.6 1.33 2.00 0.00 7.00 45.6 6.2
60	5.38 1.5 5.12 3.8 1.00 0.00 0.00 0.00 30.7 3.3 2.50 5.66 7.00 4.00 45.1 3.3
61	5.35 1.5 5.11 6.0 3.00 0.00 0.00 0.00 30.7 2.2 1.00 7.00 0.00 5.00 52.6 2.2
62	5.54 2.5 5.20 3.8 5.33 0.00 0.00 0.00 18.7 3.6 2.00 5.00 0.00 0.00 35.5 5.3
63	5.51 2.5 5.25 6.0 7.00 0.00 0.00 0.00 30.7 7.3 0.00 7.00 7.00 0.00 20.7 7.7
64	5.44 1.5 5.10 2.0 1.00 0.00 0.00 0.00 25.7 5.3 2.00 2.00 0.00 0.00 50.1 5.1
65	5.57 2.5 5.30 3.0 7.00 0.00 0.00 0.00 30.7 2.5 1.25 3.00 0.00 0.00 15.1 6.2
66	1.37 1.5 2.10 2.4 2.00 0.00 0.00 0.00 25.2 5.2 1.33 3.00 0.00 0.00 40.2 5.2

VITA

Helen Jones was born in Atlanta, Georgia, on July 16, 1949. She received her Bachelor of Science Degree in Psychology from Louisiana State University in Shreveport, in 1979. While living in Germany, she earned the Master of Arts Degree in Counseling from the European program of Ball State University in Muncie, Indiana. The degree was awarded in 1985. She completed the Doctor of Psychology Degree in Clinical Psychology in 1997. The doctorate was awarded by the Virginia Consortium for Professional Psychology, ODU/NSU Graduate Center, 3300 South Building/Suite 201, 397 Little Neck Road, Virginia Beach, Virginia 23452.

Dr. Jones held the position of Mental Health Therapist at the Middle Peninsula-Northern Neck Counseling Center in Gloucester, Virginia from 1989 to 1992. Since 1992 she has worked as a family therapist who specializes in child and adolescent problems at Colonial Mental Health Services in Williamsburg, Virginia.