Annotated Bibliography to Supplement J. R. Kantor's *The Scientific Evolution of Psychology* (2 vol.) (Working Version)

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This is designed to supplement J. R. Kantor's *The Scientific Evolution of Psychology* (2 vol.) by providing citations that are not in Kantor's volumes. The citations are organized under major points of Kantor's analysis; these are given as headings on the left margin.

**History of Psychology as Study of Psychological Ideas and Their Cultural Context**


Kantor's history departs from conventional histories of psychology in that Kantor never tries to understand psychological ideas apart from their cultural context. This approach, though not found in other attempts to study the history of psychology, seems to be consistent with the latest thinking in the history of science. In his review of *Historical Writing on American Science* (published in 1986), Dyke states that the book could be looked on as an announcement that authoritative writing in the history of science has moved from a primary focus on biographies to an emphasis on the practices and institutions within which individuals and ideas are imbedded. If this 1986 book is an announcement, Kantor (1963, 1969) indeed was a very early arriver to the party. Further consistent with Kantor's attempt to understand psychology is Dyke's approving voice concerning the importance of considering religious institutions in attempts to understand scientific developments—and Dyke seems to have no interest in the most religiously-sensitive science, namely, psychology.


It is likely that it is the rare student of psychology who studies Curti's *Human Nature in American Thought*. This is unfortunate because, like Kantor, Curti fits thinking about human psychology into cultural context. If Kantor's is a macro-history (covers all of recorded history), then Curti's is a compatible micro-history. The latter concentrates on North American ideas from the time of the first European settlers of the modern era. If Curti's history is consistent with Kantor's, he must address gradually increasing acceptance of naturalistic accounts of human nature against a context of imported religious doctrine and influence. This he does admirably well. Curti understands the behavioral movement as steps in a naturalistic direction and does
cited Kantor's Scientific Evolution as critical of behaviorism—which it is.

One gem in Curti is when he relates that Josiah Cotton, Thomas Hutchison, and Benjamin Franklin used "the tools of historical analysis and satire to weaken" certain lingering credulity of Special Providence such as beliefs in witchcraft.

**Science as Behavior**


Kantor's analysis is based on an unusual, yet simple, idea regarding science. That is, he takes a position based on the evidence available to us and this reveals that science is not separable from human behavior. For example, science or scientific understanding is not "out there" waiting to be used, discovered, or uncovered. Science, scientific knowledge, are products of human psychological behavior. One implication of this is that human behavior (e.g., scientific claims) can occur for a wide variety of reasons other than what appears to be the important reason (e.g., particular scientific experiment). In his historical analysis, Kantor looks beyond the obvious when he examines what authorities have said about psychological events. Naess and Skinner address additional considerations resulting from the realization that science is inseparable from human behavior.

No doubt we have heard of "operationism" and "operational definitions" out of scientists' attempts to take into account that human behavior is always central to science and scientific understanding (see title of Skinner's article above). Frank's (1955) chapter covers many implications of this for physics and for anyone who uses physical constructs away from the formal research conditions that provide their scientific referents. He makes much of "operational meaning" by which he means how physicists [behaviorally] use a concept (observational conditions, measurement operations, equations).

**Microhistories Can Be Informative**

Kantor's is a macrohistory. It examines the "big picture" and seeks to help us understand psychology by going back to beginning. The critical aspect of Kantor's analysis, when combined with the macro component, leads to the identification of many shortcomings of various attempts to understand human psychology. A careless reader could conclude that Kantor is offering only his particular views as appropriate for psychology. Such a conclusion would be careless for two basic reasons. One is that Kantor invariably points out important contributions significant figures have made in their times. Second, Kantor's analysis actually brings together ideas that most authorities treat as fundamentally incompatible. One striking example are the implications of Kantor's analysis for how we evaluate the psychodynamic movement. Ellenberger's (1970) history nicely illustrates the integrative contribution of Kantor's analysis by serving as an excellent example of a microhistory (of the psychodynamic movement) that elaborates a part of Kantor's macrohistory. Ellenberger goes into details of the contributions Janet, Freud, Adler, and Jung made toward modifying the role thinkers gave to soul and consciousness, including the importance of religious dictates.

Macro-Historico-Critical Analysis as Essential for Advancement of a Discipline


Kantor's history departs from other histories of psychology with its macro (as opposed to micro) and historico-critical approach. Kantor's motivation is to advance his discipline, not merely passively study its history in a conventional sense (great persons said this and that). Although Kantor seems to be rather alone in psychology with his view that macro-historico-critical analysis is a necessary part of the discipline, he is not the first influential scientist to take such a position. Many authorities recognize the contribution E. Mach made to physics with his macro-historico-critical analysis of mechanics (first defined area of physics) in the 19th century. Mach ends the introduction to his book with a justification for his macro-historico-critical analysis that equally applies to Kantor's analysis of psychology: "They that know the entire course of the development of science, will, as a matter of course, judge more freely and more correctly of the significance of any present scientific movement than they, who, limited in their views to the age in which their own lives have been spent, contemplate merely the momentary trend that the course of intellectual events takes at the present moment" (p. 9). My informal observations support Mach's prediction, although we realize it remains to be scientifically evaluated.
Naturalism: Important, Controversial, and Sometimes Contaminated by Nonnaturalism


McMullin, E. (1988). Natural science and belief in a
Creator: Historical notes. In R. J. Russell, W. R. Stoeger, 
& G. V. Coyne (Eds.), Physics, philosophy, and theology: A 
common quest for understanding (pp. 49-79). Vatican City 
State: Libreria Editrice Vaticana.

Press. (Original work published 1939)

In Y. H. Krikorian (Ed.), Naturalism and the human spirit 
(pp. 354-382). Morningside Heights, NY: Columbia University 
Press.

Romanell, P. (1967). Religion from a naturalistic 
standpoint. In J. C. Feaver & W. Horosz (Eds.), Religion in 
philosophical and cultural perspective (pp. 58-77). 


Sellers, R. W. (1922?). Evolutionary naturalism. New York: 
Russell & Russell. [Check publisher] from 1969 edition

Place of publication not specified: Mercer University Press.

Philosophy, 42, 253-270.

(Eds.), Naturalistic epistemology: A symposium of two 

Ward, J. (1899). Naturalism and agnosticism (Vol. 2). New 
York: Macmillan.

Mountjoy, & D. H. Ruben (Eds.), Reassessment in psychology: 
The interbehavioral alternative (pp. xi-xxv). Washington, 
DC: University Press of America.

One of the first roadblocks that a student of a macro-
historico-critical approach to psychology must face is all the 
emphasis on naturalism and nonnaturalism. To Kantor, 
naturalistic attempts to understand do not go beyond factors and 
their relationships that are present in events, and all events 
are naturalistic, that is, spatiotemporal. Any attempt to 
understand that relies on factors that are not in the events, and 
most importantly on events that could never be in events because 
the factors are nonspatiotemporal, is to depart from naturalism. 
Constructs that are based on, derived from observers' 
interactions with, events are acceptable as naturalistic ones.
The referents to naturalistic constructs are spatiotemporal, as in Aristotle's soul construct. By soul, Aristotle referred to events that we today would say are characteristics of living beings. The referents to constructs said to be non- or supernatural are nonspatiotemporal. They imply a realm beyond that of ordinary space-time; a world without time or a timeless one; a spaceless world. This timeless and spaceless world is forever imperceptible to humans and undeniably infinitely different from the world in which we live our lives.

There has been little disagreement over the centuries that science is affiliated with naturalism rather than with supernaturalism. The problem is that when one observes the products of the behavior of various thinkers, including scientists, over the years one finds that there is no one version of naturalism. Actually, this should not be surprising, for the derivation of varieties of naturalism is entirely consistent with Kantor's analysis. After Hellenic culture was lost, along with the highly developed naturalism of Aristotle, the antithesis in the form of supernaturalism replaced naturalism. Given that naturalism is inseparable from the behavior of humans and that such behavior is always imbedded in cultural conditions, it is understandable that the re-development of naturalism would be difficult. Just saying one was in favor of naturalism is not going to be all that is needed.

Varieties (by label, at least) of naturalism include those below. Examination of them will reveal various approximations to an approach to the world that is completely free of all nonspatiotemporal constructs.

agnostic N. (Ward, 1899, p. 106)
American N. (Furt & Skrine, 1971, p. 34; Shea, 1984, pp. x, 92)
antireductionist n. (Romanell, 1967, p. 59)
Cartesian n. (McMullin, 1988, p. 64)
constructive n. (Shea 1984, p 171)
critical n. (Mall, 1975, p. 43; Pratt, 1939/1970, p. 164)
dialectical n. (Shimony, 1987, p. 9)
dogmatic n. (Santayana, 1925, p. 687; Ward, 1899, p. 106)
empirical n. (Shea, 1984, p. 64)
ethical n. (Planagan, 1991, p. 297)
evolutionary n. (Sellers, 1922?, p. see Preface)
experimental n. (Larrabee, 1944, p. 352; Shea, 1984, p. 108)
French N. (Furst & Skrine, 1971, p. 26)
functional n. (Shea, 1984, p. 108)
genetic n. (Larrabee, 1944, p. 351)
German N. (Furst & Skrine, 1971, p. 37)
instrumental n. (Shea, 1984, p. 65; Sheldon, 1945, p. 270)
linguistic n. (Eisele, 1984, p. 53; Fourcher, 1977, p. 142; Gellner, 1968, p. 137))
logical n. (Larrabee, 1944, p. 352)
materialistic n. (Eisele, 1984, p. 54; Kurtz, 1990, p. 241)
mechanistic n. (Fourcher, 1977, p. 142)
native American n. (Kurtz, 1990, p. 241)
normative n. (Eisele, 1984, p. 54)
positivistic n. (Eisele, 1984, p. 54)
radical n. (Delprato, 1990, p. 13; Verplanck, 1982, p. xix)
realistic n. (Larrabee, 1944, p. 352)
reductionist n. (Romanell, 1967, p. 59)
scientific n. (Eisele, 1984, p. 54)
spiritual n. (Furst & Skrine, 1971, p. 31)
structural n. (Larrabee, 1944, p. 352)

Modern Ideas of Spirit and of a Nonspatiotemporal World Are Relatively Recent Outcomes of Sophisticated Behavior

According to the two cycles or phases analysis, humans were not always inclined toward supernaturalism. Rather, such thinking gradually developed in the context of particular and general conditions of living in which humans found themselves. The modern idea of spirit and the nonspatiotemporal are intricate adjustmental actions taken by humans to their lived world. In contrast to this analysis is the prevalent view that prehistoric humans exhibited supernaturalistic and dualistic tendencies, thus, for example, held to nonspatiotemporal soul or spirit and believed in an afterlife as some do today. In a chapter entitled "Beliefs and Psychological Concepts of Hunter-Gathers" and another entitled "The Ancient Background to Greek Psychology and Some Current Implications," Smith consults the evidence and concludes that early humans revealed no dualistic beliefs. Smith's work here particulary supplements Kantor's earlier presentation on pp. 44-48 of Vol 1.

Does Kantor's Analysis Apply Only to Western Civilization. What About Other Cultures?


Kantor's history is a macrohistory, going back as it does to the earliest records of Western civilization. Although not required for establishing the veracity of Kantor's analysis of the psychology we most know, the analysis would be strongly supported if similar trends took place in other cultures. In two chapters ("Psychological Concepts Under Changing Social Conditions In Ancient Egypt" and "Indo-European Psychological Concepts and the Shift to Psychophysical Dualism"), Smith documents that the first major development (movement from naturalism to supernaturalistic dualism) occurred in ancient Egypt as well as in the belief systems of Indo-Europeans (includes India).

Plato's Views


Did Plato, this prominent member of Hellenic culture that Kantor finds incapable of supporting any form of nonnaturalism, harbor and promote supernaturalistic doctrine? Hamilton and Cairns base their conclusion that Plato's views were nothing but naturalistic on their examination of the original Greek, not upon later translations by individuals living in conditions very different from those of Plato.

Interpretations of Aristotle

Dijksterhuis, E. J. --somewhere-- could be in The Mechanization of the World Picture (1950/1961) could be
chapter in M. Clagett's (1959) Critical problems in the history of science.

Points out that the Arabs preserved Aristotle but only read Syriac translations and Western Christendom received Latin translations of Arab versions and Arab interpretation was influenced by Neo-Platonism.

Soul, According to Aristotle


One of the least excusable misrepresentations is for anyone to convey to others that Aristotle meant by soul anything like today's application of the term, i.e., with nonspatiotemporal referents. All of the above, and no doubt more, scholars agree that to Aristotle soul was synonymous with what we mean today by the word life.

Personalism/Internalism, Person/Self, Anthropological Research


Kantor finds Hellenistic-Roman personalism an important step in the direction of supernaturalism and dualism. Here we find the beginnings of a retreat inward, escape from the world, separation of the individual from other aspects of the world. Thus, in today's mainstream western culture and psychology, we think of the person or self as an independent and distinctive entity. Anthropologist, Geertz, demonstrates how culturally-specific is this view. In summarizing anthropological findings, he states, "The Western conception of the person as a bounded, unique, more or less . . . . . . . . . . . ." (p. 48).

Early Christianity


According to popular opinion, the early Christian church became dominant in the Roman world because of "rising tide of Christian piety." Tied in with this, is the assumption that the
Christian religion better met spiritual needs than did other [less supernatural] religions. A historian of ancient Rome seeks to reassess early Christian conversions, not from the conventional standpoint of members of a long-ago converted culture, but "as much as possible from the ancient evidence, and with the least possible coloring imported from other worlds" (p. 9). MacMullen's research reveals that many worldly factors seemed to contribute to early conversions to Christianity. He documents force, physical coercion, and opportunities for worldly advantages (all naturalistic) as prominent features of the earliest conversions.


To Kantor (and Freud) religious views are totally naturalistic—even though nonnaturalistic referents to constructs are conveyed. From such a totally naturalistic point of view, religion is the product of naturalistic (of course) psychological behavior and can only be understood via including psychological analysis. Thus, religion is studied "outside itself" via secular means. It appears that the first to make the study of religion, in particular the history of religion, secular was Edward Gibbon who studied the matter in the eighteenth century.

Gibbon's account of the rise of Christianity in his famous 15th and 16th chapters is well-known to, if not liked by, scholars. He says to let the theologian indulge in the pleasing task of describing religion as descended from heaven, but the job of the historian is more melancholy. In his account Gibbon brings up several considerations that are relevant for a naturalistic interpretation of religious behavior. Some of these are: (a) religion of the Christian type is helped if people are encouraged to assent to traditions of their ancestors rather than to the evidence of their own senses, (b) available earlier systems of thought such as the Jewish religion, (c) importance of language, (d) ancient Christians understandable contempt for their present existence, (e) misrepresentations of persecutions of Christians (e.g., "it must ... still be acknowledged that the Christians, in the course of their intestine dissensions, have inflicted far greater severities on each other than they had experienced from the zeal of infidels" (p. 504).

Development and Acceptance of Supernaturalism--Hard Times and Improved Conditions of Living (Art)


Comparison of the plates of Augustine (p. 276) and St. Thomas (p. 340) found in vol. 1 of The Scientific Evolution strongly supports the otherwise well-documented finding that conditions of living during the time of Augustine were much more
severe than they would be later, beginning around the 11th century C.E. The following primitive paintings from the walls of the Catacomb of Saints Peter and Marcellinus that were intended to represent the Apostles Peter and Paul, also from about the time of Augustine, strikingly reflect two individuals who seemed to have not lived in the best of times.

Religion as Naturalistic Behavior


To follow religious dictates today is to accept the extranatural. That is, one behaves as though there is a realm beyond (other than) the natural world of every day living. Despite the secularization of society that has been gradually occurring since the 11th-century C.E., psychologists have, with few exceptions, been notoriously silent regarding how psychology can naturalistically account for behavior that establishes nonspatiotemporal referents for constructs. In other words, is (today's) religious behavior naturalistic? Although he did not supply details of psychological processes, Kantor did marshall historical documentation that points religious behavior as a class of naturalistic behavior. In *The Future of An Illusion,* S. Freud spells out an account of religious behavior that is fundamentally the same as Kantor's. Freud stresses religion as part of civilization and that the "principle task" of civilization is to defend humans from natural forces against which humans are defenseless. According to Freud, humans are driven to make their helplessness tolerable. He holds that circumstances that were crucial for humans to develop nonspatiotemporal religious views (i.e., harsh, intolerable, aversive ones) persisted and contribute to the maintenance of such views. Freud's first major point is that religious ideas (religion) derives from naturalistic human psychological activity, not from divine revelation or from any nonhuman natural world. He then goes on and applies his psychological viewpoint to supply possible naturalistic psychological processes that participate in religious behavior. By *illusion* he means "derived from human wishes." He says, "We call a belief an illusion when a wish-fulfilment is a prominent factor in its motivation, and in so doing so we disregard its relations to reality, just as the illusion itself sets no store by verification" (p. 31). Freud argues that all religious doctrines are illusions (and adds that some are classifiable as *delusions*). He argues that such views
pose a great threat to civilization because they shield us from reality.

Naturalism is Not Materialism, Materialism is Not Naturalism


A roadblock to a completely naturalistic approach to psychology is the common conception that naturalism is the same as materialism. Thus, many when considering a naturalistic psychology, hesitate because they assume this would entail endorsement of a materialistic world view to which they object. Kantor (Vol. 2) argues that materialism (of which there are numerous versions) does not take us to a naturalistic approach to the world, rather, materialism has always been one half of a material-spiritual dualism. Dewey (1944) makes the same point in the following quotation:

"Since 'matter' and 'materialism' acquired their significance in contrast with something called 'spirit' and 'spiritualism,' the fact that naturalism has no place for the latter also deprives the former epithets of all significance in philosophy. It would be difficult to find a greater distance between any two terms than that which separates 'matter' in the Greek-medieval tradition and the technical signification, suitably expressed in mathematical symbols, that the word bears in science today." (Dewey, 1944, p. 3)

In discussing modern physics, Frank (1955) points out that only in everyday talk (the vernacular) do we find matter set off against spirit (or energy). Frank argues that what physicists mean by "annihilation of mass" (a physicists may say that 'Matter can be annihilated and converted to energy') only translates into implications for what in everyday language is referred to as materialism and spiritualism if we fail to use "matter," "mass," and "energy" with their referents as found in modern physics. On the basis of physics research matter and energy have no relation to the "dualistic view of the contrast between body and mind [that is] deeply entrenched in our everyday language" (p. 461).

The Two-Cycles or Phases Analysis of Our Culture and of Psychological Thinking


Central to Kantor's analysis is the analysis of our culture and of necessarily associated psychological thinking as first moving from naturalism to supernaturalism and then since the 11th century C.E. gradually moving from supernaturalism to naturalism. Kantor brings up numerous scholarly findings that support this. Randal (especially pp. 369-370) summarizes the same developments, pointing out how with the Hellenistic age naturalistic thinking gave way to a very different type.

Conditions of Living Always Crucial in Humans' Ideas: Beginning of Second Cycle


Central in Kantor's analysis is that the beginning of the second cycle (beginning of return to naturalism) is inseparable from changed conditions under which people found themselves existing. In Vol. 1 (Chapter 18) Kantor overviews several factors that reflect changes beginning around 1000 C.E. In his coverage of the Protestant revolt, Lucas begins, "It is well,..., to first call attention to the far-reaching social, economic, and political transformation of European society during the centuries of the High Middle Ages (1000-1500)" (p. 445).

Secularization of Society


Kantor's analysis of the history of our culture and of psychology in terms of, first, naturalism to supernaturalism and, second, supernaturalism to naturalism perhaps only is remarkable if one examines history from a narrow perspective. The second cycle has been obvious to those who have looked for centuries. Indeed, it is common to hear those who prefer more of a supernaturalistic perspective to bemoan the secularization of society. They say that "traditional religious values" are not as appreciated as they were, that "god is not as acceptable" as he once was, and so on. Such comments reflect recognition of a [very gradual] secularization or naturalization movement.
Strikingly illustrating the second cycle are changes in the institution with the most invested in supernaturalistic soul, i.e., Catholicism. Tendencies away from supernaturalism are easily detected here: dogma, ritual, social practices, architecture, sculpture, painting, official relationship to science, protestantism (e.g., denial of transubstantiation).

**Humanism as Retreat from Emphasis on Nonhuman, Nonspatiotemporal Religious Conceptions (Beginnings in Protest Against Society Heavily Dominated by Nonnaturalism)**


Important in the second cycle (re-secularization of society) is the period known as the renaissance. It is possible to think of the renaissance of the beginning of the modern era of our history. The humanists were the "midwives" of the renaissance. Their name came from *humanitas*, and it meant a "philosophy of life and one in strong contrast to the preoccupation of the things of the spirit and the future world that had played such a part in the learned writings of the Middle Ages. It both expressed and strengthened the secular tendencies of the new age" (Ferguson & Bruun, p. 333). Thus, authentic humanism (humanism that continues the critique of nonspatiotemporal thinking of the earliest humanists) is an important aspect of the second cycle. Beware of "self-proclaimed humanists." The latter use the terms/constructs humanism and humanist, but the referents retain a nonspatiotemporal realm. Modern authentic humanists (see *Humanist Manifesto*, Lamont) see no need for god or gods of modern type, hold that humans are outcome of evolutionary process on earth, reject all dualisms, and stress science and reason as sources of knowing.

**Naturalism as Scientific View of the World and Arts and Humanities not in a Separate Category from Science**


Implicit in Kantor's analysis is that the split we frequently find today between the arts and humanities, on the one hand, and the sciences, on the other, is artificial. That is, it is a very general outcome of material-spiritual dualism which places humans into a different category from other natural things.
because of the supposed presence of nonspatiotemporal spirit in
the former. Feigl discusses how modern science neither ignores
the essentially human (values, morality, the arts) nor attributes
a spiritual element to humans. Feigl's position, taken from his
standpoint as a philosopher of science, is very much consistent
with Kantor's analysis and with the above points on authentic
humanism. Furthermore, Feigl disassociates naturalism and
science from materialism (see above), mechanism, and reductionism
(see Kantor's comments on Hellenic Socrates's rejection of

Historical Significance of Behaviorism and Emphasis on Behavior
(Not Same As Behaviorism) Is Gradual Return to Naturalism
(Secularization of Society)

Delprato, D. J. (undated) Behavior in contemporary
psychology.

The history and evolution of dynamic psychiatry. New York:
Basic Books.

Murchison (Ed.), A history of psychology in autobiography

in psychological thought (2nd ed.). Englewood Cliffs, NJ:
Prentice-Hall.

How does one reconcile two noteworthy and very clear
apparently contradictory developments in psychology today? On
the one hand, numerous authorities argue that the field has
undergone a "revolution" in which behaviorism has been replaced
by a fundamentally incompatible approach in the form of
cognitionism (but see Leahy for contrary view). On the other
hand, the construct behavior (and adjective, behavioral) are more
prevalent than ever in both the formal psychological literature
and everyday language (see Delprato's "Behavior in contemporary
psychology," as well as popular press). Kantor's analysis helps
us understand this state of affairs. According to his history,
we find the "discovery" of behavior to be an outcome of the
gradual naturalization of soul (in the second cycle).
Nonspatiotemporal soul was sequentially naturalized as mind,
consciousness, experience, and lastly (psychological behavior).
Simply put, behavior is much more naturalistic (i.e.,
spatiotemporal) than are the earlier constructs—although they
need not be less naturalistic (witness Aristotelian soul). Thus,
the advent of behaviorism as a system tells us that
naturalization of psychology had progressed to where it justified
a large-scale (and indeed multi-facited) corpus. Leahy, hardly
one to promote behaviorism, is clear in his conclusion that he
finds it to be an outcome of the naturalization of psychology.
Further support for the above conclusion is that the standard borders regarding systems of psychology (e.g., psychodynamic, behaviorism, humanism, cognitivism) do not hold up to critical scrutiny. For example, although P. Janet is considered one of the four most important founders of psychodynamic psychology, he considered himself closely affiliated to behaviorism (see Janet, 1930). Given Kantor's analysis, this is understandable, for Janet, above all, aspired to a scientific psychotherapy. Others agree with psychodynamic theorist Janet's categorization of his interests as behavioristic. Ellenberger (1970, p. 405) mentions that "analogies between the later theories of Janet and the teachings of George Herbert Mead are particularly striking." Mead is known for his sophisticated behavioristic work, known as social behaviorism. Furthermore, an influential behavioristic theorist (E. R. Guthrie, along with H. M. Guthrie) translated one of Janet's most important books on psychotherapy (Principles of psychotherapy).

Three Stages in Evolution of Thinking About the World (Science), Ending With Field Stage

Delprato, D. J. (undated) Converging movements in psychology.

According to Kantor's analysis, as the second cycle (renaturalization of society) has progressed, advanced thinkers changed how they approached the world, ending with field or system thinking. Delprato (undated) cites other authoritative historical analyses of science that reach the same conclusion. Furthermore, Delprato identifies several literatures in psychology that seem to be converging (the most recent period of the second cycle) on the basis of their applications of field/system principles. References here are too numerous; see the Delprato paper.