

Circles: Q Methodology and Hermeneutical Science

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ABSTRACT: A long-standing debate in hermeneutical discourse concerns the scientific status of hermeneutical investigation. Contemporary hermeneutics has shied away from or outright rejected scientific models and practices for textual analysis. It is alleged that the subjective nature of textual interpretation precludes attempting an empirical-behavioral approach. However, studying subjectivity from an understanding mode does not require violating inductive scientific principles. A review of its basic themes reveals that the hermeneutical enterprise conforms to the fundamental tenets of a science of subjectivity. Empirical operations are available and applicable as operational techniques for doing hermeneutical science. It transforms hermeneutics from "art" and "soft science" into a methodology grounded in the basic foundations of behavioral science but on a more secure footing. And it responds to the dilemma presented by the hermeneutical circle by maintaining the integrity of the text and controlling for the contaminating effects of the observer's analytic presuppositions.

Hermeneutics as an Empirical Problematic

A persistent theme in contemporary hermeneutical theory is its disassociation from empirical methodologies. Correctly understood, we are admonished, the human sciences (*Geisteswissenschaften*), unlike their empirical counterparts, are more faithful to the study of human experience as expressed in a variety of textual forms. Consequently, phrases such as "human sciences," "cultural science," and "interpretative science" have become popular substitutes, with the term "science"

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broadly constructed (including equivalency with "art").

Although multiple charges have been levied against empiricism as a legitimate epistemological foundation for hermeneutical analysis, this situation was not always the case. "As long as there has been a social science, the expectation has been that it would turn from its humanistic infancy to the maturity of the hard sciences, thereby leaving behind its dependence on value, judgment, and individual insight" (Rabinow and Sullivan, 1987, p. 2). However, others allege that in their haste to conform to natural science models social scientists drifted from their natural moorings in the humanities. They became over-reliant upon technique and too interested in limited areas more easily measurable but at the expense of remaining true to the text. Thus, the peril implicit within empiricism was the reconstruction of social reality "as consisting of brute data alone. These data are the acts of people (behavior) as identified supposedly beyond interpretation. ... What this excludes is a consideration of social reality as characterized by intersubjective and common meanings" (Taylor, 1987, p. 62).

Sentiments such as these are found in a number of volumes that survey the origins, development and fundamental tenets of hermeneutics.¹ Among them, Palmer's (1969) text is illustrative. According to Palmer, realism (i.e., scientism) forces a sharp distinction between a text and the author's intentions or a reader's reactions; "object"- "subject" differences are maximized. Consequently, realism slavishly mimics science's forensic style; it has "fallen into the scientist's ways of thinking: his down-to-business objectivity, his static conceptualizing, his lack of an historical sense, his love of analysis" (Palmer, 1969, p. 6).

For example, Steele (1979), who defines psychoanalysis primarily as a hermeneutic, shares Palmer's discomfort. He believes that scientific psychology necessarily functions externally to the object whereas "cultural science" assumes a more intimate posture. The principal divergence between the two models is working with texts in situations where communication of "lived experience" is invited as over against those where it is not. "Lived experience," the heart and soul of psychoanalysis, is re-lived more appropriately through texts amendable to some form of dialogic analysis. Thus, "the methodological goals of the interpretive sciences are radically different from those of the natural

¹Resources on hermeneutics are innumerable. Helpful review essays and source books include Connolly and Keutner (1988), Muller-Vollmer (1992a, 1992b), Palmer (1969), Rabinow and Sullivan (1987), and Thiselton (1992).

sciences" (Steele, 1979, p. 391). Alternative methods are required, i.e., those which "aid communication, to help texts, works of art, or people to speak" (Steele, 1979, p. 392). This breach between natural and cultural sciences is succinctly summarized by Taylor (1987, p. 39): "the empiricist orientation must be hostile to a conduct of inquiry which is based on interpretation."² Even Schleiermacher, considered the progenitor of modern hermeneutics, admitted: "It is very difficult to assign general hermeneutics its proper place among the sciences" (1992, p. 73).

Certainly, a hermeneutical approach provides a welcome critique of the dominant paradigm in behavioral research. It is incumbent upon social and behavioral scientists to acknowledge the hermeneutical elements in their work, principally in terms of method-as-an-interpretation, a conclusion derived from and now common place to modern philosophy of science. Nevertheless, the perpetuation of an artificial dichotomy between empiricism and hermeneutics continues unabated. While the mistreatment of texts by orthodox behavioral methods deserves criticism, the subsequent rejection of an empirical approach to hermeneutics is unnecessary and summons review.

Fortunately, the attitude expressed by Taylor, Steele, and Palmer is not universal. Kurt Mueller-Vollmer (1992b) concludes his excellent survey of the German hermeneutical tradition with the declaration that the humanities and the social sciences, rather than standing in opposition, are complementary. Their interaction results from "the fact that hermeneutic concerns almost inevitably lead us back to the consideration of epistemological problems, and these tend effectively to undermine any purely pragmatic way of dealing with the methodology of a given humanistic discipline" (p. 46). In principle, hermeneutics need not be discipline-specific nor defined or constrained by any particular method. Rather, "... hermeneutics should better be conceived of as a logic of the humanities and human sciences, which would complement the notion of a logic and theory of the natural sciences" (Mueller-Vollmer, 1992b, p. 46).

Understood as a logic of understanding, *hermeneutik* is intrinsically tied to the logic of discovery. If the principal hermeneutical question is, how does one understand and interpret a text?, then primary consideration should be given to appropriate modes of discovering a text's meaning, a concern that cuts across the "human" and the

²As will be discussed below, conclusions such as Steele's are profoundly contested for philosophical and methodological reasons.

"natural" sciences alike. The logistics of discovery are translatable into techniques of empirical inquiry; methodological issues are not suspended or dismissed out-of-hand. As Habermas put it: "The legitimate claim which hermeneutics brings forth against absolutism of a universal methodology of the experiential sciences with all its practical consequences does not dispense us from the business of methodology altogether" (quoted in Mueller-Vollmer, 1992b, p. 41). Additionally, the purportedly insurmountable problems associated with the "hermeneutical circle," whereby acts of understanding, explanation and interpretation invariably co-mingle, do not persist solely within the domain of the cultural sciences but are found among the natural sciences, as well. Furthermore, these problems may be more apparent than substantial. In line with Stegmüller (1988), they can be addressed as dilemmas capable of a degree of closure. Finally, acceptable methods of discovery are available that redefine the conduct of hermeneutical inquiry, that is, transforming it from categorical into operant analytics. Adoption of operant research methods expedite the establishment of specific substantive disciplines upon scientific grounds while maintaining the integrity of a respondent's "lived experience" as expressed in the text. Heretofore relegated to "the cultural sciences" and the "interpretative sciences," these fields of inquiry, such as psychoanalysis, are provided the methodological foundations for realizing their scientific aspirations.

Hermeneutical Themes

The argument for the assertions just made will be provided in a two-fold sequence. First, the basic themes of hermeneutical discourse are summarized. Drawn primarily from modern and contemporary German scholarship,³ they will resonate with those familiar with Q methodology. Second, the technical considerations of applying Q methodology to the behavioral text will be outlined. This component is purposefully brief; the audience for this presentation is well-grounded in the technical aspects and prolonged discussion is unnecessary (a more complete accounting will be given in a forthcoming project of which this article is one segment [McKeown, in progress]).

³The emphasis upon the German schools does not preclude interest in or deny the utility of other traditions such as the French (e.g., the work of Paul Ricoeur [1970, 1974] among others). Coverage is limited by space considerations.

Hermeneutical Themes: (I) Art vs. Science

Less frequently mentioned today is the proclivity to substitute "art" for "science" as a distinguishing characteristic of the hermeneutical project. Definition of the enterprise as the "art of understanding" or the "art of interpretation" followed from rejection of rank positivism. In practice, this move was conducive to employing phenomenological and other philosophical options. It can be argued that interest in phenomenology was a means for simultaneously skirting and fusing the art-science distinction but it also offered the appearance of the application of empirical and quasi-empirical techniques.

The art-science differentiation is less relevant in contemporary discussion; indeed, with few exceptions, the term "art" has been discarded for the more popular phrase "human sciences" (*Geisteswissenschaften*). One is tempted to conclude that the alteration was an attempt to come to terms with the lingering desire to incorporate an empirical orientation. Ambivalence toward science, continues, however, as attested by Palmer's assertion that hermeneutics remains an alternative to science and treats its subject, not as analytic objects, but as "humanly created texts which speak":

Certainly the methods of "scientific analysis" can and should be applied to works, but in doing so the works are treated as silent, natural objects. Insofar as they are objects they are amenable to scientific methods of interpretation; as works, they call for more subtle and comprehensive modes of understanding. The field of hermeneutics grew up as an effort to describe these latter, more specifically "historical" and "humanistic" modes of understanding. (Palmer, 1969, p. 8)

Hermeneutics is a metatheory applicable across a variety of disciplinary texts and not beholden to a specific operational rubric. Nevertheless, hermeneutical *praxis* remains closely identified with particular fields of inquiry, notably rhetoric, linguistics, biblical and literary interpretation and criticism, phenomenology, and historiography, among others. The point is not to dismiss their utility. Rather, it is to suggest that an empirical stratagem can be used in several of these subdisciplines. Hermeneutics is transformable into a behavioral science, a move warranted by the implications and conditions associated with the ensuing themes.

Hermeneutical Themes: (2) Language and the "Text"

Hermeneutics entails the analysis of texts. Here, text is synonymous with "utterance" in spoken or written form. "Utterance," however, masks an underlying and comprehensive approach to language and communication that deserves some attention.⁴ This simplified definition is consistent with the multitude of meanings found in the literature and is applicable to "behavioral texts" more commonly associated with the social sciences.

Early on, Wilhelm von Humboldt discussed language as (a) process (*energeia*), (b) product (*ergon*), and (c) competence (*Sprachkraft*). The first two, process and product, are aligned with Saussure's distinction between language-as-system (*langue*) and language-as-speech or utterance (*parole*). The significance of these distinctions is apparent in the split between those who primarily emphasize textual grammar, and define hermeneutics as philology and semantics, and those who subsume grammatical technicalities within a larger framework. Hans-Georg Gadamer, for example, pays little attention to the differentiations and equates hermeneutics with linguistics proper. Accordingly, hermeneutics analyzes the "total historical linguistic event" which is, itself, an expression of a mode of being. The scope of hermeneutics encompasses language, speech, and linguisticity. These are parallel with the examination of emotion and feeling, action, and thinking and recognizable as the dimensions (affective, cognitive and behavioral) typically attributed to the social-psychological definition of attitudes and opinions.

Gadamer's strategy was foreshadowed by Friedrich Schleiermacher whose contributions to modern hermeneutics is singular. Schleiermacher identified two hermeneutical tasks: analysis of language-as-system (process and product) and an individual's participation within that system. Thus, hermeneutics engages in structural and grammatical interpretation (\approx *energeia* and *ergon*) and "technical" or "psychological" interpretation [\approx *sprachkraft*]). Two "canons" guide grammatical analysis: (1) understanding language as a variable shared by author and observer and (2) determining the meaning of words by their context. Psychological (technical) interpretations, on the other hand, discern how a text (speech, utterances ...) expresses individuality, that is, features composing the private character of a person's utterance within

⁴Discussion of this second theme is based on and an extension of Muller-Vollmer's "Introduction" (1992b).

the language system. Its goal is " ... a development of the beginning, that is, to consider the whole of the author's work in terms of its parts and in every part to consider the content as what moved the author and the form as his nature moved by that content" (Schleiermacher, 1992, p. 94). A reader/listener ascertains the "unity of a work" through grammatical and technical interpretations. Schleiermacher asserts neither approach is superior. Both identify the patterned nature of language usage and on that basis permit another to reconstruct a person's "mind." This circular interaction of objective and subjective interpretative moves, he believed, places the analyst in the position of the author and allows the analyst to know the author better than author himself or herself:

The task is to be formulated as follows: "To understand the text at first as well as and then even better than its author. Since we have no direct knowledge of what was in the author's mind, we must try to become aware of many things of which he himself may have been unconscious, except insofar as he reflects on his own work and becomes his own reader. Moreover, with respect to the objective aspects, the author has no data other than we have." (Schleiermacher, 1992, p. 83)

Reconstructing "mental experience" provided a way to transcend grammar-centered hermeneutics by supplementing it with a discursive one (speaker and listener competence). In Palmer's (1969, p. 89) words: "[T]he objective is not to assign motives or causes for the author's feelings (psychoanalysis) but to reconstruct the thought itself of another person through interpretation of his utterance."

Individual utterances in a given situation were also designated an "authorial act," i.e., the behavior creating a work. For Schleiermacher, authorial acts synthesized grammatical and psychological planes—individual speech against the backdrop of the language system. It also pointed to the manner in which a person's life experiences, known through speech acts, could be addressed as a function of the evolutionary changes in that individual's unique linguistic competence.

The notion of the "authorial act" was extended by Schleiermacher's student Wilhelm Dilthey who contributed an important conceptual and operational bridge between 19th and 20th century hermeneutics. Pursuing a psychologically-based hermeneutics (but essentially concluding with phenomenology), Dilthey's approach was congruent with Schleiermacher's "psychological" position: understanding texts proceeded from examination of life experience. Indeed, he claimed that *the act of understanding* itself is a "category of life" (*Lebenskategorie*).

Behaviors are lived (enacted) understandings; language use is a form of life (*Lebensform*). Although disavowing the natural science model, Dilthey, as Schleiermacher before him, performed philosophical maneuvers which facilitated the application of empirical models and techniques. Significant in their presentations is the implicit provision (logic) of a behavioral basis for exploring what other hermeneuticists typically kept at bay or avoided even on a metatheoretical level. Specifically, Dilthey takes the phenomenological notion of "life experience" and demonstrates its derivation from "lived experience." He brings the concept full circle to its empirical (experiential) origins.

In that respect, he draws a distinction with important methodological consequences. "Life-expression" (*Lebensäußerung*) is set apart from "expression" (*Ausdruck*). Expression (*Ausdruck*) is an extension of *aussern* which refers to the outside or the external. It is also associated with the verb *sich äussern*, i.e., to externalize, as when people externalize their state of mind, motives, and attitudes. Furthermore, the root word is identified with the verb "to utter" (*Äussern* = an utterance). Consequently, an "expression" (*Ausdruck*) refers to every mode or form of expression: gestures, voice, movements, visual forms, rhythms, actions, and so forth. Expressions are manifested (enacted) in many different ways (thus, the use of the phrase "behavioral texts"). Expressions (*Ausdruck*) *per se*, however, are products (objects) based upon previous behaviors, particularly those social in nature (such as the constructs of legal or economic systems); they incarnate meaning independently of the individuals whose life-expression they once were. Therefore, Dilthey was devising a method for exploring the life experiences of people as expressed and made "public" (externalized). For this, he applied the concept of *Lebensäußerung* (life-expression): related to utterance (*Äussern*) but utterances specifically in relation to the individual producing them (*Äusserung*). In this manner, Dilthey devises the connections important to the present task. Hermeneutics is about understanding "lived experience." This quest is inadequate (or at least incomplete), however, unless empirical (experiential) referents are identified. These are known through examining the background and conduct of an individual's life; and these expressions are available, historically and currently, in the texts (verbalizations, externalizations) produced in that lifetime. In a restatement of Marx's famous injunction, they are available for hermeneutical analysis inasmuch "As individuals express their lives—so they can be understood" (Muller-Vollmer, 1992b).

Subjectivity, Operantcy and the "Behavioral Text"

In this manner, the social sciences have always dealt with "behavioral texts." These characterize any situation where a person says, in effect, "In my opinion ...", "I believe ...", "I strongly agree [or disagree]" Behavioral texts are expressions of *subjectivity* by which nothing more is meant than an individual's utterances of a point of view. Because this conception of subjectivity is a function of personal communication, it does not reify the "self" or depend on any other metaphysical or phenomenological construct. Self-reference, as Brown (1980, p. 46) has argued, is "pure behavior." Likewise, it demystifies the ambiguities attendant to and the literary flourishes of classical hermeneuticists, such as Dilthey's interest in "lived experiences." They attain status of a behavioral text when expressed in personal terms.⁵

Psychodynamic psychologies initially began with indeterminate methods that facilitated a patient's ability to express self-reference unencumbered by the therapist's explanatory commitments. Freud's technical achievement in psychoanalysis, free-association, was premised on the assumption that therapeutic intervention and prescription should await the "text" provided by the patient. In addition, the social-psychological disciplines' reliance upon survey and experimental research methods assumes the centrality of behavioral texts; data do not exist unless and until subjects act and as measured by appropriate instruments. In these and similar instances, the "text" is a respondent's specific and composite answers to questions employed in a questionnaire or some such device. They are "authorial acts" as bona fide as the products of novelists and poets. But, regardless of data collection techniques, the underlying postulate of a *hermeneutically-informed* science is that respondents' behaviors accurately reflect their points of view.

⁵Brown (1987, p. 2) discusses a similar point:

It is one thing to accept with Dilthey, the need to understand and interpret human behavior, and another to assume that it is necessary to bifurcate science into natural and human compartments. It is obvious that a falling stone lacks the intent to fall, and acceptable pro tem to assume that the person who throws the stone does have intent. What is fundamental, however, is not intentionality per se, but self-referentiality, its absence in the former situation (the stone has no point of view) and its omnipresence in the latter—e.g., "I wanted to see how far I could throw it," "I was trying to knock my frisbee out of the tree," etc., all from the frame of reference of the person.

In one fashion or another, each method is hermeneutical; each attempts to ascertain the character of the world (or that part of the world under study) as perceived by the subject. That the resultant facts are subjectively-based does not diminish their relevance or availability to empirical research. What remains problematical is the potential for contaminating interaction of an investigator's observational perspective that compromises the integrity of the respondent's "authorial act." A fundamental dilemma persists for both the human sciences and the social sciences: avoiding premature interpretations when seeking textual understandings.

Hermeneutics involves at least two authorial acts and sets of texts, the subject's and the investigator's. Typically, the investigator's includes (1) the substance of the instrument used to evoke subject responses and (2) interpretations of the data. The subject's are the composite set of responses as recorded on the measuring device(s) and any other of the mechanisms employed to gather information (interviews, etc.). The hermeneutical dilemma is complicated further by the realization that one does not analyze a subject's experience of an event or object (participation in a political debate, reading of a novel, a disagreement with a parent) but with his or her *expressions* about those experiences. Historical moments are not assayed; rather, one works with communications about them. Historicity ("immediacy" in hermeneutical jargon) is mediated in its telling. Historical truth (personal experience known within) may never be accessible as Spence (1982) persuasively has argued. Narrative truth (expressions of personal experience), however, is amenable to introspection and inspection. Hermeneutical endeavors, be they empirical-behavioral or otherwise, are not built on self-explanatory or self-interpreting texts.⁶ Nonetheless, at the preliminary research stages the methodological imperative holds that data should remain true to the texts of the people being studied rather than the interpretative text of the researcher.

Toward this end, an empirical hermeneutics can benefit from a fusion of hermeneutical theory, behaviorist psychology, and the methodology of a science of subjectivity. First, recall that Dilthey's primary goal was examination of the authorial act based upon the substance of a person's life experience (*Lebensäußerung*). These experiences are known through utterances (spoken, written or otherwise

⁶This assertion is not shared by all hermeneutical paradigms. Reformational theology held that the biblical text was sufficient within itself and a correct parsing only required understanding its literal meaning.

communicated)—*Äussern*. Communications, *Äusserung*, therefore, bear a person's life experience (*Lebensäusserung*). In combination, these compose the "authorial act" which, under the right research conditions, present the narrative truth of the person's life (*Lebenskategorie*).

Accordingly, behavioral hermeneutics endeavors to analyze texts conveying respondent subjectivity unfettered by an external reading of the observer and researcher. In this regard, equivalent to *Äusserung* (utterances expressive of person's life) is the behaviorist concept of *operant*, that is, behavior occurring naturally in a particular setting. The operant conditioning paradigm assumes ascertaining operancy for a particular organism; what may be reinforcing to one may not be to another. A hermeneutical translation is that an operant is uniquely expressive of an organism's life experience. Just as operant psychology commences with the naturally occurring behavior of the individual, the hermeneutical tradition exemplified by Schleiermacher and Dilthey postulates analyses based on authorial utterances and acts of the individual which must be true (natural) to that person's understandings: *Lebensäusserung* is operancy.

Hermeneuticists desiring to preserve the integrity of the author's text necessarily must be "operant" in their analytic methods. Much of contemporary social science research violates this principle. For example, operationalism, a principal mechanism employed across the behavioral disciplines, and the multitude of scales rooted in operational procedures implicitly are contrary to the operant paradigm (Brown, 1980; McKeown, 1984). Methodologically, their major weakness is twofold. First, premised on the logic of hypothetico-deductive discovery, scalar results are fundamentally artifactual given the data's dependency on the constructed effects of the tests. Second, operationalism assumes linguistic equivalencies between researcher and respondent and across the respondent sample. That is, the belief that meanings tacit in the researcher's text (e.g., operationalisms such as scale items) are shared by respondents, an assumption that has been effectively contested (Brown, 1970; Brunner, 1977).

Hermeneutically, operationalism compromises the text by substituting the *Äusserung* of the researcher for those of the respondent. For example, scalar measures that have become a hallmark of empirical social science originate within the discursive community of the academy. In addition to the theory that informs their formulation, their content is expressive of the life experiences of its members. The extent to which they become standardized symbolizes elite consensus and provides for cumulative and comparative findings. However, that same

standardization perpetuates the imposition of a particular world-view upon respondent subjectivity. Subject responses are always reactive and restricted to the propositions within test items and take on meaning ascribed by the prior interpretation given by the scalar item: an answer is liberal or conservative, authoritarian or democratic, evangelical or fundamentalist by previous definition. In operationalism meaning is operant to, and thus a function of, the categories of life (understandings and interpretations) of the investigator. "Answers" provide a narrow scope of a subject's authorial act and an additional mediation; the respondent's narration of the truth as he or she sees it becomes more and more clouded, confounded and difficult to discern.

Practitioners of orthodox social science will admit that there is surplus information unaccounted for when test measurements are used; a valid scale purportedly measures only what it is intended to measure. Yet, less likely to be confessed is an inherent flaw in validation procedures themselves. Although a well-designed scale will tap into and divulge the attitudinal dimensions it was designed to detect, the fact that its construction is founded upon the operant reality of its creator will mask other dimensions reflecting a respondent's reading of the scalar text. These "hidden" meanings, reflecting respondent subjectivity, may be in concert or at variance with or in addition to the surface reality of the scale findings, an issue that gets at the heart of understanding a behavioral text from a hermeneutical perspective.

Thomas' (1976) study of Tomkins' Polarity Scale (1963) is a case in point. Tomkins correctly inferred the perspective of "left-wing" personalities but was wide of the mark in his description of the "right-winger." Whereas Tomkins predicted a bi-polar relationship, Thomas' data produced an orthogonal structure. Thomas was fortunate to have Tomkins provide Q sort descriptions of his notions of left and right types. Although his depiction of the left-winger correlated with Thomas' left-wing subjects, Tomkins' description of the right-winger was isolated from the other right-wingers, positioned alone in bi-polar factor space (see also, McKeown and Thomas, 1988, pp. 67-74). Bi polarity was evidenced but only in Tomkins' description—of methodological artifact at odds with the respondents' subjective operants. The extrinsic, expert category had little correspondence with subject categories. Another illustration is provided by Rhoads and Sun (1994) in their study of Altemeyer's (1988) "Right-Wing Authoritarianism scale." Rhoads' and Sun's central argument, that "knowledge has been retarded by the very means investigators have chosen to study the subject" (p. 159), was supported by additional factorial analysis of high scorers on the Altemeyer scale. Whereas a dominant factor appeared

in line with conventional understandings of right-wing authoritarianism, a second one reflecting cultural differences within the subject pool (American and Chinese) also was disclosed and which was at odds with traditional understandings of authoritarianism. The author's conclude, in line with the thesis of this paper, that the significance of their approach and its findings is "... that it identifies a domain of attitudes within the authoritarian personality which cannot be seen using conventional scales" (p. 167).

On the other hand, a hermeneutically accurate science of subjectivity (such as Q methodology) derives from methodological presuppositions and techniques that "... induce operants everywhere ..." and "... leave the mind to work its way without our constraints" (Stephenson, 1970, p. 44). Operant factors derived from Q-methodological analysis are complimentary to and in keeping with the concept of respondent *Lebenskategorie*.

Hermeneutical Themes: (3) Circles

The "hermeneutical circle" is a popular metaphor that points to several dilemmas in hermeneutical discourse. The classic description was given by Schleiermacher (1992, p.84): "Complete knowledge always involves an apparent circle, that each part can be understood only out of the whole to which it belongs, and vice versa. All knowledge which is scientific must be constructed in this way." The definition identifies a process at once sensible and mysterious. It is sensible by assuming the obvious: one must consider text-within-context and individual (psychological) and systemic (grammatical) components. Yet, it is perplexing for "if we must grasp the whole before we can understand the parts, then we shall never understand anything" (Palmer, 1969, p. 87). These concerns, however, are not unique to traditional hermeneutics and must be addressed by those proposing an empirical agenda. Two interrelated issues ("perspectives" and "understanding and interpretation") demonstrate the perplexity of the circle as applied to behavioral analysis but also point to its possible resolution.

Perspectives

Themes pertaining to the nature and role of perspective, and the attendant complications that ensue, appear with nearly liturgical regularity in hermeneutical literature and extend back to the ancient Greeks: "They mean by that the messenger of the gods who, according

to the opinion of the heathens, must proclaim the will of the Gods" (Johann Heinrich Zeller). As messenger of the gods, Hermes had to be conversant with "god-talk" and the talk of mortals. Accordingly, hermeneutics can be conducted from the perspective of the "gods" and from the perspective of "mortals." In orthodox social and behavioral research the former presumes a hypothetico-deductive orientation. It is "god-like" since it begins with the scientist's interpretations as incarnated in mechanisms of measurement devised to ascertain subject-respondent (the "mortals'") points of view. The text of the "gods," enshrined in countless scales, are presumed to evoke equivalent meanings in the response-texts of the "mortals." But, understanding the other is confounded by the *a priori* interpretive scheme (the explanatory models derived from their experiences, academic and otherwise). This is an inevitable dilemma of the "circle" and one commonly ignored in practice. It is translated into methodological terms in the following adoption of Brown's (1980, p. 30) warning pertaining to the perils intrinsic to modeling:

In our rush to construct and test our models ... we are apt to forget a basic principle, namely, that models ought not be obtrusive. In the human sciences, after all, as distinct from the physical sciences, our subjects have their own operational definitions and models of the world, and the social scientist must avoid becoming so intrigued with his own constructions that he becomes insensitive to those of others.

Thus, it overlooks a central premise of modern science: methods of measurement are themselves interpretations of the data they produce; method affects outcome. It reinforces the skeptic's view, such as Palmer's, that empiricism mistreats texts by alienating them from their authors and deals with "brute facts" of quantification.

The latter (the "mortals" views), based on the author's or respondent's perspective (self-reference), seeks understanding of respondents on their terms. It has no particular quarrel with the premise that natural science is conducted without human reference whereas human and behavioral sciences are. But it asserts that the failure results from the collection of data lacking self-reference. *Subjective science*, on the other hand, established upon an appropriate communication theory and operant in procedure, preserves self-reference from beginning to end. Accordingly, hermeneutical analysis must consider at least two perspectives since two contexts of discourse are present: the author/speaker/respondent and the reader/listener/researcher. Textual studies are always subject to the tendency to entangle the perspective

of the expositor with the author's. Although expositor cannot approach a text "value-free," methodological techniques must be employed that diminish conflating the "pre-understandings" of the observer with the text.

Those believing the cultural sciences cannot attain the status of natural science argue that the contrary nature of the hermeneutical circle is implicitly obstructive in a more general sense. That is, the hermeneutical act is by its very nature interpretative; any analysis invariably results in an amalgam of authorial and interpretative texts. An interpreter unwittingly brings to a text the fundamental value orientations of the discipline he or she has been trained in and socialized to. Humboldt conferred due regard for the speaker's individuality (personal intentions and meanings) and the listener's competence in accurately assessing (understanding) what was being stated. *Sprachkraft* (active linguistic competence) is an issue for both speaker and listener. It is clear, however, that an observer's life-experiences are brought to the text (or, in the instance of operationalism, shape the configurations of the text from the outset); they in turn mediate understanding the other. For this reason, Humboldt's warning about hermeneutical "fetters" prejudicing understanding is well-taken.

The historian therefore cannot exclude the power of the idea from his depiction and seek all solely in the material; he must at least leave room open for its effect; he must further keep his spirit receptive for it; but above all, he must guard against attributing to reality ideas which he has himself created, or sacrificing the living richness of the individual in his search for the relationships of the whole. (Humboldt, 1992, p. 118)

In the next sentence he uses the phrase, "This freedom and delicacy of perspective," an apt way for identifying the care with which methodological choices should be decided.

The hermeneutical ideal is to "let the text speak" through the prudence and skill of the listener/reader in subordinating his or her perspective to the textual. Rudolf Bultmann (1955) echoes Humboldt when he discusses the existential relationship (*Lebensbezug*) shared by author and hermeneutician. Although the sharing permits comprehension of the first by the second, it also can obstruct the meanings intended by the author. Pre-understandings of the expositor, unavoidable at the outset, circle back and impinge upon the reading of the text and present an assortment of obstacles that interfere with understanding

and interpretation.

Understanding and Interpretation

The understanding-interpretation interaction also is fraught with the problems posed by the hermeneutical circle. Can understanding be achieved without contamination by interpretation? How does one lessen the likelihood of the interpreter's text from being substituted for the author's?

Earlier it was noted that hermeneutics has been defined as the art (or science) of textual *understanding*; the word *interpretation* has been substituted freely and frequently in the same definition. Schleiermacher attempts to keep them distinct, yet ultimately merges them. He links understanding (*Verstand* = capacity for thought) with acts of understanding (*Verstehen*) which have to do with grasping the author's thoughts. Thus, understanding is two-fold: as an expression in relationship to the language of which it is a part, and as expression reflecting the speaker's life process. The first is reminiscent of his grammatical agenda and the second is parallel with the psychological. However, Schleiermacher also couples interpretation (*Auslegung*) with grammatics; interpretation and understanding become equivalent in practice. Likewise, Heidegger, referring to the phenomenology of existence having the character of *hermeneuein* ("to interpret"), seems to acknowledge a circular relationship between the two acts. Interpretation originates in and is always derived from understanding; interpretations begin with understandings and are explications and editorials of what has been understood. These comport well with Stephenson's (1983) designations: interpretation as *ars explicandi* (explication or explanation) and *ars intelligentia* (understanding).

An obvious question is, does this matter? The answer is less clear. It matters when perspective is taken seriously. In principle, understanding has to do with comprehending a text from the perspective of its author (*ars intelligentia*); it maintains the integrity of the text as free as possible from external encumbrances and prejudices ("fetters"). Interpretations are the annotations of the text from an external perspective (*ars explicandi*).

Gadamer's (1988a, 1988b) comments are instructive in this regard. Similarly to Spence's (1982) discussion of psychoanalytic discourse, a text cannot be approached with complete objectivity; understandings are conditioned by a history. One does not attempt total neutrality but realizes and accounts for (what Gadamer calls) the "prejudices" or pre-

understandings that characterize any hermeneutical endeavor:

Whoever wants to understand a text, is always carrying out a projection. From the moment a first meaning becomes apparent in the text he projects a meaning of the whole. On the other hand it is only because one from the start reads the text with certain expectations of a definite meaning that an initial meaning comes apparent. It is in working out this sort of projection-which of course is constantly being revised in the light of what emerges with deeper penetration into the meaning-that the understanding of what is there consists. (1988b, p. 70)

Understanding entails being "determined" by the text ("openness") and "... the constant task of understanding is to work out the proper, objectively appropriate projections, i.e., to hazard anticipations which are supposed to be confirmed only 'by application to the objects'" (1988b, p. 72). "Openness" does not presuppose neutrality or "obliterating" oneself as a reader or observer. Rather, the "hermeneutically trained mind" includes "the identifiable appropriation of one's own pre-opinions and prejudices. One has to acknowledge bias ... "such that in the reading the truth of the text's narration can play off against the reader's pre-opinions (1988b, p. 73). The difficulty is, as he puts it elsewhere (1988a), there is a constant seduction to violate the "openness" principle.

Methodologically, the principal difference between interpretation and understanding is between *categorical* and *operant* modes of textual investigation. Interpretations are primarily observer-categorical. They originate from the conceptual organization of the investigator. They are "imperialistic" in the sense that a text is appropriated within and reformulated according to the interpreter's world-view. Palmer rightfully concludes that "such a conception of interpretation tends to equate conceptual mastery with understanding" and "the interpreter does not see his task as removing hindrances to understanding so that an event of understanding can take place in its fullness and the work can speak with truth and power, but rather as bringing the work under control through conceptual mastery" (1969, p. 226). For this reason, Stephenson (1983) stands "against interpretation."

Understanding requires discovering the categories produced by the author as evidenced by the text. A goal of hermeneutics, empirical or otherwise, is to overcome "alienation" from the text by discerning its meaning before interpreting or explaining (passing judgement upon) it. This is the intent, for instance, of Bultmann's "demythologizing" hermeneutic of biblical exegesis. His effort was to point out those

passages where human precepts are substituted for and taken as God's. Bultmann's intention is applicable to behavioral texts, albeit in reverse: protecting "mortal discourse" from infringement by the categorical discourse of the "gods."

The understanding and interpretative modes are not necessarily antagonistic but should appear in proper sequence. The practice of much social research confuses them at the outset. Thus, a decisive methodological question is, whose text and whose meaning is prior in the hermeneutical loop? This is the pivotal issue in any hermeneutics be it literary criticism or social research. The dialogic nature of textual analysis is presumed; investigation at all times is conducted in relationship to the text and "a wrong relationship will produce a distorted and incomplete meaning" (Palmer, 1969, p. 227). The implied correct relationship is one permitting the text "to speak for itself." This is translated in hermeneutics as "letting the line speak" (Heidegger) and allowing the text "to speak, the reader being open to it as a subject in its own right rather than as an object" (Gadamer). A hermeneutically informed behavioral exegesis postulates that understanding is an empirical issue: encountering the other's point of view in an operant fashion, i.e., permitting it to occur naturally. Gadamer's "hermeneutical key" to literary interpretation recognizes the inevitable impact of an external perspective and conforms to the sequential nature of hermeneutical analysis, empirical or otherwise: "I characterize it as *mythopoetic inversion* when the interpreter retranslates into his own categories of understanding that which the poet has in this manner reflected outward" (1988a, p. 100, italics added). Recognizing textual meanings (written or verbal) from the point of view of the communicant is a more desirable behavioral hermeneutic, is in keeping with the hermeneutical tradition, and has specific contributions to make to the conduct of social research. In behavioral hermeneutics, the process has been referred to as the Sontag Rule (see Sontag, 1961) as applied to factor theory: "... 'to *see* more, *hear* more, *feel* more' of what is manifest before delving into dynamic, sociological, and other interpretations. A factor is not always what it may appear at first glance, and to *feel* more of it can offer something of the 'pure, untranslatable, sensual immediacy of some its images,' and this is the primary objective of understanding, as antecedent to explanation" (Stephenson, 1983, p. 103).

Understanding refers to identifying the parts comprising a personal world of experience and recognizing how they fit in creating the whole. In this fashion, meaning is obtained: "meaning is what understanding grasps in the essential reciprocal interaction of the whole and the parts"

(Palmer, 1969, p. 118). The meaning of a whole is derived from the specific meanings given by the respondent to the parts of his or her existence. Understanding is attaining a "feeling for the organism" (Brown, 1987). Consequently, it is a function of the speaker speaking for himself or herself, tracing the hermeneutical circle through several iterations in a given instance, of seeing the connections and relationships the respondent expresses in the text he or she provides.⁷

Understanding is contextual. The meaning in one instance may change in another as illustrated with the simple statement, "it is raining." One obvious explanation (interpretation) would be an account of meteorological physics acting independently of the speaker. Hermeneutical understanding, on the other hand, recognizes the personal experiences of rain and comprehends the subjective meaning of the expression, "it is raining." In one situation it could be a description of atmospheric physics reported by the National Weather Service; in another, a Dostoevskyan lament of depression and despair; and in yet another, a Gene Kelly-like romantic feeling of "singing in the rain." Many meanings can adhere to the same text (and the same text can change meaning depending on context). Explaining them must first await their expression, recognizing the expressions are varied, and they are a component of the speaker's "being-in-the-world" and *Lebenskategorie*. The meaning of the statement "is a matter of relationship, always related to a perspective from which events are seen" (Palmer, 1969, p. 119).

Operationally, in line with Schleiermacher's grammatical component, "everyone in a culture can understand something of each statement in a concourse [of communication]. Yet each statement may mean something different to everyone [the psychological component], and something different to the same person in different circumstances ... statements in concourse shift their meanings with their company—they may have different meanings in different factors" (Stephenson, 1983, pp. 75, 82). Hermeneutical *understanding* seeks the meaning of the speaker (found in the relationship of parts and the reconstruction of the whole) as he or she expresses his or her experience. *Interpretations* are categories of meaning provided by the observer who addresses the

⁷The Q-methodological translation is to the effect that the basic unit and act, the placement of a specific item from the Q sample, takes on meaning in relationship to the larger parts of the Q-sorting process and the data structures that develop. I.e., the distribution of all other items in a specific Q sort, the factor (and its array) upon which the object being described is located, and the structure of factors that emerge. Thus, one can, literally, move from the specific to the systemic when "grasping an understanding" or the "inner life" (self-reference/subjectivity) of the respondent.

speaker's text from a different historical/contextual (self-referential) situation. Hermeneutical understanding, Dilthey tells us, is perceiving the "horizon of experience" of another without confounding it with one's own, of achieving "within the admitted use of our own horizon, an openness to the text which does not impose in advance our own categories upon it" (Palmer, 1969, p. 121). Ironically, Palmer's paraphrase of this view, which he believes is functionally different from a scientific approach, is entirely in keeping with the presuppositions of an operant subjectivity situated at the core of a scientific strategy for hermeneutical analysis.

Hermeneutics, Science and Subjectivity

Something Old and Something New

Something Old ...

Thou shalt understand, therefore, that the scripture hath but one sense which is the literal sense. And that literal sense is the root and the ground of all. ... (Tyndale, 1989, p.106)

But we are not ... to say that the Scriptures or the Word of God have more than one meaning. ... It is much surer and safer to abide by the words in their simple sense ... (Luther, 1989, p. 118)

Scripture bears its own authentication. ... that Scripture indeed is self-authenticated; hence, it is not right to subject it to proof and reasoning. ... Therefore, illumined by his power, we believe neither by our own nor by anyone else's judgment that Scripture is from God; but above human judgment we affirm with utter certainty (just as if we were gazing upon the majesty of God himself) that it has flowed to us from the very mouth of God by the ministry of men. We seek no proofs, no marks of genuineness upon which our judgment may lean; but we subject our judgment and wit to it as a thing far beyond guesswork! (Calvin, 1989, p. 129)

... the method of interpreting Scripture does not widely differ from interpreting nature—in fact, it is almost the same. (Spinoza, 1989, p. 134)

Something New. . .

According to Robyn (or, more precisely, according to the writers who have influenced her thinking on these matters) there is no such thing as the "self" on which capitalism and the classic novel are founded—that is to say, a finite, unique soul or essence that constitutes a person's identity; there is only a subject position in an infinite web of discourses—the discourses of power, sex, family, science, religion, poetry, etc. And by the same token, there is no such thing as an author, that is to say, one who originates a work of fiction *ab nihilo*. Every text is a product of intertextuality, a tissue of allusions to and citations of other texts; and, in the famous words of Jacques Derrida (famous to people like Robyn, anyway), "*il n'y a pas de hors-texte*", there is nothing outside the text. There are no origins, there is only production, and we produce our "selves" in language. Not "you are what you eat" but "you are what you speak" or, rather, "you are what speaks you". . . . She sat in lecture theatres and nodded in eager agreement as the Young Turks of the Faculty demolished the idea of the author, the idea of the self, the idea of establishing a single, univocal meaning for a literary text. (Lodge, 1988, pp. 21–22, 26)

Among the objections to a scientific model is the belief that the data of cultural sciences are fundamentally different from those in the natural sciences. Hermeneutics will never attain true scientific status inasmuch as human texts, both author's and expositor's, are principally subjective from start to finish. Because there are no objective mechanisms or criteria by which hermeneutical hypotheses can be demonstrably verified, one cannot assume that his or her reading (both as understanding and interpretation) is correct. Recourse to paradigmatic standards only begs the question since they, too, are humanly (subjectively) created and historically constrained. Literary theories, theological traditions, and legal codes, for example, are determinative only to the extent that one is persuaded by and committed to them and their current status within their respective disciplines. As much as one attempts to "let the line speak," hermeneutical facts can never speak for themselves; the facts of the line are subjective, be they individually or socially constructed. As with all subjective reality, multiple interpretations abound. An interpretation of meaning is determinative as a consequence of the rhetorical skill of the hermeneut in persuading others to his or her point of view, not on the basis of the text itself. On the other hand, the natural scientist's claim to objectivity is more secure. Scientific method and techniques are assumed to be objectively valid and ultimately self-corrective against investigative prejudice.

Scientific hypotheses are testable and verifiable. Nature's text can be determined.

A Methodological Refrain

Hypothetico-deductive research is especially vulnerable to the vagaries of the hermeneutical dilemma. Hypotheses carrying embedded interpretations elicit responses understood within the terms of the original interpretation. An endless cycle is reinforced given of reliance upon operationalist methods that substitute an external observational perspective for the subject's. To be sure, social science cannot be free from research effects. However, the relevant issue is whether the theoretical musings of the scientist remain tentative throughout the process or if they are solidified in the operational deductions that proceed from the initial hypothesis.

The natural sciences have recognized the consequences of the interactive nature of observational perspective and results. As classical physics was being challenged by quantum mechanics, physicists, for example, came to the realization that specific outcomes were functions of the methods employed (see, e.g., Hoffmann, 1959; Dirac, 1971). A classic illustration is the conclusion regarding the nature of electromagnetism and photoelectric effects. Depending upon methods, light was either a wave or a particle phenomenon. Additionally, quantum theorists proposed an even more unsettling proposition: conclusive statements about about physical reality are difficult to proffer because the act of observation produces physical artifacts (see, e.g., the discussion of "Schrodinger's cat" in Gribbin, 1984). Measuring an electron's velocity preclude observation of its position and vice versa. The spirit of quantum theory is "perverse" as expressed in the following:

Suppose we do manage to see the electron and note its position? It is an empty victory. The very fact we see it means we have scored a direct hit with a photon. The electron is a very light particle, unable to withstand a particle of light. It is badly jolted by the impact. In observing the electron's position we give it a jolt which alters its velocity. We defeat our own project. We cannot use gentler photons, for the less their energy the less their frequency and the greater their wavelength, and thus the less the power of the microscope. A spirit of perversity is in the air ... science has become more humble. In the good old days it could boldly predict the future. But what of now. To predict the future we must know the present, and the present is not knowable, *for in trying to know it we inevitably alter it* (Hoffman,

1959, pp. 147-148, 152, emphasis added).

The philosophic quandary these conclusions present was summarized in Heisenberg's "uncertainty principle." Science must reconcile with the fact that "we cannot determine both the position and the velocity of a particle with exactitude, even in imagination. Now that the quantum is here, we cannot know both q and p simultaneously. When we measure q we disturb p " (Hoffmann, 1959, p. 149). Science is a human enterprise, the interplay of nature and humanity, between objectivity and subjectivity. "What it describes is not nature as such, but nature as exposed to man's method of questioning" (Peterson, 1968, p. 22).⁸ As stated earlier, method is an interpretation. Thus, quantum theory, science and hermeneutics arrive at a similar conclusion: "Progress in science has been bought at the expense of the possibility of making the phenomena of nature immediately and directly comprehensible to our way of thought" (Heisenberg, 1952, p. 39). Quantum theory not only wrecks havoc with the certainties of classical physics but also with those of the classical hermeneutical tradition; Luther is at odds with Heisenberg: "But we are not ... to say that the Scriptures or the Word of God have more than one meaning. ..." (Luther, 1989, p. 118). And, contrary to his original intent, Spinoza's comment unwittingly is prelude to the present: "... the method of interpreting Scripture does not differ widely from interpreting nature—in fact, it is almost the same" (1989, p. 134).

The social science adaptation of these issues is found in the philosophy of science informing observational perspectives, methods, and techniques. In many ways, behavioral sciences remain fixated in a classical phase. This assertion follows from the line of reasoning presented above regarding operationalism. Social-psychological constructs, such as attitudes, are assumed to exist in quantity as well as quality. For example, "alienation" or "liberalism" is approached not unlike body temperature or height or weight; an individual's being

⁸This is Brown's (1970) point of his critique of Converse's (1964) conclusions regarding belief systems of non-elites. Converse's methods determined the outcome, that is, non-elites are non-ideological since their beliefs are neither consistent (constrained) nor persistent. Brown, on the other hand, using a different approach which permitted respondent's to define their own positions apart from any elite notions of ideology or systemic belief, discovered that non-elites' opinions about politics were consistent and persistent. Light is a wave and a particle—it depends on how one examines it. Apparently, the same holds true of ideologies. Attitudes, like light, probably out to be considered wavicles.

contains a certain amount of alienation which can be measured just as we measure temperature, height and weight. The quantum interpretation is:

Classical physics ... was built on some fundamental suppositions which appeared to be obvious starting points of all exact science ...: physics dealt with the behaviour of matter in space and its change in time. ... One was led to the tacit assumption that there existed an objective course of events in space and time, independent of observation ... completely independent of each other, and thus represented an objective reality, which was the same to all men. (Heisenberg, 1952, p. 11)

The implications of these conclusions are in line with the thesis for this project. Orthodox behavioral science and classical physics "extend just as far as the conceptions which for its basis can be applied" (Heisenberg, 1952, p. 23). These may be proper at the macro level; Heisenberg, for example, does not deny the validity and utility of classical science as long as it is applied appropriately. However, at the micro level Newtonian physics simply are irrelevant.

The uncertainty principle (indeterminacy) is applicable to behavioral science and especially so when individual self-reference is the concern. As Brunner (1977) has noted gross measures do not account for the private meanings and intentions mediating a respondent's reaction to scale items. As in quantum theory, behavioral science at the "subatomic" private level cannot assume an objective reality "which is the same to all men." Therefore, when methods are selected for the study of behavioral texts we should employ those that, as much as possible, give subjectivity free rein. Indeterminate research strategies, such as Q methodology and its reliance upon Q sorting and factor analysis, are available. The patterns ("quanta") of private meaning are discovered only if they are intrinsic to the data the respondent provides (Stephenson, 1982, 1983b, 1988, 1988/1989). Operant factors "have no critical dependency on test 'construction' effects" (Stephenson, 1977, p. 8). In this way, a hermeneutical science is possible inasmuch as a behavioral text is made available for understanding prior to its interpretation.

Conclusion: Q Methodology as a Hermeneutical Science

The primary issue in hermeneutics is understanding the meaning of a work on its own terms; the problem is that at least two works are involved, the author's and the reader's, the respondent's and the scientist's.

Treating public expressions of subjectivity (in the present case, what is intended by "the behavioral text") from an understanding mode does not require violating inductive scientific principles, as Palmer, Steele, and others believe. Empirical operations for hermeneutical understanding are available and are applicable as operational techniques for returning psychodynamic traditions, for example, to their behavioral roots. Operant subjectivity, such as that advanced by Stephenson (1953; Brown, 1980; McKeown and Thomas, 1988), is a method adaptable to hermeneutical purposes and is a positive reply to the split between hermeneutics and science. It transforms hermeneutics from "art" and "soft science" into a methodology grounded in the basic foundations and aspiration of empirical and behavioral science. And it responds to the dilemma presented by the hermeneutical circle by maintaining the integrity of the text and controlling for the contaminating effects of the observer's analytic presuppositions. Indeed, it may be that operant subjectivity is the model hermeneutic psychoanalysis and other psychologies have been desperately seeking.

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