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A COMPARISON OF
STRUCTURALISM, FUNCTIONALISM, AND BEHAVIORISM

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Independent Study

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Introduction

The purpose of this paper is to define the schools of psychology known as structuralism, functionalism, and behaviorism, and to show similarities and differences among them.

As with most things, in time their boundaries expand and tend to overlap or be assimilated into other areas. The systems delineated here are no different. What may have begun as a radical thought for the time was challenged and modified or explained time and again by successive philosophers/psychologists until the schools blended somewhat. This vicissitude has made the study of the systems difficult and has made it necessary to look at the systems from the beginning in order to have a demarcation for comparison.

Much of the paper will be quotes from persons directly associated with the schools of study or from authorities in the field. It would take years to be familiar enough with the works of the originators of the systems and to understand them well enough to do a completely original comparison. This paper is more an attempt to correlate the information gathered from numerous readings and to put it in the perspective of a comparison.

Definitions of the Systems

Structuralism

The structural definition of psychology was the analytic study of the generalized adult normal human mind through introspection. This approach was dominant in America from 1890 to 1920.

This formalized technique of self-observation was to break down perception into sensations, resolve ideas into images and analyze emotions as affections. Or, restated, to analyze actual mental experience into its simplest components, to discover how these elements combine, to find out the laws which govern their combination (or synthesis), and to bring them into connection with their physiological conditions (Marx & Hillix, 1973).

This school was fundamentally the continuation of the psychological system of Wilhelm Wundt. Wundt, who was evidently a very systematic organizer, is considered a forerunner of great magnitude of the structuralist movement. His influence brings about the mention of him throughout the history and systems of psychology.

Titchener, who studied under Wundt, contended that introspection was valid only when conducted by skilled, well-trained subjects under strict experimental conditions. To this analysis of conscious experience he gave the name "structuralism" and established it as a psychological science.

History shows that this structuralistic approach never really made a home in America although many students were attracted to Cornell University through Tichener during his time there.

Functionalism

The varied connotations of the term "function" was reduced to two basic notions by C. A. Rucknick, a student of Titchener. Rucknick's study reported by Misiak and Sexton (1966) showed that function usually means either "mental activity such as perceiving and recalling or a use for some end (p.320)."

There never seemed to be a single functional psychology in the same sense as there was a single structuralism; each of the psychologies was a little different from the others. There was much overlapping, and blending of ideas.

Functionalism is best defined as a school of psychology which emphasized mental acts or processes as the proper subject matter for psychology, as opposed to structural psychologies, which emphasized conscious contents. The functional point of view held that the mind should be studied in terms of its usefulness to the organism in adapting to its environment.

Functional psychology signified a protest against the system of psychology concerned primarily with the structure of the mind, and with the separation of mental contents into

their component elements. Thomson indicated that functionalism stressed that "mental processes cannot be separated from the conditions, internal and environmental which give rise to their occurrence, nor from their effects--of which the human agent frequently has foresight (p.152)."

It is seemingly appropriate to consider functionalism distinctly American since the functional approach originated here, and since it was in America that structuralism and functionalism met in strong opposition with the margins of functionalism specifically laid out.

Functionalism faded out, but it left its mark. It led to further development and refinement and set a direction which many American psychologists were to follow. It was not so much rejected as it was absorbed into the general fabric of American psychology (Lundin, 1972).

Behaviorism

Behaviorism is a theoretical point of view initiated by Watson which holds that the subject matter of psychology is behavior without reference to consciousness or mentalistic constructs. As Watson (1925) stated, the behaviorist "dropped from his scientific vocabulary all subjective terms such as sensation, perception, image, desire, purpose and even thinking and emotion as they were subjectively defined." He further stated that "behaviorism claims that consciousness is neither a definite nor a usable concept. The behaviorist, who has

been trained always as an experimentalist, holds, further, that belief in the existence of consciousness goes back to the ancient days of superstition and magic."

Overt behavior, that which could be seen and measured, was all that counted. Watson himself included verbalization as a kind of behavior. All that was needed to explain it was the simple and classical stimulus-response formula, with the added refinement of the conditioned reflex. Conditioning gave revolutionary impetus to the behavioristic movement; it was power and control.

In a paper which launched the behavioristic school, Watson indicated his original position. He said that behavioristic psychology is a purely objective experimental branch with a goal of predicting and controlling behavior. He further said that the behaviorist recognizes no dividing line between man and brute (Marx & Hillix, 1973).

Structure of the Systems

Structuralism

The introspective observations of structuralism, as begun by Wundt and later carried out by Titchener, verified the basic elements of consciousness which came down from the British Empiricists. The three classes were sensations, images, and affections. Sensations were the elements of perception and images were the elements of ideas and represented patterns not actually present or complete. They were less clear, less intense, less vivid and less prolonged. The attributes were

quality, attensity, intensity, extensity and protensity.

Titchener held that there was a quantitative difference between image and sensation.

Titchener gave considerable discussion to problems of attention. Attention became the focus of consciousness. Here Titchener went further than Wundt and described three general states of attention: (1) Naive or involuntary; (2) Voluntary or secondary; and, (3) derived or habitual attention.

About association Titchener is reported to have said that whenever a sensory or imaginal process occurs in consciousness, there are likely to appear with it (in imagined terms) all those sensory and imaginal processes which occurred together with it in any earlier conscious present...the law of contiguity can be forced into structuralism's own translation of association (Lundin, 1972).

Functionalism

According to the definition of functionalism attributed to Carr (Misiak & Sexton, 1966), functionalism, stressing the "what for" of consciousness was concerned with "the acquisition, fixation, retention, organization and evaluation of experiences, and their subsequent utilization in the guidance of conduct (p.324)." Learning through which adaptation is modified was the main area of research. Attention, perception, and intelligence were also stressed.

The theory of evolution, the heredity-environment problem, the concept of man as an organism, the study of animal behavior, genetic, comparative, and psychophysiological studies were all expressions or results of this orientation.

The interest in the "what for" led to study of motivation, purpose and goal.

Behaviorism

Watson and other behaviorists had no use for introspection or mentalistic concepts. Instead, they developed a purely objective, mechanistic method of psychological study. They used observation, conditioning, testing and verbal report.

The methods and the data studied varied somewhat throughout the behavioristic period; however, response conditioning is the key element. Theories to explain learning and stimulus-response models lead to multitudinous experiments to prove the connection between the prevailing conditions and out acts. Behaviorists claim that all behavior can be analyzed in terms of these S-R connections.

Behaviorism was aimed at getting more accurate empirical data by observation of overt responses and environmental conditions. Measurable S-R variables made prediction of behavior possible. If behavior could be predicted then it seemed to the behaviorists that it could be controlled.

Skinner claimed to have discovered techniques which allowed him to control reinforcement of behavior, and, in turn shape

behavior. He showed these techniques to be effective with rats, pigeons, and even in the classroom.

Dimensional Properties

Structuralism

To define the dimensional properties of structuralism is to show how it is restrictive and structural. Although it can be measured quantitatively, its organization is not highly objective. The science was transpersonal in orientation and tended to emphasize exogenous agents. Although some considered structuralism static, Wundt and Titchener claimed that consciousness was a process.

The dimensional characteristics which are most outstanding are mentalism, structuralism, and empiricism.

Functionalism

It is more difficult to describe functionalism's dimensional qualities because it is not extreme. Functionalism was an open system with a functional orientation yet restrictive toward experimentation and analytic in approach. The science was slightly transpersonal in orientation and considered both exogenous and endogenous factors.

Functionalism was a diverse school and functionalists were willing to accept any reliable empirical data without formulating awkward theoretical positions or doctrines.

The most outstanding dimensional characteristics of the functionalistic school were utilitarianism, functionalism, and

molarism. This latter tendency to encompass large units of study was considerably different from structuralism.

Behaviorism

Behaviorism tends to be more simple and clear than the other schools. It is best described as being of restrictive, analytical and structural orientation, leaning strongly toward objectivism, elementarism, and exogenism. It is quantitative, static and transpersonal in orientation.

The dimensional characteristics most prominent are contentual objectivism, methodological objectivism, and determinism.

Mind-Body Position

Structuralism

Titchener adopted from Wundt a position of psychophysical parallelism. He clearly made a distinction between the mental and the physical. Neither caused the other and they did not interact, but a change in one accompanied a change in the other. Fincher (1972) credits Titchener as having said that "structure exists prior to function and must be understood before function can be explained (p.37)." He meant the structure of consciousness here and not the structure of the nervous system.

Functionalism tends to adopt a monistic position toward the mind-body problem but is not firm in doing so. It seemed to be of little importance in the functionalists' discussion of psychology to consider this distinction at all.

Behaviorism

Watson's early position on the mind-body problem indicated that the facts of mind might exist but it is not the object of psychological study. Later, he denied the existence of the mind, or consciousness.

According to Marx & Hillix (1973) behaviorists generally took an epiphenomenal view. Radical behaviorists "turned to a strict physical monism, according to which 'mental' is merely a description of the way the physical events function and consciousness has no independent or unique existence (p.180)."

Criticisms and Contributions of the Systems

Structuralism

Partly because it was one of the first systems to evolve and partly because of its restrictive nature, structuralism was vehemently attacked by its opponents.

One important criticism of structuralism was that Titchener had created a psychology which limited itself to the immediate experiences of normal human adults. He tended to ignore the other psychologies which were emerging and became aloof and self-contained.

The school's method of introspection to receive empirical data was also strongly opposed. There were those who considered this technique to be unreliable and felt that the act of introspection might change the experience by bringing one's personal

bias into the reporting of the experience. It was even suggested that the same techniques were affording different data.

The question arose as to whether the vocabulary of the structuralists was any more precise by being special. The verbal report of the structuralist was still the essential mean of analyzing.

When the more observable aspects of behavior became the concern of the psychologists the highly subjective introspection declined in popularity. The attitude within the discipline became one of utilitarianism and application.

Structuralism did make many contributions to psychology. Probably the most important contribution was simply the fact that it separated and established psychology as a science in its own right.

The system and its subject matter were neat and well defined. The sophisticated control placed on the experimental variables was of great importance and many of the theories of the human sensory modalities persist today. The absorption of structuralism into today's psychology can readily be seen.

Functionalism

A new way of looking at psychology was given birth through functionalism. It intended to study mental processes or functions rather than the senses. This opposition was a critical issue and launched many attacks from both schools.

One of the most common criticisms of functionalism referred to the vague nature of the school. An example of this being the many available definitions of the term "function". It was also the accusation of many that the functionalistic approach was unscientific in methodology.

The teleological aspect of functionalism was also criticized highly by some, although the position was rather common. The determinists objected to any emphasis on utilitarianism or reference to goals.

Functionalism was also accused of being too eclectic. However, it did not have any intention of becoming a strict school, instead it was a flexible system.

The constant struggle to remove the limitations of other schools of psychology and to accept individual differences and applications of psychology was probably functionalism's greatest contribution to the science. Functionalism was concerned with psychological testing, child psychology, abnormal psychology and animal behavior. This movement was influential in the trend toward intelligence tests.

Functionalism began to place more emphasis on overt acts as it evolved. This opened the door for behaviorism to step in and define itself. Also, the system's emphasis on abnormal psychology led to the functions of the therapists and the utilitarian adaptation.

Behaviorism

One of the major objections to behaviorism was that the extreme formulation of Watson's school left out much of the importance of psychology. The strict objectivity left out many factors such as the accuracy and meaningfulness of verbal report, and the functional relations of conscious external or bodily experiences.

Another critical objection of the methodological aspect of behaviorism charged that, although stressing only the observable, Watson included behavior tendencies which were not directly observable. Much of the misunderstanding of behaviorism has been because the actual experimental program and the underlying theories have shown marked discrepancies.

Behaviorism's mechanical teachings are confused by the vast interpretations offered by virtually everyone in the field. Watson's own definitions were, according to Marx & Hillix (1973), "too casual and flexible and lent themselves easily to a certain amount of post hoc bending to account for results (p.198)."

Noam Chomsky, in an article against Skinner (Matson, 1973), attacked his terminology and language. He stated that "Skinner does not comprehend the basic criticism: when his formulations are interpreted literally, they are clearly false, and when these assertions are interpreted in his characteristic vague and metaphorical way, they are merely a poor substitute for ordinary usage (p.65)."

Marx & Hillix (1973) indicated that the "elimination of fruitless concepts and the hardheaded attitude toward all concepts were behaviorism's outstanding contributions (p.192)."

Behaviorism appealed to American psychologists for several reasons. First, behaviorism was American, and second, Watson himself had a strong and appealing personality. Behaviorism's simplicity was also a point of attraction.

Paul Kurtz, in Matson's Without/Within (1973) stated that behaviorism is basically humanistic, this gives it further acceptance. Kurtz quotes Skinner as saying that to refuse to control is to leave control to other social and nonsocial environmental powers.

Summary

As a systematic school in psychology, structuralism no longer exists. It was limited, it defied application, and rejected objective data. Eventually it was realized that objective data was essential and today only the basic scientific attitude of structuralism and some forms of introspection have survived.

Like structuralism, functionalism no longer exists as a formal system in psychology. It has made an important contribution to today's psychology.

Behaviorism, too, has been forced to change and adapt. Without its methodological restriction it lost its foundation

and ceased to be a complete system.

The three systems have evolved into a psychology that is further from philosophy and closer to natural sciences. Misiak and Sexton (1966) summarized the schools by saying "it has become more quantitative than qualitative, more practical than theoretical, and more concerned with the control and prediction of behavior than with its understanding. Having become the dominant orientation...behaviorism—is being challenged and confronted with new theoretical alternatives (p.345)."

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