

Primary Divisions of Personality and their Scientific Contributions: From the Trilogy-of-Mind to the Systems Set

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Personality psychology is often viewed from such theoretical perspectives as the psychoanalytic, the humanistic, the trait, and the social-cognitive. Those theories are consistent in many regards, although they differ meaningfully from one another in language and focus. One consistency is that such theories draw on common classes of personality parts. Almost all theories discuss *mental mechanisms* such as the hunger and the sex drives, internalized *mental models* such as the self-concept, and *traits* such as extroversion and ego-strength (Mayer, 1995). In addition to mental mechanisms, models, and traits, there exists a very small category which may be of unrecognized importance in understanding human personality: sets of *primary parts*. These sets contain parts which, although small in number, are expansive in reach, and indeed are intended to describe the totality of personality.

Sets of primary parts include the venerable trilogy-of-mind set of *motivation, emotion, and cognition*,¹ which dates back at least to 1750, but still exerts considerable influence on the field (Hilgard, 1980; Mayer, Chabot, & Carlsmith, 1997), as well as newer groups of parts, such as Singer's (1987) set of *public and private personalities*, and the recently introduced systems set of primary parts, which includes an *energy lattice, knowledge works, role player, and an executive consciousness* that overlooks the first three (Mayer, 2001a). Perhaps the best known example of primary parts is Freud's *structural set*; that is, the *id*, the *ego*, and the *superego*. Brenner and Arlow helped introduce Freud's structural set in the United States nearly forty years ago (Arlow & Brenner, 1964). Brenner recounted:

... I viewed its introduction for what it was: a great leap forward in our understanding of how the mind develops and functions. I studied it, I applied it, I wrote about it, and I taught it ... I believed it to be true, scientifically speaking; that is, I believed it to be the best theory

of how the mind works that could be based on available psychoanalytic data (Brenner, 1994, p. 474).

The theoretical import of primary parts may be considerable. The argument here will suggest that primary parts are among the most powerful—and least understood—aspects of personality theory. The sets of primary parts may constitute an unacknowledged influence that critically inform discussions of personality.

To make the argument, this article is divided into several parts. After this introduction, the second section, “A Framework for Primary Parts,” describes personality as viewed from a pan-theoretical perspective and outlines several defining characteristics of primary parts. The third section, “Sets of Primary Parts . . .” presents an historical overview of primary parts sets from the trilogy of mind to the systems set. The fourth section, “The Role of Primary Parts,” uses the specific examples of primary parts to examine why such sets are of interest and what they contribute to personality. The fifth section, “Scientific Bases for Primary Parts,” examines the conceptual and empirical criteria for a good set of primary parts. The last, “Discussion and Conclusion” section summarizes the argument and further considers why primary parts are important, why they have been overlooked, their contributions relative to sets of traits such as the Big Five, and further ways they may be of use to the field.

The issues covered in this article will occasionally touch in particular on the controversies surrounding the id, ego, and superego. Freud’s structural set is the most widely known of these primary parts sets, and the theoretical discussions surrounding the set are highly instructive (e.g., Boesky, 1994; Brenner, 1994; Shane, 1994; Slap, 1986; Wiedeman, 1972). For example, Brenner, who (it was earlier noted), helped introduce the id, ego, and superego in North America, more recently expressed his dramatic reassessment of them. He now questioned whether there really existed a mental structure “. . . the id, . . . that is separate from another agency of mind, the ego . . . and that both are separate from still another structure, the superego” (Brenner, 1994, p. 474). To adequately address such a question, it is helpful first to identify the broader class of primary parts and their characteristics. The next section does this.

A FRAMEWORK FOR PRIMARY PARTS

Personality psychology is an interweaving of powerful theoretical statements and research areas. The various personality theories, although they use different terminology and concepts, generally address the same topics and can be translated into a common systems language. Translations from the language of one psychological theory to another are fairly common (i.e., Dollard & Miller, 1950; Erdelyi, 1985; Rapaport, 1960; Westen, 1991). Synthesizing such translations in a more unified, systems perspective, one arrives at an overall framework for the

discipline that centers on four broad questions (a) "What (and where) is personality?" (b) "What are personality's parts?" (c) "How is personality organized?", and (d) "How does personality develop?" (Mayer, 1993–1994, 1998a). One attractive feature of such an approach is that, by addressing such questions pan-theoretically, one develops a generic model of personality (Craik, 1998, p. 146).²

This generic model begins with a holistic view of where personality is and what it must do. Personality is viewed as existing inside the individual, "behind the mask" or "under the skin" as opposed to outside the organism. Inside the individual, personality is an organized system of psychological (i.e., mental) processes that emerge from biological roots, especially brain functions and smaller psychological operations such as sensation and perception. Personality, in contrast to psychology more generally, focuses on broad, overall psychological trends. For example, it is more focused on overall motivation than on understanding the specific neural pathways of motives. It is more focused on mood's expression than on the fine-grained distinctions among specific emotions, although it must be cognizant of such underlying features. The personality system, in addition to its interaction with the brain, is connected to larger social systems as well. Several people (and their personality systems) together form families, and still more people (and their personalities) form larger social groups. This positioning of personality tells us that it must struggle between the biological impulses of the body, on the one hand, and social interactions and responsibilities on the other (cf., Freud, 1930/1961).

Understanding how personality mediates between biology and society requires dividing it into parts. Individual parts such as *motivation*, the *id*, and the *energy lattice* belong to the broad class of the agencies. Agencies are large conglomerates of personality parts that carry out a broad, but in some ways unitary, set of functions of personality. Some agencies exist alone or in pairs, and do not necessarily cover all of personality. For example, William James (1892/1920) pointed out the existence of an "I as knower" (or "I"), a conscious awareness that watches the rest of personality. He coupled it with the "I as known" (the *me*), which contains stored information about the self. These two parts were large, important, and agentic (in the sense that they might have operated autonomously), but they did not cover all of personality. Primary parts, by contrast, are sets of agencies that are collectively intended to describe all of personality.

Primary Parts and their Four Defining Characteristics

Sets of primary parts are those that share four defining characteristics: (a) each member is a broadly functioning system composed of mental mechanisms and models, sometimes referred to as an agency. In addition, the set of parts (b) is comprehensive in describing personality, (c) possesses economy of number, and (d) is universal across people.

Parts as broadly functioning systems (agencies)

The first defining characteristic of primary parts sets is that each member of the set is an agency, that is, a "broadly functioning system." Consider the primary part, "emotion" from the trilogy of mind. "Emotion," as part of the trilogy, refers to a broad system that coordinates emotional responses to events. That is, the emotion system organizes alterations in chemical transmitters, in the skeletal-muscular system, in facial expressions, motives, cognitions, and subjective experience, that collectively create instances of emotion such as happiness, fear, and anger. For example, when anxiety occurs, blood pressure rises, facial grimacing may occur, and thoughts of escape arise. Moreover, the emotion system scans for perceived threats, and this scanning is a product of neurological preparedness coupled with past learning experiences. The emotion system, like other primary parts, describes a functionally-defined system capable of carrying out a diverse class of operations involving both neuropsychological mechanisms and acquired schemata.

Agencies can be further clarified by comparing them to traits. Consider the emotion-related trait of "neuroticism" from the Big Five (e.g., McCrae & Costa, 1999). The Big Five traits consist of: *neuroticism-stability*, *extroversion-introversion*, *openness-closedness*, *agreeableness-disagreeableness*, and *conscientiousness-carelessness*, and are often said to provide a relatively complete description of personality. Neuroticism (at the neurotic end of neuroticism-stability) refers to a characteristic pattern of the emotion system to be emotionally changeable and to enter into worried, anxious states. That is, the trait (e.g., neuroticism) is descriptive of an aspect of the primary part (e.g., anxiety in the emotion system). Traits may consist of "real attributes" within the primary part—neuroticism might involve heightened levels of certain neurotransmitters and overlearned threat schemata—but traits do not perform the broad functions or possess the flexibility of response of the agency itself. Quite the contrary, traits characterize trends or fixedness in such function. So, a set of traits such as the Big Five may describe aspects of primary parts but are not primary parts themselves.

The second characteristic of primary parts sets, comprehensiveness, refers to the fact that primary part sets are intended to divide the whole personality into a few subareas of particular interest. All major personality functions are covered, arguably, by the trilogy-of-mind set, or by Freud's id, ego, and super-ego, or by the system set's energy lattice, knowledge works, role player, and executive consciousness.

A third characteristic is economy of number. Surely, if personality is divided into 17 or 18 parts, that is too many to be primary any longer. There are no examples of primary parts more than 5 in number. To be liberal, however, the maximum might be put at the "magic number" 7—the number of items most people can maintain in short term memory at one time (Miller, 1956). This boundary seems like a good one, because an important aspect of primary parts (as will be seen) is their capacity to communicate about personality. Using a

number of parts fewer than the average short-term memory boundary of seven items can help such communication.

The fourth and final characteristic of primary parts is that primary part divisions are common to all healthy personalities. All adults have motivations, emotions, and cognitions (according to the trilogy of mind), or an id, ego, and superego (according to Freud's structural model), or an energy lattice, knowledge works, role player and executive consciousness (according to the systems set). There may be a few rare exceptions, such as certain criminals who might be said to lack a superego, but the universality of parts is the general rule. Again, one can draw a distinction between primary parts and traits. Some plausibly argue that a trait *dimension* such as *high versus low ego-strength* is arguably universal in that everyone has a position on it (but see Baumeister & Tice, 1988). Even if a trait dimension is universal, however, the specific level of trait—having high ego-strength, for example—is not universal. Only some people are high in ego strength; others are low in ego strength. By contrast, essentially everyone has an ego.

SETS OF PRIMARY PARTS: A BRIEF REVIEW

With these four distinguishing characteristics of primary parts in place, it is possible to identify a few sets of primary parts and to review their history. Although it is not possible to cover all central sets, the ones that follow should provide a flavor of their development and characteristics.

Faculty Psychology and the Trilogy of Mind (Motivation, Emotion, Cognition)

Long before Freud's models, faculty psychologists had divided the mind into motivational, emotional, and cognitive areas—the so-called trilogy of mind (Hilgard, 1980). One underlying purpose of this was to explain the different reasons a person might say something: they might logically conclude it (cognitive), feel coerced to say it (motivation), or feel it to be true (emotion). From that philosophical distinction grew the recognition that these represented three distinct mental modes or processes of the mind. The trilogy of mind recently has enjoyed a renaissance. It has been the subject of both historical and conceptual reviews (Hilgard, 1980; Mayer et al., 1997) and serves as a centerpiece in many trait organizational systems (Buss & Finn, 1987; Cattell & Warburton, 1967; Guilford, 1959; Mayer, 1995).

Freud's Topographic and Structural Models

Freud referred to his first set of primary parts, which divided the mind into the conscious, preconscious, and unconscious, as a topographic model (Freud,

1923/1960). The conscious was a sense organ which saw the rest of the mind. The preconscious consisted of material that, although not conscious at a given moment, could become conscious. The unconscious contained two parts, including a primary unconscious that was not and was never conscious. The other part, the repressed unconscious, consisted of material that was too uncomfortable to reach consciousness, and was therefore strategically blocked off from awareness. At times, the original conscious-unconscious division has been modified, added to, and re-conceptualized, but not replaced in any clear fashion. Researchers use the topographic model as a reference point to study manifestations of the conscious and unconscious, and to elaborate different types of unconscious, subconscious, and subliminal influences (Kihlstrom, 1987). The model plays an influential role in psychotherapy, where Freud's edict to make the unconscious conscious defines a centerpiece of insight-oriented therapies (Weiner, 1975, p. 40).

In 1923, in what was to be his last major theoretical work, Sigmund Freud dramatically revised his theory of personality. The mind, wrote Freud, was best viewed as divided into three large, semi-autonomous parts. The id, or "*it*", in Latin, was an animalistic part of personality—a boiling, bubbling cauldron of animal-like sexual and aggressive urges. In addition, it created fantasies that elaborated those sexual and aggressive urges. The "*ego*," or self, in Latin, was in part conscious and was responsible for the person's understanding of and behavior in the outside world. It carried out systematic trial and error thinking, was rational, and sought to ensure the individual's survival. The "*superego*" was an overseer of the ego that ensured it was moral and strove for ideals. It contained rules, acquired from parents, that guided behavior in socially approved ways. Freud viewed this new division of the mind as providing the best description of the conflicts between one part of the mind and another, as he had witnessed them in patients seen in analytic therapy (Gay, 1988).

Introductory textbooks regularly employ the structural model to describe the scope of personality (e.g. Zimbardo & Gerrig, 1996). A recent search of a psychology database turned up nearly 4000 articles with "*ego*" in their title, with 43 articles abstracted on the ego for the year 1999 alone. The *superego* was less often a topic in a title, but still numbered in the hundreds. Even the lowly id has had its own retrospectives, arguments for attending more closely to it, and a chance empirical paper.³

Middle Twentieth-Century Personality Theory and Primary Parts

The Evolution of Existing Sets. The middle twentieth century saw the development of dozens of new personality theories, including revised analytic theories (e.g., Jung and Adler), trait theories, humanistic theories and many others (see Hall & Lindzey, 1978, for a review). Surprisingly, given the number of theorists at work, rather few new sets of primary parts were seriously developed during these times. Instead,

primary parts already established were further developed. For example, the trilogy of mind set was bolstered when MacLean (1973) suggested that the brain could be structurally divided into reptilian, palco-mammalian, and neo-mammalian sections that roughly mapped on to the motivational/emotional/cognitive trilogy.

To Freud's conscious, preconscious, and unconscious, Jung added the idea of a collective unconscious. To the id, ego, and superego, Jung and Adler added complexes, and Horney added relational coping styles, but these are more important today as individual parts of personality, than as primary divisions of the mind. Trait theorists pursued dozens of traits, and ultimately reduced them in number to a set of two—and then five (Eysenck & Rachman, 1965; Goldberg & Rosolack, 1994). These theorists, however, were organizing traits, rather than the entire personality. Among the cognitive approaches, Kelly's carefully worked out personal construct theory outlined personally held beliefs about the world, but not primary parts.

The Real-False Set. Among mid-century psychologists, Rogers (1951) came closest to developing a new set of primary parts. He divided the mind into *organismic experiencing*, the *real self*, and the *false self*. Organismic experiencing referred to the organism and its actual, felt, experience of events. The real self reflected the preferences and desires of the individual, based on his or her actual organismic experiences. The false self, by contrast, included attitudes acquired from parental and other cultural influences which did not, however, fit with one's actual, organismic experience. This model has had relatively little influence beyond the borders of humanistic psychotherapy.

Contemporary Divisions: Biopsychology and Functional Integration

There are a number of recent possible divisions of personality that qualify as primary part sets. The present era has seen an emphasis on new bio-psychological divisions, on the one hand, and integrations of earlier divisions, on the other.

Lateral Brain Set. The "lateral brain" set divides the brain (and mind) into right and left hemispheric portions. It emerged from studies of a small group of neurological patients with severe epileptic seizures. These patients had their corpus collosum surgically severed so as to prevent their seizures from spreading from one side of the brain to the other. Psychological testing after surgery indicated that their verbal reasoning took place in the left hemisphere whereas their non-verbal, visuo-spatial reasoning took place in the right. Further studies (and corroborating animal research) indicated that the left hemisphere is relatively sequential and temporal, whereas the right is more simultaneous and spatial. This gave rise to the idea that brain hemispheres of normal individuals might represent distinct modes of thought. Individuals who favored their left hemi-

spheres might be more linear, sequential, and rational. Those favoring their right hemispheres might be regarded as more spatial and integrative (Ornstein, 1986; Springer & Deutsch, 1989; Teuber, 1974). Evidence for whether those with more dominant right or left hemispheres have different styles of thought is mixed at present (see Springer & Deutsch, 1989, pp. 284–288, for a review). Although evidence is limited, speculative extensions arose comparing the left-right dichotomy to rational versus intuitive modes of thought, and, even more broadly, to Western versus Eastern ways of perceiving the world.

The Systems Set of Primary Parts. Another set of primary parts, the systems set, was introduced to update earlier primary parts sets by selecting their best divisions (particularly, from Freud, 1900/1960; Hilgard, 1980; Singer, 1987) and integrating them in accord with personality as presently understood (Mayer, 2001a). The systems set describes three primary parts of an “activity progression,” the *energy lattice*, *knowledge works*, and *role player*, overseen by a fourth, *executive consciousness*. Within the activity progression, neuropsychological needs and motives arise and are autonomically regulated. These urges may then go on to be amplified or diminished through emotional responses to them. Collectively, these motives and emotions form the energy lattice, and function to generally direct the individual’s activities. The second part, the knowledge works, contains sophisticated information about the self and the world that facilitates functioning in a complex environment. Self-relevant knowledge includes one’s own internal states and one’s life history. General knowledge includes information about the world at large, including knowledge of other people, literature, arts, and sciences. The knowledge works also contains capacities to reason with the information within it. The third of the three parts, the role player, forms and enacts plans about how to interact socially, such as leading (or following) others, being sympathetic, or making a good impression (cf., Lyman & Scott, 1975, pp. 101–114). The *executive consciousness* oversees the rest. The executive consciousness is aware of internal states, and of internal representations of external situations. It is further aware of analyses of those states and situations provided by the knowledge works. In a dilemma, the executive consciousness can focus awareness on a course of action and its likely sequellae. By highlighting the particular consequence of a decision, it can exert a limited but critical form of self-regulation by promoting or discouraging a given choice. The four members of the systems set may be particularly useful for covering the parts of personality comprehensively, and for organizing traits (Mayer, 2001a, 2001b).

THE ROLE OF PRIMARY PARTS

Having now presented a definition of primary parts and a brief review of several such sets, it is worth considering their nature and their contribution to psychology.

In general, primary parts appear to contribute to personality psychology in several ways, including: organizing personality parts, defining personality structure, clarifying dynamics and development, and more generally communicating the field.

Organization of Mental Mechanisms, Mental Models, and Traits

As noted already, one defining property of primary parts is that they are distinguished from one another according to the mental mechanisms and mental models that make them up. This suggests that, if they are well chosen, they can be divided and subdivided so as to potentially organize all the parts of personality (and the smaller, more molecular, psychological parts underlying personality). This property enables them to serve as high level organizers for other parts of the mind. For example, the ego was defined by Freud as including such areas as the brain's sensory-motor cortex, consciousness, mechanisms of defense, and trial-and-error thinking. Or, in the systems set, the knowledge works is divided, first into the rational and objectively organized information of the semantic memory stores, second, into the experiential, associative networks that include self and significant other schemas (e.g., Epstein, 1998), and, third, into intelligences that operate on those bodies of knowledge.

Primary parts are also useful for organizing personality traits. Traits can be thought of as emerging from primary parts (or their subparts). For example, some literature has been devoted to matching traits to Freud's id, ego, and superego. Bellak (1973) matched trait-related functions such as quality of reality testing, delay of gratification, and mastery competence to the ego. Kris (1951) connected creativity to the ego. Block labeled psychological health measured by his Q-sort technique as "ego resiliency" (e.g., Funder & Block, 1989). Ego-strength was the original name for emotional stability on Raymond Cattell's 16PF. "Super-ego strength" in turn, labeled a guilt-proneness factor (Cattell & Warburton, 1967).

The trilogy of mind, however, is by far the most commonly used organizer of traits. It divides traits into separate motivational, emotional, and cognitive classes—divisions actively used today (e.g., Carroll, 1993; Plutchik, 1984; Winter, 1996). Moreover, expanded and modified versions of this tripartite scheme form a part of a number of revised approaches to conceptual trait organizations in the 20th century (Buss & Finn, 1987; Cattell & Warburton, 1967; Guilford, 1959; Mayer, 1995).

The recently proposed systems set has been tested empirically to examine its utility in discriminating among traits. When raters divided a set of 69 diverse traits according to whether they most closely described the energy lattice, knowledge works, role player, or executive consciousness, the aggregated raters' agreement (across 9 raters) was in the $p(\text{agreement}) = .68$ range, as opposed to about 20.8% expected by chance alone ($p < .001$). This compared favorably to a study of the trilogy-of-mind set (Mayer, 2001b).

Once conceptual divisions of traits are carried out with primary parts, empirical sortings of traits generally follow (Buss & Finn, 1987; Mayer, 1995). Thus, one might first identify "emotion" as an area of personality, using the trilogy-of-mind, and then create test items to measure emotions, and administer those items to groups of participants. Thereafter, the test items are analyzed according to their covariance structure, and on that basis, sorted and classified empirically. In the emotions area, one often obtains dimensions of pleasant-unpleasant affect and calm-aroused affect (Russell, 1980; Watson & Tellegen, 1985). Similar procedures yield the intelligences of the cognitive area (Carroll, 1993). The widely-used trait group, the Big Five, is unusual in that its content area is not defined by primary parts but instead by the *lexical hypothesis* which directs a search for the most important personality trait words in English and other languages (e.g., Goldberg & Rosolack, 1994). It has the advantage of circumventing the problem of dividing personality into areas to begin with, but the drawback of providing uncertain coverage of any good division that might be identified.

Primary Parts and Personality Structure (and Function)

Given the power of primary parts to divide and organize personality, they also enable a theorist to make powerful structural statements about the mind. That is, primary parts are themselves major structures of personality. Some have been reluctant to talk about personality structure in this manner, however. Referring to Freud's structural set of the id, ego, and superego, Boesky (1994) has noted:

The term structure has always caused confusion. The term psychic structure does not appear in the general index of Freud's writings. In fact no one seems to know who coined the term structural theory in the first place, and many authors have pointed out the tendency to reify and concretize the notion of the three psychic agencies as though they were federal office buildings in the human mind (Boesky, 1994, p. 510).

Boesky believes that "functional" model would perhaps do better than structural model (cf., Beres, 1965). A similar viewpoint is expressed by Wiedeman (1972), who reveals some of the history of the use of the term structure. To the extent that mental structure exists, in fact, structural divisions are often identified with changes in mental function; in consequence, the two ideas are in practice more closely overlapping than it might seem. Psychological processes are sometimes usefully compared to computer programs. The structure of computer software—the variables that the software defines, the order of its instructions, and the organization of those instructions—determines the software's function. Similarly, the structure of a primary part is related to its function. Within the energy lattice of the systems set (or the motivational and emotional areas of the trilogy), motives such as hunger emerge from neuropsychological signals triggered in part

by blood levels of sugar and fats. These urges are then variously processed and regulated within the motivational system itself. Thereafter such urges may be amplified by emotional sentiments interwoven among them, such as the love of food, or the urge may be diminished by an emotional interruption, due to say, threatening maneuvers by an enemy. In the energy lattice, as in a software program, structure and function are closely allied.

Why is personality structure (and its related function) important? At a most general level, without structure, studies of the mind lend the impression that all of personality's myriad parts effect all of the others to a more-or-less equal degree, in an undifferentiated swamp of cause and effect. Under such conditions, there would exist an infinite number of important parts, dynamics, and developmental processes, with no way to organize them. Although the "all influences all" sentiment is a plausible scientific position, I do not think it is the best we are capable of. The next section, for example, considers the role of primary parts in thinking about dynamics. This is just the sort of place that structural divisions can assist in the exposition of an area of personality.

Primary Parts Permit a Discussion of Dynamics

Calvin Hall, the great systematizer of mid-century personality theories, began his discussion of the id, ego, and superego, by introducing them with a dynamic description:

... In the mentally healthy person these three systems form a unified and harmonious organization. By working together co-operatively they enable the individual to carry on efficient and satisfying transactions with his environment. The purpose of these transactions is the fulfillment of man's basic needs and desires. Conversely, when the three systems of personality are at odds with one another the person is said to be maladjusted. He is dissatisfied with himself and with the world, and his efficiency is reduced (Hall, 1954, p. 22).

Hall's quote illustrates how even the simplest description of a primary parts model appears to yield general dynamic concepts of the mind: parts working in harmony are efficient; parts in disunity are inefficient. Such dynamics of psychic energy and the ego have recently influenced Baumeister and Tice in their work on ego depletion—the idea that self-regulation in one area withdraws mental energy from another (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Other primary parts sets define important dynamics as well. For example, the trilogy-of-mind conception plainly provides a basis for the research field of "cognition and affect," which studies the ways in which emotion changes thought (and vice versa, see Clark & Fiske, 1982; Forgas, 2001).

Personality dynamics are examined all the time at more fine-grained levels than those dealing with primary parts. Much experimental research, including studies of attributional styles, trait interactions, and emotions, can be viewed as

research into personality dynamics. The promise of studying dynamics at the level of primary parts is to create general sets of dynamic principles with which to understand personality functioning. In this regard, some of Freud's more general dynamics, including those that described defensiveness, mental compromise, and similar principles, are still broadly relevant to personality today.

Primary Parts Organize Discussion of Development and Change

Another attribute of primary parts is that they allow for the discussion of different areas of growth throughout the lifespan. For example, one may speak of growth in the motivational, emotional, and cognitive spheres separately, examining their similarities and differences (e.g., Mayer, 1998b, pp. 134–137). Similarly, the id, ego, and superego are distinguished in part, by their developmental progression from the id, which is present at birth, to the growing influence of the ego within the mental life of the young child, to the emergence of the superego during the internalization of parental supervision. "One of the advantages of the terms id, ego, and superego," wrote Boesky (1994, p. 512), was that it allowed theorists to "artificially but conveniently separate these functional organizations for purposes of discussion and investigation of the developmental fate of each . . .".

Primary Parts Communicate Personality Well

If there is a consistent theme that emerges throughout the forgoing points, it is that primary parts are useful to communicating personality psychology. Years ago, the cognitive psychologist Eleanor Rosch suggested that the categories people use within the natural world are not arbitrary but are highly determined. For example, there is a hierarchy of categories into which many natural objects fall, from the highest, most abstract level, to levels of detailed specificity. According to Rosch, for each such hierarchy, there was a level of basic category which carried the most information, and best distinguished one sort of object from another (Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976). In the case of furniture, for example, people prefer to discuss chairs, tables, and sofas, rather than more abstract levels of categories such as human artifacts, or more specific types of furniture, such as directors' chairs, leather sofas, or analysts' couches. The basic level is the level where it is easiest to distinguish one from another, to form images, to draw diagrams.

There exist hierarchies of artificial conceptions, just as there do of natural categories. People are likely to think about artificial categories, such as theoretical parts of the mind, in much the same way they think about real objects, such as furniture. Primary parts, it seems to me, are somewhere near or directly at the basic level of personality theorizing. Speaking of personality in terms of its

hundreds of parts is overwhelming. Speaking of the whole personality is too vague. Speaking of personality in terms of its few primary parts seems as if it might qualify as a basic level of discussion. Further supporting this idea is the fact that the parts also serve as meaningful structural statements about personality organization. It is that conjoint quality that gives them their "cue validity"—that is, that allows them to contain more information than at other levels of consideration.

THE SCIENTIFIC BASIS OF PRIMARY PARTS

The preceding section indicates that primary parts are potentially useful in several areas: to organize sub-parts of personality such as traits, to define personality structure and function, to facilitate the discussion of dynamics, development and change, and to communicate generally about personality. Still, one must ask how to evaluate such primary parts. They must not only represent personality and communicate, but must do so accurately. Indeed, thirty years after Brenner helped introduce the id, ego, and superego in the United States, he reluctantly concluded, "I believe that the idea of separate mental agencies is untenable." (Brenner, 1994, pp. 486–487). In an age where we know more and more about brain function, could the idea of separable psychological units, free floating apart from the brain be utterly retrograde?

Primary parts are descriptive models that create divisions on the bases of boundaries in the personality system, and the areas created by those boundaries (cf., Harré, 1977, p. 286). Such models are, of course, approximations. That said, some approximations are better than others. The purpose of scientific description is to represent the system under examination in as accurate and useful terms as is possible. When this is done, the accurate representation can give rise to more predictive endeavors. Therefore, it is the class of good approximations that we are interested in identifying, and distinguishing from the less good or untenable approximations.

Given that primary parts are made up of boundaries that divide areas, criteria concerning good models should address both the divisions and areas created. I have presented an initial suggestion of a rating procedure to discriminate good from bad sets of primary parts in Table 1. There, four broad and interrelated categories of criteria: (a) Appropriateness of the Set, (b) Adequate Empirical Basis, (c) Distinctiveness and Comprehensiveness, and (d) Extensions, are listed down the left hand side. To the right are 14 specific rating criteria, each one with a three-choice rating scale. For seven criteria (of the 14), the scale extends from 2 (best) to 1 (intermediate) to 0 (worst). For the other seven of the 14 criteria, which are more critical, the scale is double-weighted, extending from 4 (best) to 2 (intermediate) to 0 (worst). The overall goodness-of-fit index is the sum of the 14 ratings. These criteria are outlined below.

Table 1. Goodness of Fit Rating System for Assessing Primary Parts Sets as Representations of Personality

Class of Criteria	Specific Criteria	Criterion Number	Coding Scheme
Appropriateness of Set	<i>Is the Set Composed of Primary Parts?</i> Is each part composed of broad, flexible, functional systems.	1	4: Yes 2: Questionable, or only some are primary parts 0: No, traits or other parts are described
		2	4: Arguably appropriate for personality 2: Too small or large for personality 0: Otherwise irrelevant to personality
	<i>General Fit with Personality</i> Is the scope of the Primary Parts division generally appropriate to personality? <i>Appropriateness of Number</i> Is the number of parts employed to divide personality economical?	3	4: Arguably appropriate for personality 2: Too small or large for personality 0: Otherwise irrelevant to personality
		4	2: All 1: Some 0: None
Adequate Empirical Basis	<i>Universality</i> How many members of the primary parts set are found in most or all personalities?	5	4: All areas clearly justifiable 2: One or more areas possesses questionable empirical support 0: Poor overall empirical basis for division
Distinctiveness and Comprehensiveness	<i>Functional Criteria</i> Do the parts (a) do different things, and (b) comprehensively carry out the work of personality?	6	2: Clear functional distinctions 1: One or more areas overlap or are functionally ill-defined 0: Little or no functional distinction
		7	2: Comprehensive coverage of function 1: Omits some areas of function 0: Does not include major areas of personality function

<p><i>Subsidiary Areas</i> Can the areas (a) be clearly distinguished from one another and (b) are they comprehensive?</p>	<p>8</p>	<p>4: The subsidiary parts are fairly distinct 2: Share considerable overlap 0: Cannot be plausibly divided</p>
<p><i>Trait Organization</i> When traits are associated to the various primary parts, do they result in (a) adequate and (b) comprehensive organization of those traits?</p>	<p>9</p>	<p>4: Cover most or all commonly-discussed parts of personality 2: Omit one or two central area of personality 0: Fail to cover most areas of personality</p> <p>4: Trait coverage is comprehensive 2: . . . is moderate 0: . . . Many traits cannot be classified</p>
<p><i>Phenomenology</i> Does the function of each primary part feel different than the others?</p>	<p>10</p>	<p>4: Trait organization has good relative inter-rater agreement 2: . . . shows some inter-rater agreement 0: . . . no inter-rater agreement</p>
<p><i>Neuropsychological Extensions</i> Do there exist brain structures parallel to the divisions?</p>	<p>11</p>	<p>2: Distinct phenomenology for each part 1: Some differences in phenomenology 0: No perceptible differences in phenomenology</p>
<p><i>Social Extensions?</i> Do there exist social structures parallel to the divisions?</p>	<p>12</p>	<p>2: Good fit to important brain areas 1: Moderate fit for all divisions; or mixed fit over areas 0: Minimal fit or no fit for one or more divisions</p>
<p><i>Social Extensions?</i> Do there exist social structures parallel to the divisions?</p>	<p>13</p>	<p>2: Good fit to social activities and institutions 1: Moderate fit for all divisions; or mixed fit over areas 0: Minimal or no fit to social activities and institutions</p>
<p><i>Social Extensions?</i> Do there exist social structures parallel to the divisions?</p>	<p>14</p>	<p>2: Good fit to social activities and institutions 1: Moderate fit for all divisions; or mixed fit over areas 0: Minimal or no fit to social activities and institutions</p>

First Criterion Class: Appropriateness of Set as a Primary Parts Set

General fit. The first criterion is that the set of primary parts in question are indeed primary parts; that is, that each member of the set is a broad, flexible, functional system of substantial size. Trait sets should not be evaluated with these criteria, but if they were, they would be rated here as, "not true primary parts," because they describe specific patterns of mental activity and behavior, rather than more general functional systems. (See the earlier section, Primary Parts and Their Defining Characteristics).

Appropriate Boundaries. Secondly, the boundaries between the primary parts should be contained within, and generally relevant to personality. For example, the boundary between emotional and cognitive processing describes a "larger division" in relation to psychological processes, and is at a general level appropriate to personality. In contrast, the boundary between monochromatic and color-sensitive visual perception would be too detailed to serve as a central division of personality. Similarly, a division between the family and society more generally would be too large to be contained within personality, and instead describes boundaries of sociological interest.

Appropriateness of number. In terms of economy, the most successful sets of primary parts have had three or four components, with less desirable sets having two or five parts, and fewer still (if any) with five, six, or seven parts. To some extent this is an aesthetic judgment: Two parts seem to be too simplistic to provide a satisfying breakdown of the system; more than four suffer from increasing problems of complexity.

Universality. In addition, the parts must have some claim to universality. Claiming there exists a universal psychological area for "feelings of nationalism" would be suspect because, for many centuries, people did not live in nations, and even though most people live in nations today, not everyone is nationalistic. Also, here again, traits would not apply. Although certain trait dimensions may be universal, the individual presence of a trait is not. For example, an individual who scores at the 93rd percentile of extroversion is likely to possess one or more features of extroversion, including, perhaps, specific levels of neurotransmitters, and learned schema for how to throw a party, that simply may not be present in an extremely introverted person.

Criterion Concerning Empirical Bases

Criterion Concerning an Adequate Empirical Basis. The next criterion is that the proposed areas of personality must rest on a firm empirical basis. For example, there is little question that every healthy individual possesses both an emotional

system and a cognitive system. Experimental studies are typically able to produce emotional responses in nearly everyone; the same is true of cognitive studies. In addition, the distinction between emotion and cognition is a powerful one that is reflected in many experimental studies of emotion and its functions, versus studies of cognition and its functions. Consider, as an alternative, a Paranormal Set of primary parts set that divided the mind into an area for processing paranormal experience (psi phenomena) and standard cognitive processes. Considerably less confidence could be placed in such a division due to the fact that large number of psychologists still find the evidence for paranormal processing to be unconvincing (e.g., Milton & Wiseman, 2001).

Criteria Concerning Distinctiveness and Comprehensiveness of the Members of the Set

Functional distinctiveness and comprehensiveness. Each of the primary parts in a set should be defined and described in terms of its function. Those functions should be (a) distinct from part to part, and (b) arguably form a comprehensive set of all personality functions at a general level. For example, in regard to the trilogy-of-mind set, motivation operates to assess bio-social needs and fulfill them; emotions, to signal information about relationships; and cognition, to understand information from the world and solve problems about it (Mayer et al., 1997). These functions are plainly distinct. The major issue that arises with them is whether they are comprehensive (for example, they leave out consciousness and self-regulation).

Clear subsidiary divisions and comprehensive coverage. Describing the global function of parts provides a beginning to evaluating sets, but is too general to be definitive. It must be possible to subdivide parts into their constituent elements, and the constituents should be somewhat distinct as well. Consider the case of the id. It connects to the bodily urges, contains and supplies energy to the mind, and thinks via primary process: that is, logical processes do not apply, contrary impulses exist side-by-side, and visual images are more pronounced than verbal propositions (Freud, 1933/1965, XXXI: Dissection of the personality, pp. 73-75). Today, this description of sub-parts raises conceptual issues of how distinct the id is from the ego (i.e., from rational cognition). For example, the network of images and ideas that Freud said made up the id are, today, viewed as associative networks that form the basis of human cognition; that is, they are now viewed as more ego-like. Some contemporary models of associative networks even have feelings activating them (Bower, 1981; Singer & Salovey, 1988).

Newer primary parts sets reflect the change of viewpoint. For example, the *knowledge works* of the systems set divides into abstract reasoning, experiential knowledge structures, and associative networks (the latter, similar to those

described by Freud). The integration of these parts in the knowledge area better reflects contemporary understanding that both associative and logical processes are involved in coherent thought. Meanwhile, the motivational urges and emotional feelings of the energy lattice are distinct from associative memory in the knowledge works, although they connect to and activate concepts within it (Bower, 1981; Singer & Salovey, 1988).

Distinctiveness and Comprehensiveness of Areas via Trait Classifications. Another test of the distinctiveness and comprehensiveness of primary parts is the degree to which they can organize known personality traits. Few traits are genuinely global in their scope (femininity-masculinity is one). Most personality traits—e.g., intelligence, self-consciousness—emerge from or describe a specific part of personality. If primary parts are truly distinct and comprehensive, then informed judges, at least, should be able to assign traits to particular primary parts with some degree of agreement above chance levels. Moreover, if the parts are comprehensive, then traits either should fit clearly into one or another part, or be superordinate to couplets or triads of parts.

Phenomenology as a Criteria for Distinctiveness and Comprehensiveness. There are other possible criteria for distinctiveness and comprehensiveness among parts. One interesting possibility is to evaluate parts according to their phenomenology (i.e., felt experience). For example, energy lattice thinking (motives and emotions) feel different—“hotter,” than cognition (Lepper, 1994). As another example, consciousness possesses a specific feeling quality that unconsciousness does not have.

Criteria Concerning Extensions to Interactive Surrounding Systems

Criterion Concerning Extensions to the Neuropsychological and Social Systems. Although in principle areas defined by primary parts can be distinguished in personality alone, the utility of the areas (and confidence in their distinctiveness) may be increased to the extent that they extend into neighboring systems. For example, continuing with the energy lattice versus knowledge works distinction, one can point to areas in the brain to which such divisions extend. For example, in the brain, the limbic system is closely identified with motivational and emotional processing; by contrast, the cerebral cortex is more concerned with cognitive processing. Social situations are, similarly, divisible into those that make more motivational and emotional demands, such as repairing a relationship with a family member, versus those that make more cognitive demands, such as solving a simple arithmetic problem. Or, as another example focused on social institutions, the executive consciousness area (of the systems set) is trained in Zen monasteries, whereas the knowledge works is trained in colleges and universities. This is personality psychology as a structural science: where structural bound-

aries (dividing capacities or areas of function) are connected with affordances in the social sphere (Harré, 1977 pp. 288-289).

Formalization and Application of Criteria

An initial application of the criterion system to a few of the primary parts sets is worthwhile to illustrate how the system works and whether it yields results consistent with the discussion of primary parts that has gone before. Any definitive evaluation of a set requires a systematic development of a set, including carefully describing each part, the part's subsidiary divisions, ratings concerning the set's trait classifications, and the like. This goes well beyond the traditional exposition of primary parts, which, even in the case of the id, ego, and superego, involved little more than a brief characterization of the set. At the same time, an application of the rating system is possible and can work to illustrate the issues discussed above. Some information can be gleaned generally-speaking, regarding each set on each criterion. For example, the distinctiveness of trait assignments can be roughly estimated on the basis of the articles that have attempted to arrange traits according to a given set of primary parts, or from rating agreement studies on the trilogy-of-mind and systems sets (Mayer, 2001b). The author therefore applied the evaluation system in this preliminary sense, and his ratings follow.

It is instructive to begin with a set that most psychologists would agree ought to be screened out as inadequate—the earlier described “Paranormal Set,” which splits off a “paranormal mind” from “cognitive processes.” The maximal score on the scale is 42, and the Paranormal Set achieves 28 out of 42, losing 14 points on items having to do with number of parts (-1 point on Criterion 3 of Table 1), with universality (-1 point: Criterion 4), with empirical bases (-4:5), comprehensiveness (-1:7; -2:9: and -4:11), and extensions to brain areas (-1:13). Such performance can be contrasted with a widely accepted primary parts set: the trilogy-of-mind. That set does far better, receiving ratings of 35 out of 42, with points taken away only on items concerning lack of comprehensiveness (-1:7; -2:9: 4:11). What about the id, ego, and superego? Given the issues raised about the set throughout the paper, one might expect it would underperform the trilogy. However, it also receives a respectable 35 points out of 42, with some points taken away for questionable empirical support (-2:5), overlap among parts (-2: 8), trait agreement (-2:10), and problematic extensions to brain areas (-1:13). Perhaps some criticisms of the id, ego, and superego, are simply a cost of its popularity.

Two other systems arguably perform even better. The trilogy-of-mind set, it has been argued, could be made more comprehensive by adding “consciousness” as a category, to create a quaternity-of-mind: motivation, emotion, cognition, and consciousness (Mayer et al., 1997). That quaternity would at least pick up two points in comprehensiveness in function and in organizing traits relative to

the original rating (1:7; -2:11), yielding a score of 38 out of 42. The systems set of parts is a special case, of course, because it has been developed with most of the above criteria in mind. It arguably meets most or all of the criteria of the rating chart, at 41 out of 42, losing a point, perhaps, for uncertain extension to brain areas (-1:13). This application suggests that some primary parts sets may come near to meeting most or all criteria for a good approximation to the personality system.

There is considerable room for difference of opinion in these ratings, of course, and others reviewing the sets might well come up with different scores. To obtain some sense of the similarities and differences possible, two graduate student colleagues also applied the rating system to the sets of primary parts above. The first graduate student had read an earlier version of this article, including a less-developed version of the scale, and the author's ratings on it. That colleague nevertheless attempted an independent rating of the sets, and, for the paranormal, trilogy-of-mind, id, ego, and superego, quaternity-of-mind, and systems set, respectively, rated them 25, 37, 33, 42, and 41. The second graduate student worked without seeing this article, and was more nearly blind to the purposes of the rating scale. He saw only the rating scale in Table 1, along with a one-sentence description of the Paranormal Set used in this paper, and a draft description of the systems set from a different article (he was already familiar with the trilogy and quaternity-of-mind, and id, ego, superego sets). His ratings produced the same general ranking as the other raters, but were by and large more negative, yielding scores, relative to the list above, of 13, 27, 16, 27, and 40.⁴

Several things are noteworthy in comparisons across raters. First the raters were highly consistent as to their rankings (with inter-rater r 's for $N=5$ primary sets between .84 and .94); at the same time, there existed plain mean differences in scale use, with some raters readier to take off points than others. Finally, there is a role of expertise in the ratings. The second colleague, who completed the ratings with otherwise minimal information, was unaware that the id, ego, and superego had ever been used to categorize traits. Hence, the set lost all possible points on that criterion. This indicates that future studies will need to systematize information about each set for the raters carrying out the evaluations. Such systematization could gradually narrow the subjectivity involved and provide greater confidence in such evaluations. For now, ratings employing these initial criteria indicate that even an initial set of criteria can formalize some intuitions about the goodness of primary parts sets. As a consequence it lays the groundwork for future empirical research on such evaluations.

DISCUSSION AND CONCLUSIONS

From before modern psychology began, philosophers and others divided the mind into primary parts. The first of these were the trilogy of mind: motivation, emotion,

and cognition. Freud's writing made salient a second important cleavage: that between the conscious and unconscious. Beyond that, he introduced his id, ego, and superego division. More recently, we have seen variations on Freud's work by Jung and others, variation on the trilogy by MacLean and others, and new divisions based on lateralization of the mind and systems framework for personality.

To some, perhaps, any approximation of personality may seem hopelessly old-fashioned in the face of the known complexity of the human mind. After considering some of the strengths and weaknesses of the id, ego, and superego, Brenner's own reluctant recommendation was, "... that the mind be no longer divided into agencies or structures ...". Brenner noted:

It is difficult to ... relinquish id, ego, and superego as conceptual tools. They are concepts that have served generations of analysts well. I have tried to show that they no longer do so, and that newer concepts will serve better ... I believe that the idea of separate mental agencies is untenable. (Brenner, 1994, pp. 486-487)

Brenner's alternative was to look at the level of many specific parts of mind he refers to as "compromise formations." To the extent Brenner's conclusions can be interpreted as a general statement about sets of primary parts, the arguments in this article contradict that conclusion. First, certain divisions of mind exist that may be better approximations of personality than the id, ego, and superego. For example a modified trilogy of mind and the systems set both closely satisfy carefully worked out criteria for good primary parts sets. Second, we need such primary divisions for the following reasons:

1. Primary parts form a "basic level" of communication about the personality system. Personality as a whole is too simple; personality at the level of individual trait or mental models is overly enumerated—with hundreds of parts—for comfortable discussion. Primary parts form a particularly efficient level at which to discuss personality processes.
2. Primary parts, if chosen properly, can be divided and subdivided into all of personality's mental mechanisms and mental models, and also used to organize traits.
3. Primary parts tell us about personality structure and function; that is, what the major divisions of personality are like.
4. Primary parts allow for discussion of major dynamics. Without some organization, we would be in a position to say "everything affects everything," in a swamp of cause and effect. It is more productive to examine dynamics from one part to another.
5. Primary parts provide an important way to distinguish different processes of personality development.

Scientific Bases and Further Potential Contributions of Primary Parts

I have suggested a rationale for primary parts and for gauging how good a particular set is. The criteria fall into four categories including the (a) appropriateness of the set (as primary parts), (b) adequate empirical basis, (c) distinctiveness among parts, and collective comprehensiveness, and (d) extensions to neuropsychology and sociology. Within these categories are 14 more specific criteria. Some sets meet such criteria better than others.

For example, when the 14 criterion rating scale is applied to the sets, the id, ego, and superego, score equivalently with the trilogy-of-mind set. Both Freud's structural set and trilogy do much better than a highly questionable (and hypothetical) comparison set, the Paranormal Set. On the other hand, two other sets, a modified trilogy (the Quaternity-of-Mind Set) and Systems Set do better.

Freud's structural model faces shifts in scientific knowledge that call into question the representation of personality that model provides. The id, ego, and superego were originally based on bio-developmental boundaries. The id was first-developing, most animal-like, and operated by primary process. The ego developed with age, was quite human, and used rational, realistic thought (secondary process). The superego developed last and was mostly social and cultural in its flavor. Developmental sequences, as understood today, undermine such divisions. The motives and emotions of the id continue to develop and mature, and ego-based thought is present from infancy. Moreover, the id is difficult to break down into sub-parts (Arlow & Brenner, 1964). The set could, of course, be dropped as inconsistent with present-day understandings of biology. It could also, however, be clarified and revised. In the recent past, Westen (1986) has suggested a revision of the superego which has, perhaps, not received the attention it deserves. Whether the set is abandoned as too out-of-date or whether it is revised, the perseverance of Freud's structural set indicates that there is a place for a bio-developmental set of primary parts.

There exist today alternative divisions in which attempts are made to stay consistent with current psychological thinking. The systems set of structural parts, with its energy lattice, knowledge works, role player, and executive consciousness, attempts to integrate the best from earlier primary parts divisions. For example, from the trilogy of mind it drew on the opposition between directive and analytic thinking (i.e., motivation and emotion versus cognition). From Freud's topographic set it drew on conscious awareness versus the non-conscious. From Singer's set it drew on those parts of mind that were private versus those that were public. The upshot of all this was a four-part set featuring the directive processes of the *energy lattice*, the analytic cognitions of the *knowledge works*, the conscious awareness of the *executive consciousness*, and the public aspects of the *role player*. It appears to meet the criteria outlined in this article well, and is now undergoing empirical tests in an attempt to quantify its fit in more precise ways (Mayer, 2001b).

Further Value of Good Primary Sets

The purpose of such comparative exercises is to create a strong approximation of personality at a high level. That good approximations of the system can, in turn, better represent personality and its central parts and effects. For example, a good set of primary parts can help decide which are the most important traits to represent personality. A person might sample the one or two most important

traits relevant to each part, i.e., *positive affect* from the energy lattice, *intelligence* from the knowledge works, *social skill*, from the role player, and *self-awareness* from the executive consciousness. Such sets of "primary traits"—a "Primary Four," for example, might provide an interesting alternative to that other set of commonly-used traits in psychology, the "Big Five," which has arisen from factor analyzing trait words in the English language. A Primary Four, after all, has the a priori advantage of sampling from each important functional area of personality, rather than treating the system as a whole. Consider that each of the aforementioned "Primary Traits" has demonstrated predictive validity and, in most instances, these four are statistically independent of one another. Given such qualities, the potential contribution of such a set may be considerable.

Similarly, primary parts with good fits to personality could potentially set the stage for a better understanding of personality types. Many personality types are defined by constellations of traits and the dynamic interactions among those traits. So, first, the traits making up a primary set could be enumerated in all their combinations to identify a class of types. The problem in the past has been that even where there is agreement as to a specific set of important traits, those traits can generate a large number of individual types. Using only four traits divided according to whether a person is high or low on each will produce 16 types, five will produce 32 types, and each added trait will double the number of types again. Proceeding through those personality types one by one, is an arduous, unrewarding task (although, ultimately, it may require addressing). A more tractable approach would be to develop general dynamic statements in the context of a primary set that could anticipate groups of types. Recall Hall's earlier quoted statement to the effect that when primary parts work together, a harmonious and healthy personality is operating, whereas when those parts are in conflict, inefficiency and psychopathology arise. Using such a dynamic formulation as a jumping off point, it might be possible to deduce some rules for identifying which personality types (i.e., constellations of traits) would operate in a relatively harmonious fashion, and which would be more full of conflict. Other general laws concerning dynamics could be used to deduce other distinctions among types, such as which types would act with self-control, which not; which would be active, and which not, and so on. In such a way, dynamic formulations in the context of a particular set of primary parts could help create a priori hypotheses about personality types, their levels of overall function, and their obtained levels of success in different areas of life.

If Primary Parts are Important, Why Haven't They Been Studied as a Class Before?

If primary parts are really so useful and integral to personality psychology, then why haven't they been systematically studied as a group before? Why have they

appeared so disconnected from one another, and tangential? One reason is that they possess a quality of "backgroundness." That is, primary parts such as the trilogy-of-mind are like assumptions underlying the field. They are so familiar that they are unexamined as we work within their spheres of influence. Regarding the trilogy of mind, Henle remarked:

... as we become absorbed in our own specialties we often become cryptosystematists, that is, our beliefs are embedded in larger systems of thought that are not explicit but may serve to perpetuate errors (cited in Hilgard, 1980, p. 115).

A second barrier to their study is an embarrassing sense of a parochial competition within the field. Superficially at least, primary sets seemed contradictory. The trilogy of mind set, to the extent it was noticed, was identified with faculty psychologists. The id, ego and superego seem specific to psychodynamic theorists. Roger's set of false and real selves was associated with the humanistic tradition. The lateral brain set was a curiosity of psychobiology . . . and so forth. Moreover, as none of these agreed, the conflicts around them appeared to potentially undercut what sort of science personality was. The rapid proliferation of generally contradictory theory through 1950 was so frustrating that even sympathetic chroniclers concluded that ". . . almost any theory . . . coupled with extensive empirical research offers greater hope for advance than an amalgamation of existing theories some of which are poorly stated and precariously related to empirical data." (Hall & Lindzey, 1978, p. 705).

Decades of empirical research have passed since that time, with good effect. It is, perhaps, worth revisiting these theoretical notions of primary parts with a more open mind. This time it will be necessary to develop primary parts sets systematically and to evaluate them for their representation of personality. To say that primary part sets are of use generally does not mean that every set is of use, or that all sets are equal. In fact, they must be evaluated according to how well they perform such tasks as dividing personality into subsidiary parts and organizing traits. At the same time, there will likely be more than one valid means by which to divide human personality. We would be surprised if someone said that the only permissible way to think about a city was to divide it according to its neighborhoods. We would wonder: What of political districts, or geological areas, zoning districts, or socioeconomic level? These are valid divisions as well. Similarly with personality, there will be more than one good division; there will also be many less-good divisions and the criterion system proposed here should help to separate the good from the less-good.

Primary Parts versus Trait Sets such as the Big Five

Today, we exist in a sort of "Pax Big Five" in which a relatively global and holistic set of five personality traits extracted from English and other languages

are considered optimal. Earlier in the article (in *Primary Parts and their Four Defining Characteristics*), I noted that trait sets such as the Big Five were different than primary parts sets. One final consideration, then, is what a primary parts set can offer, if anything, that the excellent set of Big Five traits cannot. There are two advantages that good primary parts sets can offer in that context, that may enhance a consideration of trait sets such as the Big Five.

First, primary parts (and here I refer to the parts themselves as opposed to trait sets that might stem from them) outline the major areas of personality function in ways that provide a context for traits. By providing a basic description of personality and its functioning parts, it is more likely that one can arrive at a coherent account of why particular traits and their interactions are important. Traits, in contrast to such parts, describe thematic tendencies of the individual: emotionality, intelligence, and the like. As such, they omit consideration of such structures as self-concept, significant-other schemas, self-regulation, characteristic adaptations, and similar entities (Allport, 1937; McCrae & Costa, 1999). That is why a complete representation of personality requires some functional context that traits cannot, by themselves, provide. The difficulty in creating a theory that explains, "Why these five?" relative to the Big Five is a case in point. It is possible that the relationship between personality's context and the trait set of the Big Five is complex. Viewing them together, however, may help make progress toward better understanding of personality.

Second, the Big Five traits treat personality holistically; they ask: What are the most important traits of the whole personality? There is a different, complementary alternative to such an approach. That is, one can sample traits based on the functional areas of personality from which they stem. Primary parts sets can direct researchers about where to look for traits. If primary parts divide the personality system well, then new sets of traits could include traits associated with each area of the primary part set—that is, with each major area of personality function. Trait sets that do so will provide a representation of the major areas of personality function. As already noted, the relation between these primary-part-based traits, and lexical-hypothesis-based traits may be complex, but together, they can broaden our examination of personality and its qualities.

SUMMARY AND CONCLUSIONS

This article has examined an overlooked but potentially rich foundation of psychological theory: its sets of primary parts. Primary parts were defined according to their functional breadth, comprehensiveness, economy of number, and universality. Primary parts, it was argued, provide a basic, accessible, and useful level at which to discuss personality. They are useful in organizing traits and other personality subparts, in part because they represent personality structure, and in part because they provide a convenient way of sketching out global personality

dynamics and development. To update a sentiment expressed first by Mahon (1994), one might say that a good set of primary parts serves as a superior map of the mind: It provides the psychic traveler with the confidence and guidance to better navigate its territories. Several examples of such primary parts were reviewed, including the trilogy-of-mind set, the topographic set, the lateral-brain set, and the systems set. The particular case of the id, ego, and superego was examined and some general recommendations were made about revising the set. A revised trilogy-of-mind set—the quaternity-of-mind, and the systems set, are two new promising sets of primary parts for representing personality. It was argued that such sets can make important contributions to personality today.

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NOTES

¹ In this article, the trilogy-of-mind will be referred to as “*motivation*, emotion, and cognition.” Historically, however, the trilogy is often referred to as “*conation*, emotion, and cognition,” or as “*conation*, affect, and cognition.” For the purposes of this article, the terms conation and motivation will be treated synonymously to one another; emotion and affect will also be treated as synonymously to one another. The term “*motivation*” is used preferentially in respect to conation because it is more in keeping with current scientific language. Similarly, “*emotion*” fits the set well, although some make important distinctions between emotion and affect (with affect being the more general term).

² A partial exception to this general integration are some radical behaviorist views. As will be seen, the present model heavily relies on an internal description of personality, and the scientific propriety of such pursuits. Traditional radical behaviorism does not allow for such internal accounts.

³ The prevalence of articles on id, ego, and superego come from a search by EBSCO Host of the “Psych Lit” database of APA. Through Tuesday, August 8th of 2000, 3,927 were listed with the term “ego” in the title, 43 for the year 1999 alone. The superego

registered in the titles of 298 articles, and id in 103 (some of which referred to ID—identification or item difficulty—rather than id).

⁴ The graduate colleagues' ratings in full were as follows. The first rater scored the paranormal set as a "25" (-17), with points taken as follows: -1:3; -1:4; -4:5; -1:7; -2:9; -2:10; -4:11; -1:13; -1:14; The id, ego, and superego received a "33" (-9), with the following points taken off: -4:5; -2:10; -2:11; -1:13. The trilogy-of-mind received a "37" (-5), with -1:7; -2:9; and -2:11, and the systems set received a "41," with -1:13, and the quaternity of mind a "42." The second rater coded the paranormal set as a "13" (-29), with points off as follows: -4:1; -2:2; -1:3; -1:4; -4:5; -1:6; -2:7; -4:9; -4:10; -2:11; -2:13; -2:14. The id, ego, and superego received a "16" (-26), with -2:1; -2:2; -4:5; -1:7; -4:9; -4:10; -4:11; -1:13; and -2:14. The trilogy-of-mind, and quaternity-of-mind were rated identically at "27" (-15), at: -2:1; -2:2; -1:7; -4:9; -2:10; -2:11; -2:14. The systems set received 40 (-2), with -2:10.

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