ABSTRACT

Psychological type theory provides a coherent, parsimonious meaning framework for understanding similarities and differences in the theoretical content of the psychological systems. The present report demonstrates that primary qualities of specific psychological type processes inform the theoretical content of the psychological systems. A typological analysis of the theoretical content of the psychological systems resulted in the following classifications: Structuralism, ISTJ; Functionalism, ENTP; Behaviorism, ESTJ; Gestalt Psychology, INTP; Psychoanalysis, ISTJ; and Humanistic psychology, INFP. From a psycho-epistemological perspective, psychological type processes are inherent properties of human consciousness that provide fundamental meaning structures that guide the construction of knowledge at individual and collective levels.

INTRODUCTION

Arguments about philosophical issues are often based on usually unrecognized individual differences in how the issues are perceived and on how judgments about the issues are made (C. G. Jung).

Psychological type theory (Jung, 1921/1971; Myers, McCaulley, Quenk, & Hammer, 1998) describes universal processes of consciousness that constitute a psycho-epistemological framework that underlies the primary conceptual variations in human construal, at both individual and collective levels. This paper will show how psychological type theory can be used to explain parsimoniously the primary theoretical variations characterizing the psychological systems.

The history of psychology may be conceptualized as the ascendance, development, and decline of psychological systems (Boring, 1929; Marx & Cronan-Hillix, 1987; Thorne & Henley,
revealed six bipolar first-order factors, some with moderate intercorrelations: Factor I—Subjectivism-Objectivism (emphasis on subjectivistic, mentalistic, phenomenological, or psychological processes vs. emphasis on objectivistic, physicalistic, positivistic, materialistic, or behavioral processes); Factor II—Holism-Elementarism (emphasis on holistic, totalistic, molar constructs vs. emphasis on elementaristic, atomistic, or molecular constructs); Factor III—Apersonal Orientation (emphasis on experimental/nomothetic theory and method vs. emphasis on clinical/idiographic theory and method); Factor IV—Quantitative Orientation- Qualitative Orientation (emphasis on quantitative methodology and precision vs. emphasis on less quantifiable processes); Factor V—Dynamic-Static (emphasis on changing processes vs. emphasis on relatively static structures); and Factor VI—Endogenist-Exogenist (emphasis on internal sources of behavior, including hereditary factors, vs. emphasis on external sources of behavior, including environmental factors).

Coan (1979) proposed that variations in theoretical outlook might be linked to temperament—discussing James’s (1890) tough-minded-tenderminded typology and Jung’s (1921/1971) psychological type theory as examples. This paper amplifies Coan’s proposal by showing how psychological type processes constitute a psycho-epistemological framework that underlies both Coan’s conceptual dimensions and in the psychological systems.

Watson (1967, 1977) rationally derived 18 bipolar conceptual dimensions (i.e., prescriptions), such as molecularism versus molarism, to explain theoretical variations in the psychological systems. Coan (1968, 1979) combined rational and empirical methods to derive a set of more comprehensive conceptual dimensions that are the focus of this study.

Coan (1968) reported a factor-analytic study in which a sample of American Psychological Association members rated 54 historically significant psychologists on 34 unipolar conceptual dimensions. These 34 dimensions, similar to Watson’s prescriptions, were selected to provide “comprehensive coverage of all basically important aspects of psychological theory” (p. 716). Exploratory factor analysis of the ratings
Judging–Perceiving [J–P]; Jung, 1921/1971; Myers et al. 1998) describe universal properties of consciousness that define a model of psychoepistemology. The four processes represent basic modalities of attention (E–I), perception (S–N), judgment (T–F), and orientation toward the outer world (J–P) used to construe (i.e., to construct meaning and knowledge) at both the individual and the collective levels.

The E–I dipole concerns the preferred direction of the flow of consciousness in relation to the subject-object pole of human experience (Jung, 1921/1971). In E, attention is naturally directed toward the external world (e.g., as exemplified both in empiricism [emphasizing knowledge derived from observation of external events] and in induction [a form of construal emphasizing inferences from observations of external events]). Conversely, attention is primarily directed toward the inner, subjective world (i.e., subject), resulting in construal that emphasizes subjective, internal processes (e.g., as exemplified both in rationalism [emphasizing the derivation of knowledge through active mental reflection] and in deduction [a form of construal emphasizing inferences from reflectively derived principles]). Jung (1921/1971) proposed that differential preferences for either E or I, respectively, are a common basis for many fundamental philosophical antinomies (e.g., Aristotelian vs. Platonic, Lockean vs. Liebnizian, Lockean vs. Kantian, Dionysian vs. Appollonian, and toughminded vs. tenderminded).

The perceiving (i.e., irrational) functions, S and N, are used to acquire perceptual data or information (Myers et al., 1998). Sensing, defined by Jung (1921/1971, p. 461), as “the psychological function which mediates the perception of a physical stimulus,” is analogous to a zoom lens, emphasizing analytic, precise observations of actual events in the present and past. Sensing may be engaged in an introverted attitude (e.g., perception of ideas, memories, feelings) or in an extraverted attitude (e.g., perception of specific environmental events). Intuition, defined by Jung (1921/1971, p. 453) as “the psychological function that mediates perceptions in an unconscious way,” is analogous to a wide-angle lens, providing a relatively molar, holistic perspective, with emphasis on relationships and future possibilities. As with S, N may be engaged in either an introverted attitude (e.g., in perceiving such subjectivistic, teleological, holistic constructs as the self or self-actualization) or an extraverted attitude (e.g., in perceiving such objectivistic, teleological constructs as social interest or self-transcendence).

The judging (i.e., rational) functions, T and F, transform perceptual data (viz., factual observations from S; possibilities and relationships from N) into evaluative knowledge (Myers et al., 1998). Thinking judgment “brings the contents of ideation into conceptual connection with one another” (Jung, 1921/1971, p. 481) and produces knowledge based on impersonal, objective evaluations by the application of general principles and rules to perceptual data. Feeling judgment imparts value to experience (Jung) and produces knowledge based on subjective evaluations by the application of personal values to perceptual data. Thinking judgment typically involves psychologically separating oneself from an event (i.e., displaying “scientific detachment”), and then objectively applying a general rule or principle to evaluate that event, whereas Feeling judgment typically involves psychologically identifying with (i.e., placing oneself subjectively within) an event and then evaluating on the basis of one’s subjective experience of that event.
Judging and perceiving reflect the preferred orientation toward the outer world (i.e., whether a judging function or a perceiving function is preferred in an extraverted attitude; Myers et al., 1998). A J preference is associated with the tendency to impose closure, order, and structure on the external world. Conversely, a P preference is associated with a relatively open, receptive, and adaptable orientation toward the external world.

Although all four bipolar processes are used in construal, the two processes comprising each dipole are not used equally. (Indeed, if both processes comprising each dipole were used equally, less differentiated perception and judgment would result in nonoptimal epistemological outcomes; See Myers & Myers, 1995, and Quenk, 1993, for an explanation.) Rather, one process of each dipole (e.g., either E or I) is naturally preferred and emphasized. This natural, implicit preference for one process of each dipole results in a selectivity of consciousness that may account for primary conceptual and theoretical variations, respectively, in individual constructions and in socially constructed meaning systems—such as the psychological systems.

For example, a differential preference for either E or I results in a natural tendency to attend to either external or internal events, respectively. Thus, in theory construction, an E preference may result in a selectivity toward external, objectivistic constructs, processes, and methodologies, whereas an I preference may result in a natural selectivity toward intrapersonal, subjectivistic constructs, processes, and methodologies.

The primary theoretical assumptions that characterize each psychological system demonstrate the selective effects of the particular combination of psychological type processes that were emphasized in each system's construction. The psychological type processes, through their universality and their selectivity, underlie both Coan's (1979) conceptual dimensions (i.e., factors), and the central theoretical variations characterizing the psychological systems.

In some cases, the personal psychological type preferences of the founders/contributors may appear to be clearly reflected in the theoretical assumptions of the psychological systems (e.g., J. B. Watson and behaviorism). However, this investigation focuses on how the theoretical content of the psychological systems reflects primary qualities of specific psychological type processes and makes no inferences about the psychological types of the founders.

Two caveats follow. First, the use of a sweeping brush stroke will necessarily obscure theoretical differences within each psychological system (e.g., consider the significant theoretical differences among Freudian psychoanalysis, Jungian analytical psychology, and Adlerian individual psychology—all frequently classified together within the psychoanalytic system). Psychological systems typically demonstrate conceptual growth and development. Such conceptual growth and development may result from engagement of psychological type processes that were not emphasized in the original construction of the system. For example, the Neo-Freudian elaboration of psychoanalysis, emphasizing societal forces and object relations, may reflect an extraverted elaboration of the relatively introverted, intrapsychic emphasis characterizing early psychoanalysis. Although theoretical variability and development within each system is acknowledged, the interpretation of the myriad theoretical differences subsumed within each system is beyond the scope of this paper.

Second, human knowledge is the product of a
complex interaction of exogenous (e.g., the zeitgeist) and endogenous (e.g., dispositional characteristics, including psychological type) factors. Psychological type processes represent relatively elemental properties of consciousness. Conceptual dimensions that characterize the psychological systems (e.g., Quantitative Orientation vs. Qualitative Orientation) are typically higher-order products of an interaction of type processes (e.g., major characteristics of a Quantitative Orientation include primary qualities of sensing, thinking, and judging processes). Therefore, one-to-one correspondences between specific type processes and specific conceptual characteristics of psychological systems are not always expected. Further, neither the type processes nor the conceptual products of human consciousness are fully orthogonal. Therefore, some conceptual dimensions are interrelated (e.g., Objectivism and Quantitative Orientation), some type processes are moderately intercorrelated (e.g., the Sensing-Intuition and Judging-Perceiving scales; see Myers et al., 1998, pp. 150–154), and some conceptual dimensions display primary characteristics of two (or more) type processes.

**PSYCHOLOGICAL TYPE PROCESSES UNDERLIE COAN’S CONCEPTUAL DIMENSIONS**

This section demonstrates how primary qualities of the four bipolar psychological type processes underlie each of Coan’s (1979) conceptual dimensions.

**Extraversion and Introversion as Foundations for Coan’s Factor I (Objectivism-Subjectivism) and Factor VI (Exogenist-Endogenist).** Primary qualities of extraverted attention are reflected in the Objectivism and Exogenist poles of Factors I and VI. Conversely, primary qualities of introverted attention are reflected in the Subjectivism and Endogenist poles of these factors. The marker variables that define the poles of Objectivism (viz., observable behavior, determinism, mechanism, operational definitions, learning, and external determinants) and Exogenist (viz., social determinants, learning, and immediate external determinants) are thematically similar. These variables are objective (i.e., focus on material entities or processes, as exemplified by a mechanistic metaphor) and have an external locus. These kinds of objective, external variables tend to be illuminated naturally by extraverted attention. Conversely, the marker variables that define Subjectivism (viz., conscious processes, introspective reports, voluntarism, unconscious processes, and self-concept) and Endogenist (viz., biological determinants, heredity, and naturalistic observation) exemplify an internal locus and, consequently, are the kinds of variables naturally selected by introverted attention.

**Sensing and Intuitive Perception as Foundations for Coan’s Factor II (Elementaristic-Holistic), Factor IV (Quantitative-Qualitative), and Factor V (Static-Dynamic).** Primary qualities of sensing perception are fundamental features of the Elementaristic, Quantitative Orientation, and Static poles of Factors II, IV, and V, whereas primary qualities of intuitive perception are basic characteristics of the Holistic, Qualitative Orientation, and Dynamic poles of these factors. The variables comprising the Elementaristic and Quantitative poles of Factors II and IV appear to reflect reductive-analytic qualities characteristic of sensing perception, whereas the variables comprising the Holistic and Qualitative poles of these factors reflect relatively holistic, molar qualities emphasized by intuitive perception. The marker variables defining
Elementaristic include: *elementarism, influence of past experience*, and *mechanism*. The marker variables defining Quantitative emphasize an analytical, precise approach to methodology including the following: *statistical analysis, quantitative description and formulation*, and *rigidly controlled experimentation*. The Elementaristic and Quantitative orientations demonstrate an analytical approach to observation and measurement that exemplifies primary qualities of sensing perception.

The marker variables that define the Holistic and Qualitative poles of Factors II and IV (respectively, *total organization, holism, uniqueness of individual*, and *naturalistic observation for Holistic; emotion, unconscious processes, “armchair speculation, and introspective reports for Qualitative*) exemplify the holistic, molar focus characteristic of intuitive perception.

Further, the Static pole of Factor V reflects a focus on present-oriented processes, characteristic of the temporal focus of sensing perception. Conversely, the Dynamic pole of Factor V reflects dynamic processes that change the future state of the organism, reflecting the future orientation characteristic of intuitive perception. More specifically, the variables comprising the Static pole of this factor (*sensation and perception, introspective reports, quantitative description*) reflect the assessment of static qualities in the present, whereas the marker variables comprising the Dynamic pole of Factor V (*motivation, past experiences, learning, social determinants, unconscious processes*) reflect dynamic processes that produce change in the future state of the organism.

As will be discussed in greater detail later, the Quantitative pole of Factor IV might be construed as an investigative strategy that emphasizes the combination of sensing perception and thinking judgment, whereas the Qualitative pole might be construed as emphasizing the combination of intuitive perception with feeling judgment.

**Thinking and Feeling Judgment as Foundations for Factor I (Objectivism-Subjectivism), Factor III (Apersonal-Personal), and Factor IV (Quantitative-Qualitative).** Primary qualities of thinking judgment are basic characteristics of the Objectivism, Apersonal, and Quantitative poles of Factors I, III, and IV, respectively. Conversely, primary qualities of feeling judgment are fundamental characteristics of the Subjectivism, Personal, and Qualitative poles of these factors. The marker variables defining Objectivism (*determinism, mechanism, operational definition*), Apersonal (*nomothetic, physical analogies, rigidly controlled experimentation*), and Quantitative (*statistical analysis, quantitative description and formulation, normative generalization, rigidly controlled experimentation*) all emphasize logical, objective transformations of perceptual (typically sensory) data based upon objective rules and principles. The marker variables defining Subjectivism (*conscious processes, introspective reports, voluntarism, finalism, and armchair speculation*), Personal (*emotion, unconscious processes, and armchair speculation*), and Qualitative (*emotion, unconscious processes, and armchair speculation*) all share qualities of feeling judgment—particularly emphasis on the subjective perspective of the experiencing person.

**Judging and Perceiving as a Foundation for Factor V (Static-Dynamic).** The primary qualities of the judging-perceiving orientation are reflected, respectively, in whether the system is driven by a Static, mechanistic metaphor, or whether the system is animated by a Dynamic,
organismic metaphor. The nature of the variables comprising the Static pole of Factor V clearly reflects characteristics consistent with a judging orientation, whereas the variables comprising the Dynamic pole tend to reflect characteristics of a perceiving orientation. The marker variables defining Static include introspective reports (as employed in structuralism’s analysis of experience into sensations, images, and feelings), quantitative description, and normative generalization—all of which emphasize the assessment of static entities. Conversely, the marker variables defining Dynamic include motivation, influence of past experience, learning, social determinants, emotion, and unconscious processes—all of which reflect dynamic, change-producing processes.

The judging-perceiving orientation is reflected, respectively, in whether the primary phenomena of psychology are viewed as static structures, amenable to quantitative analysis and classification, or whether the primary constructs are considered dynamic processes more amenable to qualitative study. The Static pole is associated with emphasis on stable qualities, reflecting a judging orientation, whereas the Dynamic pole is association with fluid processes that produce change and development, reflecting the engagement of a perceiving orientation.

Table 1 summarizes the relationships between Coan’s (1979) six conceptual dimensions and the psychological type processes.

**Table 1. Relationships Between Psychological Type Processes and Coan’s Conceptual Dimensions.**

<table>
<thead>
<tr>
<th>Coan’s Factor I</th>
<th>Subjectivism</th>
<th>Objectivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introversion</td>
<td>Feeling</td>
<td>Extraversion</td>
</tr>
<tr>
<td>Feeling</td>
<td>Thinking</td>
<td>Thinking</td>
</tr>
<tr>
<td>Coan’s Factor II</td>
<td>Holism</td>
<td>Elementarism</td>
</tr>
<tr>
<td>Intuition</td>
<td>Sensing</td>
<td></td>
</tr>
<tr>
<td>Coan’s Factor III</td>
<td>Personal Orientation</td>
<td>Apersonal Orientation</td>
</tr>
<tr>
<td>Feeling</td>
<td>Thinking</td>
<td></td>
</tr>
<tr>
<td>Coan’s Factor IV</td>
<td>Qualitative Orientation</td>
<td>Quantitative Orientation</td>
</tr>
<tr>
<td>Feeling</td>
<td>Intuition</td>
<td></td>
</tr>
<tr>
<td>Intuition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coan’s Factor V</td>
<td>Dynamic</td>
<td>Static</td>
</tr>
<tr>
<td>Perceiving</td>
<td>Judging</td>
<td>Sensing</td>
</tr>
<tr>
<td>Intuition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coan’s Factor VI</td>
<td>Endogenist</td>
<td>Exogenist</td>
</tr>
<tr>
<td>Introversion</td>
<td>Extraversion</td>
<td></td>
</tr>
</tbody>
</table>

As scientific disciplines, the psychological systems share a common foundation—emphasis on the scientific method and, to a larger extent,
emphasis on the disciplinary metaphor of mechanism. This section demonstrates how psychological type processes underlie the basic meanings of the scientific method and the mechanistic metaphor.

The variables comprising the Objectivism, Apersonal, and Quantitative poles of Coan’s (1979) Factors I, III, and IV reflect fundamental characteristics of the classic scientific method (Kemeny, 1959). Although all psychological type processes are used in the scientific method, the classic scientific method emphasizes the combination of sensing perception (e.g., data based on objective observation/measurement of events) and thinking judgment (application of logical principles to data/ideas). The analysis of the steps in the scientific method (Kemeny) clearly shows maximization of sensing and thinking as epistemic strategies: (1) precise observation of facts concerning the phenomenon of interest, emphasis on sensing perception; (2) formulation of logically consistent theories or principles based on the observed facts, emphasis on inductive thinking judgment; (3) formulation of empirical hypotheses, emphasis on deductive thinking judgment; (4) conduct of experiments or controlled observations to test hypotheses, emphasis on combined sensing and thinking; (5) performing statistical tests, emphasis on combined sensing and thinking; and (6) drawing inferences and conclusions based on the results of the statistical tests, emphasis on inferential thinking judgment.

Mechanism, the central disciplinary metaphor in the history of psychology, is based on the assumption that human psychological processes can be explained by purely mechanical (i.e., physical) laws, as can be the working of any machine—by analyzing psychological phenomena into constituent parts (emphasizing use of sensing perception), by applying universal objective principles to explain the functioning of the parts (emphasizing the use of thinking judgment), and by showing how the parts can be combined additively into a whole whose functioning also is governed by universal objective principles (emphasizing a judging orientation). As a guiding metaphor, mechanism tends to be logically consistent with Coan’s (1979) second-order Analytic factor and with the first-order conceptual dimensions of Objectivism, Elementarism, Apersonal Orientation, and Quantitative Orientation.

Mechanism, based on the notion of the person as a closed system, is often contrasted with an organismic metaphor that views the person as an open, dynamic system that is in a continual process of change or becoming. The organismic metaphor is consistent with Coan’s (1979) second-order Synthetic factor, and with the first-order conceptual dimensions of Subjectivism, Holism, Personal Orientation, and Qualitative Orientation.

Vitalism represents a disciplinary metaphor, which proposes properties of the psyche that transcend explanation by physical and mechanical laws. A theory guided by a vitalistic metaphor might place central emphasis on such nonreductive constructs as consciousness, self-actualization, self-transcendence, and self-determination. In typological terms, both organismic and vitalistic metaphors show characteristics associated with a combination of intuitive, feeling, and perceiving processes.

**TYPOLOGICAL ANALYSIS OF THE PSYCHOLOGICAL SYSTEMS**

Each psychological system will be tentatively classified according to primary emphasis on (1) extraverted or introverted attentional focus
Structuralism—An ISTJ System.
Definition: Psychology is the study of the adult human mind by introspection. Representative psychologist: Edward Bradford Titchener (1898, 1910). Structuralism was often labeled (particularly by its detractors) as brick-and-mortar psychology, because introspection was used to analyze mental life (i.e., conscious experience) into constituent mental elements (i.e., the bricks of sensations, images, and feelings). Once the elements of consciousness and their qualities were determined, a taxonomy of mental elements was to be constructed, analogous to Mendeleev’s periodic table of chemical elements. Associationistic principles were used to explain how these mental elements could be mortared (i.e., combined together) into higher-order mental compounds (e.g., conscious experience). Because the goals and methodology of structuralism appeared analogous to chemistry, structuralism was sometimes labeled mental chemistry. Introspectors (characterized as reagents) were trained to objectively observe their own subjective mental processes, ostensibly without perturbing these processes, and to objectively report the content of their observations.

In summary, structuralism, as a system, reflected qualities of (1) introverted attention (e.g., focus on subjective inner experience), (2) sensing or intuitive perception (emphasizing molecular elementaristic constructs and methods vs. molar, holistic, qualitative constructs and methods, respectively), (3) thinking or feeling judgment (emphasizing objectivistic, nomothetic, apersonal approaches vs. subjectivistic, idiosyncratic, personal approaches, respectively), and (4) judging or perceiving orientation (emphasizing characteristics of mechanistic, static, closed systems vs. characteristics of dynamic, changeable, open systems, respectively).

Functionalism—An ENTP system.
Definition: Psychology is the study of mental activity and behavior as it aids the organism in environmental adaptation. Representative psychologists: William James (1890), John Dewey (1896), James Rowland Angell (1907), Harvey A. Carr (1925). Functionalism’s most fundamental principle, the adaptive act, concerned how a physical or mental activity assists the organism in adapting to the environment. The adaptive act, including both mental and behavioral aspects, reflected both introverted and extraverted directions of attention. However, the ultimate goal of the adaptive act, organismic adaptation to the external environment (Darwin, 1859), emphasized extraverted attention.

The adaptive act also displays such primary qualities of intuitive perception as holism (e.g., the meaning of the adaptive act must be construed within the whole environmental context) and future orientation (e.g., focus on the purpose of adaptation). William James’s (1890) functionalistic stream of consciousness formulation clearly emphasizes intuitive qualities of holism.

(emphasizing external, objectivistic, exogenist constructs vs. intrapersonal, subjectivistic, endogenist constructs, respectively), (2) sensing or intuitive perception (emphasizing molecular elementaristic constructs and methods vs. molar, holistic, qualitative constructs and methods, respectively), (3) thinking or feeling judgment (emphasizing objectivistic, nomothetic, apersonal approaches vs. subjectivistic, idiosyncratic, personal approaches, respectively), and (4) judging or perceiving orientation (emphasizing characteristics of mechanistic, static, closed systems vs. characteristics of dynamic, changeable, open systems, respectively).
and molarism, as well as perceiving qualities of fluidity and dynamicism. Also, Dewey's (1896) *The Reflex Arc Concept in Psychology*, often cited as the formal beginning of functionalism, was a critique of the molecularism and artificiality of both structuralism's reductive introspective analysis of consciousness into mental elements and of behaviorism's later reductive stimulus-response unit of analysis. Dewey, arguing for holism in psychology, maintained that behavior was a total coordination whose purpose was the adaptation of the organism to the situation (Marx & Cronan-Hillix, 1987).

Qualities of thinking judgment are central to functionalism. The goal of the adaptive act, organismic adaptation to the environment, reflects a universal, nomothetic principle governing all organisms. Functionalistic research emphasized objective, scientific methodology grounded in thinking judgment. However, functionalism also displayed qualities of feeling judgment, such as the notion that the adaptive act must be understood from the context of the individual organism.

Functionalism has been characterized as a vague and undifferentiated system (Marx & Cronan-Hillix, 1987). One possible explanation for the vagueness and lack of differentiation may be associated with functionalism's relatively strong, concurrent emphasis on both dipoles of two psychological type processes (Extraversion–Introversion and Thinking–Feeling). According to Jungian theory (Myers & Myers, 1995; Quenk, 1993), both dipoles of a bipolar type process cannot be equally developed and used. Rather, optimal perception and judgment result from the differentiation of one's natural preferences for one process of each dipole. If both dipoles of a bipolar type process were equally emphasized, neither process would show effective differentiation and, consequently, undifferentiated perception and judgment would result. To speculate, the vagueness and lack of differentiation characterizing functionalism might be caused by a relatively strong emphasis on both extraversion and introversion, and on both thinking and feeling, resulting in less effective conceptual differentiation within the system.

For example, the adaptive act displays qualities of both extraverted and introverted attention—emphasizing the importance of both body and mind, environment and organism. Both objectivistic and subjectivistic constructs (e.g., behavior and mental activity, respectively) and methodologies (measurement of behavior and phenomenological self-report, respectively) were emphasized, again showing qualities of both extraversion and introversion, and thinking and feeling. Further, the principle of environmental adaptation includes characteristics of both thinking judgment (e.g., adaptation is a normative principle) and feeling judgment (e.g., the meaning of a particular activity must be understood from the perspective of the acting organism). Thus, the content and activities of functionalism emphasized both dipoles of Extraversion–Introversion and of Thinking–Feeling.

In the final analysis, I would tentatively characterize functionalism as displaying (1) extraverted attention, because the ultimate purpose of the adaptive act is organismic adaptation to the external environment; (2) intuitive perception, as reflected in the holistic nature of the adaptive act and consciousness, particularly in contrast to the elementarism characterizing structuralism and behaviorism; (3) thinking judgment, reflected in the emphasis on nomotheticism and objective principles (e.g., the adaptive act, organismic
adaptation); and (4) perceiving orientation, reflected both by the spontaneous, dynamic nature of organismic adaptation to the environment and by the incomplete nature of the theoretical system.

Psychoanalysis—An ISTJ System.
Definition: Psychology is the study of unconscious mental processes. Representative psychologist: Sigmund Freud (1933/1966).

Any attempt to classify Freudian psychoanalysis in typological terms will be controversial, in part because of the comprehensive scope of the system, the frequent modifications in the system, and Freud's unrelenting attempts to make the system scientifically respectable (Roazin, 1974). Given these caveats, discussion will focus on Freudian psychoanalysis as a mature, comprehensive theory of personality and psychotherapy. Freudian psychoanalysis was later elaborated by Adler (1939, 1956) in more extraverted and intuitive directions (as reflected by emphasis on social interest, style of life, and the creative self); by Jung (1936/1969), in more intuitive and perceiving directions (as reflected by emphasis on the archetypes of the collective unconscious and the process of self-realization); by Fromm (1941) and Horney (1926/1967, 1937) in more extraverted directions (emphasizing the impact of social and cultural forces), and by Erikson (1950/1985) in more perceiving directions (emphasizing development and change through the life span).

An examination of psychoanalysis reveals qualities consistent with introversion, sensing, thinking, and judging processes. The genealogy of the word “psychoanalysis,” literally “analysis of the psyche or mind,” clearly indicates an introverted direction of attention and an application of sensing perception combined with analytical thinking. In the practice of psychoanalysis, sensing perception is used to identify meaningful data from patient self-reports and behaviors. These data are analyzed, and logical inferences are made about their concrete, latent meaning that invariably lead to causal unconscious conflicts originating in the patient's past.

The subjectivistic, mentalistic nature of the major personality constructs (e.g., unconscious, personality structures), psychodynamic processes (e.g., instincts, cathexis, counter-cathexis, defense mechanisms), and methodologies (e.g., free association, dream analysis, projective testing) clearly reflect the products of introverted attention applied analytically to the psyche. Thinking judgment is used to make logical inferences based on universal principles derived from the mechanistic metaphor of a closed energy system.

Although psychoanalysis reflects certain qualities of intuitive perception, particularly in its origination (e.g., insight about the meaning of dreams as unconscious wish fulfillment, qualitative orientation toward clinical case study), sensing perception predominates, as reflected in elementarism and reductionism, in Freud's mature system. For example, when the meaning of data derived from free association or dreams is studied, a reductive analysis based on a universal lexicon of symbols is employed. Symbols are assumed to represent concrete persons and events that are connected with specific repressed conflicts typically originating in childhood. The meanings of the patient's symbolic productions are traced backward in time, leading to specific unconscious, causal conflicts. (As an aside, the Freudian [STJ] orientation toward dream interpretation contrasts markedly with the Jungian [NFP] dream
interpretation method of amplification.

Characteristics of thinking judgment are emphasized in psychoanalysis. Psychoanalysis was inductively and systematically constructed, starting with Freud’s (arguably) objective therapeutic observations. The major principles, mechanisms and constructs comprising personality structure, psychodynamics, psychosexual development, and individual differences are universal, objective, nomothetic, mechanistic, and deterministic. Although Freudian psychoanalysis gives substantial attention to the subjective experience of the individual—reflecting some qualities of feeling judgment—these subjective experiences are grist for the mill of molecular analysis (sensing perception) and the application of analytical, logical principles (thinking judgment). Thus, persons experientially dwell in subjective worlds, their actions determined by irrational, unconscious emotions and wishes. However, universal, rational principles and processes ultimately govern these subjective experiences, unconscious processes, and actions. Feeling processes are ultimately subsidiary to the objective, causal principles based on thinking processes.

A judging orientation dominates psychoanalysis. The comprehensiveness of the theoretical system (reflected by mechanistic models of personality structure, psychodynamics, developmental stages, and individual differences) clearly reflects judging emphasis toward closure and systematization. Judging qualities are also demonstrated by the principle of psychic determinism, which reflects the operations of a closed system. The master motive in psychoanalysis, tension reduction, is a mechanistic principle pressing toward closure (i.e., homeostasis).

In summary, psychoanalysis emphasizes qualities of (1) introverted attention (e.g., focus on subjectivistic experience, intrapsychic structures and dynamics), (2) sensing perception (e.g., reductive analysis of data into elemental units), (3) thinking judgment (e.g., emphasis on nomotheticism, logical principles to describe a mechanistic personality system), and (4) judging orientation (e.g., a mechanistic, closed system; a comprehensive system addressing structure, dynamics, development, and individual differences).

Although both psychoanalysis and structuralism are characterized as ISTJ systems, a fundamental difference concerns the centrality of unconscious mental processes in psychoanalysis. In contrast, structuralism, both in the phenomena studied and in the methodologies used, emphasized conscious mental elements and processes.

Behaviorism—ESTJ.
Definition: Psychology is the scientific study of behavior. Representative psychologists: Ivan Pavlov (1927), John Broadus Watson (1913), B. F. Skinner (1938). The behavioristic formulations of Watson (1913) and Skinner (1938), which dominated psychology from approximately 1920-1970, are emphasized. Further elaborations of behaviorism, such as purposive behaviorism (Tolman, 1932) and social learning theories (Bandura, 1977, 1986; Rotter, 1954), have extended behaviorism in more introverted directions and include greater emphasis on subjectivistic, mentalistic constructs and processes (e.g., sign-gestalts, mental maps, expectations, symbolic control).

Watsonian behaviorism (Watson, 1913) defined psychology as an extraverted, externally directed objectivism—the scientific study of behavior. The extremity of Watson’s extraverted objectivism is seen, first in his original
methodological behaviorism (i.e., behavior is the only acceptable datum of psychology; rejecting the scientific validity of subjectivistic processes), and later, even more clearly, in his radical behaviorism (i.e., there is no mind; rejecting the existence of subjectivistic processes). Behaviorism emphasized an extraverted direction of interest, investigating external, objective behavior of the organism and how these behaviors are determined by characteristics of the external environment.

Emphasis on sensing perception is revealed by the molecular and elemental nature of the constructs of behaviorism (responses, stimuli, reinforcerment, stimulus-response connections). For Watson, behavior was composed of responses that can be analyzed into glandular and muscular movements, which can be ultimately reduced to physical-chemical processes (Marx & Cronan-Hillix, 1987).

Emphasis on thinking judgment is reflected in the nature of theory construction, which emphasized inductivism and nomotheticism, seeking general principles and laws that applied to all organisms. Further, behaviorism epitomizes the objective scientific detachment characterizing thinking judgment. This scientific detachment is seen in the demotion of the status of the investigated person in psychological research by behaviorism—from introspector in structuralism to mere observed subject in behaviorism.

A judging orientation characterizes behaviorism, as evidenced by the comprehensiveness of the theoretical system, which derived universal principles of learning that applied to all organisms. Further evidence of a judging orientation is reflected by the extreme mechanistic metaphors that denied the significance, or even the existence, of consciousness or other subjectivistic processes.

In summary, behaviorism emphasized qualities of (1) extraverted attention (e.g., focus on behavior and its external, environmental determinants); (2) sensing perception, reflected in the molecular, elementaristic units of analysis employed (e.g., reflexes, operant behaviors, stimuli, reinforcements); (3) thinking judgment, reflected in objectivism, nomotheticism, and an apersonal orientation of scientific detachment; and (4) a judging orientation, reflected in the metaphor of a mechanistic, closed system governed by a set of logical principles.

Gestalt psychology—INTP.
Definition: Psychology is the study of immediate phenomenal experience. Representative psychologists: Max Wertheimer (1912), Kurt Koffka (1935), Wolfgang Köhler (1925), Kurt Lewin (1935). Gestalt psychology reflects an introverted direction of attention, with emphasis on subjectivism (e.g., psychology is defined as the study of immediate phenomenal experience) and endogenism (e.g., emphasis on innate perceptual-cognitive organizational principles; isomorphism). Gestalt theory and research concerning perception, learning, problem solving, and creativity emphasized internal, subjectivistic processes within the organism's phenomenal field.

An emphasis on intuitive perception is clearly demonstrated by (1) the primary principle of Gestalt psychology (i.e., the whole is greater than the sum of its parts), which emphasizes holism and molarism; (2) the use of insight (i.e., an intuitive restructuring of phenomenal experience) as the primary explanation for learning; and (3) the centrality of rationalistic, deductively derived theoretical constructs (e.g., innate principles of perceptual organization, isomorphism; see Helson, 1933, for a review).
Thinking judgment is reflected by the Gestalt emphasis on nomotheticism and the formulation of universal principles/laws of psychological functioning. Gestalt also reflects a preference for perceiving, rather than judging, as demonstrated by emphasis on dynamic and fluid field constructs and processes (e.g., phenomenal field, life space).

In summary, Gestalt psychology emphasizes qualities of (1) introverted attention reflected by a subjectivistic focus on phenomenal experience; (2) intuitive perception, reflected in the holistic, molar units of analysis (e.g., phenomenal experience, insight); (3) thinking judgment, reflected in objectivism, nomotheticism, and universal psychological principles; and (4) a perceiving orientation, reflected in dynamic, fluid, field metaphors. It is noted that Gestalt psychology (a psychological system emphasizing INTP qualities) differs from Gestalt therapy (Perls, 1969), a psychotherapeutic system emphasizing ISFP qualities.

Humanistic psychology—INFP.
Definition: Psychology is the study of human experience, meanings, and possibilities.
The central constructs and processes in humanistic theories (e.g., self, personal freedom, innate actualization tendencies, phenomenology, person-centeredness) reflect an introverted subjectivism. This introverted subjectivism is tempered to some extent by the more extraverted concept of self-transcendence, which emphasizes connectedness between the individual and other entities including persons, organizations, society, and absolutes (e.g., transcendental values, god). However, the fundamental characteristics of humanistic theories emphasize self-related processes, reflecting introverted attention.

Characteristics of intuitive perception predominate in humanistic psychology, reflected by an emphasis on holistic, molar constructs (e.g., the self) and by critiques of molecular, reductionistic methods, combined with an emphasis on qualitative methods (e.g., phenomenological reports). Further, humanistic optimal functioning constructs (e.g., authenticity, actualization) emphasize the intuitive perception of life meanings (e.g., being true to a unique personal norm that is discoverable within).

Humanistic psychology strongly emphasizes feeling judgment. Humanistic theories emphasize the value of a phenomenological approach, which assumes that subjective experience, rather than the objective situation, is the major determinant of human behavior. A phenomenological approach emphasizes primary qualities of feeling judgment, attempting to empathically experience a situation from the perspective of the experiencing person. Emphasis on feeling judgment is also seen in such characteristics as subjectivism, idiographicism, and a personal orientation, exemplified in the Rogerian concepts of empathy and unconditional positive regard (Rogers, 1961).

Humanistic psychology epitomizes the primary qualities of a perceiving orientation in its guiding metaphor of an open, organic (or vitalistic) system. The actualization tendency, as seen in the theories of Rogers (1961, 1980) and Maslow (1968, 1970), exemplifies the dynamic, open system in the process of becoming.

In summary, humanistic psychology emphasizes qualities of (1) introverted attention, reflected by subjectivistic constructs and processes (e.g., self, actualization, subjective experience); (2) intuitive perception, reflected by
holistic, teleological constructs (e.g., self, actualization, becoming); (3) feeling judgment, reflected by an emphasis on subjectivism and a personal orientation (e.g., emphasis on personal values, authenticity, qualitative methodologies); and (4) perceiving orientation, reflected by dynamic, open systemic metaphors (e.g., becoming, actualization, self-transcendence).

Table 2. **Typological Classification of Psychological Systems and Theories.**

<table>
<thead>
<tr>
<th>ISTJ</th>
<th>ISFJ</th>
<th>INFP</th>
<th>INTJ</th>
</tr>
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</table>
| **Structuralism**  
  *Psychoanalysis*  
  Cognitivism;  
  Trait Psychology  
  (Cattell, 1957; Eysenck, 1970) | **Gestalt therapy**  
  (Perls, 1969) | **Humanistic Psychology**  
  Analytical Psychology  
  (Jung, 1936/1969) | **Gestalt Psychology**  
  Personal Construct  
  Theory  
  (G. Kelly, 1955) |
| ISTP | ISFP | INTP |
| **Behaviorism**  
  *Functionalism*  
  Feminine Psychology  
  (Horney, 1937) | **Individual Psychology**  
  (Adler, 1939, 1956) | **Functionalism**  
  Ego Psychology  
  (Erikson, 1985; Fromm, 1941);  
  Sullivanian Psychology  
  (Sullivan, 1953) |
| ESTP | ESFP | ENFP |
| **Behaviorism**  
  *Social Learning*  
  Transactional Analysis  
  (Berne, 1964) | **Individual Psychology**  
  (Adler, 1939, 1956) | **Sociological Psychology**  
  Social Learning  
  (Bandura, 1977, 1986;  
  Rotter, 1954);  
  Interpersonal Diagnosis  
  (Leary, 1957) |
| ESFJ | ENFJ | ENTJ |

Note. In Table 2, names of psychological systems are boldfaced, whereas names of theories of personality/psychotherapy are in standard type.
alism-ENTP, Psychoanalysis-ISTJ, Behaviorism-ESTJ, Gestalt-INTP, and Humanistic Psychology-INFP.

The combination of the preferred attitude (E or I) with the Jungian functions (either S, N, T, or F) defines one of eight possible function-attitude types: introverted-sensing (Si), introverted-intuition (Ni), introverted-thinking (Ti), introverted-feeling (Fi), extraverted-sensing (Se), extraverted-intuition (Ne), extraverted-thinking (Te), and extraverted-feeling (Fe). The function-attitude types provide a procedure to indirectly assess the validity of the type classifications proposed for the psychological systems.

Thompson (1990) provided a detailed description, including an image label (reflecting the guiding metaphor or typical life experience), for each of the eight function-attitude types. The conceptual goodness-of-fit between Thompson’s independently formulated descriptions of the function-attitude types can be compared to the primary qualities of the psychological systems that are classified as the same function-attitude types. To the extent that the primary qualities of a psychological system of a given function-attitude type clearly correspond to Thompson’s description of that same function-attitude type, the validity of the classification of the psychological system is supported.

Both structuralism and psychoanalysis are classified as Si function-attitude types. According to Thompson (1990), Si is typically associated with a strong focus on subjective sensations and experiences. Thompson uses the metaphor surreal to describe the dreamlike vividness of typical Si subjective experiences. In a strikingly accurate correspondence to Thompson’s description of Si, the principal constructs and data for both structuralism and psychoanalysis are subjective processes and experiences. The goal of Titchenerian (1898, 1910) structuralism was introspective analysis of subjective mental experience into the elements of sensations, images, and feelings. The goal of psychoanalysis is analysis of subjective mental experience (e.g., dreams and free associations) into unconscious elements (i.e., repressed affect-laden ideas).

Functionalism is classified as an Ne function-attitude type. Thompson’s (1990) metaphor for Ne is Edge of Chaos, which refers to a characteristic experience of life as a dynamic, changing process, rather than as a stable state. Thompson (p. 65) described the life experience of an Ne as analogous to living “in a stream of consciousness reminiscent of William James.” Again, the aptness of Thompson’s description is striking given William James’s significance as a major contributor to functionalism. Further, Thompson referred to the Ne’s tendency to generate ideas but not complete and systematically develop these ideas. This description corresponds to both the major principle of functionalism (i.e., the process of continual adaptation to the changing environment) and to the major theoretical critique of functionalism (i.e., the incompleteness, vagueness, and lack of systematization).

Behaviorism is classified as reflecting a Te function-attitude type. Thompson (1990) proposed a Mechanistic metaphor for Te, based on the tendency to organize the outer world using cause-effect principles characterizing orderly, mechanical processes. Again, this description is fully consistent with the qualities of nomotheticism, external objectivism, and mechanism that characterize behaviorism.

Gestalt psychology is classified as a Ti function-attitude type. Thompson’s (1990) metaphor for Ti is Socratic, emphasizing the typical Ti internal search for rationally derived principles.
Thompson's description of the experience of the Ti consciousness corresponds to Gestalt's characteristic emphasis on endogenous, rationally derived processes, such as innate principles of perceptual-cognitive organization, insight learning, and isomorphism. The Ti preference for rationally derived knowledge is fully consistent with the Gestalt tendency to emphasize rationally derived theory more than empirical investigation.

Humanistic psychology is classified as reflecting an Fi function-attitude type. Thompson (1990) used the Utopian metaphor to describe the life experience of Fi because of the tendency to construct an idealistic world that may depart from external reality. In this regard, it is notable that humanistic psychology is the only psychological system that proposes an inherently positive, idealistic, human nature embodied in such constructs as the actualization tendency, self-determination, and authenticity. The Fi tendency to judge according to internal values is consistent with centrality of internal values in humanistic psychology (e.g., authenticity and actualization involve being true to norms/values discovered within the individual).

In summary, clear correspondences are demonstrated between Thompson's (1990) function-attitude type metaphors/descriptions and the primary qualities independently assigned to each psychological system of the corresponding function-attitude type. These clear correspondences provide indirect evidence supporting the validity of the typological classifications of the psychological systems.

CONCLUSIONS ABOUT PSYCHOLOGICAL TYPE AND PSYCHOLOGICAL SYSTEMS

Psychological type processes constitute a fundamental meaning structure whose universality and selectivity inform (1) the theoretical content of the psychological systems, (2) Coan's (1979) conceptual dimensions, (3) the scientific method, and (4) the mechanistic disciplinary metaphor.

The primary qualities of introverted attention are emphasized in the Endogenism and Subjectivism that characterize structuralism, psychoanalysis, humanistic psychology, and Gestalt psychology. Conversely, the primary qualities of extraverted attention are seen in the emphasis on Exogenism and Objectivism that characterizes behaviorism. Functionalism displays qualities of both introverted and extraverted attention, showing theoretical characteristics inclusive of both Subjectivism and Objectivism, and of both Endogenism and Exogenism. Functionalistic theorizing attempts to incorporate both aspects of such dualities as mental activities and behavior, mind and body, and organism and environment. However, the central principle of functionalism, environmental adaptation, ultimately reflects an extraverted direction of attention. Few psychological theories (e.g., social learning theories [Rotter, 1954; Bandura, 1977, 1986]; need-press theory [Murray, 1938]) effectively integrate subjectivistic and objectivistic constructs, processes, and methods within a comprehensive theoretical framework.

The primary qualities of sensing perception are emphasized in the Elementarism, Quantitative Orientation, and Staticism that characterize structuralism, psychoanalysis, and behaviorism. Conversely, functionalism, Gestalt psychology, and humanistic psychology emphasize characteristics of Holism, Qualitative Orientation, and Dynamism that reflect primary qualities of intuitive perception.

Primary qualities of thinking judgment are
emphasized in the Objectivism, A-personal Orientation, and Quantitative Orientation that characterize structuralism, functionalism, psychoanalysis, behaviorism, and Gestalt psychology. Conversely, basic qualities of feeling judgment are reflected in the Subjectivism, Personal Orientation, and Qualitative Orientation that characterize humanistic psychology. Because psychological systems develop within a scientific disciplinary matrix that emphasizes objectivism and nomotheticism (largely dominated by males, who tend to prefer thinking, rather than feeling; Myers & McCaulley, 1985), it is not surprising that five of the six systems demonstrate qualities associated with thinking judgment.

Three psychological systems emphasize the qualities of Staticism that characterize a judging orientation (structuralism, psychoanalysis, and behaviorism), whereas three systems (functionalism, humanistic psychology, and Gestalt psychology) emphasize qualities of Dynamism that are consistent with a perceiving orientation.

ISTJ is the modal four-letter type, represented by structuralism and psychoanalysis. The recent cognitivistic movement in psychology also displays many qualities characteristic of an ISTJ orientation. As listed in Table 2, among the six psychological systems, three (structuralism, psychoanalysis, and behaviorism) are classified as emphasizing STJ qualities. Two psychological systems, Gestalt psychology and functionalism, are classified as emphasizing NTP qualities. Only humanistic psychology is classified as emphasizing NF qualities. Among the four columns of the type table, only the SF column is lacking a representative system. To speculate, the SF column might represent the domain that is reflected by “popular psychology,” as represented by the typical psychology section in bookstores. An SF approach might emphasize practical knowledge applied to improve the quality of human lives. Several additional psychological theories are (tentatively) assigned to cells of the type table to provoke reflection and discussion. In future research, it may be instructive to apply psychological type analysis specifically to theories of personality and psychotherapy.

As a final caution, both psychological type and psychological systems represent metaphorical models, respectively, of human consciousness and of the history of psychology. Other metaphors can be productively applied to human consciousness (e.g., Aristotelian causality; Rychlak, 1981) and to the history of psychology (e.g., myth systems, political systems, or loosely coupled systems; Weick, 1976). However, a strength of the psychological type approach lies in its grounding in fundamental properties of human consciousness.

GENERAL CONCLUSIONS

Psychological type processes are inherent properties of human consciousness that provide fundamental meaning structures that, through their universality and selectivity, guide the construction of knowledge at individual and collective levels. The combination of psychological type preferences into four-letter types results in a structural unity of attention, perception, judgment, and organization. This structural unity provides a matrix of meaning that guides human construal. Preferences for certain psychological type processes profoundly affect psychological theory construction by implicitly directing consciousness toward particular answers to questions such as the following: What phenomena are attended to? How are the phenomena perceived? What is the nature of the principles/values used to understand the phenomena? How are the phenomena organized and how do they change?
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