anxiety, with response options including; 1 equating to never, 2 for occasionally, 3 representing often, and 4 meaning all of the time. Two different persons who have similar bouts of exposure to depression may answer this question differently, one reporting *occasionally* and the other *often*, resulting in misclassification error because their frame of reference is different—there is no common baseline. To reduce this problem investigators transform responses to a two-point scale such as *never* versus *not* never, which reduces misclassification error.

The second concern is that subjective responses may differ widely from objective evaluations. A person may report feeling anxious while a professional evaluation of the individual conducted by a physician or clinical psychologists may lead them to conclude that the person is not suffering from anxiety. Research by Anne Case, however, offers evidence that a person's subjective responses to health questions about his or her children are virtually identical to independent assessments conducted by a physician. Thus, social scientists now conduct empirical studies of the link between psychological capital and economic outcomes. For instance, as reported by Goldsmith, Veum, and Darity in 2000, they find that persons who are more internal in their outlook—those more motivated—earn higher wages, and that unemployment leads to lower self-esteem and a more external perspective (1997a). The mental health consequences of adverse developments, however, will be less severe for persons with an external outlook because they do not blame themselves for the situation. Thus, high status individuals with an internal locus of control are particularly vulnerable in terms of emotional well-being to negative occurrences that arise at the workplace or in the family. Minorities often hold an external locus of control both as a result of past discrimination and as a defense mechanism to avoid self blame for undesirable outcomes that are beyond their control. Thus, members of minority groups may experience less harm to their mental health due to adverse social and economic developments.

SEE ALSO *Economics, Labor; Locus of Control; Mental Health; Rosenberg's Self-Esteem Scale; Rotter's Internal-External Locus of Control Scale; Self-Esteem*

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Arthur H. Goldsmith

PSYCHOLOGICAL DEFENSE

SEE *Napoleon Complex.*

PSYCHOLOGY

The term *psychology* has been used to refer to the study of the soul, consciousness, behavior, the mind, or the brain, depending on the era and cultural context investigated. In the nineteenth century German philosopher-psychologist Friedrich Eduard Beneke (1798–1854) defined his new psychology as the natural science of inner experience and suggested that the subject matter of psychology was what one finds in oneself. His countryman Wilhelm Wundt (1832–1920), who is often considered one of the central figures in the creation of modern psychology, defined the subject matter of psychology as the total content of experience in its immediate character. William James (1842–1910), one of the pioneers of American psychology, defined psychology as the science of mental life, both of its phenomena and of its conditions.

In a 1989 study, Tracy B. Henley and his colleagues showed that in the first third of the twentieth century psychology was defined the majority of the time as including concepts of *mind, consciousness,* or *mental activity.* Between 1930 and 1969, the prime time of behaviorism, these terms were barely mentioned in North American psychology, although with the coming of the *cognitive rev-*

olution they became widely used again. Use of the term *behavior* increased throughout the twentieth century, with later definitions including both behavior and mental activity. Definitions of psychology reflect the dominant research programs in a particular context.

PSYCHOLOGICAL TOPICS

Psychology did not exist as an independent discipline before the nineteenth century, although psychological topics were studied long before then. The study of the soul (*psyche*) goes back to Greek philosopher Aristotle (384–322 BCE) who wrote a pioneering work entitled, in Latin, *De anima* (On the soul). Aristotle discussed the five senses as well as perception, thinking, and imagination. He also discussed memory and dreaming. He did not study intelligence quotient (IQ), motivation, or prejudice, however, which are all later psychological constructions.

In the eighteenth century German philosopher and mathematician Christian Wolff (1679–1754) divided the study of the soul into two parts: *rational psychology* and *empirical psychology*. *Rational psychology* depicted what the human soul was capable of. He discussed the soul's substantiality, simplicity, immateriality, immortality, as well as the mind-body problem, and provided logical proofs that the soul was immaterial. *Empirical psychology* aimed to identify psychological principles on the basis of concrete experiences of what actually happened in the human soul. *Empirical* referred to something that could be determined through experiences rather than reason. Wolff's empirical psychology addressed the ability of the soul to know and to desire, the interaction of the soul and the body, and the *faculties* of the soul. Psychology concerned the study of the soul until the mid-nineteenth century, when German philosopher Friedrich Albert Lange (1828–1875) proclaimed a psychology without a soul.

Present-day psychology covers a wide range of topics such as biological bases of behavior, sensation, perception, memory, cognition, emotion, motivation, learning, language, dreaming, social interaction, prejudice, development, aging, intelligence, personality, stress, psychopathology, and psychotherapy. In psychology each concept is subdivided and studied in its parts: For example, memory is subdivided into short-term memory, long-term memory, working memory, explicit memory, and implicit memory, among others. Memory can be researched from a developmental, social, or biological perspective, each of which provides a variety of theoretical frameworks.

PSYCHOLOGY AS A DISCIPLINE

In the sixteenth century the word *psychologia* (psychology) first appeared in a book title, although some research does indicate earlier usage of the term. In 1590 Rudolf

Goclenius (1547–1628), a German professor of physics, mathematics, logic, and ethics used the term.

Some historians suggest that the acceptance of psychology as an institution of research and teaching at universities first occurred during the first half of the nineteenth century during a period of transformation for German universities. With the establishment of state-funded and state-controlled classical high schools, professors of philosophy were asked to teach courses on psychology and pedagogy for classical high school teachers-in-training. Because psychology was understood as the scientific basis for pedagogy, teacher candidates were required to take exams in the discipline of psychology. Horst Gundlach (2004) offers 1824, the year in which Prussia established psychology as an examinable discipline at its universities, as the origin of the discipline of psychology. Most books on the history of psychology, however, list its inception from 1879, the year in which Wundt began to conduct psychological experiments in his new psychological laboratory at Leipzig, Germany. From a critical perspective it is difficult to attribute the birth of a discipline to a single event. The institutionalization of psychology—the establishment of an academic discipline that followed university rules—occurred at different times in different geographical or national contexts.

PSYCHOLOGY AS A PROFESSION

Psychology as a profession or an expert occupation became a reality in the twentieth century. The professionalization of psychology can be linked to the development of other institutions in European and North American culture. The transformation of the legal system required experts, for example, regarding the validity of testimony and the reliability of memory; the health system needed experts in dealing with the mental health problems of patients; the prison system sought professionals who could provide information on the progress of rehabilitation and the likelihood of re-offending; the school system needed expertise in order to determine which children would need special education; and industry and corporations needed experts on personnel selection, the improvement of productivity, and advertising. In all of these applied fields psychologists emerged and claimed scientific knowledge.

In addition, public demand for psychological expertise increased; for example, regarding the parenting of children, people sought advice on the adequate amount of emotional contact, sensory stimulation, potty training, masturbation, and the appropriate extent of parental control at different ages. The search for expertise on how to have fulfilling romantic relationships, to be successful, and even live life led to the birth of *pop psychology*. Prominent examples of pop psychologists include former

academic John B. Watson (1878–1958), whose book *Psychological Care of Infant and Child* (1928) contained historically contingent ideas such as that one should never hug or kiss a child, and Dr. Phil McGraw, whose media-magnified psychological activities are largely rejected by academic psychologists. There were a number of troubling manifestations of the professionalization of psychology as well: German psychology expanded in the context of the militarization of the *fatherland* at the beginning of the twentieth century; and U.S. psychologists, using IQ tests, labeled populations from Eastern and Southern Europe and non-European *races* mentally inferior during the great immigrations of the same time period.

PSYCHOLOGY'S RISE

According to Steven Ward, psychology's integration with other institutions has made it a uniquely successful field. Psychology flourished in the twentieth century in terms of its intellectual and social expansion. Psychology is one of the most popular undergraduate majors in North America and many European countries. The American Psychological Association (APA), the largest association of psychologists worldwide, has 150,000 members. The APA has more than fifty divisions that cover traditional experimental, social, developmental, or clinical psychology; the psychological study of lesbian, gay, and bisexual issues; peace psychology; and the advancement of pharmacotherapy, among many other diverse topics.

There are several thousand journals dedicated to psychology, and the APA's *Publication Manual* (2001), a style guide, has been adopted by most psychologists and by professionals in other disciplines as well. As a profession psychology pervades popular consciousness in the twenty-first century. The increasing global dominance of American psychology after 1945 reflects the economic power of the United States. But psychology did not only succeed as an institution; it also thrived in the *psychologization* of human life. The public and many expert cultures explain human and social events in psychological terms: Individual decisions, the arts, political crises, economic problems, history, and terrorism are all explained with the help of psychological categories.

CONTROVERSIES IN PSYCHOLOGY

The importance of psychology as a scientific discipline and in everyday life is clear. However controversies regarding basic precepts continue among psychologists.

The Dualism of Psychology Psychology can comprise understanding or explaining psychological objects and events. For example, one can explain the physiological mechanisms of memory or one can understand the specific content of a person's memory that is formed within meaningful life experiences. Psychologists with a *natural-scientific* orientation emphasize the explanation, prediction, and control of behavior or cognition, while psychologists with a *human-scientific* perspective focus on thinking, feeling, and willing based on the assumption that reflection, intention, and action are meaningful processes. German philosopher Wilhelm Dilthey (1833–1911) provided a systematic foundation for two types of psychology when he divided the discipline into *descriptive* (human-scientific) and *analytical* explanatory (natural-scientific) parts. He argued that psychology's subject matter was human experience and thus its method must be understanding. German experimental psychologist Hermann Ebbinghaus (1850–1909) endorsed psychology as a natural science that did not need the method of understanding and should rely on natural-scientific explanation and experimental methods. Wundt, who many see as the father of German experimental psychology, divided the science into an experimental branch that focused on precise analysis of the basic processes of consciousness, and an observational *Völkerpsychologie* (cultural psychology) that covered complex psychological processes that accompany the development of human communities and mental products in the context of values, customs, and language.

In the North American tradition Gordon Allport observed an increasing *nomothetic*, natural-scientific commitment of psychology, but he petitioned for the inclusion of an *idiographic* approach in scientific psychology. Human-scientific approaches (hermeneutic, existential, humanistic psychologies) generally have been marginalized since the twentieth century, although they have never been totally abandoned, especially in clinical contexts. The impact of the natural-scientific approach was so powerful that even Sigmund Freud considered his method of psychoanalysis to be natural-scientific. The dualism of psychology is surfacing again in discussions surrounding *quantitative* versus *qualitative* methods, with the latter gaining more acceptance in the early twenty-first century.

Unification Dualism is one facet in an ongoing discourse regarding unification. Since the end of the nineteenth century, theoretical psychologists and later Russian psychologist Lev Semyonovich Vygotsky (1896–1934) have critiqued the missing unity of psychology. In the first half of the twentieth century the focus was on the unification of large research programs such as psychoanalysis, behaviorism, Gestalt psychology, and structuralism, and later unification was demanded regarding the multiplicity of theories, approaches, and empirical results that were often contradictory. Psychology as it exists in the early-twenty-first century is so diverse in its conceptual and theoretical positions and so fragmented in its identity that multiple psychologies rather than a unitary psychology have prevailed.

Solutions to the unification problem in the past have largely been based on a conceptual reductionism in promoting a single program such as behaviorism. Some have called for unifying theories of unification before any unification of the discipline could succeed. Proponents of unification demand unification for theoretical reasons. For example, the increasing demand for interdisciplinary work must remain fragmented if it is not clear what the discipline of psychology stands for. Opponents of unification suggest that the lack of unity makes psychology an extremely adaptive discipline that is able to work with other fields in academic and applied settings. The factual lack of theoretical unity has led to the phenomenon that mainstream psychology identifies itself by the commitment to a specific methodology, namely an experimental-statistical point of view.

Dichotomies Psychology throughout its history has struggled with conceptualizing the relationship between society and the individual, nature and nurture, and mind and body. The lack of an adequate conceptualization of the individual and society has led to criticisms that psychology is too individualistic in its theories and practices. For example, a person's psychological distress regarding homelessness cannot solely be explained, understood, and solved on an individual level. Even social psychology, which by definition should take the social context into account, does not provide ecological relevance because many studies use undergraduate students in laboratories as subjects. Klaus Holzkamp (1972) argues that in the real world there are many more variables that influence behavior and cannot be included in their complexity in an experiment.

The mind-body problem has been addressed in behaviorism in a reductionist way by denying or neglecting the reality of a mind. Neuropsychological researchers have developed more sophisticated theories since the late twentieth century. The largest political impact derives from an inadequate conceptualization of the nature-nurture debate. This dichotomy is most prominent in IQ controversies but also surrounds the heritability of pathologies, personality, and other psychological characteristics. The lack of an adequate understanding of nature-nurture has led psychologists to make premature judgments about alleged inborn intelligence. The heritability of intelligence received widespread public attention in the context of British educational psychologist Cyril Burt's (1883–1971) fraudulent data on twins and in connection with the issue of "race." As Stephen Jay Gould and others have pointed out many interpretations were unsupported by data but these interpretations were presented as factual knowledge. Many of the premature conclusions should be labeled *epistemological violence* (Teo 2005).

Natural Kinds versus Social Kinds More recently there has been a debate regarding whether psychological concepts are *natural kinds* or *social kinds*. Kurt Danziger (1997) suggests that many psychological concepts are social constructions that have become social reality. This idea has had an impact on research and practice and means that psychological concepts are bound to culture not to nature. Thus American or European psychology, indigenous psychologies themselves, cannot be exported straightforwardly to another cultural context. Many psychologists are often unaware that in believing their concepts can be used globally, they display misplaced ethnocentricity.

Professionalization The professionalization of psychology itself is a debated topic in academia. There have always been proponents and opponents, and this struggle has continued into the twenty-first century. For example, in the United States an American Psychological Society was founded in 1988 as a response to APA, which was perceived as catering to the interests of applied psychologists but not academics. One of the recent topics discussed in the context of the profession are prescription privileges for psychologists in some U.S. states. This topic is significant because it connotes a shift from a psychological to a medical model of mental illness. From the perspective of health insurers, allowing psychologists to prescribe drugs means cost reduction. However, giving such rights to psychologists challenges a long-standing privilege reserved to medical doctors, with probable economic consequences for that profession.

SEE ALSO *Achievement; Allport, Gordon; American Psychological Association; Anxiety; Attention-Deficit/Hyperactivity Disorder; Attitudes, Behavioral; Autokinetic Effect; Behavior, Self-Constrained; Behaviorism; Bettelheim, Bruno; Body Image; Brazelton, T. Berry; Child Behavior Checklist; Child Development; Cognition; Cognitive Dissonance; Consciousness; Contempt; Coping; Dementia; Depression, Psychological; Diathesis-Stress Model; Erikson, Erik; Family Functioning; Festinger, Leon; Foucault, Michel; Freud, Sigmund; Fromm, Erich; Gender; Gilligan, Carol; Goffman, Erving; Guttman Scale; Hite, Shere; Infidelity; Ingratiation; IQ Controversy; James, William; Jones, Edward Ellsworth; Jung, Carl; Kinsey, Alfred; Locus of Control; Maccoby, Eleanor; Manic Depression; Marital Conflict; Mechanism Design; Memory in Psychology; Mental Health; Mental Illness; Mental Retardation; Milgram, Stanley; Nature vs. Nurture; Neuroscience; Oedipus Complex; Operant Conditioning; Optimism/Pessimism; Overachievers; Overeating; Pavlov, Ivan; Post-Traumatic Stress; Priming;*

Professionalization; Psychoanalytic Theory; Psycholinguistics; Psychometrics; Psychosomatics, Social; Psychotherapy; Pygmalion Effects; Race; Racism; Realism; Realism, Experimental; Rotter's Internal-External Locus of Control Scale; Scarr, Sandra Wood; Self-Control; Self-Esteem; Sexuality; Sherif, Muzafer; Skinner Box; Skinner, B. F.; Social Psychology; Spock, Benjamin; Steele, Claude M.; Stereotype Threat; Strategies, Self-Handicapping; Stress; Stress-Buffering Model; Underachievers; Undereating; Zimbardo, Philip

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Thomas Teo

PSYCHOLOGY, ADOLESCENT

SEE *Adolescent Psychology.*

PSYCHOLOGY, AGENCY IN

The concept of *agency* as a psychological dimension refers to the process of behaving with intentionality. Human beings exercise agency when they intentionally influence their own functioning, environments, life circumstances, and destiny. To posit that human beings have agency is to contend that they are self-organizing, proactive, self-regulating, and self-reflecting rather than reactively shaped by environmental forces or driven by concealed inner impulses. This is not to say that people always behave agentically. A driver who inadvertently runs a stop sign would not be considered the agent of that event because he did not intend to commit the infraction. An intention is a mental representation of a future course of action to be performed. It represents a proactive commitment to act.

Human agency has four core properties. The first is *intentionality.* People create and engage plans and strategies with which they realize their predetermined intentions to act in a certain manner. The second property is *forethought*, which addresses the temporal dimension of human agency. People make plans, set goals, and anticipate the likely outcomes of their prospective actions. To set plans in motion so as to bring about the desired outcomes, people must self-regulate their thinking and behavior. Thus, the third property of human agency is *self-reactiveness*, a process through which individuals not only make plans and choices but also construct the appropriate courses of action and regulate their execution. Because actions must be examined in order to be corrected, the fourth agentic property is *self-reflectiveness.* Through proactive self-awareness, people can reflect on their capabilities, the soundness of their thoughts and actions, and the meaning of their pursuits. As a consequence, they can make needed adjustments.

In addition to possessing four properties, agency operates through three modes: *individual, proxy*, and *collective.* When agency is exercised individually, one brings one's own personal influence to bear on one's own functioning and on the environmental events that comprise one's life. When people cannot exercise their personal influence, however, they must seek their well-being and obtain the outcomes they desire through the exercise of proxy agency. In this mode, people appeal to others who can secure these benefits for them. Thus, children turn to parents, students to teachers, and citizens to elected officials. Finally, people must often work together to obtain the things they need. Thus, they must pool their knowledge, skills, and resources, form alliances to advance common interests, and work collectively to obtain those things that they cannot obtain on their own.

To exercise human agency, people must believe in their capability to attain given ends. These *self-efficacy*