IRTP INTERNATIONAL REVIEW OF THEORETICAL PSYCHOLOGIES

• Vol. 3, No. 1 • 2026 • (pp. 39–60) •
https://tidsskrift.dk/irtp/

DOI: http://doi.org/10.7146/irtp.v3i1.167368

Seeking Unity Where It Is and Is Not

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Abstract

Since its inception as a science, psychology has been characterized by disunity and opposition. Over time it increasingly differentiated into various specializations. Such fragmentation led to doubts whether psychology could be a coherent discipline. After considering some of the solutions for resolving disunity, the source of the problem is sought in the historical development of the discipline. The emulation of the established sciences and their methods meant the adoption of strategies of reductionism and elementalism and a quest for abstract, universal principles that transcended individuality. Whole human beings were subjected to analysis and dismemberment and the resulting abstractions were hypostasized and disengaged from their context—the organized whole. The result was an apparent irreconcilability between specializations. Rather than trying to amalgamate the divergent disciplines, it is argued that humans, prior to analytic dismemberment, are a basis for unification. It is within the undivided person that the phenomena of the different disciplines cohere. Consequently, experimental findings must be recontextualized and concretized by returning to whole persons for validation. It is through concrete validation that specializations are reunited, and division overcome. Finally, it is contented that a science of the unified, psychological-being-in-context is needed.

Keywords: fragmentation, incommensurability, organic whole, unity psychology

Introduction

In 1951, Sigmund Koch wrote that "there is no reason to believe that we shall *ever* have unitary, comprehensive theory with an exhaustive range of application to all psychological phenomena" (p. 301). By 1956, his analysis of Psychology[1] led him to reject the proposition that Psychology could ever be a cohesive and homogeneous discipline (Koch, 1975). A central idea in this conclusion was that the different specializations in Psychology formed 'language communities' that resulted in incommensurable communications (anticipating Kuhn, 1962). More disturbing to Psychology's pretensions to being a science, it was becoming apparent to Koch that "Anything so awesome as the total domain comprised by the functioning of all organisms can hardly be thought the subject matter of a coherent discipline" (Koch, 1969/1973, p. 86). The most obvious trend historically has been fractionation not integration, and specializations were becoming increasingly more insular (Koch, 1975).

Beyond their subject matter, the specializations differ further in the methods they utilize, and the traditional fields with which they have an affinity (Koch, 1981). Biological and sensory psychology, for instance, are clearly within the domain of biology. Other spheres of psychological inquiry, alternatively, require methods that are more aligned with the humanities than the sciences, such as the traditional concerns with perception, motivation, learning, personality, and social psychology. Nonetheless, Psychology, in its methods, standards, and creed, has tended to emulate the established sciences, especially physics (Koch, 1961). Such emulation furthered the retreat from the psychological subject. As Koch put it, "From the earliest days of the experimental pioneers, man's stipulation that psychology be adequate to science outweighed his commitment that it be adequate to man" (Koch, 1971, p. 684).

Whether a direct response to Koch, or not, the issue of disciplinary fragmentation and the possibility of unification became a topic of discussion and debate. Beginning in 1966, Royce (1970) convened a small group of psychologists to discuss the topic *Toward Unification in Psychology*. While that was their focus, they suffered no delusion that unification would, or could, emerge. Despite such pessimism, the quest for unity was taken up.

Seeking Unity

Unificationism

One of the foremost proponents of unity was Staats, who began by seeking commonalities between various learning theories during the 1950s (Staats, 1999) and expanded to a concern with the unification of all of Psychology. The field, he pointed out (Staats, 1975), was accepting the separateness of its different branches and that led to narrow theories that were not broadly applicable to human study. Favoring unification, and developing principles that were generally applicable, he introduced his 'social behaviorism'—a biological-behavioral-social theory. In it he proposed that the different fields of Psychology represented distinct, hierarchically ordered, levels of investigation wherein higher levels included lower-level concepts and principles, but further possessed emergent characteristics specific to them. No

[1] Following Richards (1996) an upper-case 'P' will designate the discipline of Psychology and lower-case 'p' will refer to the subject-matter.

level was of greater importance than any other, and ideally bridging principles would be identified that connect them.

Despite his advocacy, Staats (1981) would later write that Psychology was characterized by a split into disorganized pieces and incommensurable knowledge domains. He (Staats, 1986) judged Psychology a primitive science and, as a remedy, suggested his philosophy of 'unified positivism' or 'unificationism.' Research findings would be reviewed, similarities between different theories identified, and common principles specified. In this process bridging theories would be developed that show the relations between the separated branches and, thereby, unite them. Psychological behaviorism, he claimed (Staats, 1999), is a theory that unites phenomena of biology and psychology, the social sciences and humanities, interrelating major subfields by principles of learning acting as bridges. Remaining hopeful, he would later write that he was "sure that one day psychology will move in the unification direction, because nature is unified, including behavior" (Staats, 2005, p 174).

Single domain proposals

Whereas Staats attempted to include biological and social psychological phenomena, others have tended to offer their preferred field of study as sufficient for unification. Baars (1985) contended that 'cognitive science' was already working towards unity by drawing together psychologists, linguists, artificial intelligence researchers, neuroscientists, anthropologists, and philosophers. Furthermore, they were all speaking a common language based on 'representations,' 'information processing,' and 'adaptive systems' that model a broad array of psychological facts. This, however, excludes major areas of psychology, for instance, personality and social psychology. Hutto (2013) also promoted cognitivism as the basis for unification but maintained that any approach meant to account for psychological phenomena must place them within the broader world order. Problematically, cognitivism is based on individualism and internalism, therefore radical enactivism was advanced as a cognitive approach connecting mentality with embodied activity, thereby going beyond internal mental representations.

Yanchar (1997) found unificationism inadequate. The aim of distilling all theories to common themes and principles and integrating them under a single theoretical framework through bridging theories was insufficient. The bridge work to achieve that would exclude those aspects that resist integration. As an alternative, Yanchar (2000) suggested that many who seek to advance Psychology as a natural science can appeal to empirical methodology as a unifying principle. Stanovich (1998, in Yanchar, 2000) agreed that it is only in the methods used to advance knowledge that that there is any hope for finding a commonality that transcends differences.

Caporael (2001) considered evolutionary theory a possible unifier and Catania (2013) suggested behavior analysis since reinforcement is implied over a wide range of psychological phenomena. Kopsov (2021), alternatively, proposed an 'algorithm of human behavior' as a model for unified psychology. The algorithm would represent a step-by-step procedure for solving problems and reaching ends as humans navigate internal and external circumstances, physical and social.

Regardless of which single domain is emphasized there is a clear loss of comprehensiveness. Anastasi (1992) believed it would be dangerous to demand that Psychology, to survive as a separate discipline, account for its empirical findings by a single series of theoretical

principles. To achieve unity on that basis could have deleterious effects such as distorting facts so that they fit a theory or excluding valid areas of investigation as not truly psychological. Rosenzweig (1937) noted that each of the early schools, such as structuralism and behaviorism, considered itself to be exclusively valid rather than complementary. Consequently, they committed the 'fallacy of abrogation' by subordinating phenomena to their concepts that they were neither intended for nor adequate. Allport (1964) alternatively, believed that Psychology would not have been as likely to progress without particularism, without theorists focussing on some exclusive subject. However, such an approach was liable to commit the error of overgeneralization and ignoring all that did not accommodate to the preferred scheme.

Pluralism and levels of explanation

Considering the qualitatively diverse phenomena subsumed by Psychology it is not surprising that single-domain approaches have been challenged by advocates of pluralism and levels of explanation. Clearly, at the level of biochemistry, neurotransmitters and hormones impact psychological functioning. Phenomena of evolutionary psychology, sensory physiology, neuroscience, sensorimotor coordination, reflexology, and localization of function operate at the biological level. It is also clear that higher psychological processes of cognition, personality, and social psychology are subject to the influence of phenomena at the sociocultural and sociohistorical level. These qualitatively different phenomena are a challenge to approaches seeking to unite Psychology under a single domain or orientation that ignores diversity.

Staats, as noted, proposed that the different subdisciplines of Psychology are hierarchically ordered levels of investigation and that higher levels included within them the lower-level concepts and principles, but they also contained emergent characteristics unique to them. Bridge principles would unite them without reducing higher levels to lower and losing emergent characteristics. He thus hypothesized unity despite diversity. Levels theories ideally theorize continuity in the evolution of discontinuous levels. In their *Personality Systems Framework*, Mayer and Allen (2013) aimed to map the biological, psychological, and social perspectives, and purportedly organized the discipline. In this they intended to recapture to original mission of personality psychology which was to address the whole person. The lowest level system addresses the brain and physiology. Above that are psychological systems including memory and personality. Higher still, but outside the person, are social groups, culture, and the settings of a person's life.

Henriques (2003) suggested a different levels approach in his *Tree of Knowledge System*. The aim was to merge Skinner's operant conditioning with cognitive neuroscience and aspects of Freud. This was allegedly an evolutionary account of the emergence of mind within a four-stage hierarchy. Historical evolution, with increasing complexity and new forms of algorithmic information, transitioned from physicochemical processes to biogenetic, neurophysiological, and sociolinguistic. In the process the nervous system evolved to coordinate animal movement (and that is what operant conditioning applies to). Operant conditioning is then incorporated into cognitive science by defining mind as what the brain does, information processing, and that is behavior. Later in evolutionary history Freudian drives and defenses contribute to the emergence of culture. Connecting mind to life, and culture with mind, psychology is located between biology and social science. In terms of unity, major theoretical approaches are claimed to be incorporated into this metatheoretical framework which is supposed to be a coherent whole.

Given the qualitative diversity of the phenomena studied by different interest groups, it is not surprising to Martin (2000) that pluralism is being advocated as an alternative to disciplinary unity. Ontological pluralism opposes the reduction of the psychological to phenomena at the levels of either biology or culture, maintaining that the psychological is a unique level of reality. It is quite certain that some subdisciplines of Psychology can be located primarily at specific explanatory levels of reality other than the psychological, e.g., biopsychology or cultural psychology. Nonetheless, other branches like personality psychology, developmental, and social psychology resist reduction to single explanatory levels. Disciplinary unification, to Denmark and Krauss (2005), would be desirable so long as it was not achieved at the cost of diversity. Any attempt at unification that fails to recognize the physical, biological, and the humanities will likely have poor results.

So where does that leave us? Attempts at unification have been unsuccessful but pluralism would only seem to promote continuing fragmentation and levels accounts are at best sketches of what is required. Is there any other path that will achieve unity of diversity without reduction or neglect? Perhaps the whole issue needs reframing. Giorgi (1970) reasoned that the search for unity suggests an expectation that the field is unified. But where does that expectation come from? It may be that intuitively we have a sense of our own personal wholeness. Psychologists, in their struggles to be scientific, as Koch suggested, may have lost touch with our subject matter, possibly ourselves. If so, perhaps the root of the problem lies in our past.

Roots of the problem

Disconnection from everyday conduct and experience

The public's conception of the psychological has long been contrasted with what psychologists are concerned with. Ladd (1894) proposed having lay people carefully read some of the larger of the many texts being published on psychology. He believed they would be astonished to find no mention of much of their daily experience, if any. James (1899/1905), in his *Talks to teachers*, wrote that his aim was to offer help to teachers in comprehending the mental life of students as an active unity rather than independent psychological processes. This was because the child's self-experiences involve no dismemberment into distinct compartments and processes. A century later the issue continued to be addressed.

Gleitman, Fridlund, and Reisberg (1999), in their introductory psychology text, acknowledged that students taking introductory courses are seeking knowledge that pertains to their own lives. This, they noted, was reasonable since human experience is what Psychology deals with—behavior, thinking and feeling. The material covered in their text must therefore be relevant to them. A popular notion among students is that Psychology has the inner life of the individual as a focus, but, as they emphasized, that is not a central concern. In fact, the primary issues are more general, pertaining to what is true of humans collectively rather than individuals' distinctive characteristics. Like other sciences, particular events mean little in Psychology even though there may be aspirations to comprehending individual behavior. This was later strengthened by Gleitman, Gross, and Reisberg (2011) into the proposal that the field aims to comprehend persons as individuals. The concern of Psychology remains what is common to humans, but it also considers how individuals differ from the rest of humanity with respect to beliefs, personalities, and abilities (a matter of individual differences not individuality or personhood).

Introductory students are left puzzling over how the different topics fit together and never get a sense of the operation of whole persons (Mayer & Allen, 2013). Being interested in the study of whole persons, what confronts the student is the person after dissection, in chapters that are devoted to segmented portions (Amsel, 2015). There is no coherence to any general psychology text (Bakan, 1996). It is the first course students experience and their text is akin to an encyclopedia whose items are organized arbitrarily by the alphabet. The world may look to Psychology to gain understanding of human conduct, but academic psychologists have abandoned that task. I remember my own experience of introductory psychology—the disjointed, detached, and disconnected phenomena of the separate chapters bore no resemblance to my experience of myself as an organized whole. As Spence (1987) noted, there has been an underemphasis on the link to behavior of a functioning, intact organism, the concern being with internal structures and processes. Sanford (1965) admitted that truths can be discovered by parts being abstracted from wholes, but not the whole truth—the truth of the whole. It is this truth of wholes, as will be contended, that is a basis for disciplinary unity.

A problematic beginning

Koch (1961) was blunt in his assessment of Psychology. Since it was stipulated into existence as a distinct science Psychology's concern had been more with qualifying as a science than with courageously confronting its subject matter. From the beginning it was unorthodox in the degree to which its institutionalization came ahead of its content, and by its methods preceding its problems (Koch, 1971). An exception to this was Mead (1895) who argued in favor of developing a specifically psychological method distinct from those of the physical and biological sciences. Nonetheless, as noted earlier, the requirement that Psychology be consistent with science took precedence over the requirement that it should be adequate to humans. The program seemed rational at the time in its pursuing the hypothesis that natural science methods could be adapted to the rudimentary study of humans and society (Koch, 1969/1973).

The development of a science, Scripture (1897) pointed out, depends on improving the methods of observation. Systematized observation was introduced into Psychology with experimental methods and the use of measurement and statistics. Statistical investigation demands that a phenomenon be countable and able to serve as a unit—a single separable thing. The natural sciences which scientific psychology was modelled after were largely based on reductionism and elementalism; complex phenomena were reduced to basic elements or units, like those in the periodic table of elements (Hilgard, 1987). Additionally, something is scientific in being objective, uninfluenced by the standpoint of the knower in seeking pure facts (Sampson, 1978). Scientific knowledge is considered independent as well from any historical period or specific society, and the principles it seeks are abstract and universal. It was assumed that all who utilized the correct methods would reveal the same underlying order.

In emulating the natural sciences, Koch (1961) believed Psychology was destined to retreat from the full spectrum of its subject-matter. What happened, as Robinson (1985) indicated, was that psychologists discarded issues and problems that interfered with Psychology being included as a science and instead turned to problems better suited to developed scientific methods. It was believed, for instance, that social and personal dimensions were too divergent to admit experimental manipulation. Dismissing the social dimension in favor of experimentation may be `scientific' but the phenomena displaced may yet be influential.

During World War Two, psychologists who were engaged in assessing candidates for the Office of Strategic Services (OSS Assessment Staff, 1948) concluded Psychology had erred in its original approaches. Rather than commencing with the investigation of whole persons adjusting to concrete life conditions, they began with the study of segments of whole people in unnatural laboratory experiments. As a result, despite nearly a century of diligent research, there was still an absence of adequate knowledge regarding social behavior under everyday conditions. Ignoring the social nature of humans, Levine (1974) wrote, may be a contributing factor in the replication problems confronting Psychology. Unlike the natural sciences after which it was modelled, history does not support the notion that Psychology has been cumulative in its findings (Koch, 1969/1973), and has suffered from a replication crisis (Maiers, 2022). It has been characterized by sequences of fads, and, usually, the knowledge gained by one generation was displaced as fictional by the next (Koch, 1969/1973).

Crises and disunity

Western Psychology has been the subject of crisis literature from its inception (Wieser, 2020). From the start it was beset by the original schism of mind versus body. William James (1892) maintained that if the metaphysical problems of Psychology could be detached what remained would align with natural science and could be designated a scientific subject matter. Additionally, despite criticisms of mental states, those states coexist with and are related to organic conditions. That would constitute a definite research subject for the new science—the correlating of brain states and mental states, and identifying the laws relating them. Regardless of James' expectation, Shorey (1895) contended that despite the longstanding hope for unity, it was impossible to comprehend the causal relations between the mind and body, therefore, psychophysical parallelism had to be the principle of the new Psychology.

Having reviewed the various factions, Vygotsky (1927/1997) concluded that there were two general psychologies, the materialist, natural science approach, and the spiritualistic (mentalistic) stance. A crisis existed in the confrontation between these two approaches. Psychology was entrenched in mind-body dualism. The natural scientists sought to explain the basic mechanisms underlying complex psychological processes, such as sensitivity or elementary memory mechanisms, but failed to explain higher mental functions. The psychologists and philosophers in the other category had little interest in the scientific investigation of elementary processes and focused on complex mental processes like abstract thought or subjective experience. Where they agreed was that it was impossible to formulate a monistic approach to psychological life. Elementary processes could be addressed experimentally and explained in natural science terms, but higher forms could only be described phenomenologically.

These were not the only divisions that existed among nascent psychologists. From the late 1800s into the next century different systems or schools of psychology arose which contested each other's approach (Heidbreder, 1933; Yela, 1987). These diverse schools differed in their focus, methods, and explanations. Structuralists sought elemental building blocks of consciousness and the associative mechanisms underlying complex mental processes. In opposition, Gestalt psychologists rejected reduction to constituent elements and focussed on consciousness as an organized whole. Functionalists were more concerned with the function of consciousness, with what it did, its evolutionary adaptive value, not structural composition. Psychoanalysis focussed on unconscious operations. And

Behaviorism dismissed unobservable mental processes as inaccessible to scientific observation and focussed on overt behavior instead. To Bühler (1927, in Wieser, 2020), the proliferation of diverse psychologies represented a crisis reminiscent of the tower of Babel (the problem of incommensurability). Heidbreder (1933), in contrast, considered the diversity among psychologists a necessary division of labor given the range of issues. As Rosenzweig (1937) put it, each of the different schools concerns itself with different problems, or research areas, and their differences of opinion may be due largely to their differences in interest.

Decades later, Kimble (1984) argued Psychology had an identity problem, lacking a cohesive set of values between the discordant groups and professional practices. It was a science divided, beset by a plethora of facts, theories, methods, institutions, and professions (Yela, 1987). Bower (1993), alternatively, judged this fragmentation the natural outgrowth of a science maturing and expanding into new problem areas. Why not, he asked, call fragmentation 'specialization' since its connotation is not so negative? Fair enough, but that doesn't alter the increasing divide between the subdisciplines. Psychology is also suffering from information overload (Stagner, 1988). No one can read every technical journal and, as new phenomena, concepts, and vocabularies arise, subgroups grow further apart, lose touch with each other, and communication becomes ever more difficult. Robinson (2000) contended that there is such a high degree of specialization in every research field that the articles in journals may not be intelligible to those whose training is in a different speciality. Given the great diversity, Lichtenstein (1980) believed no single theory would embrace and unify them all. All the pieces that comprise the psychological enigma are disjoined because they belong to different puzzles. It is the products of these specializations that unifiers have sought to connect, but this may be an artificial problem. Despite increasing specialization, is it possible that there is a moment in Psychology, before the Big Bang of fragmentation, that draws together this expanding universe of interest and occupation?

Methodologically generated disunity

Anticipating Koch's call to confront psychological subject matter, Allport (1942) contended that all knowledge, scientific or otherwise, begins with an acquaintance with the particular, and that knowledge of human behavior involves being acquainted with concrete individuals. They must be revealed in their natural complexity as an initial step, before analysis and classification dismantled mental life leaving fragments that are unrepresentative of the natural integration of personal life. Instead, life-as-lived should be the concern for Psychology rather than false abstractions and unnatural segmentation. Processes of intelligence, memory, sensation, perception, and so on, may be differentiated intellectually, and separated conceptually, but they are only real in being organic (Allport, 1937). They are nothing other than attributes of personal activity. Each speciality has, as its product, free floating abstractions, and it is this array of abstractions that lacks coherence.

Abstraction and reification

Abstraction is a basic form of thinking required for categorization, concept formation, classification, and theory; it involves qualities of an object being differentiated and isolated (Petrovsky & Yaroshevsky, 1987). As such, Whitehead (in Eysenck, 1951) noted that abstractions are tools for controlling thinking about concrete facts by transcending the specific concrete instances of actual occurrences. The constructs produced by scientists have an order that contrasts with the heterogeneity of the everyday world. Science, wrote Eysenck

(1951), is understood to be a striving after identifiable laws or rules which subsume individual events. Its interest is not with the unique events, although it aims to describe the multifarious world of experience by generating abstract categories and formulating abstract laws. While an essential process in inquiry, abstraction can also distort subsequent thinking and explanations of the concrete phenomena from which the abstraction was derived. There is no better example of this in Psychology than the mind-body problem—the fundamental fallacy.

Reflecting upon, and analyzing, his own being, Descartes (1641/1993) concluded that he had clear ideas of a body and a mind, as distinct and qualitatively different. There was the body, a spatially extended and unthinking thing and an unextended, thinking self (mind). The two were separate yet somehow interacted. Taking up the matter, Dewey (1928) argued that mind and body should be considered parts of a whole, of an experiencing physical being, and that their severance is the disastrous result of the *tradition of separation and isolation*. By that he meant qualitative differences are identified and, subsequently, the conceptual distinctions are allowed to stand on their own, apart from the context in which they were embedded. To be primarily mental is not to be disembodied; neither does being primarily physical mean being wholly mechanical and mind-free. Abstraction becomes problematic when those abstractions become reified, given ontological status in their separateness, and treated as though having actual existence instead of merely intellectual, conceptual existence.

There are numerous ways in which the analytic fallacy is committed (Dewey, 1931/1998a). It is present when a distinction is made, when an element has been discriminated, and then treated as self-sufficient and final, resulting in a loss of vitality and emotionality, and the atomizing of ourselves or our life-world. As an example, Dewey offered the case of a psychological experiment on discriminating sensory qualities (as with Titchenerian structuralism). The qualities discriminated, under highly constrained conditions of control, are assumed to be not just elements (elements, by definition, being the final product of an analysis) but the original constituents from which mental life is assembled. They are thus dealt with as though self-sufficient, independent and isolated, and all mental life is interpreted as being due to their compounding. The trouble, Dewey argued, is not in the analysis, it is the ignoring of the context of investigation and analysis.

Ignoring context

To ignore context is to practically deny it when, in fact, there is more in place than the final, abstracted elements. There is the experimenter's background, which includes the prior state of theory that gave rise to the problem and shaped the experiment. There is the purpose in arranging the experimental condition and the technical knowledge underlying the design that made the controlled experiment feasible. Besides the experimenter, the participant enters the experiment with habits and current dispositions, verbal ability, capacity to attend, and so on. The participant context provides the causal factor that determines the quality that is discriminated; and that quality, rather than an isolated, primary unit in the construction of mental life, is the currently dominant aspect of comprehensive mental life. An abstraction is but a fragment and an inadequate substitute for the concrete whole it was abstracted from (Dewey, 1920/1950).

Through analytic and conceptual isolation, inner and outer, person and world, individual and social have been completely separated in philosophic and psychological discourse (Dewey, 1948). Practical activity has been torn apart and disconnected from the emotional

and intellectual aspects, rendering each an entity, and creating an artificial problem of how to return them to a working whole—the problem of unity. Whitehead (1925) referred to such hypostatization of abstractions as the *fallacy of misplaced concreteness*, the error of mistaking the abstract for something concrete. To James (1909/2018) it was *vicious abstractionism*. Abstract concepts like elasticity and gravity (or psychological concepts like cognition and emotion), which are prominent in concrete experience, are often singled out. Their usefulness is in their supporting anticipation of consequences, enriching the understanding of the objects from which they were abstracted, and enhancing efficient engagements with the complexities of living. The process becomes vicious abstractionism when the phenomenon, in its original richness, is reduced to the mere suggestions that the name taken abstractly introduces. It is as though all remaining characteristics, that the concept was detached from, have been expunged. It is conceiving of the concrete situation by singling out a selected feature and then classifying the situation under that.

Cantril *et al* (1949a) noted the liberating effect of abstraction in the regulated, conceptual thinking needed in scientific inquiry. However, while concepts aid in the recall and intellectual manipulation of phenomena, it must be recognized that there is a tendency to treat them as though they had a separate existence. For instance, the concepts personality and short-term memory are useful concepts, but they are not concrete realities, only individuals who possess personalities or short-term memory are. Words, unfortunately, can play tricks with a scientist's thinking when it is forgotten that word symbols used for thinking and communicating are abstractions (Cantril *et al*, 1949b).

Allport (1937), drawing on the *personalistic psychology* of Stern, argued that all mental functions are fixed within the personal life of individuals and that there is no concrete sense in which there are *things* like intelligence, choice reactions, or space perception. There is no such thing as anxiety, there are only anxious persons. Only persons can perform these activities and have such experiences. Stern considered the person to be a *unitas multiplex*, a whole composed of interrelated parts, not a simple summation of parts but their harmonization within the individual. As Stern (1939, in Harré, 2015) put it, one must resist conceiving of persons as 'beings with parts.' Analytic dissection of the person loses the very unity that is antecedent to dismemberment. According to Stern, it "is at once the precondition for all more focused investigations and the ultimate point of convergence of the findings of those investigations" (Stern, 1939, in Harré, 2015, p. 27). Stern's proposal that antecedent unity is a point of convergence indicates a way to resolve the fragmentation problem. Previous attempts at unification have worked from the abstract products, the facts attributed to the developed specializations, their findings, concepts and theories, as the grounds for seeking coherence. In so doing, much of the original totality of personhood and living-in-context has been discarded. Specializations have dealt with part processes, abstracted aspects, dissociated from the whole persons that is their concrete context and neglected contextual reconstitution. By returning the results, the derived concepts and theories, back to the concrete unity, they are resynthesized with psychological being as an organized whole.

Correctives

Referring results to individual performance

In seeking to unify the varied subdisciplines the tendency has been to seek unity at the level of concepts and theories—higher order abstractions. In effect, solutions have assumed the

form of some sort of coherence theory whereby affiliated abstractions are united, often eclectically, while ignoring the incongruous. The strategy has not succeeded. If, instead, experimental practice involved returning to concrete persons as unities, the varied subdisciplines might be brought together, despite incommensurability. What *is* common to them all is the whole persons from whom their investigations commence. In fact, concrete individuality-as-unity may well be the Rosetta Stone that resolves the befuddlement of specialization and incommensurability. But how is that to be achieved?

Dewey (1900) pointed out that although there are distinct advantages to laboratory experimentation there are also attendant defects. With the comprehensive control over conditions there is a greater accuracy in determination, but that demands a greater isolation that excludes usual modes of thought and action. This results in a remoteness and artificiality. For instance, in the use of nonsense materials in memory research the ordinary conditions of memory are missing. Unless we are to be content with such artificial results, they must be interpreted by their gradually reapproximating actual life conditions. That means something more than mere ecological validity in experimental conditions, the degree to which experimental findings generalize to real world conditions. We need to consider the applicability of the findings to concrete persons, especially the participants from whom those abstractions were derived—the *concrete validation* of the experimental findings. Researchers who restrict scientific meaning to the three-part process of analysis, abstraction, and generalization may continue in that practice, Allport (1937) emphasized, but such an artifice of method should not be transformed into a theory of reality. The results of such studies, he acknowledged, can well serve as data for general psychology, but their abstractness must be recognized. Regardless, psychologists appear to lack interest in the single case (or their own participants), given the failure to check their scientific proposals by comparison with stubborn concrete occurrences (Allport, 1940). To Danziger (1990), the presentation of data referring to attributes of a collective was done for the purpose of making universalistic claims; and as previously noted by Gleitman, Fridlund, and Reisberg (1999), the individual life is not a central concern.

Cervone (1999), writing of the Five Factor models in personality psychology, pointed out that constructs at the level of a population are not guaranteed to apply at the individual level. To many it is conceivable that the constructs identified through between-person research can be considered a reflection of within-person structures (Cervone, 2005). This assumption has been challenged and has inspired renewed attention to the life of the individual. Lamiell (2013) cautioned that the knowledge that statistically analyzed variables yield, regarding the differentiation of persons, cannot be considered knowledge of those persons who were so differentiated. Billig (1994) stressed that the psychological processes described in such research are unreal, disembodied abstractions that refer to no actual individuals. One of the more difficult problems in personality psychology, McClelland (1951) insisted, was the relation between general laws derived from groups and their application to individuals. General laws are needed but their validity is tested by their being applied to individuals. For the most part psychologists have not bothered to make individual determinations of their general laws. Psychology has produced a proliferation of entities without committing itself to determination of their reality (Stam, 2004). This was unsettling to Allport (1942) who contended that knowledge is only applicable to individuals. Nomothetic knowledge must be particularized by being fit to concrete circumstances.

Robinson (2000) believed that adopting a paradigm that requires statistically manipulated, pooled data closes the door to any realistic opportunity to understand individual cases. That

need not necessarily be the case. Sanford (1965) warned that if parts must be abstracted from wholes, we must remain mindful that we are abstracting and devote equal effort to determining how these special pieces of information fit into the greater picture. If using abstract concepts, therefore, they must be returned to the concrete, indicating how the concept applies to the particular, to the individual.

Instead of stopping with what he called our 'wobbly laws,' without confronting them with concrete cases, Allport (1962) asked, why do we not begin with the behavior of the individual as a basis for clues and then look for generalizations, and, following that, return to the individual. Not taking the final step, the results can seem feeble, if not absurd. This point was furthered by Sanford (1965) who suggested psychologists should be encouraged to study those problems that concern people instead of those inspired by reading journals. Research psychologists appear to have been produced who have never looked closely at any person, including themselves.

Finding disciplinary unity in individual unity

Long ago Leighton (1902) wrote that the secret of individuality had not been explored nor had the unity of the individual. In the natural sciences (which Psychology was emulating) the individual was simply a particular and a vanishing quantity, knowledge being limited to universals. Within its limits, it is a justified procedure, but in the conduct of everyday life individual character becomes of great significance. Young (1924) believed, optimistically, that an emphasis on the unity of the organism would become the basis of study soon; individuals would be considered integrated wholes. Physiology, instincts, intelligence, or emotions (or any other abstracted function) would have important parts to play, but they could not be studied in separation from the rest. It is not sufficient, Heidbreder (1933) wrote, to study motor responses or conscious elements, mere piecemeal reactions; the whole organism needs to be considered. In line with that, Fryer and Henry (1937) defined Psychology as a science that studies the activities of organisms engaged in living. Its concern is with the coordinated activities of whole organisms. In this striving for holism, there is perhaps an answer to Koch's reproach that Psychology was too quick to adopt methods of natural science before fully considering the nature of its subject matter.

Participants as a basis for concrete validation

Asking the question "Where is the person in personality research?", Carlson (1971) found it remarkable that the experience of subjects in research is not mentioned (if even considered). Nevertheless, most participants are more than willing to contribute information about their experiences than was considered in the research, and Psychology is likely poorer for the omission. A collaborative relation should be established with them. Twenty years later, Hermans and Bonarius (1991) anticipated that future participants would become co-investigators, engaging in intersubjective dialogue with researchers, sharing perspectives. Holzkamp (1995/2016) also argued that experimental subjects should be enlisted in supplementing the researcher's interpretation of results, and that a science based on the 'standpoint of the subject' should be established.

Cantril *et al* (1949a) pointed out that humans bring to concrete events their accumulated assumptions and established knowledge of aspects of their environment derived from prior experience. Consequently, unless a special effort was made to ascertain the specific significance that a participant attaches to the stimulus situations in an investigation, one will have neglected the potentially most important information in the study (Cantril *et al*, 1949c).

McClelland (1951) observed that even though two people may be confronted with the same objective environment, what gets emphasized and attended to can vary given different cultural and familial backgrounds. Endler (1984) wrote that it was necessary to establish a subject's interpretation of the environment since it may not agree with that given it by the experimenter. And Eysenck (1997), in his final publication, emphasized that one characteristic upon which Psychology, as a science, rests is that psychologists are dealing with persons rather than atoms. Persons enter the laboratory and bring with them their ideas, emotions, prejudices, knowledge, abilities, and intelligence. All of that interacts with the experimental conditions, affecting perception, learning, meaning, memory, and psychophysiology, in fact, whatever a person does. The point was made again by Martin (2012) who recognized that throughout life objects and persons are related to, and acted toward, upon the basis of an individual's accumulated experience with them. This is obviously a recurring theme which, as was noted earlier, is part of what Dewey (1931/1998a) called the subject context and it demands consideration.

So, what does this mean? Well, obviously, we need to be concerned with subject context, and for three reasons. First, without engaging the people we study, we cannot hope to ascertain the important information about their individual performance. This is not something to be overridden as error variance and dealt with statistically. The error is in ignoring it. Secondly, we need to determine the concrete validity of our results by finding out how, if at all, they pertain to the individual participants engaged. One way this can be done is to interview the participants after the results have been analyzed, explaining our interpretation, and getting feedback on how that applies to them (if at all). Granted that can be onerous but, at the very least, a small sample of persons from the lowest end of the distribution, the average, and the high end, can be consulted. Thirdly, by all subdisciplines concretizing their results there is a basis for maintaining disciplinary unity.

Toward the unity of the individual

It is not enough to simply propose that individuals are a unity; a theory of individual unity is also required. There was a time when personality theory seemed to be moving in that direction, given its original mandate of studying the whole person. During the 1920s a small number of psychologists, e.g., Gordon Allport, wrote of the need for a psychology of persons acting in the world as integrated wholes (Woodworth, 1931/1951). Two problems emerged from this effort. To begin with, the elementalism that was intended to be overcome remained in force in the search for individual traits, types, factors, drives, competencies, beliefs, goals, and so on. Secondly, there were the related issues of individualism and internalism. For instance, Allport (1937) wrote that personality is largely fashioned by the impact of culture upon individuals. Nonetheless, Psychology is not interested in the factors by which personality is shaped but in personality as a developing structure. Culture was relevant only when it had been interiorized by the person as a set of personal traits, ideals, and attitudes. The important fact for the psychology of personality was the relatively unique and enduring organization. The individual thus is separated from the external environment. In terms of the living, acting person, who is embedded within a life-world, this is inadequate. While internal processes have to be considered and understood in their integrated functioning, Dewey (1939) believed they must also be considered from the standpoint of their engagement with what is occurring outside the skin, the environment, for genuine appreciation of what the unity of the human fully entails.

To Dewey (1938), organic life is a process of activity involving an environment, a transaction that extends beyond the organism's spatial limits; organisms do not live in environments but by means of them. There is a natural world that exists independent of the organism, but such a world is only an 'environment' as it is integrated into life-functions. Organisms are part of a larger natural world and exist only through their active connections with their environment, an interpenetration of each. Furthermore, the environment in which humans live and act is more than physical, it is cultural, and due to immersion in a cultural environment, organic behavior is transformed into forms marked by intellectual properties (mind). Rather than individualistic separation there is a person-environment mutualism, or better yet a person-milieu mutualism, in a person's ongoing transactions with the world. Dewey distinguished between the 'global environment' and those aspects of their environment that an organism establishes relations with. The environment is not separate from activities. It is its medium, channeling continued engagement with the world (Dewey & Bentley, 1949). That means that despite the common physical environment the psychological environment is ontogenetically particularized. The human individual, to Dewey (1940/1998b) is a history, a career, and that career cannot be separated from the conditions in which it formed and functions. It is not a matter of external conditions shaping the individual but of the two-way movement between them, their reciprocity. Again, we are confronted with the need to become familiarized with individual perspectives and contexts of living and acting.

Where personality psychology has proven lacking, theories of personhood and everyday living are moving beyond individualism and elementalism. Giorgi (1970) identified a gap, between daily life and psychological facts because Psychology had not been adequately receptive to ordinary problems in the real world. Traditional approaches, Stetsenko (2012) insisted, have failed to do justice to personhood, to the experiences of being a person, of knowing everyday life and our fellow humans. Following Mead, Martin (2010) proposed that all psychologists should ultimately be concerned with the "*worldly conduct of psychological persons*" (p. 220). That means that, regardless of whatever problems, structures, functions, processes, or activities they are interested in, they should be examined as they relate to "*the activity-in-context of such persons*" (p. 220). It is persons who act in the world, not abstracted structures, computational mechanisms, or brains. Talk of brains making decisions is wrong; it is psychological persons doing so. Theoretical frameworks need to be developed that address how people, in their development, are continually coordinated with the object and interpersonal world, and how, in that, they are constituted as psychological selves and agents (Martin, 2012).

According to Martin (2015), his prior emphasis upon the person acting in the world suggests an appropriate ground for establishing interactions between the diverse subfields and psychological collectives. This was not, however, intended to be a basis for unification or even a dominant paradigm. It was a broad vision of a focal object for psychological inquiry and for the development of plural perspectives directed at what would be a common object. If by this Martin means that the subdisciplines and collectives are not to be subsumed by a psychology of personhood and everyday living, I agree. On the other hand, if that means that in their own research they should not be applying their findings to the participants from whom data are abstracted, I disagree. Concrete validation of results is necessary if their research is to have any practical significance. As Martin and Bickhard (2012) noted, generations of psychologists have displayed a preference for investigation of presumed parts of persons (behaviors, reflexes, neurophysiological processes, thoughts) instead of persons

as they are. By returning results to concrete persons/participants, findings are grounded in the everyday life experiences and the conduct of persons-as-wholes. In that lies unity, unity of the person and unity of the discipline.

Conclusion

There are two paths to be followed in working toward establishing a unified Psychology. The first is the adoption of concrete validation processes by empowering participants and obtaining their feedback on their personal performance in an experiment. How did they interpret experimental situations and stimulus materials?–going over in detail why they responded as they did, how the materials related to them personally, if at all, whether they could explain their relevance to their own life-context, and so on. Secondly, a general psychology, or better yet, unity psychology, should be developed which is more than an overall reference to the science, to its topics, methods, and theories. Rather, its aim would be the elucidation of contextualized psychological being.

Recall Allport's (1942) reproach that individuals must be revealed in their natural complexity and that life-as-lived should be the concern for Psychology, not false abstractions and unnatural segmentation. While Allport made no such proposition, there is implicit in this a need for a concrete general psychology. In line with that, Vygotsky and Luria (1930/1993) identified three developmental processes in the evolution of human behavior—biological evolution, historical/cultural development, and ontogenesis, that must be considered in a full account of individual conduct. Beyond that, Giorgi (1985) contended that to completely appreciate a human being would require full consideration of the natural and human sciences. These proposals can be united through an adequate theory of levels of integration.

Without going into detail, Novikoff (1945) presented an outline that can be built upon. The concept of levels of integration is a general description of the evolution of matter through progressively higher orders of complexity and integration. There is a movement from the inanimate level (physics and chemistry), to the animate (biology, psychophysiology) and the social level, which includes the emergence of culture (history, psychology, sociology, anthropology, the humanities). The process is continuous, an endless process of matter combining and recombining at increasing levels of complexity. At the same time, it is discontinuous because at each new level qualitatively new, irreducible phenomena emerge which are inexplicable by lower level laws. Higher levels subsume individual units by integrating and organizing them into a single system (atoms in molecules, molecules in cells, et cetera). What were wholes on the lower level become parts on the higher. Each level of integration has properties and laws which are unique to it alone, but these lower-level phenomena cannot be used to predict, deductively, what these higher-level laws will be. The discovery of higher-level laws requires the generation of new methods of research and analysis that are appropriate to the new level.

Human behavior is unique given the more highly developed nervous system which accommodates speech and thought, and it is profoundly influenced by culture and society which operate at a level higher than the biological. Cultural and socio-economic forces become dominant over the biological in guiding subsequent human development. As Vygotsky and Luria (1930/1993) emphasized, the emergence of societal and cultural life brought about a new power in human development whereby natural, biologically based psychological functions are transformed into higher mental powers. Leontyev (1981), a

close collaborator with Vygotsky and Luria, and in line with them, has developed a theory of mental evolution based on comparative psychology and nervous system complexity, as it transitions over time from a stage of sensitivity to perception, animal intellect, and finally consciousness, that can be incorporated into Novikoff. Of course, the evolution of culture, and historical and cross-cultural differences in psychological functioning must be incorporated as well. In this there is a foundation for unity psychology and disciplinary unity.

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About the author

Brad Piekkola received an MA in Cognitive Psychology (1987) and a PhD. in Personality Psychology (1990) under the supervision of Charles Tolman at the University of Victoria. At the time Theoretical Psychology was not well recognized, and it was deemed best to categorize his dissertation as Personality Psychology, but it was primarily theoretical. His PhD dissertation, *Personality theory: Beyond interactionism* was an assessment of major issues in personality psychology. Specifically, *Interactionism*, as a corrective to *Trait Theory* and *Situationism*, was found wanting, and *Activity Theory* was advanced as successfully bridging the separation of person from situation. From 1989, until his retirement in 2015, he taught courses on Introductory Psychology, the History of Psychology, Psychology of Personality, Cognitive Psychology, and Theoretical Psychology at Vancouver Island University (VIU). He is currently an Honorary Research Associate with VIU and is the author of *Conceptual and Historical Issues in Psychology*: SAGE, 2017.

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