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Immanuel Kant and the Development of Modern Psychology

David E. Leary

Few thinkers in the history of Western civilization have had as broad and lasting an impact as Immanuel Kant (1724–1804). This "Sage of Königsberg" spent his entire life within the confines of East Prussia, but his thoughts traveled freely across Europe and, in time, to America, where their effects are still apparent. An untold number of analyses and commentaries have established Kant as a preeminent epistemologist, philosopher of science, moral philosopher, aesthetician, and metaphysician. He is even recognized as a natural historian and cosmologist: the author of the so-called Kant–Laplace hypothesis regarding the origin of the universe. He is less often credited as a "psychologist," "anthropologist," or "philosopher of mind," to

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use terms whose currency postdated his time.[1] Nonetheless, the thesis of this essay is that Immanuel Kant laid the foundation for later developments in the broad field of inquiry that had already been labeled "psychology."

KANT'S BACKGROUND

The details of Kant's life are not important for the story we have to tell. To be sure, the social historical context of his life is not without relevance: not even Immanuel Kant could, or would have wanted to, escape the formative and directive influence of his time. The general social, political, and economic features of the late Enlightenment period, culminating in the French Revolution and its aftermath, provided a necessary backdrop against which Kant developed his philosophical, and indeed his psychological, point of view. At the same time, Kant's personal relationship to the tradition of religious Pietism was a significant factor in his willingness to consider the less-than-rational aspects of human functioning. Still, everything considered, by far the most relevant context for understanding his work is provided by the intellectual culture to which he belonged. For our present purposes, a brief discussion of the work of four representatives of this culture—Gottfried Wilhelm Leibniz (1646-1716), Christian Wolff (1679-1754), Johann Nicolas Tetens (1736/38-1807), and Alexander Gottlieb Baumgarten (1714-1762)—will reasonably portray the background of Kant's psychological deliberations.

Gottfried Wilhelm Leibniz, one of the other intellectual giants in Western history, set the scene for the development of a distinctive German tradition of thought. Although it was left for Wolff and others to establish fully the period of German Enlightenment, it was Leibniz who bequeathed many of its philosophical principles and posited a number of the doctrines that retained vitality throughout this period. Furthermore, the posthumous publication of Leibniz's works served to keep his thought alive and influential long after his death. Indeed, one such posthumous publication, Leibniz's *Nouveau Essais sur l'entendement humain* (New Essays Concerning Human Understanding) (1975), had a tangible impact on German thought and in particular on Kant. Originally written in response to John Locke's *Essay Concerning Human Understanding* (1690), and withheld from publication when Locke died in 1704, this treatise stimulated Kant's thinking by its postulation of a crucial distinction between sensibility

and understanding, that is, between the "material" sensations received from the world and the "formal" classification of these sensations by the mind. The influence of this distinction was clearly evident in Kant's *De Mundi Sensibilis atque Intelligibilis Forma et Principiis* (Concerning the Form and Principles of the Sensible and Intelligible World) (1779), which was the dissertation Kant delivered upon his inauguration to the chair of philosophy at Königsberg. This work was not only the symbolic starting point of Kant's so-called "critical period," it was also an important manifestation of Kant's acceptance of the "Leibnizian" principle of the formative activity of the mind (as opposed to the much more passive empiricist-oriented model of the mind that Kant had been considering not long before).[2] From this time forward, Kant developed his own philosophy and psychology, going beyond the bounds proposed even by Leibniz.

As Kant went beyond the thought of Leibniz, he also went beyond that of Christian Wolff, whom Kant considered the intellectual "preceptor of Germany." Wolff made his historical mark by synthesizing many of Leibniz's ideas within a grand system that also included elements from other sources as well as his own original insights and doctrines. Although his system was important for many reasons, the portion of it dedicated to psychology is of primary interest to us. The major significance of this portion is its dualistic nature: Wolff divided his psychology into two parts. On the basis of this division, made in the early 1730s, two relatively separable traditions of psychology began to develop in Germany—the tradition of rational psychology and the tradition of empirical psychology. Although twentieth-century historians of psychology invariably trace these two traditions to the works of René Descartes and John Locke respectively, in point of fact it was Christian Wolff who first clearly distinguished, defined, and established rational and empirical psychology as separate fields of intellectual inquiry.

In his *Psychologia Empirica* (Empirical Psychology) (1732) Wolff defined empirical psychology as the science of what experience teaches us about the soul. In other words, he said, it is an inductive science that leads to empirical generalizations about the soul and its activities. In contrast, he argued in his *Psychologia Rationalis* (Rational Psychology) (1734), rational psychology is the science of all that is possible to the human soul (as opposed to all that has actually happened to it). It is a branch of metaphysics, a demonstrative science that provides necessarily true statements regarding the nature and essence of the soul. In short, it gives rational explanations for the facts accumulated in empirical psychology. Thus rational psychology completes empirical psychology; and conversely,

empirical psychology (along with metaphysics and cosmology) is one of the foundations of rational psychology.[3]

The notable point here is that Wolff clearly distinguished two different kinds of psychology, one of them independent from philosophy and the other a branch of philosophy. Although Wolff's empirical and rational psychologies overlapped in practice far more than his theoretical definitions implied, Wolff did, in fact, stimulate the development of two traditions that became increasingly separable over time; as a consequence, when Immanuel Kant surveyed psychology a half century later, his critical assessment and reformulation of psychology took place within the context of this dualistic vision of psychology bequeathed to him by Christian Wolff.

Of course, by Kant's time, other authors had replaced Wolff as the authorities on empirical and rational psychology.[4] In the realm of empirical psychology (or *Erfabrungsseelenlehre*, as it came to be designated in Germany), the most important authority was Johann Nicolas Tetens. Among his major contributions, Tetens' espousal of a tripartite faculty psychology (or *Vermögenpsychologie*) was particularly relevant to Kant's psychological thinking. Although there were additional reasons for Kant's conversion to a three-faculty psychology, Tetens' empirical psychology was at least strongly corroborative, as reflected in the fact that his *Philosophische Versuche über menschliche Natur und ihre Entwicklung* (Philosophical Essays on Human Nature and Its Development) (1777) lay open before Kant as he was working out the fundamental concepts of his critical philosophy. The philosophical significance of this tripartite division of psychological faculties is most clearly evident in the similarly trifurcated presentation of Kant's thought in his three major works—the *Kritik der reinen Vernunft* (Critique of Pure Reason) (1781), *Kritik der praktischen Vernunft* (Critique of Practical Reason) (1788), and *Kritik der Urtheilskraft* (Critique of Judgment) (1790). As Kant himself tells us, the tripartite division of these works reflects the psychological division between knowing, willing, and feeling. Similarly, Kant relied on this threefold division throughout his own psychological work, as for instance in his *Anthropologie in pragmatischer Hinsicht* (Anthropology from a Pragmatic Point of View) (1798).[5] Nonetheless, despite this and other involvements with the doctrines of empirical psychology, Kant was keenly aware, as we shall see, of the limitations of this field of inquiry.

In the realm of rational psychology, perhaps the most important test for Kant—and for his subsequent critique of psychology—was found in Alexander Gottlieb Baumgarten's treatise on *Metaphysica* (Metaphysics) (1739). This very popular work which went through

numerous editions, was used by Kant throughout his teaching career. Although the works of other authors offered additional materials, Baumgarten's text provided Kant with some of his best examples of the major lines of argument of late eighteenth-century rational psychologists. As was typical, these rational arguments led to confident assertions on the soul's ontological substantiality, simplicity, identity, and relation to the physical world, especially the body.[6] As we shall see, Kant, came to the conclusion that all these assertions, as well as any other assertions that might be made about the essential nature of the soul, were logically fallacious and inevitably groundless. As a consequence, he began the formal, published presentation of his views on psychology with a resounding denial of the validity of rational psychology. Soon after, he extended his critique to the problematic character of empirical psychology.

KANT'S CRITIQUE OF PSYCHOLOGY

The first installment of Kant's critique of psychology appeared in his famous *Kritik der reinen Vernunft* (1781). Among the many things that Kant attempted to accomplish in this work was a systematic critique of rational psychology, and not only that of Baumgarten: according to Kant, no attempt to ascertain the nature of the soul—or thinking subject—by means of rational analysis can possibly withstand criticism.[7]

Although Kant's specific arguments against the validity of rational psychology varied from the first to the second (1787) edition of *Kritik der reinen Vernunft*, his general argument remained the same and was quite simple. To know the nature of the soul, or the "I," he argued, is beyond the power of human reason. There can be no purely rational knowledge of the soul. All arguments about the soul's substantiality, simplicity, identity, and relation to the physical world ultimately begin with "the single proposition 'I think'."[8] And this proposition is empirical, not rational. It is based upon a posteriori experience rather than a priori reason, and experience can never provide a basis for a purely rational and certain proof of the nature of the soul. Just because there is an empirical "I" in every act of thought, for instance, does not prove that this "I" is substantial, or that it is identical from one thought to another, or that it is simple. Nothing about the essence of the "I" follows necessarily from its existence. And even granting, as Kant did, that there must be a noumenal "I" to account for the a priori possibility

of knowledge, no attribute other than existence can validly be predicated of this "I." Any other attribute, such as substantiality, would be drawn invalidly from the realm of experience. Therefore, Kant concluded, since rational psychology is "a science surpassing all powers of human reason," there is nothing left for us "but to study our soul under the guidance of experience, and to confine ourselves to those questions which do not go beyond the limits within which a content can be provided for them by possible inner experience."[9] In other words, Kant concluded that psychology can only be an empirical science.

With this conclusion Kant was ready to enter the second phase of his critique of psychology, the phase in which he analyzed the scientific status of empirical psychology. He published the results of this critical analysis in the preface of his *Metaphysische Anfangsgründe der Naturwissenschaft* (Metaphysical Foundations of Natural Science) (1786), a work in which he elaborated his own "Newtonian" conception of natural science. It was against this same conception that Kant measured the possibility of a scientific psychology. Again his conclusion was negative: psychology—or "the empirical doctrine of the soul"—can never become "a natural science proper"; it can "never become anything more than a historical . . . natural doctrine of the internal sense." As a consequence, it can only provide "a natural description of the [phenomena of the] soul, but not a science [i.e., demonstrative knowledge] of the soul."[10]

The reason psychology could never become a "natural science proper" according to Kant was that it could not be based upon a priori principles and thus could not yield apodictic, or certain, knowledge. More specifically, psychology could not utilize mathematics, which provides the necessary means for the a priori construction of concepts in science. According to Kant, "in every special doctrine of nature only so much science proper can be found as there is mathematics in it." Mathematics is the "pure [a priori] part [of science], which lies at the foundation of the empirical part [of science]." In other words, all true science must have a rational as well as an empirical part. Experience provides the empirical data; mathematics provides the inherently rational relationships between these data. But psychology could never utilize mathematics, according to Kant, because its empirical data do not have spatial dimensions and therefore exist only in the single dimension of time. Therefore, "unless one might want to take into consideration merely the law of continuity in the flow of . . . internal changes," mathematics could not be applied to purely mental phenomena. As a result, psychology could "become nothing more than a systematic art . . .

never a science proper; for . . . [it is] merely empirical." By "merely empirical" Kant meant that psychology had to depend entirely upon an inductive, or a posteriori, collection of data. Such a procedure can never yield apodictic knowledge because it contains no a priori, necessary elements. Instead it can lead only to tentative "laws of experience."[11]

The designation of psychology as "merely empirical" did not mark the end to Kant's critique. In the same preface to the same work he said that not only is psychology "merely empirical," it is not even a good empirical discipline. Psychology suffers, Kant pointed out, "because in it the manifold of internal observation is separated only by mere thought, but cannot be kept separate and be connected again at will." In brief, psychology cannot control its phenomena; it cannot be "experimental." Furthermore, psychology suffers from the poor quality and restricted range of the observations that are available to psychologists. On the one hand, "the [act of] observation itself alters and distorts the state of the object [i.e., the mental phenomenon] observed"; on the other, "still less does another thinking subject submit to our investigations in such a way as to be conformable to our purposes." Thus, psychologists can only report on their own mental phenomena, and even then they cannot be completely accurate in their reports.[12]

Such was the negative part of Kant's critique of "merely empirical" psychology. Psychology, in short, could never become a truly rational science, based upon mathematics and yielding necessary truths, nor could it become an experimental science. Kant could see no way to change this verdict, but he did see a way in which psychology could at least become a better empirical science. Therefore, in the third and final stage of his critique of psychology, Kant advocated the reformation of empirical psychology. Psychology should, he said, make use of a different methodology, a so-called "anthropological" methodology based upon observations of the external rather than internal sense. He set forth this thesis in his *Anthropologie in pragmatischer Hinsicht* (1798), claiming that psychology, although remaining "merely empirical," could become more useful to humanity if it would forsake its traditional introspective method and begin to make systematic observations of men and women "in the world" as they behave and interrelate with their fellow citizens. Such knowledge of "human nature" as can be gathered in this manner, and supplemented by "travelling, or at least reading travelogues" (as Kant avidly did), and by such "auxiliary means" as the study of "world history, biography, and even plays and novels," could be distilled, Kant said, into "laws of experience" that would

assist men and women in the course of their lives. Knowing better how humans tend to behave and how they tend to react to certain behaviors, individuals could make better choices about their own best course of action. This was a sufficient justification, in Kant's opinion, for developing an empirical psychology based upon external rather than internal observations.[13] On this positive and prophetic note, Kant's critique of psychology came to an end.

KANT'S PSYCHOLOGICAL DOCTRINES

In view of Kant's recommendation of external observations in psychology, it is ironical that his own psychology, as presented in the *Anthropologie* as well as in other works, relied so heavily on traditional introspectionist data. In fact, the entire first part of the *Anthropologie* (by far the larger of its two parts) was concerned with the classification and discussion of mental phenomena. Furthermore, the positive psychological doctrines that resulted from Kant's analyses of mental life had as great an impact on subsequent psychological thought as did the essentially negative conclusions of his critique of psychology. The nature of these positive psychological doctrines can be discussed in relation to three issues: the sources of knowledge, the nature of the mind (or ego), and the nature and functions of the psychological faculties.

In reviewing the background to Kant's thought, we noted that Kant was stimulated at a crucial point in his intellectual development by Gottfried Wilhelm Leibniz's distinction between sensibility and understanding. Though true, this does not mean that Kant accepted the orthodox, Leibnizian interpretation of this distinction. To Leibniz, as to Christian Wolff, sensations—including what we call perceptions—are merely confused, indistinct thoughts; and, conversely, thoughts are merely sensory representations that have been clarified by rational analysis. Kant rejected this blurring of the distinction between sensibility and understanding and established a radical separation that proved to be both stimulating and problematic for later philosophers and psychologists: for Kant, sensations and thoughts were two distinctly different kinds of things.[14]

Kant was also influenced by the Leibnizian doctrine that the forms of knowledge are innate, whereas the content of knowledge must be acquired through experience. Kant's acceptance of this doctrine reflected his agreement with Leibniz's contention that ɔme sort of synthesis of rationalism and empiricism was necessary.

In applying Leibniz's distinction between form and content to his own radical distinction between sensibility and understanding, however, Kant once again went beyond the Leibnizian-Wolffian view of cognition. According to Kant, both sensibility and understanding, since they represent separate mental functions, must have their own formal—as well as contentual—characteristics. The senses, he concluded in his inaugural dissertation (1770), apprehend individual, concrete things, whereas the understanding takes these individual apprehensions and represents them in terms of abstract concepts. Although the specific content of sensation comes from the outer world through the senses, our sensibility is such that we grasp this content, always and automatically, according to the formal characteristics of time and space. These characteristics, Kant contended, are supplied by the mind; they are in no way a part of the sensory content of our knowledge. Kant referred to the products of sensibility as "intuitions." Intuitions, by their nature, are always sensible. Concepts, on the other hand, are intelligible and are the product, not of intuition, but of thought, or understanding. Thought transforms intuitions by the spontaneous and instantaneous application of such purely intellectual categories as possibility, existence, necessity, substance, and cause. The result is the generation of knowledge, properly so called.[15]

This brief review of Kant's doctrine of the dual sources of knowledge leads us very naturally into a discussion of his doctrine about the nature of the mind, or ego. It should be apparent by now that for Kant the mind is fundamentally and irrevocably active. It participates in the production of action. As we have seen in the previous section of this essay, Kant did not believe that it is possible definitively to describe the transcendental, or ultimate, nature of the mind, but he did contend that the existence of the "I" (or ego) is guaranteed, since it is the necessary "formal condition" that makes possible "the logical unity of every thought."[16] Whereas the ego in and of itself cannot be an object of thought, some of its attributes can be known, Kant said, insofar as the ego is "the vehicle of all concepts."[17] Indeed, the very existence of our concepts presupposes the activity of the mind, and in particular the mind's capacity of instantaneous apperception. For Kant, apperception referred to the special type of synthesis that is brought about by the faculty of thought, or understanding. As we have seen, Kant did not agree with the empiricists who felt that higher mental phenomena, such as concepts, are merely the final products of a random and essentially passive process of association of sensations. He could not conceive how disparate sensations could, by chance, come to adhere in a

unified, structured manner. Instead, he viewed concepts as the basic, original "givens" of consciousness. Their existence, he said, rather than the existence of unorganized and thus meaningless sensations, is primary. We are first aware of unified states of mind; we secondarily analyze these states of mind into their elements. We never know these elements except as abstractions from our concepts. This was the reasoning behind Kant's doctrine of the primary "unity of consciousness."[18]

If his analysis of the nature of "pure reason," or knowledge, convinced Kant that the ego is both active and unitive, his analyses of both "practical reason" and "judgment" served to corroborate this emphasis many times over. As is commonly recognized, Kant's consideration of the application of reason in the realm of daily affairs was the culmination of his thought, and his discussion of the purposive character of "judgmental" thought and action put the finishing touches on the architectonic structure of his system of thought. The human person in action, freely making decisions and choosing his or her behavior, is the ultimate image of the human being that Kant wished to propose and defend. We shall return to this topic when we discuss Kant's doctrine of the will, a doctrine that profoundly influenced the subsequent development of German philosophy and psychology and had a definite impact on philosophers and psychologists in other countries.

The final aspect of Kant's psychological thought that we shall review concerns his doctrine of the mental faculties. This doctrine is intertwined with the topics we have already considered, namely, Kant's theory of the sources of knowledge and his view of the nature of the mind. It is also intertwined with the legacy of pre-Kantian empirical psychology, as we have seen in our discussion of the background to Kant's thought. Despite this connection with previous psychological doctrines, however, we should not underestimate the extent of Kant's originality. Although Johann Nicolas Tetens and several others had already laid the foundation for a thoroughgoing tripartite analysis of mental activity, they had not distinguished the faculties of knowing, willing, and feeling quite so clearly and definitively as Kant was about to do. Nor had they given a clear rationale for the relationship between these various faculties. As a result, it was Kant, not they, who must be given credit for firmly establishing the tradition of tripartite functional analysis, a tradition that was to have a fundamental influence on later philosophical and psychological thought.[19]

On the level of philosophical analysis, Kant distinguished three cognitive faculties—understanding, reasoning, and judgment. He

discussed each of these faculties in turn in his three major works, namely, in *Kritik der reinen Vernunft* (1781), *Kritik der praktischen Vernunft* (1788), and *Kritik der Urtheilskraft* (1790), respectively. Implicit within these works, and explicit in his lectures on psychology and in his *Anthropologie in pragmatischer Hinsicht* (1798), were the three psychological faculties of cognition, desire, and feeling. Although he maintained a strict logical distinction between the philosophical and psychological levels of analysis, Kant himself indicated the consonance between his philosophical and psychological doctrines in the introduction to his *Kritik der Urtheilskraft*: the psychological processes of knowing, desiring, and feeling, he said, are directly related to the actual operation of the a priori faculties of understanding, reasoning, and judging.[20] It was the third of these faculties—feeling, or judging—that constituted Kant's most obvious addition to the tradition of functional analysis, but his treatment of the other two faculties was no less novel.

The faculty of knowing, as we have already seen, operates on two levels, the lower level dealing with sensibility and the higher with conceptual understanding. In addition to the process of sensory intuition that we have already discussed, Kant maintained that there is a second lower cognitive process. This process, which he called imagination, can take place even in the absence of immediate sensation. It can either produce new sensuous images or reproduce images of former intuitions. In the latter process, Kant conceded, the mind is more passive than active, being governed by habits of association; but in the former process the mind is much more active and creative. In either case, higher cognition builds upon the work of the imagination in the same way that it completes the process of sensory intuition, that is, by categorizing the images formed by the lower faculty. As in the case of intuitions, the product of the categorization of images is conceptualization, or ideas. Thinking with ideas is, for Kant, simply one of the powers of the mind.[21]

All this mental activity presupposes, for Kant, the a priori capacity of apperception and the existential fact of the unity of consciousness. Kant did not, however, limit his psychological vision to the realm of consciousness. In opposition to the empiricists, he endorsed the existence of unconscious ideas. Indeed, his discussion of the "degrees of consciousness" had notable historical consequences. In addition, Kant discussed various cognitive "deficiences" and "talents." Among the deficiencies he discussed mental illness, particularly—though not entirely—as it reflects the improper working of the rational mind; among the talents he discussed wit and the nature of genius.[22]

In his treatment of practical reason, or the will, Kant wanted to demonstrate the basic freedom of the human person: so much so, in fact, that Kant's voluntarism is commonly considered the central nerve of his entire philosophical system. Given this fact, the central irony of Kant's thought is that, although he posed a brilliant argument for the a priori freedom of the human being, he was equally adamant in his insistence that this freedom is a function solely of the practical reason, or will, and can never be comprehended by pure reason, or understanding. After all, as Kant had previously argued in the *Kritik der reinen Vernunft*, one of the basic categories of comprehension is causality. Human beings necessarily comprehend antecedents and consequences as causes and effects: our minds simply work that way.[23] As a result, since every act—even every free act—occurs in the context of a sequence of events over time, complete comprehension will always involve the specification of cause-effect relations. By arguing that these cause-effect relations are the product of mental analysis and do not necessarily describe the true state of nature, Kant was able to leave room for freedom in the world of human affairs. But this same argument also led him to present two diametrically opposed images of the human being—as free and as determined.

The image of the human person as free, which, as we have said, was the ultimate image that he wished to propose and defend, was presented by Kant in the *Kritik der praktischen Vernunft*. His argument for this freedom was completely philosophical, based on a logical analysis of the necessary prerequisites for moral life. The image of the human person as determined was presented in his *Anthropologie*, where he spoke not of a transcendental will but of the related psychological faculty of desire. According to Kant, in the context of actual empirical conditions, the "choices" of human beings are always preceded (and thus appear to be determined) by human appetites, inclinations, passions, habits, and instincts. Going one step further, Kant followed his own earlier advice to empirical psychologists and observed humans "externally," noting, classifying, and correlating their behavior with certain visible characteristics, sexual types, nationalities, racial origins, and human qualities. His conclusions, published in the second part of the *Anthropologie*, were consistent with his conviction that understanding—including psychological understanding—must necessarily be formulated in causal terms.[24]

Since freedom, the ultimate characteristic of human nature, is beyond the cognitive grasp of the human mind, it followed for Kant that the perspective of psychology must necessarily be incomplete, or limited. Empirical psychology can only provide tentative knowl-

edge of the conditions of human choice, no more. Only the philosophical analysis of the practical demands of reason can reveal human freedom. About the psychodynamics of that freedom nothing can be said. In fact, to speak of the psychodynamics of freedom would be a contradiction in terms. Thus, in essence, Kant viewed the will as a noumenal reality behind the appearances of sense, knowledge, feeling, and appetite. Although this view is explicitly nonpsychological, Kant's doctrine of the will was to have broad repercussions within German psychology—as well as within philosophy—in the nineteenth century.

Kant saw the third psychological faculty, that of feeling, as intermediate between knowing and desiring, just as he saw judgment, its transcendental cognitive analog, as intermediate between understanding—that is, pure reason—and reason—that is, practical reason, or will. The most basic feelings, according to Kant, are pleasure and pain. Furthermore, pleasure and pain may be either sensuous, intellectual, or moral. Sensuous feelings accompany intuitions and imaginations; intellectual feelings accompany concepts or ideas; and moral feelings accompany desires. The significant point is that, although Kant made an analytic distinction between knowing, desiring, and feeling, he denied that the various phenomena of these faculties exist in isolation from one another. Cognitive intuitions, images, and concepts, as well as moral desires, are all attended by affective components. This analysis is quite different from that of Leibnizian psychology in which feelings are only confused ideas. According to Kant, even a clear idea is associated with an affective pleasure or pain.[25]

This interrelation of the various types of psychological phenomena is further illustrated by Kant's analysis of the phenomena of aesthetic taste. This special type of feeling, which he considered "partly sensuous, partly intellectual," fascinated Kant, and he investigated it at length because it implicitly involves processes analogous to, and substitutive for, both cognition and volition. On the one hand, like cognition, it involves a process of judgment, though not a strictly rational judgment. Instead it involves the kind of judgment that is passed by the feelings: a judgment of whether something is agreeable or disagreeable, a pleasure or pain. On the other hand, like the determinations of the will, these noncognitive judgments—that is, pleasures and pains—possess motivational powers. They can obstruct both the clarity of understanding and the resolve of the will, and they can thus lead to the commission of behaviors opposed by the will. Yet the feelings can also be enlisted in the service of morality if the feeling of pleasure is associated with

the idea of the good and thus helps the will toward its proper object. Therefore, Kant hoped that the arts and literature would arouse beneficial feelings that would motivate human beings to make proper moral choices. At the same time, however, he did not think that the feelings could be of service to the cognitive processes. Indeed, he thought that these processes, to function properly, must be disturbed by the feelings as little as possible. In espousing this doctrine, Kant revealed that he had not entirely abandoned the intellectualism of Leibniz and Wolff. Feelings, he thought, are apt to become pathological and ought not to be left untended.[26]

Still, despite this contention, Kant clearly felt that all the psychological faculties continually interact. In fact, it is important to end this discussion of the three faculties by emphasizing that Kant did not mean to reify these faculties into metaphysically distinct entities. Although he did argue that the cognitive processes of understanding, reasoning, and judging are in principle distinct, Kant asserted that these faculties are as essentially related as the three steps of a syllogism. And, on the psychological level, Kant insisted that knowing, desiring, and feeling are continuously intertwined. Thus he conceived the three faculties as various aspects of the unitary functioning of the mind.[27] For better or worse, the philosophers and psychologists who came after him tended to focus on one or the other of these aspects and tried to recast the Kantian heritage by subordinating the other parts of that heritage to this single aspect. Often this meant taking one of Kant's faculties as fundamental and treating the others as somehow dependent upon, or derivative from, it. But even so, in accepting Kant's analysis as the framework for further discussions of mental activity, even those who opposed the very notion of a tripartite faculty psychology remained within the field of Kant's influence.

KANT'S HERITAGE

In the ferment of thought that occurred in Kant's wake, idealism came to the fore and dominated philosophical speculation in Germany for half a century. The major idealists—Johann Gottlieb Fichte (1762-1814), Friedrich Wilhelm von Schelling (1775-1854), and Georg Wilhelm Friedrich Hegel (1770-1831)—took their points of departure from the work of Kant, though they were among those who emphasized different aspects of his thought and developed

forms of metaphysical idealism that far exceeded the narrow bounds of Kant's critical idealism. As regards the critique of psychology, however, they were in perfect agreement with Kant's contention that psychology is not, and cannot become, a true science. Like Kant, they regarded psychology as a "merely empirical" science; but, unlike Kant, they believed that this tentative preliminary science could be transformed and completed by philosophical thought. In many ways, then, they revived the spirit of earlier rational psychology, disregarding Kant's strictures about the limits of rational analysis. Nonetheless, in the course of their philosophical work they helped to propagate many of Kant's psychological doctrines, primarily through the publications of their psychologist disciples.[28]

The central focal point of Kant's thought was his analysis of the innate structure and functioning of the human mind. Even during Kant's lifetime, Karl Leonhard Reinhold argued persuasively that the Kantian concern about the nature of the mind—or, as Reinhold preferred to call it, "consciousness"—should be the fundamental issue for philosophy. The systematic description, or "phenomenology," of consciousness, he said, should be the immediate task of the post-Kantian generation.[29] Toward this end, Reinhold founded one of the most vital centers of Kantian thought at the University of Jena. Even before Kant's death in 1804, Reinhold's pupils and colleagues—including Fichte, Schelling, and Hegel—were already establishing the phenomenology of consciousness as the basic topic in German philosophy.

Fichte's elaboration of the concept of consciousness led him to an idealistic view of consciousness as an ever-active, striving ego, which is ultimately manifested as will.[30] His basic principles of egoism, activism, and voluntarism, deduced originally as principles of Absolute Reality, were used in psychological analyses by a number of his followers, including G. E. A. Mehmel and Karl Fortlage.[31] They also influenced Hermann von Helmholtz, particularly as regards his historically important theory of the active role of the mind in perception.[32] And when Wilhelm Wundt characterized his psychology as voluntaristic in nature, he clearly indicated the extent to which his "New Psychology" was premised on an acceptance of the Fichtean revision of traditional Leibnizian intellectualism.[33] Corroborated by the philosophies of Schopenhauer and Nietzsche, this new voluntaristic temper had a broad impact on the psychological thinking of the late nineteenth century. It is apparent that Sigmund Freud, among many others, was affected by this general movement of thought, especially insofar as certain evolutionary and dynamic conceptions were grafted onto it.

Schelling's considerations of consciousness led him to discussions of the unconscious as a necessary antecedent and corollary of consciousness as well as to discussions of the concepts of personality and genius. It also led him to propagate *Identitätsphilosophie*, or the philosophy of identity, which espoused the Spinozistic doctrine that mind and body are but two aspects of the same reality.[34] When applied to psychology, this doctrine suggested that the nature and activity of the mind is reflected in the structure and functioning of the body. This proved to be a fruitful suggestion. Not only did it inspire the psychological investigations of Karl Friedrich Burdach, Karl Gustav Carus, and others, it also stimulated the development of psychophysics by Gustav Theodor Fechner, the person most often credited with bringing actual measurement into the realm of psychology.[35] As Fechner himself admitted, the inspiration of his groundbreaking study of the relationship between conscious experience and physical stimulation came from the *Naturphilosophie* of Lorenz Oken. Oken, in turn, had been inspired by Schelling.[36] Thus, psychophysics, one of the major foundations of modern psychology, is historically rooted within the conceptual framework of post-Kantian idealism.

Schelling also introduced a strong genetic, or developmental, emphasis into the thinking of his followers. This led to the publication of books such as Gotthilf Heinrich von Schubert's popular *Geschichte der Seele* (History of the Soul) (1830) and Karl Gustav Carus's *Psyche: Zur Entwicklungsgeschichte der Seele* (Psyche: Toward a Developmental History of the Soul) (1846).[37] Carus's work was particularly significant because of his position as a comparative anatomist and physiologist. As early as 1831, in his *Vorlesungen über Psychologie* (Lectures on Psychology), Carus combined his genetic approach to psychology with a scientific knowledge of the physiological development of the nervous system. Later, taking the logic of the philosophy of identity and of the genetic principle one step further, Carus made a major contribution by espousing, and developing, comparative psychology, that is, the study of the historical development of consciousness through the animal kingdom, leading up to man.[38] Since his work was based largely on physiology, he also contributed to the development of physiological psychology.

Hegel had a more highly developed and formalized psychology than either Fichte or Schelling. He presented this psychology as part of his *Philosophie des Geistes* (Philosophy of Mind) (1830).[39] Among the many notable aspects of this psychology is its reliance on, and reverence for, Aristotle's psychology. This helped to spark a revival

of Aristotelian studies in Germany, a revival that, especially through the teaching of Friedrich Adolf Trendelenberg, had a profound impact on Wilhelm Dilthey, Franz Brentano, and other notable contributors to the development of psychological thought.[40]

Another important aspect of Hegel's view of psychology was his conviction that psychology describes, and can only describe, the empirical conditions and experiences of the mind. In this, of course, he was in agreement with Kant. Going beyond Kant, however, he argued that the study of the "subjective" mind can and must be transcended, just as the individual mind itself is transcended, and develops beyond mere sense-dependence, by its immersion in a larger "objective," or group, mind. In other words, the study of the "I" must be followed by the study of the "we," which, in turn, leads to the study of the Absolute Mind. The important point is that Hegel formalized an insight that was implicit in the work of Johann Georg Hamann, Johann Gottfried Herder, and others: the social level of analysis, he claimed, transcends that of the individual. Beyond that, he prescribed the study of the social, or objective, mind by means of its products, such as language, law, custom, and myth. This Hegelian doctrine was an important influence upon the development of the social psychological perspective, especially as formulated in *Völkerpsychologie* (cultural, or "folk," psychology). Although he denied any direct influence by Hegel, Wilhelm Wundt was working a field prepared by Hegel when he spent several decades writing his multivolumed *Völkerpsychologie* (1900–20). Clearly, he agreed with Hegel when he claimed that the higher mental processes, involving the truly human, symbolic aspects of experience, can only be understood within a social context, using a nonexperimental methodology. In reaching this conclusion, Wundt lent his considerable authority to a distinction developed by the neo-Kantians of the latter part of the nineteenth century, namely, the distinction between psychology as a natural science (or *Naturwissenschaft*) and psychology as a social science (or *Geisteswissenschaft*). This distinction was to have particular significance in the late-nineteenth and twentieth centuries.[41]

One other notable aspect of Hegel's psychology was its development of the principle of self-actualization. In the Hegelian scheme, the fullness of development is reached only by participation in the Absolute, which Hegel's disciples often described by using the "mythological" concept of "Personality." This notion of actualization as a process leading toward the establishment of personality began an historical tradition of thought that led through Kurt Goldstein and Carl Gustav Jung to contemporary humanistic psychol-

ogy. The correlative development in the Fichte-inspired voluntarist tradition led to a focusing on the development of "character," as eventually seen in the work of Wundt and Freud.[42]

Hegel's was the last of the major idealist systems, and it dominated the philosophical scene in Germany through the 1830s and even beyond. Among his followers were the psychologists Johann Eduard Erdmann, Leopold George, Carl Ludwig Michelet, Johann Georg Mussmann, Franz Vorländer, and Karl Friedrich Rosenkranz.[43] The work of Erdmann, published into the 1880s, shows the resilience of this tradition of thought. Although the works of these Hegelian psychologists are rather diverse, one common characteristic was their reliance on dialectical analysis, as propagated by Hegel. In several respects, their analyses presaged those of recent so-called dialectical psychologists. These latter individuals, however, typically refer to Karl Marx, or to various Russian psychologists such as S. L. Rubinstein, as the inspiration of their work.[44] Nonetheless, Hegelian dialectics is the historical foundation of their work.

For all their variations on the theme of consciousness, we can summarize the influence of the idealists on the development of psychology rather succinctly: (1) They made "consciousness" the primary subject matter, and problem, of psychology. As we have seen, Fechner developed psychophysics under the influence of the idealist thesis that consciousness is correlative with physical reality. Similarly, Wundt defined the subject matter of his new experimental, or "physiological," psychology as "the manifold of consciousness."[45] Although the empirical and experimental procedures that he proposed for the investigation of the lower forms of consciousness came from the natural scientific tradition, the object of study was clearly from the idealist tradition. Thus, both Fechner and Wundt, the two reputed founders of modern psychology, belonged to a broader intellectual tradition that developed in mid-to-late-nineteenth-century Germany, that is, the tradition of *Idealrealismus*. Participants in this tradition, including also Rudolph Hermann Lotze and Wilhelm Dilthey, attempted to combine the essential insights of both idealism and realism while avoiding the exclusive dogmatism of either. (2) Related to the issue of consciousness, the idealists spread a concern about the nature and development of the ego, personality, will, and character. The egoism and voluntarism thus sponsored had broad consequences in subsequent psychological thought. (3) The idealists emphasized the uniqueness and preeminence of the social psychological level of analysis. The antiindividualistic temper of their work clearly influenced the development of *Völkerpsychologie* and helped to increase the general sensitivity regarding the historical-cultural

context of personality development. This latter sensitivity was reflected in the psychological histories of Dilthey and others. Even Freud's sensitivity to the social context of personality development can be seen as a part of this idealist heritage.[46] (4) In addition to inspiring psychophysics and encouraging special methods for social psychological analyses, the idealists also had an impact on the development of genetic and comparative methodologies. Although the empirical rigor of later studies was usually missing in their work, they did prepare the way conceptually for these later studies. The idealist notion of "the history of consciousness" was implicated in many of the early works of the first generation of scientific psychologists. Wundt's *Vorlesungen über die Menschen- und Thierseele* (Lectures on the Human and Animal Mind) (1863) are instructive in this regard since they exemplify how Darwinian thought was often assimilated in Germany through an essentially naturalized idealist framework.[47]

Despite these important contributions, it is nonetheless true that the idealists opposed the development of psychology as an autonomous discipline, and especially as a scientific discipline. In this respect, as regards the development of modern scientific psychology, a different group of post-Kantians was instrumental—the group of post-Kantian empirical philosophers composed of Jakob Friedrich Fries (1773–1843), Johann Friedrich Herbart (1776–1841), and Friedrich Eduard Beneke (1778–1854). Each member of this group clearly expressed his allegiance to Kant and his disagreement with idealism; each of them also went beyond orthodox Kantianism in order to "complete" Kant's system of thought. What characterized their work as a group was its consistent empiricism, even if this was supplemented at times by rational analysis and metaphysics. Although each of them also helped to propagate some of Kant's constructive doctrines, it was their development of the general conception of an autonomous, scientific psychology that constituted their major contribution as a group. Ironically, they based their thinking in this regard on Kant's critique of psychology.[48]

When Kant specified that psychology could never become a true science because it could not utilize any a priori notions, any mathematics, or any experimental techniques, he inadvertently proposed a prescription for those who wanted to develop psychology into a scientific discipline. Following Kant's direction, Fries argued that psychology can evolve a set of rational concepts to guide its theoretical work; Herbart devised a mathematical psychology, even if an ill-fated one; and Beneke proposed a set of experiments and ardently advocated the establishment of a truly experimental psychology.[49] Successively

building on the work of their predecessors and keeping an eye on Kant's definition of science, these three thinkers developed the conception of psychology to the point where subsequent experimental physiologists, such as Wilhelm Wundt, were inspired to call their research—and perhaps more importantly to think of their research—as "psychology." Certainly it was not inevitable that Wundt and others would conceptualize their work in this way. (Hermann von Helmholtz, for instance, had not done so.) Theirs, after all, was a kind of psychology unlike that which had preceded it—except in the minds of the three empirical philosophers who had provided a conceptual foundation and who had argued for a scientific psychology. It was therefore fitting that, in the 1860s, the term Beneke had coined twenty years before—namely, the "New Psychology"—came to designate the work of Wundt and his contemporaries.[50]

In essence, we have traced the development of two traditions of thought, both preceeding from Kant and both leading to the psychology of the late-nineteenth and twentieth centuries. From the idealist line of development came the conception of the proper subject matter of psychology as well as certain theoretical and methodological orientations. From the empiricist line came the general definition of natural scientific psychology. In combination, and together with the judicious adoption of research, methods, and theory from the field of sensory phsyiology (which was also influenced by the Kantian heritage, as for instance in the work of Johannes Müller and Hermann von Helmholtz), these lines of development ushered in a new period in the history of psychology. In this new period the Kantian heritage was apparent in even more ways than we have already noted: The Kantian doctrine of sensibility, with its stipulation of the innate forms of time and space, led to the so-called "Kant-Müller-Hering-Mach-Stumpf line of descent" that propagated the law of specific sense energies and the theory of nativistic space perception.[51] The Kantian doctrine of intelligibility had, among its long-range effects, the setting of the theoretical context for the Würzburgers' declaration of "the rules of consciousness." The Kantian doctrines of apperception and the unity of consciousness likewise influenced the thinking of Wundt and others and advanced the theoretical tradition leading up to the work of the Gestalt psychologists. Similarly, as regards the concept of the unconscious, Kant's doctrine influenced Herbart, Schopenhauer, Nietzsche, and von Hartmann and, through them, Freud. Finally, as regards the relative autonomy of feeling, Kant's doctrine influenced the turning away from an overemphasis on reason and ideas in psychology. Together with his concern about practical reason, or

the will, this helped to bring about a broadening of the empirical, conceptual, and theoretical range of psychology.

In addition, Kant's heritage extended far beyond the borders of Germany. In the latter part of the nineteenth century, French philosophy was dominated by Kantian thought, with subsequent effects on the developmental psychology of Jean Piaget. Likewise, British philosophy was deeply influenced by German idealism later in the century, and the influence of Kant was reflected in the activistic self-psychology of James Ward. Even earlier in the century, the influence of Kant was felt within the British psycho-physiological tradition through the impact of Johann Friedrich Blumenback upon the thinking of Thomas Laycock. Furthermore, there is good reason to suppose that the distinction between logic and psychology, so critical in the development of psychology in Britain, was influenced by Kantian thought.

Just as striking was the influence of Kant in the United States, which was evident early in the nineteenth century in the work of Frederic Rauch and Laurens Hickok and was reflected later in the work of Charles Peirce and William James. Often Kant's influence was indirect as well as direct: William James and George Trunball Ladd, like many of their British counterparts, were deeply influenced by the Idealrealistic Kantianism of Rudolph Hermann Lotze. In addition, James was also influenced at a critical point and in a critical way by the French neo-Kantian Charles Renouvier. James's subsequent emphasis upon the will as well as his fundamental conception of the active, "interested" mind are the direct consequences of these encounters with Kantianism. Slightly later, G. Stanley Hall, Josiah Royce, James Mark Baldwin, John Dewey, and George Herbert Mead were influenced in essential ways by German idealism. The dialectical modes of thought implicit in so much of their work would be inexplicable without their early contact with the idealistic branch of the Kantian heritage. Another mediated path of influence, which reached the United States only in the twentieth century, ran from the neo-Kantian Wilhelm Dilthey through Eduard Spranger to Gordon Allport, to the field of personality psychology, and eventually to Humanistic Psychology.[52]

CONCLUSION

Although these latter brush strokes are very broad, they should provide a general picture of the extent to which Kant laid the founda-

tion for subsequent psychological thought. One final aspect of Kant's heritage, perhaps its central aspect, should be indicated once again at the conclusion of this essay. This aspect represents the major problem that Kant bequeathed to posterity. He did not invent this problem, but he did give it a poignant expression, and it underlies his entire system of thought. Simply stated, it is the problem of the place of the will in a deterministic world. In broader terms, this is the traditional problem of "man's place in nature"; in psychological terms it is the problem of the accommodation of "consciousness" to scientific method. Kant himself saw an irreconcilable difference between these pairs of concepts—between will and world, "man" and nature, mind and science. Later psychologists sought to reconcile these differences by either eliminating or changing the definition of one of these terms—as the behaviorists and humanists have done, to "consciousness" and "science" respectively—or by devising a practical compromise between them—as Fechner, Wundt, and many of their successors have done. The historical record shows that none of these solutions has worked for very long. The borders and territory of "consciousness"—including its putative extensions into unconsciousness—have never been mapped in a way that is satisfying for two consecutive generations.

Kant himself might have pointed out that the problem is innate rather than accidental. The attempt to submit a subject matter developed with the idealist tradition to the scrutiny of methods often taken from the naturalist tradition is bound to be frustrated. As capitulatory as it may seem, the conclusion of Hugo Münsterberg, a neo-Kantian as well as a student of Wundt and director of the Harvard Psychological Laboratory between 1892 and 1916, is consonant with Kant's own opinion: there may simply be two ways of looking at the world of human experience, as free and as determined. Freedom can be seen as a practical fact; determinism as a fact of knowledge.[53] The alternatives to accepting this dualistic point of view may be either the continuation of one-sided dogmatisms and temporary compromises, or the establishment of an entirely new tradition of thought, in which both subject matter and method are conceived anew. In any case, until we are fully aware of the extent to which we continue to stand on the foundation that Kant laid two hundred years ago, we may not see the choice that faces us.

NOTES

1. Kant was primarily a philosopher, not a psychologist. Yet he was deeply interested in psychology and spent a considerable amount of time reading, thinking, teaching, and writing about it. For more than twenty years, beginning about 1773, Kant offered a lecture course on psychology, or "anthropology."—See Immanuel Kant, *Die philosophischen Hauptvorlesungen Immanuel Kants*, ed. A. Kowalewski (Hildesheim: Georg Olms, 1965), pp. 55-385.—As we shall see, he eventually published a book based on these lectures in 1898. In addition, he wrote a number of essays bearing on psychological topics.—(Among others, see I. Kant, "Versuch uber die Krankheiten des Kopfes" (1764), in *Kants Werke*, repr. of Prussian Academy edition (1902), 9 vols. (Berlin: de Gruyter, 1968), 2:257-72; and I. Kant, "Von der Macht des Gemuths durch den blossen Vorsatz seiner krankhaften Gefuhle Meister zu sein," which is Part III of *Der Streit der Facultäten* (1798), in *Kants Werke*, 7:95-116.)—Furthermore, his three major philosophical works are redolent with psychological implications. In fact, throughout the nineteenth century, Kant's philosophical doctrines were often given psychological interpretations.—See, for example, Edward Franklin Buchner, "A Study of Kant's Psychology," *Psychological Review* Monograph Supplement No. 4 (1897):1-208; and J. B. Meyer, *Kant's Psychologie* (Berlin: Hertz, 1870).—Whatever philosophical distortions this may have caused, it did not necessarily lead to a misreading of Kant's psychology. As Kant himself pointed out, there is a very close relationship between his philosophical and his psychological doctrines, even though he rigorously defended the distinction between the philosophical and psychological levels of analysis. In the following essay, we shall utilize Kant's philosophical works, as did many of his followers, in order to round out our understanding of his psychology. By keeping an eye on Kant's explicit psychological doctrines, we shall avoid the dangers of inferential interpretation, while gaining an understanding of the "expanded" version of Kant's psychology that had an impact on his contemporaries and later disciples.

2. G. W. Leibniz, *New Essays on Human Understanding*, trans. & ed. P. Remnant and J. Bennett (Cambridge: Cambridge University Press, 1981); Immanuel Kant, *De Mundi Sensibilis atque Intelligibilis Forma et Principiis* (1770), in *Kants Werke*, 2:385-420. Leibniz actually responded to Pierre Coste's French version of the fourth edition of Locke's *Essay*, entitled *Essai philosophique concernant l'entendement humain* (Amsterdam: Schaltz, 1700).

3. Christian Wolff, *Psychologia Empirica* (1734) and C. Wolff, *Psychologia Rationalis* (1734), in his *Gesammelte Werke*, ed. Jean Ecole, 52 vols. (Gildesheim: Georg Olms, 1962-74), Part II: vols. 5 & 6 respectively. See also Robert J. Richards, "Christian Wolff's Prolegomena to Empirical and Rational Psychology: Translation and Commentary," *Proceedings of the American Philosophical Society* 124 (1980): 227-39.

4. See Max Dessoir, *Geschichte der neueren deutschen Psychologie*, rev. 2d ed. (Berlin: Duncker, 1902), pp. 165-209; and Robert Sommer, *Grundzuge einer Geschichte der deutschen Psychologie und Aesthetik von Wolff-Baumgarten bis Kant-Schiller* (Wurzburg: Stahel, 1892).

5. Johann Nicolas Tetens, *Philosophische Versuche uber die menschliche Natur und ihre Entwicklung*, 2 vols. (Leipzig: Weidmann, 1777); Immanuel Kant, *Critique of Pure Reason*, trans. N. K. Smith, unabridged ed. (New York: St. Martin's, 1965); I. Kant, *Critique of Practical Reason*, trans. L. W. Beck (Indianapolis: Bobbs-Merrill, 1956); I. Kant, *Critique of Judgment*, trans. J. H.

Bernard (New York: Hafner, 1972); and I. Kant, *Anthropology from a Pragmatic Point of View*, trans. M. J. Gregor (Hague, Nijhoff, 1974).

6. Alexander Gottlieb Baumgarten, *Metaphysica*, 7th ed. (Halle: Hemmerde, 1779), especially pp. 292-329. Other materials for Kant's critique came from the works of Martin Knutzen, Moses Mendelssohn, and Hermann Samuel Reimarus.

7. Much of the following materials is taken with permission from David E. Leary, "The Philosphical Development of the Conception of Psychology in Germany, 1780-1850," *Journal of the History of the Behavioral Sciences* 14 (1978): 113-21, where references to some of the secondary literature on Kant's psychology can also be found.

8. Kant, *Pure Reason*, p. 329.

9. Ibid., p. 353.

10. Immanuel Kant, *Metaphysical Foundations of Natural Science*, trans. J. Ellington (Indianapolis: Bobbs-Merrill, 1970), p. 8.

11. Ibid., pp. 6-8. Regarding mathematics and the a priori construction of concepts, see Kant, *Pure Reason*, pp. 575-85, and I. Kant, *Prolegomena to Any Future Metaphysics* (1783), trans. L. W. Beck (Indianapolis: Bobbs-Merrill, 1950), pp. 28-32.

12. Kant, *Metaphysical Foundations*, p. 8.

13. Kant, *Anthropology*, pp. 4-5.

14. Kant, *De Mundi*, pp. 392-98.

15. See ibid., especially pp. 398-410, for the basic development of these ideas; Kant, *Pure Reason*, pp. 65-91 and 102-19, for a more complete elaboration; and Kant, *Anthropology*, pp. 9-97, for a purely psychological rendition.

16. Kant, *Pure Reason*, pp. 130-38 (A), 143 (A), 146 (A), 153 (B), 331, and 362 (A). A indicates the text of the 1781 edition; B, the revised text of the 1787 edition; no letter, an unrevised passage.

17. Ibid., p. 329.

18. Regarding apperception and the unity of consciousness, see ibid., pp. 133-50 (A), 151-59 (B).

19. See Lewis White Beck, *Early German Philosophy: Kant and His Predecessors* (Cambridge: Harvard University Press, 1969), pp. 497-98.

20. Kant, *Judgment*, pp. 32-34.

21. Regarding intuition, imagination, and conceptualization, see Kant, *Pure Reason*, pp. 65-91; 132-33 (A); 111-15; and Kant, *Anthropology*, 21-26, 32-40; 44-50, 53-62; 69-73, respectively.

22. Regarding unconscious ideas, cognitive deficiencies, and cognitive talents, see ibid., pp. 16-18; 73-89; 89-97, respectively.

23. Kant, *Pure Reason*, pp. 111-15.

24. Kant, *Practical Reason*, passim; and Kant, *Anthropology*, pp. 120-93.

25. Regarding the faculty of feeling, see ibid., pp. 99-117; regarding the association of cognition and feeling, see ibid., p. 89.

26. Regarding aesthetic taste, see Kant, *Judgment*, pp. 37-81, and Kant, *Anthropology*, pp. 107-15; regarding the need to control feeling, see Kant, *Practical Reason*, pp. 77-78.

27. Regarding the three cognitive faculties as related steps of a syllogism, see Kant, *Pure Reason*, pp. 176-77; regarding the systematic relationship of the various faculties, see Kant, *Judgment*, especially pp. 3-15 and 32-34.

28. For a more complete discussion of the idealists' view of science and their impact on psychology, see David E. Leary, "German Idealism and the

Development of Psychology in the Nineteenth Century," *Journal of the History of Philosophy* 18 (1980): 299–317.

29. Karl Leonhard Reinhold, *Versuch einer neuen Theorie des menschlichen Vorstellungsvermögens* (Jena: Mauke, 1789) and K. L. Reinhold, *Ueber das Fundament des philosophischen Wissens* (Jena: Mauke, 1791).

30. Regarding his basic doctrines, see Johann Gottlieb Fichte, *Ueber den Begriff der Wissenschaftslehre* (1794), in J. G. Fichte, *Gesamtausgabe*, ed. R. Lauth and H. Jacob, 12 vols. (Stuttgart-Bad Cannstatt: Frommann, 1965), 1: bk. 2, pp. 107-72 and 249-451; regarding the application of these doctrines to human affairs, see Fichte, *Addresses to the German Nation*, trans. R. F. Jones and G. H. Turnbull & ed. G. A. Kelley (New York: Harper, 1968).

31. See, for example, G. E. A. Mehmel, *Versuch einer vollständigen analytischen Denklehre, als Vorphilosphie* (Erlangen: Walther, 1803) and Karl Fortlage, *System der Psychologie als empirischer Wissenschaft aus Beobachtung des innern Sinnes*, 2 vols. (Leipzig: Brockhaus, 1855).

32. See R. Steven Turner, "Hermann von Helmholtz and the Empiricist Vision," *Journal of the History of the Behavioral Sciences* 13 (1977): 48–58.

33. See Kurt Danziger, "Wundt's Theory of Behavior and Volition," in R. W. Rieber, ed., *Wilhelm Wundt and the Making of a Scientific Psychology* (New York: Plenum, 1980), pp. 89–115.

34. Friedrich Wilhelm von Schelling first developed his philosophy of identity in his *Vorlesunger über die Methode des akademischen Studiums* (1803), the revised third edition of which appears in *Schellings Werke*, ed. M. Schröter, 13 vols. (Munich: Beck und Oldenbourg, 1929-59), 3:229-374. Regarding his early system of thought, see his *System des transcendentalen Idealismus* (1800), in *Shellings Werke*, 2:327-634.

35. Karl Friedrich Burdach, *Das Seelenleben* (Stuttgart: Balz, 1836); Karl Gustav Carus, *Vorlesungen über Psychologie* (Leipzig: Fleischer, 1831); Gustav Theodor Fechner, *Element der Psychophysik*, 2 vols. (Leipzig: Breitkopf und Hartel, 1860).

36. See William R. Woodward, "Fechner's Panpsychism: A Scientific Solution to the Mind-Body Problem," *Journal of the History of the Behavioral Sciences* 8 (1972):367-86, especially p. 385.

37. Gotthilf Heinrich von Schubert, *Geschichte der Seele*, 2 vols. (Stuttgart: von Gotta, 1830); Karl Gustav Carus, *Psyche: Zur Entwicklungsgeschichte der Seele* (Pforzheim: Flammer und Hofmann, 1846).

38. Karl Gustav Carus, *Comparative Psychologie*, 2 vols. (Leipzig: Voss, 1842) and K. G. Carus, *Vergleichende Psychologie oder Geschichte der Seele in Reihenfolge der Thierwelt* (Vienna: Braumüller, 1866).

39. Georg Wilhelm Friedrich Hegel, *Philosophy of Mind*, trans. W. Wallace, with *Zusätze*, trans. A. V. Miller (Oxford: Clarendon, 1971), Section I: Mind Subjective, especially pp. 179-240.

40. See, for example, Gershon George Rosenstock, *F. A. Trendelenberg: Forerunner to John Dewey* (Carbondale, Ill.: Southern Illinois University Press, 1965).

41. Wilhelm Wundt, *Völkerpsychologie*, 10 vols. (Leipzig: Engelmann, 1900-20). For a discussion of Wundt's view of *Völkerpsychologie* and an overview of the shifting fates of natural and social scientific psychology since Wundt's time, see David E. Leary, "Wundt and After: Psychology's Shifting Relations with the Natural Sciences, Social Sciences, and Philosophy," *Journal of the History of the Behavioral Sciences* 15 (1979):231-41.

42. The history of the related notions of self-actualization, personality, and character has yet to be written.

43. Johann Eduard Erdmann, *Grundriss der Psychologie* (Leipzig: Vogel, 1840); Leopold George, *Lehrbuch der Psychologie* (Berlin: Reimr, 1854); Carl Ludwig Michelet, *Anthropologie und Psychologie* (Berlin: Sander, 1840); Johann Georg Mussmann, *Lehrbuch der Seelenwissenschaft* (Berlin: Mylius, 1827); Karl Vorlander, *Grundlinien einer organischen Wissenschaft der menschlichen Seele* (Berlin: Müller, 1841); Karl Friedrich Rosenkranz, *Psychologie* (Königsberg: Borntträger, 1837).

44. See, for example, Klaus F. Riegel and George C. Rosenwald, eds., *Structure and Transformation: Developmental and Historical Aspects* (New York: Wiley, 1975).

45. Wilhelm Wundt, *Principles of Physiological Psychology*, vol. 1, trans. from rev. 5th German ed. (1902) by E. B. Titchener (New York: Macmillan, 1910), p. 11.

46. Freud's relation, either direct or indirect, to the idealist tradition has not been adequately explored. Even granting the influence of the hysterico-hypnotic, bioevolutionary, and physico-dynamic traditions, it would be remarkable if a person as culturally sensitive as he could have developed notions of the ego, id, and superego—and adopted a historical mode of analysis as well as a doctrine of psychophysical parallelism—without incurring some sort of debt to the egoism, voluntarism, social psychological perspective, geneticism, and identicalism of the idealist philosophy that permeated so much of the nineteenth-century thought.

47. Wilhelm Wundt, *Vorlesungen über die Menschen- und Thierseele*, 2 vols. (Leipzig: Voss, 1863).

48. I have discussed the contributions of Fries, Herbart, and Beneke at greater length in my "Philosophical Development," pp. 116-19.

49. Jakob Friedrich Fries, *Neue Kritik der Vernunft*, 3 vols. (Heidelberg: Mohr und Zimmer, 1807) and J. F. Fries, *Handbuch der psychischen Anthropologie oder der Lehre von der Natur des menschlichen Geistes*, 2 vols. (Jena: Cröker, 1820-21); Johann Friedrich Herbart, *Psychologie als Wissenschaft, neu gegründet auf Erfahrung, Metaphysik und Mathematik*, 2 vols. (Königsberg: Unzer, 1824-25); Friedrich Eduard Beneke, *Lehrbuch der Psychologie* (Berlin: Mittler, 1833). Regarding Herbart's contribution, see David E. Leary, "The Historical Foundation of Herbart's Mathematization of Psychology," *Journal of the History of the Behavioral Sciences* 16 (1980):150-63, which documents the positive influence of Kant on Herbart's innovative work.

50. Friedrich Eduard Beneke, *Die neue Psychologie* (Berlin: Mittler, 1845).

51. The phrase is from Edwin G. Boring, *A History of Experimental Psychology*, rev. 2d ed. (New York: Appleton-Century-Crofts, 1950), p. 249.

52. To document all the statements made in the last three paragraphs would require far more space than can be allotted to a footnote, or even a series of footnotes. Some of the statements are noncontroversial and are corroborated by a readily available secondary literature. Others are more controversial, but they are precisely the ones for which there is little or no adequate secondary literature. Their documentation would therefore require a discursive analysis with a complete referencing of primary sources and unpublished materials. As a result, I find it expedient to defer documentation to another occasion.

53. See, for example, Hugo Munsterberg, *Psychology and Life* (Boston: Houghton Mifflin, 1899), especially pp. 1-34.