

American Educational Psychology in the Early 20th Century: Boyd H. Bode's "Theory of Mind" Approach

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Abstract

This article explores the field of educational psychology as seen through the eyes of the early twentieth-century American scholar and pedagogue, Boyd H. Bode. A thorough summary is given of his book *Conflicting theories of learning* (1929) and its revised version *How we learn* (1940). The central thesis of his work is that having a well-articulated "theory of mind" is essential not only for researchers in the field of educational psychology, but especially for classroom teachers who are the actual practitioners of education.

この論文では、20世紀前半の学者と教育者、Boyd H. Bodeの目を通して教育心理学の分野を研究する。完全な要約が彼の本である 'Conflicting theories of learning' (1929) とその改訂版の 'How we learn' (1940) に載っている。その彼の論文での中心的な主張は、すばらしく明確な「心の理論」である。これは、教育心理学の分野の研究者のみならず、特に教育実践者の教師にも不可欠である。

Introduction

Theory of mind

The death of "mind"

Throughout its brief history, the field of educational psychology has been closely linked to the development of the field of psychology in general. The most notorious of these links is the tenuous relationship all branches of psychology have had with their common antecedent, philosophy. Heil (1995) has offered the following thoughts on the origins of this problem:

Histories of psychology read like histories of philosophy until the mid-nineteenth century, when the methods and preoccupations of philosophers and psychologists began to diverge, and psychologists came to regard themselves as engaged in a fully-fledged science emancipated from its empirically feeble predecessors. (p. 728)

The two watershed events in the separation of philosophy and psychology were Wilhelm Wundt's establishment of the first psychology laboratory at the University of Leipzig in 1879, and the ensuing formation of separate academic departments and professional organizations for psychology and philosophy throughout the German university system (Heil, 1995, p. 728). Although Heil's analysis sheds some light on how these two fields of knowledge parted company, it leaves a major question unanswered: what was *really* behind the rift that occurred between them? He describes the initial disparity as being in the realm of "methods and preoccupations," but forgoes giving any specifics as to what these differences might actually have been. Flanagan (1995) offers the following clue:

All the founding documents of scientific psychology attest to acute self-concern on the part of the founders in making clear and defensible philosophical assumptions and in developing empirically secure methods that would be immune from the scorn the new science brought against *a priori theorizing about mind*. So psychology was born in the late 1800s as a philosophically self-conscious discipline. [italics added] (p. 571)

Once psychologists were determined that their field should become "scientific" and "experimental" they fell subject to the following conundrum: in order to embrace the empirical research methods of the natural sciences such as physics and chemistry, their investigations had to be limited to observable phenomena; and in the process, they ended up having to banish the troublesome "mind" question from their research program altogether.

Although this course of action might at first have seemed wise (or at least expedient), when it came to *educational* psychology, a serious problem presented itself in that the entire point of education is to aid in the nurturing and development of the human mind. What is more, in order to accomplish such a task, teachers have no choice but to begin with a pre-established *theory of mind*. As a result, the feeling of self-consciousness Flanagan mentions has continued to be particularly intense among educational psychologists as they have tried to satisfy their fundamental need for a viable theory of mind, while at the same time trying to fit it with the other branches of psychology that had eschewed such a concept altogether.¹

The rebirth of "mind"

In the past twenty-five years there has been a veritable renaissance of interest in theory of mind in a number of fields, revitalized in part by an article by Premack & Woodruff (1978) in

¹ The fact that an entire issue of the *Educational Psychologist* (2003: 38) was devoted to the rift between educational psychology and philosophy is a sign that this topic is finally being addressed.

which they considered whether or not chimpanzees have a “theory of mind.” Discussion of the concept have once again become a central to the discourse of such diverse disciplines as artificial intelligence (Delancey, 2002), cognitive development in children (Frye & Moore, 1991; Gopnik, 2004; Wellman, 1990), comparative primatology (Povinelli, 2004; Tomasello, 2004) and developmental anomalies such as autistic spectrum disorder (Baron-Cohen, 1997).² In the field of educational psychology, the discussion also involves the issue of how teachers’ theories of children’s minds influence what and how they teach. Bruner (1996) states the essence of this argument in the following way:

For it surely matters ideologically what kind of “model” of the human mind one embraces. Indeed, the model of mind to which one adheres even shapes the “folk pedagogy” of schoolroom practice... Mind as equated to the power of association and habit formation privileges “drill” as the true pedagogy, while mind taken as the capacity for reflection and discourse on the nature of necessary truths favors the Socratic dialogue. (p. 4-5)

“Theory of mind” in the early 20th century

One early twentieth century scholar whose writings reveal similar concerns about the importance of theory of mind to the practice of education was the American philosopher of educational psychology Boyd H. Bode (1873-1953).³ In his widely read textbook *Conflicting psychologies of learning* (1929), Bode’s central point was that, to be an effective teacher, having a clearly articulated theory of mind is of the utmost importance:

When considered as part of a teacher’s professional equipment, psychology is of significance for the light that it sheds on the nature of the learning process. To the teacher it is all-important whether the learning process centers in habit-formation, or the cultivation of “insight,” or the untrammelled development of original tendencies. Unfortunately, the choice among such alternative views cannot be decided by appeal to experiment. In the end it must rest on a theory of mind, and the considerations which determine our theory of mind extend far beyond the data of experimentation. (p. iii)

As with Bruner’s belief that “it surely matters ideologically what kind of ‘model’ of the human mind one embraces,” Bode was equally convinced that a valid connection between theory and praxis is the keystone of his entire belief system regarding educational psychology. In the 1940 revision of

² The phrase “theory of mind” and the concept it describes, however, have a history stretching back at least to the late nineteenth century (see Hegel, 1894; James, 1898; Spencer, 1896).

³ A native of Illinois and a graduate of the University of Michigan, Bode spent most of his career as a professor of education at The Ohio State University.

Conflicting psychologies of learning (renamed *How we learn*), Bode explains this important idea in the following way:

Our conception of learning has a direct bearing on method. It also has a bearing on educational aims or objectives, because the question of what learning is can be answered only in terms of what the mind is; and our conception of the mind, in turn, will decide what we consider to be “good” for the mind, in terms of an educational program. (p. 6)

The following article offers a summary of Bode’s ideas about what *he* considered to be “good” for the mind as contained in his 1929 and 1940 books on educational psychology. Given the renewed interest in “theory of mind” in the field of education, this solid analysis of the concept is particularly applicable to the current discourse on the subject.

Psychologies of learning

Theories in conflict

A sign of the times

In the early decades of the twentieth century, the expression “psychologies” was often used in American publications as an indication of the ever-increasing number of schools and systems of psychology that flourished at the time (see Heidbreder, 1933; Murchison, 1926; Murchison, 1930; Ragsdale, 1932).⁴ Some scholars such as Bentley (1930) regarded this apparent lack of theoretical unity as cause for alarm. Others, such as Heidbreder (1933) took it merely as a necessary stage in the life of a relatively young branch of science that would disappear over time. Heidbreder also was convinced that that the various systems of psychology were to be considered “not as statements of scientific knowledge, but as tools by which scientific knowledge is produced; not as accounts of scientific fact, but as means of acquiring scientific fact (p. 13).”

Bode’s criteria

In the preface to *Conflicting psychologies of learning*, Bode outlines his rationale for choosing the various systems of psychology to discuss in his book:

The central theme of this book is the nature of mind. It is written in the conviction that the question of mind is of central importance, both for teaching method and for our whole program of education. The treatment is limited to those theories of the learning process

⁴ Bode reflects this way of thinking in the preface to his book when he says, “there is no such thing as psychology. There are only psychologies” (p. iv).

which are of outstanding importance in the determination of educational practice. (p. iv)

Bode's central purpose then was to identify the psychologies he considered as having the greatest potential for shaping educational pedagogy. Although his inclusions and exclusions undoubtedly reflect his own personal value system (e.g. his exclusion of any mention whatsoever of Freud or the theory of psychoanalysis) they provide an invaluable look into how the field of educational psychology constructed itself in early twentieth century America.

Bode's commentary and analysis

The received tradition

The dualism of body and mind

In the West, the most familiar formulation of dualism is that of the seventeenth-century French philosopher René Descartes who considered the mind to be composed of an actual 'mental substance' just as the body was composed of a 'material substance':

Descartes envisaged two domains of entities, one consisting of immaterial minds and the other of material bodies, and two disjoint families of properties, one consist in of mental properties (e.g. thinking, willing, feeling) and the other of physical properties (e.g. shape, size, mass)... However, the two domains are not to be entirely unrelated: a mind and a body can form a 'union', resulting in a human being. (Kim, 1995)

Bode devotes the first two chapters of both the 1929 and 1940 editions of his book to explaining the basic tenets of dualism, and showing how dualism has served as a great deterrent to finding reliable theories of mind upon which to build the practice of education. He is particularly skeptical of the Cartesian notion of what he calls the "substantive mind", particularly as it came to be thought of as occupying space, using energy and interacting with the body (pp. 10-12). In spite of his contempt for the theory of dualism, to give emphasis to his argument that it be put aside, Bode carefully traces the history and development of the major learning theories that have been based upon it.

Faculty psychology

The first system of educational practice based on the theory of dualism that Bode describes in detail is that of *faculty psychology*. Faculty psychology holds that the mind, though being one, "has a number of distinct powers or functions" and that education "is effective in proportion as these faculties are trained to function properly" (pp. 28-29). Educational practice based in this theory is not concerned so much with the actual information that is taught and learned, but rather with "the strengthening of the faculties, so that they can meet new situations more effectively than

before” (p. 30).

If we believe in a substantive mind and in faculty psychology, it is possible to justify education, in spite of the fact that so much of what is learned is soon forgotten. The primary value of knowledge, from the point of view of education, is that it constitutes the material and evidence of exercise or training. Even though the particular items of fact fade from memory, they leave behind an effect which is permanent, and which is more valuable than a mere knowledge of facts. There is at least an element of truth in the saying that education is what you have left after you have forgotten all that you have learned. (p. 31)

Formal discipline

The next concept Bode explores is the doctrine of *formal discipline*, an influential approach to education that emerged from the concept of faculty psychology. Formal discipline, as it name implies, emphasizes mental discipline in the sense of training, the importance of which is to be found in the form of what is studied rather than in its content, or as Bode puts it, “in the fact that the faculties are being exercised” (p. 35). A good example of this is to be found in the place that classical languages such as Latin and Greek long held in the curriculum, not because of their importance to the development of the English language, nor their value for reading classical literature or for modern uses in science; rather, it was believed that such study would help a person be more mentally effective in totally unrelated fields “not through the application to the new subject matter of anything that is learned in Latin, but through the increase in [mental] power that has been gained” (p. 36).

Formal discipline had a vast and long-lasting effect on curriculum design since its practice did not require a very wide variety of subjects. Bode even suggests that the expansion of curricular offerings visible in his day might be seen as impeding the ends of education, since students would be exposed to a bit of this and that, but not receive the proper mental “discipline” or “training” which (p. 37.) As a result, the practice of formal discipline and classical education became strong allies in spite of the fact that classical education was originally founded on the belief that content was all important (p. 39). Bode also offers an astute social observation as to why the doctrine of formal discipline became so deeply entrenched in Western society:

For the great mass of people formal education came to consist largely of the three R’s, the “tool” subjects, whereas for the privileged few education was represented by the classical curriculum. The latter was not supposed to have vocational utility, but was intended to initiate the individual into the cultural heritage of the race, to give him the refinement of taste and manners that were the hallmark of a gentleman. In brief, the educational scheme

was of such a kind as to intensify and perpetuate social distinctions. (p. 38)

According to Bode, the groundwork for the eventual decline of formal discipline had been laid from the start owing to dissenting opinions on the nature of connections among the various faculties:

One view declares this relation so intimate that the development of one faculty improves all the others. The other view regards the faculties as independent of one another, at least for practical purposes. The exercise of a faculty on any given material, according to this latter point of view, strengthens this particular faculty when it deals with other material, but has no significant effect on any other faculty. (p. 43)

Bode cites studies by two leading experimental educational psychologists of his day—Thorndike and Woodworth—indicating that mental skill gained through one type of training does not necessarily transfer to another (p. 49). Little did Bode know that the same controversy would continue well into the twenty-first century recast as the debate between those who subscribe to a domain-general theory of cognition, and those who believe in a modular, domain-specific version of cognition (see Karmiloff-Smith, n.d.)

Consciousness & mental states

The theory that eventually came to challenge the substantive mind was that of *mental states*, and the ensuing paradigm shift was to have far-reaching implications for the practice of education. As the idea of a substantive mind diminished in popularity, it was also necessary to replace the concepts of faculty psychology and formal discipline as well. Educators were now faced with the theory that the mind is basically “a collection of various experiences”, hence they were once again obliged to reconsider the importance of content and “the idea of the enrichment of experience” (p. 88). The problem that teachers faced, according to Bode, was the serious dilemma of having to leave behind the notion of a substantive mind that was essentially “unchanging and abiding” and embrace the concept of “fleeting and evanescent” (p. 91) as mental states.

Apperception

The solution to this problem was the theory of *apperception* that emphasizes the role of past experiences in understanding and integration of new ideas:

We experience things as we do because old experiences come in and blend with the present fact. The old experiences provide a background and give to the new experience its actual character. Consequently the task for education is to make present experiences combine with an appropriate background. (p. 97)

This theory of mind was central to the early nineteenth-century German educator,

psychologist and philosopher J. F. Herbart who developed the systematic teaching method that bears his name today:

For Herbart there were no faculties to be exercised. Hence, the teaching problem became the problem of taking subject matter and weaving it with the experience the pupil already has, so as to create a new "apperceptive mass." Consequently the procedure in teaching must be determined, not by the logical order of topics, but the steps in learning. What the pupil already knows must be worked over and enlarged so that he may finally achieve a logical organization of his own experiences. (p. 99)

The theory of mind that is embodied in the Herbartian method was also to have far-reaching consequences for school curricula since teachers could no longer believe that "the study of finished products results more or less automatically in the acquisition of desirable standards on the part of the learner", hence the classical curriculum was in vast need of augmentation in order to provide students with the material from which their new ideas are to be constructed (p. 100). In addition to content and methodology, the "apperception" theory of mind had yet another profound influence on the field of education by emphasizing the importance of attention to students' interest in the subject matter and the lesson:

Interest is important because it ensures the combination or amalgamation of the material that is taught with old experiences. If the teaching arouses no interest, the subject matter remains isolated, and the purpose of education remains unrealized. The presence of interest is an indication of the fact that a process of fusion with a larger background is under way. (p. 102)

In time, the five steps of the so-called "Herbartian Method" became canonized as (1) preparation, (2) presentation, (3) comparison and abstraction, (4) generalization and (5) application (p. 103), and as with many promising educational theories, the success of this method was also responsible for its eventual demise as his followers emphasized the inviolability of the order of these steps. In the second version of his book, Bode (1940) raises serious doubts about whether learning necessarily happens in the order that the Herbartian method dictates (p. 153). The problem with a lesson plan arranged in such a rigid structure is that it can actually become an "obstacle to education" in that it makes no allowance for the fluid and creative problem-solving processes that children and adults actually use when dealing with new situations (p. 154) which Bode likened to "the process by which an inventor finally arrives at his goal" (p. 157).

Later developments

James & Dewey

Throughout both versions of Bode's book, a steady undercurrent of background is taken from the writings of William James (1890, 1892, 1900, 1902) in reference to the various theories of mind under discussion. James's stature as the patriarch of American philosophers of psychology lends an aura of near-scriptural proportions to the act of citing his work. The influence of John Dewey's work is also to be found throughout Bode's work. Moreover, in addition to their personal friendship and mutual esteem, Dewey's pragmatic approach to education was a perfect fit for Bode's personal philosophical and political ideals (Longstreet, 1989). In many ways, it would not be an exaggeration to say that Bode's internalization of the philosophy of pragmatism and the psychology of functionalism accounts for his ability to see and describe the various other schools of thought with such clarity. As in the case of James, Bode quotes freely from a number of Dewey's major works throughout the second half of the book (1887, 1896, 1910, 1916a, 1916b, 1922). Since he devotes the entirety of chapter sixteen of the 1929 publication (chapter fifteen in the 1940 edition) to the relationship of pragmatism to education, further discussion of Dewey and the psychology of functionalism will be delayed until later in this article.

Structuralism

Bode's discussion of structuralism, or as he prefers to call it, "physiological psychology," is concerned mainly with establishing a new way of conceiving the mind-body question in terms of causality. Whereas faculty psychology had held that "our experiences were due to the activity of the mind," and the theory of apperception "attempted to explain everything in terms of association" (p. 111), the structuralist approach to psychology offered something strikingly different:

The study of physiological psychology, however, had not gone very far before it began to appear that the interdependence of mind and body was much more extensive and intimate than had first been supposed. The earlier notion of a "mind" — whether the term mind be understood to mean a substantive entity or a collection of discrete states — which was capable of acting quite independently of the body, was found to be a myth. (p. 112) The outcome of this shift in perspective and conceptualization was that "the psychologist becomes less interested in the study of 'experience' or 'consciousness' as a detached fact, apart from objects, and devotes himself rather to the study of the responses which the organism makes to its environment. (p. 120)

In terms of just how the structuralist paradigm of psychology might inform educational practice, Bode is intrigued by its identification of what he calls 'original tendencies' in human

behavior that are “determined by the native structure of the organism, apart from learning” (p. 121). Following this line of reasoning, he holds that an increased awareness of original tendencies has two major implications for education:

One was that these instincts make their appearance at different times during the period of childhood, and that, consequently, the teacher must be on the outlook for them and be prepared to exploit them when they arrive... A second reason was that instincts set certain limits to educability. Before the instinct has arrive or after it has disappeared education can do little. (p. 122)

These concerns and concepts continue to figure predominantly into the contemporary debate over such concepts as the stages of cognitive development, particularly with regard to the theory of critical periods, and what he calls “heredity versus environment” (p. 124), a debate which we frame today as the question of nature versus nurture.

Behaviorism

Bode’s description of the next phase in the evolution of theory of mind is that psychologists eventually concluded that “belief in interaction between mind and body must be discarded” and replaced with the theory of parallelism “which holds that the mental series and the physical series go on side by side, but without causal relationship” (p. 127). Citing this theory, Huxley’s “conscious automatism” and other forms of interactionism, Bode concludes that they had been the first steps toward a psychology that devoted itself entirely to the study of behavior (p. 128):

The movement in the direction of substituting physical processes for mental processes as terms of description and explanation in psychology has gained considerable headway and is now know as Behaviorism. At the outset this movement was content to make the assertion that mental or psychic facts need not be considered, since all the relevant facts can be secured by a study of behavior and of physiology. We may admit the existence of “consciousness,” but nothing is gained by taking it into account. As time went on, however, the movement gained courage, and presently the claim was advanced, more of less frequently, that “mind” could be ignored, not merely because it was irrelevant to the purposes of the psychologist but because it was really non-existent. The assertion was made that what is called mind is in reality reducible to a bodily process. (p. 129)

Bode’s reads the educational implications of a psychology without “mind” to be as follows:

If this doctrine is true, then obviously the emphasis in teaching should fall not on the organizing or relating of “ideas,” but on the cultivation of modes of behavior. From the point of view of behaviorism, education consists of a process of substituting new forms of behavior

for old ones. The forms of behavior with which we are born are known as reflexes; the forms of behavior which are substituted for them are designated by such names as “acquired reflexes,” “conditioned reflexes,” or habits. Habit becomes the fundamental category in education. (p. 129)

At the time of his writing, behaviorism was still in its infancy, hence Bode takes the entirety of the ninth chapter of the first book to outline its basic premises; at the end he offers the following ideas for consideration:

The behavioristic movement in psychology is not merely an irresponsible revolt against traditional doctrine, but... it has considerable justification, both in the intolerable difficulties and obscurities connected with the dualism of mind and body and in the plausibility of the explanations which it proposes as a substitute for those which it rejects. If behaviorism is true, our educational practice must be revised from the ground up. (p. 150)

In other words, although Bode was by no means a supporter of the theory or the educational practices suggested by behaviorism, he saw its rise as a logical reaction to the tenacious hold that dualism had on educators’ theories of mind regardless of various attempts at reform. He points to the failure of Herbartianism and “the whole educational movement that took its point of departure from a psychology of mental states” resulted from the fact that they did not truly shake off the old dualism of mind and body (p. 153), and the field of education did not enjoy the full benefit of finally being free from the restrictions of a purely classical curriculum (p. 155). On this point Bode concurs with Dewey’s analysis that the persistence of dualism in education had continued to hinder the true renovation of educational practice, and that educational reforms based on the theory of mental states became an “ally of traditionalism” rather than an engine of reform (p. 156). Bode conceded that, as a system of psychology, behaviorism offered a credible solution to the Herbartian preoccupation with ‘consciousness’ to the point that it disregarded the body. The attraction of behaviorism was its proposal that consciousness was “a fictitious entity and therefore superfluous” and thus proposing to “wipe the slate clean and take a new start” (p. 157).

Purposive psychology

One of the primary objections to behaviorism that was raised soon after its introduction was the lack of any recognition of the “purpose” or “aim” behind the behaviors that were being observed. Bode attributes the reluctance of behaviorist researchers to assign purpose to behaviors was based on their fears that such terms would “be made a cover for introducing into the occurrence an outside agency, like mind or spirit or mental states” (p. 175). However, there are serious educational implications in denying the existence of “purpose” or “aim” to human actions:

If purposive behavior is different from mechanical behavior, it is necessary to know just how it differs in order that educational practice may take account for the difference and cultivate those traits which are distinctive of intelligent behavior so as to make intelligent behavior more intelligent. (p. 175)

Surprisingly, Bode makes no reference whatsoever to the work of the William McDougall,⁵ the noted founder of “purposive” (or “hormic”) psychology, but turns instead to a discussion of Thorndike’s theory of “conduction units” in which environmental stimuli were substituted for the problematic concept of purpose. Bode’s assessment of this theory is that the behaviorists had grossly oversimplified things “by assuming that purposive behavior can be reduced to a sequence of reflexes” (p. 188). Bode’s analysis of the situation is that once psychology came to depend entirely on the response of the nervous system to the environment in the form of behaviorism, a new dualism had been created that was just as problematic as the mind/body dilemma it had tried to avoid (p. 190). As he sees it, psychology faces the following dilemma:

On one hand we can maintain the distinctiveness of purposive behavior, if we have the hardihood to reinstate the “mind” or “consciousness.” On the other hand we can get rid of purpose by reducing everything to mechanical action, if we are content to close our eyes to the difficulties that are involved. (p. 191)

Furthermore, Bode contends that this dilemma is part of the larger picture of the dualistic nature of the mind/body problem. As he puts it, “in the course of time the road forked, one branch leading to mental states and the other to behaviorism” (p. 192). His ultimate appraisal of behaviorism is as follows:

Behaviorism has undoubtedly rendered a notable service to psychology in challenging the assumption of mental states and in limiting the claims of introspection. But it has not succeeded in proving its contention that physical behavior tells the whole story, or even in making this contention intelligible. Historically it represents a reaction against the doctrine of mental states. If we concede that this doctrine is an outworn creed, the psychology of behaviorism naturally looks inviting. But the difficulties of behaviorism seem to compel a return to mental states; and so the seeker after truth is driven from pillar to post. (p. 210)

Gestalt

Bode turns next to the theories of learning that arose from the research undertaken in the

⁵ It is possible that Bode’s avoidance of direct reference to McDougall has to do with the latter’s precarious standing in the American psychological community (see Hergenhahn, 2001).

early years of Gestalt psychology by and Wolfgang Köhler and Kurt Koffka:⁶

Our point of departure, then, is the proposition that the environment as perceived changes concomitantly with changes in bodily reaction. The bodily reaction that takes place in a normal experience comprises a complex of responses, some of which are overt, but many of which are not. The entire complex constitutes a temporary unity, in the sense that the various elements—reflexes and habits—tend to modify one another so as to result in an activity of an adaptive kind. Consequently these elements are not what they would be if they occurred alone or if they occurred as parts of a different complex. (p. 228)

Later Bode includes Koffka's own description of the essence of a Gestalt, or "configuration" as it was often rendered into English at the time:

A coexistence of phenomena in which each member "carries every other" and in which each member possesses its peculiarity only by virtue of, and in connection with, all the others. (p. 230)

Initially Bode's interest in Gestalt psychology seems mainly to have been that it gave "an interpretation of purposive behavior which avoids both mental states and outright mechanism" (p. 230). Yet, with his keen awareness of the subtle nuances of psychological theory and its potential for educational practice, Bode seems particularly fascinated with what Gestalt had to offer:

The central feature of learning, from this point of view, is reconstruction, synthesis, building up, and not merely a process of analysis. Its chief reliance, accordingly, is on the cultivation of this power of construction, and not habit or drill... This new approach thus represents a point of view that is full of significance for educational theory and practice. (pp. 231-232)

In spite of its promising implications, Bode conceded that the ideas of Gestalt had not yet been codified into a scientific theory that could take on the leading contender, behaviorism (p. 232). In the 1940 revision, though he refers to the same examples of experiments into "insight" from Köhler's ape studies (p. 237-241), Bode seems to have lost hope for the potential of Gestalt to shape educational practice.⁷ Even so, Bode offers the following description of the essence of Gestalt's implications for education:

Learning, then, is a term that covers a variety of meanings. Sometimes the emphasis is on

⁶ As both Köhler and Koffka had held teaching posts in the US during the mid-1920s, Bode was familiar with their writings that had been translated into English. The work of Max Wertheimer, the father of Gestalt psychology, was not well known outside of Europe until he arrived in New York in 1933 to escape persecution by the Nazis.

⁷ As none of the three founders of Gestalt theory was directly involved in the area of educational research, its implications for education were quite long in being recognized. Even so, Köhler's writings on the nature of insight along with Wertheimer's last book, *Constructive thinking* (1945), made significant contributions to the field of educational psychology.

the co-ordination that is acquired, as in the case of a batsman who learns to hit the ball safely, or the golfer who learns to correct a fault, without, in either case, know how it has been done. All we can say is that there is an improvement in the “feel” of the thing. Then there is the kind of learning in which the emphasis falls on this change in the “feel” or the quality of the experience; as when we learn to judge the speed of an automobile or distrusts certain persons, without being able to specify the clues on which we rely. Lastly, there is the kind of learning which is based on some trait or fact or relationship that can be analyzed out and offered as evidence, as when we infer from the appearance of a lawn that it needs sprinkling or when we abstain from coffee because it keeps us awake at night. The clear perception of relationships is what is sometimes designated as insight. (p. 241)

Pragmatism & functionalism

Bode’s central thesis throughout this book has been that “theories of learning are embodiments or applications of conceptions regarding the nature of mind” (Bode, 1929, p. 267). Thus far he has described a number of divergent theories of mind, and described the learning theories to which they have given, or could give, rise. From this point on, Bode devotes himself entirely to the theory of mind based in the philosophy of *pragmatism*, the theory of mind to which he personally subscribed. The following passage offers a cogent summary of the essential concept of psychology from a pragmatic point of view:

The continuity of the activity is derived from the fact that the stimulus provides for its own progressive completion. When the stimulus is completed, the purpose has been fulfilled. As was said before, sense-perception is a very practical affair. We have no concern with things as they are “in themselves,” apart from human activities. The fact that we experience things in terms of our reactions to them does indeed carry the implication that all our knowing is relative, but it offers no ground for the notion that our perceptions are existentially distinct from objects, as is taught by the doctrine of “consciousness,” or that our knowledge is not “true” or “valid.” We test our perceptions, not by comparing them with the “real object,” as we might compare a photograph with the person himself, but by taking appeal to other perceptions. Thus an object seen as solid is seen truly if the hand bears out the testimony of the eye. (p. 250)

Pragmatism had taken form in the early years of the twentieth century as an outgrowth of the philosophies of William James and C. S. Peirce, holding that the meaning and truth of all concepts is to be determined by their practical consequences (Rescher, 1995). The system of psychology that most completely aligned itself with this philosophical stance was that of

functionalism as it took form in the work of John Dewey. The chief interest of functionalist psychologists was in mental processes “not merely as contents but as operations” and “in studying them in their natural settings and from the standpoint of their utility” (Heidbreder, 1933, p. 202). In the 1929 version of his book, Bode does not use the term “functionalism” in direct reference to psychological theories of a pragmatic bent; the 1940 version, however, there are a number of references to the “functional theory of mind,” and it is clear that that he considers pragmatism in philosophy and functionalism in psychology to be all of one piece (see Bode, 1940, p. 224-5).

For Bode, pragmatism was the only logical alternative to two important but unsatisfactory solutions to the mind/body problem as related to intelligence and education: the old dualism and the new behaviorism. In dualism he saw the error to be one of requiring “an agency that functions from the outside,” whereas behaviorism was on the wrong path in its attempt to reduce intelligence “to terms of physics and chemistry.” Yet because he found both theories to be flawed, Bode reckoned that choosing one or the other was in the end “educationally unimportant”:

In neither case can intelligence be made to function effectively in learning situations. The difference is unimportant because neither position gives practical recognition to intelligence or mind as the function of recreating or reinterpreting a situation so as to give it a new meaning. In other words, educational theory can hardly provide an escape from the ideal of conformity to the existing order, unless intelligence is regarded as a certain unique type of interaction between a living organism and the things of its environment. (p. 268)

If we compare this passage with the description of Dewey’s functionalist psychology found in Heidbreder (1933), the theoretical unity between Bode’s “pragmatism” and Dewey’s “functionalism” becomes quite apparent:

In his [Dewey’s] scheme, the old dualism disappears... Mental acts are not psychical events pure and simple; they are events in which both the physical and the psychical are present. Rising in the midst of the world of nature, they play their part in that world like any other natural event... Dewey’s teachings... meant that mental process cannot be disengaged from their conditions and consequences, that they are activities of creatures who are pursuing ends, entertaining purposes, engaging in enterprises literally “of consequence.” (p. 213)

In the following two passages Bode describes functionalism from the standpoint both of theory of mind and of educational practice, or rather, how a pragmatic conception of the nature of mind could be embodied as a theory of learning. As a result, they also serve as a good summary of his personal beliefs about education:

In a word, the concern of education is not with the strengthening of mental faculties, nor with the acquisition and organization of information, nor yet with the formation of S-R bonds,

but with the cultivation of thinking... Thinking means flexibility of habit; it means a dominating purpose which achieves its realization by a reconstruction or reorganization of previous experience. (p. 274)

The process of securing or enriching concepts, being a process of synthesis as well as analysis, requires the teacher to consider carefully beforehand the elements of constituents that should be included in the concept. When it is once clearly perceived that the pupil must perform this process of building concepts for himself, the whole educational venture takes on a specific direction. It at once becomes necessary to leave the pupil sufficient room for initiative and experimentation, it requires problems to be meaningful and not just school tasks to be got through with somehow, it provides for sustained endeavor, without which interest degenerates into caprice and a quest for amusement, and it imposes on the teacher the obligation to vary or adapt his methods so as to make them instruments for the promotion of thinking. (p. 282)

Conclusion

Summary

The aim of this article has been to explore the field of educational psychology in the early twentieth century as seen through the eyes of the American scholar and pedagogue, Boyd H. Bode. His passion for the notion that having a well-articulated “theory of mind” is essential not only for researchers in the field of educational psychology, but especially for classroom teachers who are the actual practitioners of education, might well be a guide to those of us engaged in teaching and teacher education in the early twenty-first century. In an age when the dominant metaphor for mind has become a machine of our own invention—the digital computer—a reconsideration of the underlying theories of mind that have brought us to this point is long overdue.

A subsequent article will begin where Bode left off, beginning first with the topic of Gestalt theory since it did eventually make contributions of outstanding importance to the field of educational psychology through the later writings of Max Wertheimer and Kurt Lewin in America, and Wolfgang Metzger in Germany. In addition, one theory of mind that had an immense impact on Western culture at large during the twentieth century is conspicuously missing from Bode’s work, that of depth psychology. Although Freud, Jung and Adler had little to say about how the theories of psychotherapy might benefit educational practice, the implications of the writings of individuals such as Anna Freud (Freud’s daughter), Dorothy Burlingham, Erik Erikson, Melanie Klein, Karen

Horney and Otto Rank are full of implications for educational practice. Finally, the explicit and implicit theories of mind contained in the systems of developmental psychology, humanistic psychology, cognitive psychology, social psychology, family psychology and cultural psychology all merit analysis along the lines of what Bode undertook in the late 1920s.

As a guiding precept for the future studies of educational psychology, one phrase from Bode's writings bears repeating again and again: "The question of what learning is can be answered only in terms of what the mind is; and our conception of the mind, in turn, will decide what we consider to be "good" for the mind in terms of an educational program" (Bode, 1929, p. 6).

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Table 1

Comparison of Systems of Psychology: 1929-1940

THE PSYCHOLOGIES ⁸	MAJOR EXPONENTS	Bode (1929)	Bode (1940)	Heidbreder (1933)	Murchison (1926)	Murchison (1930)	Ragsdale (1932)
Pre-scientific psychology	Descartes, Locke, Hume, Herbart	✓	✓	✓			
Structuralism	Wundt, Titchener	✓	✓	✓	✓	✓	✓
The psychology of William James	James	✓	✓	✓			✓
Functionalism	Dewey	✓	✓	✓		✓	✓
Behaviorism	Watson	✓	✓	✓	✓	✓	✓
Dynamic psychology	Woodworth			✓	✓	✓	✓
Gestalt psychology	Köhler, Koffka, Wertheimer	✓	✓	✓	✓	✓	✓
Analytical (depth) psychology	Freud, Jung, Adler			✓		✓	✓
Purposive (hormic) psychology	McDougall	(✓)	(✓)		✓	✓	✓
Reaction psychology	Dunlap				✓	✓	
Factor psychology	Spearman					✓	
Act (intentional) psychology	Brett					✓	
"Russian" psychologies	Pavlov					✓	

⁸ The order of the first eight "psychologies" is that used by Heidbreder (1933).