

THE TRILOGY OF MIND: COGNITION, AFFECTION, AND CONATION

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The tripartite classification of mental activities into cognition, affection, and conation originated in the German faculty psychology of the eighteenth century, but was adopted by the association psychologists of the nineteenth century of Scotland, England, and America. Its influence extended into the twentieth century through the writings of William McDougall. It is proposed that the classificatory scheme is still useful in the assessment of contemporary emphases in psychology, such as the present prominence of cognitive psychology to the relative neglect of affection and conation.

For two hundred years many psychologists took for granted that the study of mind could be divided into three parts: cognition, affection, and conation. They disagreed on whether these should be considered faculties of the mind or merely a classification of aspects of mental activity, but the threefold division was repeatedly revived. In the last twenty-five years, if we judge from the titles of books and journal articles, scientific psychology—whether its focus is on perception, learning and memory, development, or personality and social psychology—has become engaged with one of these aspects, now called cognitive psychology. An examination of the tripartite classification in historical perspective may show the extent to which affection and conation are now suffering neglect by contrast with cognition as their coequal. This historical review may give a better understanding of what is happening in the present.

ORIGIN AND PERSISTENCE OF THE THREEFOLD DIVISION

The modern origin of the trilogy was in Germany in the period between Leibniz and Kant. Leibniz (1646-1716) wrote his major works between 1695 and 1716, although some of his writings were not published until after his death; the *Monadology* was written in 1714, shortly before the end of his career. Kant (1724-1804) published his *Critique of Pure Reason* in 1781, *Critique of Practical Reason* in 1788, and his *Critique of Judgment* in 1790. In assigning the rise of the faculty psychology and the threefold classification to this period between Leibniz and Kant nearly the whole of the eighteenth century is involved. The particular time is of great importance, for this was the period of the Enlightenment, a period that gave rise to an interest in individual man, his consciousness, and the powers of his mind. This led to an empirical, if introspective, psychology, a necessary background for the experimental psychology which would develop in the nineteenth century. If there was one statement more widely quoted than any other at this time it was Alexander Pope's "The proper study of mankind is man."

There is a strong tendency, in the writing of history, to find anticipations among the writings of the ancients. This tendency should be exercised with restraint unless a continuity can be found, or a revival shown clearly to be based on older views; otherwise thoughts are likely to be read into the ancient writings that were not there, or the special social or intellectual circumstances leading to the fresh introduction of similar items later

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on may be overlooked. George Brett, in his *History of Psychology*, because he was committed to the tripartite classification, found evidence for it in Aristotle,¹ and more clearly in Augustine, of whom he said: "Augustine was not far from the same standpoint [that of the eighteenth century], and his language at times suggests the same threefold division into knowing, feeling, and willing."² For true historical continuity, however, it would be necessary to show that there was some centrality to the threefold classification. In a description of mental processes, anyone who was philosophically or theologically oriented might have had things to say about thought, and will, and emotions (or passions), without having a well-developed psychological system.

FACULTY PSYCHOLOGY IN GERMANY

The psychology that stressed the powers or faculties of the mind is commonly assigned to Christian Wolff (1679-1754), who revived the term *psychology* after it had fallen into disuse. He wrote voluminously between 1709 and 1753. His *Psychologia empirica* appeared in 1732, his *Psychologia rationalis* in 1734. Although much influenced by Leibniz, he rejected practically all of Leibniz's metaphysics, including the monadology. For our purposes, he started the search for faculties, but did not arrive at the classification that is of interest here. His two faculties were a *facultas cognoscitiva* and a *facultas appetitiva*—roughly, knowledge and desire. It remained for Alexander Gottlieb Baumgarten (1714-1762) to introduce the idea of affection or feeling. He based this on the importance of esthetics, on which he published a two-volume work in 1750 and 1758. Finally, the man who put it all together was a self-taught philosopher and psychologist, Moses Mendelssohn (1729-1789). His *Letters on Sensation* (1755) contained the first clear statement of the threefold classification, that the fundamental faculties of the soul are understanding, feeling, and will. Mendelssohn was an important person in other respects, particularly for his responsible participation in gaining a new acceptance of Jews as free and equal citizens in Europe. As a representative of the Enlightenment and the growing interest in a naturalistic or humanistic religion, he could say that the new Christianity differed in no way from the somewhat secularized Judaism that he espoused. Psychology was itself part of the wider tendency of the Enlightenment to raise man, as the subject of experience, to a new supremacy.

Johann Nicolaus Tetens (1736-1805), although unmentioned in E. G. Boring's *History of Experimental Psychology*,³ has been called the "father of psychology" because of his introduction of an analytical, introspective method to psychology. He proclaimed psychology as distinct from physics and physiology in his major work, *Philosophical Essays on Human Nature and Its Development* (1776). According to Brett, he maintained firmly that the true method for psychologists is the psychological method, and left no doubt about it. Brett summarized his position:

Experience is the basis; the modifications of the soul are to be accepted as they become known through inner experience; they are to be repeatedly observed, with variations in circumstances; their origin and the action of the forces which produce them are to be noted; the observations are to be compared and resolved, so that the simple capacities, with their operations and interrelations may be sought out; and those are the essential parts of a psychological analysis that rests on experience.⁴

What better Baconian program for a Wundt to translate into an experimental one a century later?

Tetens continued to reflect carefully on his own experiences and gradually formulated his observations in the course of his successive essays. By the tenth essay he

arrived at the position—previously reached by Mendelssohn—that the fundamental faculties are understanding, feeling, and will. He arrived at this in part as a correction to the prevailing soul-theology, which continued to make the old distinction, in his words “like the Catechism,” between understanding and will, to the neglect of feelings and emotions. Max Dessoir believes that Tetens should be remembered not as a faculty psychologist, although he accepted the threefold classification, but as an analyst of mental life, because he went on to show that the three “faculties” were all an expression of an underlying “receptive spontaneity” of the mind.⁶ It may be noted that Tetens provides an early illustration of the many evidences that the threefold distinction was not confined to those who accepted faculty psychology, and, in fact, outlasted faculty psychology.

Immanuel Kant was not a psychologist in the same sense as Tetens. He recognized their differences by distinguishing between Tetens’s work as empirical and his as transcendental. At the same time, Kant was influenced by the trends in psychology, and his espousal of the tripartite division lent the support of the most influential philosopher of his day. The three aforementioned critiques for which Kant is best known follow the tripartite plan, without any intent on his part to work out a psychological as distinct from a transcendental analysis. Early in his career Kant had been much influenced by Wolff, and he knew well Wolff’s disciples. From them he took over the classificatory scheme. Pure reason corresponds to intellect or cognition, practical reason to will, action, or conation, and judgment to feeling pleasure or pain, hence affection. That these correspondences are not incidental is made abundantly clear in the *Critique of Judgment*:

There are three absolutely irreducible faculties of the mind, namely, knowledge, feeling, and desire. The laws which govern the theoretical knowledge of nature as a phenomenon, understanding supplies in its pure *a priori* conceptions. The laws to which desire must conform, are prescribed *a priori* by reason in the conception of freedom. Between knowledge and desire stands the feeling of pleasure or pain, just as judgment mediates between understanding and reason. We must, therefore, suppose that judgment has an *a priori* principle of its own, which is distinct from the principles of understanding and reason.⁶

Kant persevered in this position. His *Anthropology from a Pragmatical Point of View* (1798), written near the end of his life in his practical period, adopted the threefold scheme as the basis for the exposition. As Brett pointed out, he used these terms to denote the least possible number of classes to which the phenomena can be reduced. “If we speak of these as faculties, it is necessary to remember that they are such only as being unitary groups, not because each stands for a distinct agency.”⁷

We may well ask whether Kant was merely a product of his times in accepting the divisions of knowing, feeling, and willing from the then-popular psychology, or whether he accepted them on the basis of careful reflection. It seems fairer to him as a critical philosopher to entertain the interpretation that he viewed the division as in some sense a *discovery* about the nature of the human mind and its processes, rather than an arbitrary scheme of classification.

After Kant, arguments over the faculty psychology eventually led to its abandonment, but this did not necessarily mean the end of the trilogy. A single illustration, from the early nineteenth century, will suffice to show the transformation. Gottlob Ernst Schulze (1761-1833) attacked the faculty psychology in 1792; later, in his *Psychological Anthropology* (1816), he continued to object to the assumption of separate active forces. At the same time he accepted the old threefold division as valuable. He believed that every expression of mental life consists at once of knowing, feeling, and desire, of which

now one, now another predominates. With this background in Germany, we may turn to the developments elsewhere during the eighteenth century.⁸

THE SCOTTISH SCHOOL

The common sense psychology in eighteenth-century Scotland is associated with the names of Thomas Reid (1710-1796) and Dugald Stewart (1775-1828). Its influence spread into the nineteenth century through Sir William Hamilton (1788-1856) and Thomas Brown (1779-1820). In reaction to John Locke's *tabula rasa*, expressing his opposition to innate ideas, to George Berkeley's idealism, which made the external world seem insubstantial, and to David Hume's skepticism, the members of the Scottish School returned to a dualistic realism of mind aware of and reacting to an external world, and capable of reflecting upon itself. As they began examining mind they came upon its powers or faculties, and listed some thirty-seven powers and propensities. As a classificatory scheme this was harmless, but the exaggerations came when the phrenologist Franz Joseph Gall (1758-1828) took over the list from Reid and Stewart, and assigned each of the faculties a special area of the brain (actually, located by enlargements on the skull), in this manner substantiating their claim to separateness.

The development of faculty psychology is occasionally assigned exclusively to the Scottish School.⁹ To be sure, the Scots were reacting against Hume at the same time that the German Kant was, so that, in the development of ideas, it does not matter too much who first placed emphasis upon the tripartite classification. The very large number of faculties of Reid and Stewart were not originally ordered according to the tripartite scheme. The word *faculty* was out of the common language, so that what is of interest is the tripartite classification, not that the abilities or talents reflected were called faculties.¹⁰ The use of the term *faculty* in both Germany and Scotland may have been a coincidence. Soon, however, whether or not an importation from the Continent, the trilogy began to be used by the Scottish School. As is shown later, it was brought to America from Scotland as early as 1768.

The most scholarly of the Scottish group, Sir William Hamilton, another somewhat neglected figure in Boring's *History*, exercised his erudition in editing the works of his predecessors and in writing voluminous notes and appendages to them. We turn to him to discover the role of the tripartite division of the mind in the midst of the numerous powers and propensities. In his introduction to the second volume of the four-volume collected works of Dugald Stewart (1854), Hamilton explained:

If we take the Mental to the exclusion of material phenomena, that is, phenomena manifested through the medium of Self-Consciousness or Reflection, they naturally divide themselves into the three categories or primary genera;—the phenomena of *Knowledge* or *Cognition*,—the phenomena of *Feeling*, or of *Pleasure and Pain*,—and the phenomena of *Conation* or *Will and Desire*.¹¹

Here we have the trilogy again! Perhaps we might be tempted to dismiss Hamilton as the last of the faculty psychologists, but it would be a mistake to do so. He made excellent empirical observations, and William James cited him freely in his *Principles of Psychology*.¹² For example, Hamilton anticipated George Miller's magic number seven and the "chunking" of information: ¹³

If you throw a handful of marbles on the floor, you will find it difficult to view at once more than six, or seven at most, without confusion; but if you group them into twos or threes or fives, you can comprehend as many groups as you can units; because the mind considers these groups only as units—it views them as wholes, and throws their parts out of consideration.¹⁴

Hamilton also became part of the associationist tradition, the first to emphasize (and name) redintegration as central to all association.

The final member of the Scottish School was Thomas Brown, who became important to the future of associationism by advancing the concept of primary and secondary laws of association, or laws of suggestion as he called them. We leave this group, no longer faculty psychologists, but early associationists, with the trilogy of mind still in vogue.

Alexander Bain and Nineteenth-Century British Psychology

Associationism became established as the official British psychology, and we may turn to what happened to the tripartite mind as faculty psychology waned and association flourished. Alexander Bain (1818-1903) grew up in Aberdeen and taught for a time in Glasgow and eventually at the University of Aberdeen, but his intellectual ties were in London where he had befriended John Stuart Mill and moved for a time in his circle. Bain's two-volume *The Senses and the Intellect* (1855) and *The Emotions and the Will* (1859), in successive editions was the standard textbook in Britain throughout the nineteenth century. William James cites Bain on twenty-seven pages of his *Principles* and quotes Bain at length in support of his own position. Because of Bain's dominant position in British psychology, his classification of mental activities is of special interest. It is clear that he, too, was committed to the familiar trilogy. The phenomena of mind, he said, are usually comprehended under three heads:

- I. FEELING, which includes, but is not exhausted by, our pleasures and pains. Emotions, passion, affection, sentiment—are names of Feeling.
 - II. VOLITION, or the Will, embracing the whole of our activity, as directed by our feelings.
 - III. THOUGHT, intellect, or Cognition.
- Our SENSATIONS, as will be afterwards seen, come partly under Feeling and partly under Thought.¹⁶

In his preface, Bain makes it clear that he has abandoned faculties: "The exposition proceeds entirely on the Laws of Association." He believed that the sum of the different characteristics of his three classes of phenomena would provide a definition of mind "by a positive enumeration of its most comprehensive qualities."

Instead of beginning with thought or cognition, Bain gave primacy to feeling, with action, and then thought (including sensations), following. He was looking for the marks of mind to emerge from the phenomena that he would describe in detail and was convinced that the presence of feeling is the most unmistakable mark of mind. This follows not only because of its primacy in man but "the different orders of brute creation show symptoms of the same endowment. The vegetable and mineral worlds are devoid of it." Next, all beings recognized as possessing mind can act; hence the volitional or conative classification is on safe grounds. This leaves the rich area of thought, intelligence, and cognition, which includes such functions as memory, reason, judgment, and imagination. In the exercise of these functions he gave central importance to discrimination, comparison, and retentiveness. He returned to the conventional order when he wrote his two volumes, but he had made his position clear.

This is not the place to elaborate on Bain's psychology; the point is that he held to the tripartite classification while moving to a position transitional to the new experimental psychology which was just around the corner.

Scottish Psychology Comes to America

We owe a debt to J. W. Fay¹⁶ and A. A. Roback¹⁷ for reminding us that there was an American psychology before William James. For the purpose of examining the tripartite mind in America, the first important figure is John Witherspoon (1722-1794), who arrived from Scotland in 1768 and brought with him to the College of New Jersey (later Princeton University) the teachings of the Scottish School. In his lectures, published posthumously in 1800, the three "faculties" of understanding, will, and affection are described. They recurred, in one form or another, among other American writers so often that there is little point in calling the roll. However, at least one textbook writer raised his voice against an overemphasis on cognition, a century before cognitive psychology had its great resurgence. The following remarks are quoted from Joseph Haven (1816-1874), who taught at Amherst and later at the Chicago Theological Seminary:

The works on mental science, which have recently appeared in this country, while they are certainly a valuable contribution to the department of philosophy, seem to meet this deficiency in part but *only* in part. They traverse usually but a portion of the ground which psychology legitimately occupies, confining their attention, for the most part, to the *intellectual* faculties, to the exclusion of the *sensibilities* and the *will*.¹⁸

Mark Hopkins, the distinguished educator who served as president of Williams College, wrote *An Outline Study of Man* (1878), in which he voiced the same fear as that noted by Haven, but now as it affected educational practices:

Until the intellect is placed by the community where it belongs, and made subordinate to the sensibility and the will, we shall find that mere sharpness, shrewdness, intellectual power, and success through these, will be placed above those higher qualities in which *character* consists, and success through them.¹⁹

The word sensibility in the foregoing quotations has a strangely old-fashioned sound, in its reference to feeling and affection. Sensibility, while not to be confused with sensitivity, is to be understood as having a sensory component, as in sensibility to pleasure or pain, or sensibility to esthetic quality. It may be recalled that Bain believed sensation to be partly feeling and partly thought. The issue of how to relate esthetics to perception is present in contemporary psychology, and indeed a recent chapter by Marcus Hester shows that Haven's and Hopkins's "sensibility" is still in use.²⁰ Hester's chapter is entitled "Visual Attention and Sensibility." Sensibility is there considered to be an acquired perceptual refinement of habits of seeing and sensing, related to but distinguishable from appreciation.

To bring the tripartite division of mind in America closer to the time of James, there was James McCosh (1811-1894), who like John Witherspoon also arrived from Scotland to take over at Princeton, but in 1868—exactly a hundred years later. That McCosh was still dedicated to the tripartite classification is evident from the titles of his three volumes on psychology: *Emotions* (1880), *The Cognitive Powers* (1886), and *Motive Powers* (1887).

Those who turned to the new psychology in the late nineteenth century—whether the psychology attributed to Wundt, or Brentano, or James—all discredited the faculty psychology. However, even among those who were part of the new psychology there was evidence that the tripartite terms were occasionally in use in America, as well as in England. For example, a popular book by E. W. Scripture (1897) was entitled *Thinking, Feeling, and Doing*.²¹ Actually, there is very little in the book reflecting that classification, for it is a detailed presentation of experimental psychology with a diatribe against

armchair psychology. In his final chapter on the "new psychology," he says, "As long as psychology was an armchair science, anybody could teach it; today no one but a carefully trained man can do so."²²

The Early Twentieth Century

Somewhat transitional between the old and the new (because he had not been involved in experiments), G. F. Stout (1869-1944) wrote his *Manual of Psychology* (1899), which in its several editions replaced Bain's book as the most influential textbook in England. Stout adopted the tripartite classification made familiar by his contemporaries. That was before William McDougall (1871-1944) came along, a man influenced by James as well as by Stout, one who had done experiments and was prepared to represent psychology in a global manner in England and later in America. He migrated to Harvard University in 1920, and ended his career at Duke University, where he taught from 1927 to 1938.

Those in America who were proposing a new experimental or laboratory psychology rejected faculty psychology and along with it the classification of mental activity into three categories. That is not to say that the early founders of modern psychology were unaware of the importance of cognition, affection, and conation, expressed in their own terms. The revisionist history tells us, for example, that Wundt was misinterpreted by Titchener, and that our picture of Wundt as an elementaristic, sensationist psychologist is faulty.²³ He was a voluntarist, interested in attention and apperception, and gave a great deal of thought to feeling and emotion. He is left out of the present discussion only because it is dealing with a special classification of mental functions in a manner that apparently did not interest him.

Despite the lack of emphasis among the founding fathers of American psychology—including James—the trilogy of mind was still familiar in the vocabulary of psychology, although usually stated in such a way as to disavow faculty psychology, perhaps through fear of guilt by association. For example, when Howard Warren theorized about the functions of consciousness he found it necessary to criticize the distinctiveness of the three functions by assigning to each some physiological reason for their earlier separation.

The distinguishing mark of cognition is its presentative nature; and for the most part the senses which offer this characteristic are the external ones. The distinction between cognitive, affective, and conative consciousness can be said, then, to correspond in a general way to the difference between the external, systemic, and kinesthetic senses; the first give experiences of the outer world; the second keep us in touch with the state of our own organism; the third supply experiences of the motor life and thus form the basis of voluntary activity.²⁴

Warren went on to say that the three classes do not result from the separate operations of three distinct mental functions because the aspects of consciousness that they stand for are all represented as sensations. For him, consciousness remained essentially cognitive, despite his recognition of the familiar tripartite classification.

At about the same time, James Angell, in his presidential address before the American Psychological Association in 1906, was kinder to the place of cognition, affection, and conation.

What are cognition, feeling and will but three basically distinct modes of mental action? To be sure this classification has often carried with it the assertion, or at least the implication, that these fundamental attributes of mental life were based upon the presence in the mind of corresponding and distinct mental elements. . . . The im-

pressive consideration is that the notion of definite and distinct forms of mental action is clearly in evidence and even the much-abused faculty psychology is on this point perfectly sane and lucid.²⁶

In his *Social Psychology* (1908), McDougall announced and developed the instinct psychology with which he remained identified even though, in later life, he gave in to the anti-instinct attitudes in America and described the motivating forces as "propensities."²⁶ That McDougall was influenced by the familiar tripartite classification of mental functions was clear in his discussion of instincts:

... the most purely instinctive action is the outcome of a distinctly mental process. . . . and one which, like every other mental process, has, and can only be fully described in terms of, the three aspects of all mental process—the cognitive, affective, and the conative aspects; that is to say, every instance of instinctive behavior involves a knowing of something or object, a feeling in regard to it, and a striving towards or away from that object.²⁷

He assumed that his reader was familiar with the classification of cognitive, affective, and conative, as common-sensical and noncontroversial. Much later, in his *Outline of Psychology* (1923), he finds all this "generally admitted." The following quotation is not limited to instinctive activity:

We often speak of an intellectual or cognitive activity; or of an act of willing or of resolving, choosing, striving, purposing; or again of a state of feeling. But it is generally admitted that all mental activity has these three aspects, cognitive, conative, and affective; and when we apply one of these three adjectives to any phase of mental process, we mean merely that the aspect named is the most prominent of the three at that moment. Each cycle of activity has this triple aspect; though each tends to pass through these phases in which cognition, conation, and affection are in turn most prominent; as when the naturalist, catching sight of a specimen, recognizes it, captures it, and gloats over its capture.²⁸

For the present purposes I shall not comment on the further development of the tripartite scheme within McDougall's book, except to mention that he tries to deal with the problem of the usual order in which each of the three aspects appears, and, when the cycle of activity is over, which aspect is most likely to endure.

With McDougall the history of the trilogy of mind appears to have ended, nearly two centuries after it began in Germany and Scotland. In part, the fading of such a "generally accepted" view may have coincided with the decline of what Gordon Allport called the synoptic theories; there was no longer a felt need for such a comprehensive classification of mental processes.²⁹

ARE THERE LESSONS FOR CONTEMPORARY PSYCHOLOGY?

The question may well be raised whether this recital of the history of the trilogy of mind, a classification popular for at least two centuries, is of value today. The question calls attention to a problem with which historians have long struggled, and of which this is a specialized instance. That problem is, in general, whether there are any significant "lessons" or "generalizations" that history teaches, or whether history is merely an effort to become as accurate and understanding as possible in the interpretation of past events in their context. To historians as well as to psychologists this is the familiar problem of the idiographic versus the nomothetic. Even among those who take the position that history is not properly studied for its relevance to the present, it is frequently implied that knowledge of history is important to the decision maker, as the cliché goes,

to avoid repeating the mistakes of the past. Paradoxically, according to this view, there are no "lessons" of history, but it is possible to "profit" from reading history.

Those who take the alternative position that generalizations from history are useful in the present are warned about the dangers inherent in presentism ("present"-ism). The chief danger is to attempt to reinterpret the past as though earlier thinkers faced the same problems we face today. Hence the historian modernizes the obsolete vocabularies of past thinkers, shows that they anticipated what we are doing today, and proposes that if we know how problems were resolved in the past, we can plan actions today more effectively. Herbert Butterfield, for example, calls this "whigism," and warns against those who corrupt history by trying to make more of it than is proper.³⁰

For example, it is somewhat tempting to relate earlier tripartite classifications or theories to the discussed trilogy. Thinking in threes is an old practice—the Greek virtues of goodness, beauty, and truth; the Christian trinity; the three-panelled tryptych. I once called attention to the similarity between Freud's id, ego, and superego and the body, mind, and spirit of the early Hebraic-Christian tradition.³¹ With a little strain one could assign cognition to mind, affection to body, and conation to spirit. That would, however, be to fall into the trap of finding antecedents where they do not really exist.

A distinction can be made, however, between *distorting* past history by reading the present into it, and trying to understand past history in its own context while seeking any light that such history throws on the present. This is the view that has been espoused, for example, by Mary Henle.³² She notes that as we become absorbed in our own specialties we often become cryptosystematists, that is, our beliefs are imbedded in larger systems of thought that are not explicit but may serve to perpetuate errors. Because it is so difficult to see our own errors she believes that we need the distance that history gives if we are to solve our own problems.

When we look at contemporary psychology from the perspective of cognition, affection, and conation, it is obvious immediately that cognitive psychology is ascendant at present, with a concurrent decline of emphasis upon the affective-conative dimensions.³³

Behaviorism reached the apex of its influence by the 1950s, to be replaced gradually by information-processing cognitive psychology. Piaget replaced Freud in developmental psychology, and information-processing psychology reduced the prominence of Pavlov, Watson, and Skinner. The rise of cognitive psychology has been treated elsewhere, and the details need not be repeated here.³⁴ Cognitive psychology came like a breath of fresh air, releasing psychological thinking in America from the restraints of behaviorism.³⁵ At the same time, some price has been paid for it. Information processing and the computer model have replaced stimulus-response psychology with an input-output psychology, with due attention to transformations taking place between input and output, including control processes often captured through introspection, such as deliberate rehearsal and the use of images and mnemonic devices. In the process, some dynamic features such as drives, incentive motivation, and curiosity have been more or less forgotten. Cognitive processes presented in computer terms or probabilistic mathematics have been described by Robert Abelson as commonly representing "cold" cognition, while ignoring "hot" cognition.³⁶ Hot cognition refers to thoughts and decisions that have high affective or conative importance to the person. In hot cognition, the wish is still father to the thought, as it was in Shakespeare's day. When Piaget replaces Freud we are apt to forget that children's lives are affected by sibling rivalries as well as by stages in cognitive growth.

The persistence with which cognition, affection, and conation were recognized as major classifications of mental events suggests that there may be a natural utility to the

classificatory scheme. There is always a division of labor, so that someone describing psychological reality is under no obligation to represent at once all of psychology. At the same time, if psychology's major emphasis lies for a time primarily within understanding, or feeling, or the control of action, some components of the total experience are being subordinated, and the account of psychological reality is incomplete. Because the old trilogy helps to call attention to aspects that are neglected it remains useful after all these years.

NOTES

1. George S. Brett, *A History of Psychology, Medieval and Early Modern Period*, 3 vols. (London: George Allen and Unwin, 1921), 2: 139.
2. *Ibid.*, p. 20.
3. E. G. Boring, *History of Experimental Psychology*, 2d ed. (New York: Appleton-Century-Crofts, 1950).
4. Brett, *History*, p. 328.
5. Max Dessoir, *Outlines of the History of Psychology* (New York: Macmillan, 1912).
6. Immanuel Kant, *The Philosophy of Kant, as Contained in Extracts from His Own Writings. Selected and Translated by J. Watson* (Glasgow: Maclehose, Jackson, New Edition, 1888), p. 311.
7. Brett, *History*, p. 341.
8. Much of the information on the German writers of the eighteenth and early nineteenth centuries is based on accounts in J. E. Erdmann, *A History of Philosophy, Vol. 2* (London: Swan Sonnenschein, 1892).
9. Robinson, for example, discusses faculty psychology solely in terms of the Scottish School. See Daniel R. Robinson, *An Intellectual History of Psychology* (New York: Macmillan, 1976).
10. Faculty as a word to refer to ability in the sense of special skill is traced in the Oxford English Dictionary to Chaucer in 1386, and in the sense of ability or aptitude, whether natural or acquired, to William Caxton in 1490. It may have become a more technical term after Locke used it in 1695.
11. Sir William Hamilton's prefatory notice to vol. 2 of *The Collected Works of Dugald Stewart*, 4 vols. (Edinburgh: Thomas Constable, 1854), p. vii.
12. William James, *Principles of Psychology*, 2 vols. (New York: Holt, 1890).
13. George A. Miller, "The Magical Number Seven Plus or Minus Two: Some Limits on Our Capacity for Processing Information," *Psychological Review* 63 (1956): 81-97.
14. Sir William Hamilton, *Lectures on Metaphysics* (Boston: Gould and Lincoln, 1859), p. 177.
15. Alexander Bain, *The Senses and the Intellect*, 3rd ed. (New York: D. Appleton, 1868), p. 2.
16. J. W. Fay, *American Psychology Before William James* (New Brunswick, N. J.: Rutgers University Press, 1939).
17. A. A. Roback, *A History of American Psychology*, rev. ed. (New York: Collier, 1964).
18. Joseph Haven, *Mental Philosophy: Including the Intellect, Sensibilities, and Will* (Boston: Gould and Lincoln, 1858), p. IV.
19. Mark Hopkins, *An Outline Study of Man* (1878), as quoted by Roback, *History*, p. 102.
20. Marcus Hester, "Visual Attention and Sensibility," in *Perceiving, Acting, and Knowing*, ed. Robert Shaw and John Bransford (Hillsdale, N. J.: Lawrence Erlbaum, 1977), pp. 135-169.
21. E. W. Scripture, *Thinking, Feeling, Doing* (Meadville, Pa.: The Chautauqua-Century Press, 1897).
22. *Ibid.*, p. 295.
23. The misrepresentation of Wundt by Titchener is discussed by Arthur L. Blumenthal, "A Reappraisal of Wilhelm Wundt," *American Psychologist* 30 (1975): 1081-1088; idem, "Wundt—Revisions and Reappraisals," *Annals of the New York Academy of Sciences* 270 (1976): 21-29, with appropriate citations of the contributions of others to this revision of accepted history.
24. Howard C. Warren, "The Fundamental Functions of Consciousness," *Psychological Bulletin* 3 (1906): 220.
25. James R. Angell, "The Province of Functional Psychology," *Psychological Review* 14 (1907): 83.
26. William McDougall, *Energies of Men* (New York: Scribners, 1933). The word "propensities" had been used earlier by the Scottish philosophers.
27. William McDougall, *An Introduction to Social Psychology*, 14th ed. (Boston: J. W. Luce, 1921), p. 27.

28. William McDougall, *Outline of Psychology* (New York: Scribner, 1923), p. 266.
29. Gordon W. Allport, "The Psychologist's Frame of Reference," *Psychological Bulletin* 37 (1940): 1-28.
30. Herbert Butterfield, *The Whig Interpretation of History* (London: G. Bell and Sons, 1931). See also Allan R. Buss, "In Defense of a Critical-Presentist Historiography: The Fact-Theory Relationship and Marx's Epistemology," *Journal of the History of the Behavioral Sciences* 13 (1977): 252-260, and references cited there. Twenty years later, in recounting the history of science, Butterfield indulged in a bit of whigism himself, showing how the scientific revolution depended upon the gradual development of the idea of progress resulting eventually in the ideas of evolution—useful generalizations indeed. Herbert Butterfield, *The Origins of Modern Science 1300-1800* (New York: Macmillan, 1951).
31. Ernest R. Hilgard, "Christianity and Contemporary Psychology," in *The Vitality of the Christian Tradition*, ed. George F. Thomas (New York: Harper, 1944), p. 295.
32. Mary Henle, "Why Study the History of Psychology?" *Annals of the New York Academy of Sciences* 270 (1976): 14-20.
33. It must not be implied that contemporary psychology is monolithic. The prevalence of the word *cognitive* in many book and journal titles (and in the titles of new journals themselves) is a matter of emphasis. Within cognitive psychology there are occasional voices calling for attention to other aspects, such as the significance of emotion in relation to cognition, for example Arthur L. Blumenthal, *The Process of Cognition* (Englewood Cliffs, N. J.: Prentice-Hall, 1977), pp. 101-124.
34. W. J. Dowling and Kelyn Roberts, "The Historical and Philosophical Background of Cognitive Approaches to Psychology," in *Handbook of Perception*, vol. 1, ed. Edward C. Carterette and Morton P. Friedman (New York: Academic Press, 1974), pp. 244-254; Ernest R. Hilgard, "Controversies Over Consciousness and the Rise of Cognitive Psychology," *Australian Psychologist* 12 (1977): 7-26; idem, "Consciousness in Contemporary Psychology," *Annual Review of Psychology* 31 (1980): 1-26. The acceptance of cognitive psychology does not automatically lead to a consciousness psychology, but the door is opened through the reintroduction of introspection.
35. Estes notes: "... conceptions of learning and cognition couched in terms of mental processes did not begin to grow to the stature of formal theories until the recent relaxation of the hold of behavioristic thinking." William K. Estes, "The State of the Field: General Problems of Theory and Metatheory," in *Handbook of Learning and Cognitive Processes*, vol. 1, ed. William K. Estes (Hillsdale, N. J.: Lawrence Erlbaum, 1975), p. 5.
36. Robert P. Abelson, "Computer Simulation of 'Hot' Cognition," in *Computer Simulation of Personality*, ed. S. S. Tomkins and S. Messick (New York: Wiley, 1963), pp. 277-298; see also Irving L. Janis and Leon Mann, *Decision Making: A Psychological Analysis of Conflict, Choice, and Commitment* (New York: Free Press, 1977).