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# THE TECHNE

Life without Labor is a Crime, Labor without Art  
and the Amenities of Life is Brutality.—Ruskin

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JANUARY-FEBRUARY, 1928

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To teach is not alone to tell  
A thing or two and say it well,  
And knock into the denser pates  
A repertoire of facts and dates;

To teach is not alone to drill  
And force to march up learning's hill  
Upon their bowed and weary legs  
A squad of little human pegs;

To teach is not alone to curb  
Unruly youths who school disturb  
And make reports and hand out  
grades,  
And deal with pupils as with shades.

To teach? It is to reach, to find  
The hidden laws of growing mind;  
In boy to see the coming man;  
Then shape him to a splendid plan—

—Dr. C. A. S. Dwight.

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PUBLISHED BY  
KANSAS STATE TEACHERS COLLEGE  
OF PITTSBURG, KANSAS.

Vol. XI

No. 3

# THE TECHNE

Published by the Kansas State Teachers College of Pittsburg  
Pittsburg, Kansas

W. A. Brandenburg, President

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Vol. XI

JANUARY-FEBRUARY, 1928

No. 3

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The Techne publishes, for the most part, papers on educational subjects, though articles on closely related fields are also used. Part of these papers set forth the results of research; others aim at interpretation of current developments. Though some of the discussions will interest the specialist, it is hoped that in every number there will be something useful for the average teacher.

The Techne is sent free to alumni, teachers, school officials, libraries, and, on request, to any person interested in the progress of education.

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## TABLE OF CONTENTS

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Contemporaneous Behaviorism.....	4
C. B. Pyle.	
Advantages and Disadvantages of Objective Examinations.....	17
L. D. Morgan.	
Versification .....	28
I. G. Wilson.	
Stone's Method of Subtraction.....	42
W. H. Hill.	
Campus Jottings.....	44

## ANNOUNCEMENT

On account of false rumors to the effect that the Kansas State Teachers College has been dropped from the North Central Association, we make the following statement:

The Kansas State Teachers College has the same accredited standing it has always had. It is on the accredited list of teachers colleges of the North Central Association. The institution is also on the A list of accredited teachers colleges in the American Association of Teachers Colleges. Scores of our graduates are now doing graduate study in the best colleges and universities in America, and the reports from these institutions of their progress are highly gratifying.

The above statement is made, not to boast, but merely in justice to the College.

W. A. BRANDENBURG,  
President.

**CONTEMPORANEOUS BEHAVIORISM\***

By C. B. Pyle, Professor of Psychology

Among the most trenchant articles which have set the current of behaviorism in definite, clear-cut channel, are those of Professor Singer on the subjects, "Mind as an Observable Object" and "On Mind as an Observable Object"—articles which were prepared for the association in 1910 and 1911, and which appeared in the *Journal of Philosophy* (1911 and 1912). They were afterwards published, with other essays, in "Mind as Behavior" (1924). Professor Singer is the Moses of behaviorism on the philosophical side, as Watson is the Aaron on the psychological. Singer and Watson are the creators of behaviorism in the extreme form. Singer sets forth that mind is but moving atoms; consciousness is behavior of the organism. Mind is completely objective, and is known through social contacts and social judgments. One can not know his mind by introspection, but each "knows himself through others." Mind is to be known through the observation of behavior. Provoked by the question of Miss Washburn, "What is to be done with the thinker who exhibits no behavior, for the reason that he is thinking?" Singer resorted to Aristotle's notion of potentiality (minus the form) in his discussion of the "Passive Thinker." Miss Washburn's question compels Singer, after some evasion to begin his search for behavior "by looking for such movements of atoms as are actually moving too slightly for us to observe." He would look chiefly at the tongue and strained eye-muscles. The challenge flung out by Singer to the comparative psychologist to solve the problem of the "Passive Thinker," combined with his suggestion that light might be found by observation of the tongue, eyes, or muscles strained in inhibition, proved the starting point of Watson's development.

With the mention of Singer and Watson, we have introduced contemporaneous behaviorism. There are still other varieties of behaviorism, which we need to examine before we undertake to develop the types of behaviorism and their metaphysical implications. It will help to clarify our subject to group the different behaviorists according to their similarities of treatment of consciousness and subject matter, so far as we are able to do so. Roback discovered forty-one different brands of behaviorism, one for each behaviorist. Doubtless, there are many divergent points of view. It is impossible to group the behaviorists under strictly uniform classes, because few of them completely agree. But many of them may be grouped relative to significant aspects; in some respects they all agree.

The extreme group of behaviorists to which Singer belongs wish to banish consciousness altogether. Weiss and Watson are among the most violent in this respect. This is probably one reason Professor Hunter claimed, erroneously, that there are only two behaviorists,

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Watson representing the only true behaviorism. Professor Hunter had a better reason for his citation in the fact that both Weiss and Watson repudiate consciousness as the subject matter of psychology and include the organism in stimulus-response relationships to the environment.<sup>1</sup> The efforts of Weiss are directed against all systems of psychology that recognize the physical and psychical series, that is, that admit a dualistic conception. He points out that behaviorism is monistic. He turns the "mental states" of orthodox psychology into "neural processes." Therefore consciousness has no existence.

Weiss and Watson agree in renouncing consciousness, both by insisting on the method of observation and in the selection of subject matter. Weiss treats it as a "mechanical function of the environment and the reacting system." He stresses the neural, while Watson stresses muscles and glands. Weiss agrees with Watson in adopting the "total response" of the organism as the factor of response to stimulus.

Bawden in his behavioristic venture belongs to the same category as Watson and Weiss. We see the same stress on the objective methods; the same dismissal of consciousness; the same stress on unity; and the same interpretation in purely natural terms by which the mental is reduced to a supposed scientific formula.<sup>2</sup> He strengthens our conviction, as we read behavioristic literature, that behaviorism is primarily an interpretation of the human organism from the natural science point of view. To this entirely it owes its method, which, most behaviorists agree, is as objective as that employed in any of the natural sciences. To this mainly, it owes the assumption that the mental, which once was thought to be spiritual—and is still thought to be so by the majority—perhaps, is, after all, only some form of the physical and natural. It must be in fact, because the natural constitutes the full round of reality. The soul had a chance so long as we conceived the universe as composed of two worlds—the spiritual, or psychical; and the natural, or physical. To the former, the soul belonged to the latter, the body. But evidence is accumulating to support the view that no sharp cleavages are to be found in nature—that there is no sundering of mind and matter in the matrix of world formation, nor in the human mind and body. The gulf between reflex and instinct, and between instinct and intelligence must at length close "before a more adequate analysis."

Bawden would place man among other objects in space and time, just a thing in a world of things, "including stones and stars and atoms

<sup>1</sup> *Journal of Philosophy*, Volume XIX (1922)

<sup>2</sup> "The Relation Between Physiological Psychology and Behavior Psychology," *Journal of Philosophy*, Volume XVI (1922), p. 634.

<sup>3</sup> "The Presuppositions of a Behaviorist Psychology," *Psychological Review*, Volume XXVI (1918).

and electrons." We are machines, only more delicately constructed than some other things. We "behave as persons" to whom we ascribe "mind, soul, spirit, consciousness, feeling, sensation, memory, etc." These same characteristics "may be latent even in atoms, and stones and stars." Here he takes an abrupt departure from Weiss and Watson. Bawden reverses the procedure of Singer, who sinks the genius of man into the sea of atoms; while the former lifts the feebleness of the clod into the human realm, and thus finds continuity and uniformity.

Roback, in his "Chart of Behaviorism," assigns Bawden and Bode to the same category, partly no doubt, because they are philosophical pragmatists, and partly because of their similarity of language in the description of stimulus and response. This likeness is more superficial than real; for, whereas Bode institutes a sharp division between the mechanical behavior and "conscious" behavior, Bawden wishes to obliterate all distinctions. "What we observe in so-called introspection is usually but the inner bodily beginnings (Watson's 'implicit processes'), hidden from outer view, of the same behavior which in its overt manifestations is described by external observation." "There is no difference in the nature of the facts, but only in their accessibility." "A nascent response is just as truly an objective datum as a completed performance." This conception is fundamental in his behaviorism, and this is Watsonian. Bawden does not lift his behaviorism above the realm of the mechanical, although he defines psychology "as the science of the behavior of organisms in so far as they exhibit mentality." His "mentality" is reduced to the capacity of the organism to use one part of its experience to control another (this shows Dewey's influence), and with this definition disappears the last vestige of "mentality" or "consciousness" believed in by the conventionalist. The chief contentions of Bawden on the psychological side, would rank him with Watson and Weiss; his philosophical sallies would bring him nearer to Singer's atomistic energism.

K. S. Lashley must be given a place among the most thorough-going behaviorists. A collaborator with Watson, he indorses his most extreme position that all psychology must be emenable to physical and physiological interpretations. He challenges the conventionalist to bring any subject matter of psychology that behaviorism can not explain. He grants that behaviorism has not explained introspective phenomena, and chides it because it has ignored it, and further says that behaviorism will never have the psychological field for its own until it does meet psychological dualism on its own ground. He is confident that the categories of physics, chemistry, and physiology will prove sufficient for psychology also. At any rate, psychology must be freed from all metaphysical entities and brought

"The Presuppositions of a Behaviorist Psychology," *Philosophical Review*, Volume XXVI (1918).

within the bounds of a purely natural science. Dewey also in one phase of his philosophy, in some respects, is a metaphysical behaviorist.

The members of another outstanding group present striking similarities, and give support to behaviorism. They are the neo-realists. Foremost in this group are Perry, Holt, and Bertrand Russell, the English neo-realist. All are logical realists. Each tries to confine his thought to the natural organism and environment, but he ends with the acknowledgement of a world beyond the natural. Each makes purpose and teleology a significant feature of his system. They precisely agree that matter in the lump is nothing "purposive"; but matter organized toward an end or responding to a definite portion of the environment in a series of acts, is purposive, and when behaving thus, might be said to be "conscious" and "intelligent."

We must think of Bertrand Russell as belonging to this group of realists, though he disavows strict realism. In the first place, Russell is "The Other Wise Man" to the group of American new realists. He sustains close kinship to members of this group on the epistemological and metaphysical side and shows a strong bias toward Watson (there is not complete agreement) on the psychological side.

Though Russell playfully criticized Watson's form of Behaviorism earlier ('How Propositions Mean,') his behavioristic bias is clearly seen in his "Analysis of Mind." Here he attempts to reconcile the materialistic tendency of psychology and the idealistic tendency of physics. Russell seeks to deliver behaviorism from a materialistic ultimate, on the ground that the behaviorists regard physics as the most fundamental of all the sciences, and that physics does not assume the existence of matter. Therefore, the "neutral stuff," suggested by James and adopted by the new realists, of whom Russell professes to be enamored, is also acceptable to the latter, who finds it a "point of reconciliation of the materialistic tendency of psychology and the anti-materialistic tendency of physics." To this end, Russell devotes fifteen most interesting chapters, with an ardor and insight truly remarkable.<sup>5</sup>

Another group wish to make more of the psychical, while they also stress the biological. They are the psycho-biological behaviorists. Knight Dunlap, Abbott, and Kempf may be placed in this group. Roback thinks that Dunlap is a "behaviorist in disguise"<sup>6</sup> despite his more recent attack on behaviorism. Dunlap denies emphatically that introspection is possible.<sup>7</sup> Upon this point he is in practical agreement with most behaviorists, who either minimize the importance of introspection or deny it altogether. Dunlap also rejects representative knowledge as set

<sup>5</sup> The Analysis of Mind.

<sup>6</sup> Behaviorism and Psychology, p. 55, footnote.

<sup>7</sup> "The Case Against Introspection," Psychological Review, Volume XXX (1912), pp. 404-418.



forth by James and Stout, and he makes this scathing characterization of the system: "The ghostly world of representational 'ideas' or 'states' or consciousness, dim shadows through which we look at the real objects casting them, or on which alone we may fasten our gaze, attracts no longer faith nor interest."<sup>8</sup> He seems to have been caught in the tide setting in toward behaviorism at the time, but his "System of Psychology" admits sufficient conscious content to satisfy any conventionalist. He admits a "self" which is the content of experience, and he assumes a real world to be experienced which also becomes content when experienced. Psychology is not concerned with a transcendental self or not-self, though it denies neither. Dunlap is certainly not emphatically behavioristic, though in some respects he supports behaviorism.

Abbott and Kempf are also psycho-biologists, but they place great stress on the emotional and dynamic aspects of personality. Both are psychiatrists. Kempf joins psychoanalysis to the physiological integrations of the automatic nervous system, which resemble Holt's integrated reflexes as represented in his "Freudian Wish." Doubtless for this reason, Roback placed Kempf and Holt in the same category. For Abbott, the organism adapts itself to its environment by self-directive activities, mostly psychological. Unicellular organisms may be said to possess psychic reactions, as Jennings claims.<sup>9</sup> Mind is the abstract term we apply to psychic reactions. The mind is not opposed to the body, nor does it possess a structure as McDougall contends.<sup>10</sup> The mind is the function of the individual with the brain as the means, just as respiration is a function of the individual with the lungs as the means. We do not identify respiration and lungs, neither should we identify mind and brain or body.<sup>11</sup>

Consciousness is defined by Kempf as a reaction of the whole body to the sense activity of its parts.<sup>12</sup> The autonomic system integrates the parts of the organism and employs the central nervous system to relate the organism as a whole to its environment. He conceives the emotions which are wrung out of the organism by automatic tensions as constituting the dominating force of the organism. This he calls a "dynamic personality." If this is so, Kempf belongs with Kantor, where Roback places him. It seems, however, that the integrations of the "autonomic apparatus" subordinate the affective elements, making the process entirely mechanical. He should, therefore, be ranked with Abbott. First, because they are inclined to recognize the psychical or consciousness, even though they make it a function of the organism.

<sup>8</sup> Ibid., p. 410.

<sup>9</sup> Behavior of the Lower Organisms.

<sup>10</sup> Mind and Body.

<sup>11</sup> "The Biological Point of View in Psychology and Psychiatry," *Psychological Review*, Volume XXIII (1916).

<sup>12</sup> Autonomic Functions and the Personality, p. 151.

"Consciousness of self is too omnipresent a fact to be disregarded," says Kempf.<sup>13</sup> "The discussion of the autonomic functions and their fundamental law is naturally divided into its three manifestations—(a) structural, (b) physiological, and (c) psychological"—which shows that somewhere he tries to make room for the psychical. Plainly, Abbott attempts to exalt the psychical by making it the principal factor of the inner activities of a self-directive organism. Secondly, both believe they are offering a dynamic view, but as a matter of fact, both are purely mechanical. Thirdly, both assume the biological view-point. For Abbott, "man is a biological unit reacting as well as he can to his own environment, by means of internal self-directive activities which determine his outward acts." For Kempf, "man is a vast community of cells (biological unit) working in systems which are integrated into a unity to further the biological interests of the cellular community as a whole (i. e. 'organism')." They interpret the personality from the standpoint of the action of a biological organism as a whole.

The neurological group represented by Max Meyer, S. Bent Russell, Frost, and, in one aspect of his philosophy, by Weiss, (at the present time he stands very close to Meyer), interpret consciousness in terms of neural currents and pathways. Meyer's first attempt was moderate. He did not disturb consciousness much, and employed the knowledge gained by introspection to aid in the discovery of the neural processes underlying human behavior.<sup>14</sup> Subjective psychology was not altogether distasteful to him as late as the appearance of "The Present Status of the Problem of the Relation between Mind and Body."<sup>15</sup> Later on, he wages a fierces battle against Self, Soul, Mind, and Consciousness, leaving them all in the private possession of all the Fridays they may concern. He excludes from his scientific psychology all subject matter that can not come within the range of the sense life. He refuses to mix his scientific psychological adventures with his "endeavors in religion, poetry and art."<sup>16</sup>

It is obvious that Bent Russell's attempt to account for the image of an object by the incipient utterance of the word referring to the object in conjunction with the kinaesthetic impulses from the eye muscles and from throat and lips, is a combination of Watson's implicit processes and co-ordinate movements of neural impulses.<sup>17</sup> He also attempts to define the highest ranges of intelligent behavior by neural me-

<sup>13</sup> Ibid., Chap. II.

<sup>14</sup> Fundamental Laws of Human Behavior.

<sup>15</sup> Journal of Philosophy, Volume IX (1912).

<sup>16</sup> The Psychology of the Other One, 1921-22.

<sup>17</sup> "The Function of Incipient Motor Processes," Psychological Review, Volume XXII (1915).

chanisms in order to "break away from the methods of subjective psychology."<sup>18</sup>

Inclining to the conclusions of the physiologists—von Uexkuell, Bethe, Beer, Ziegler, Nuel, and others—Professor Frost decides that biology and physiology can "dispense with consciousness." He quotes the first named authority to the effect that "before objective investigation, the sensations, the memory, and thoughts of animals disappeared like fluttering forms of vapor."<sup>19</sup> These writers have tremendously impressed Frost, and have helped to shape his particular brand of behaviorism. But when Miss Washburn tries to connect behaviorism with the objectivism of Beer, Bethe, von Uexkell, Nuel, and other continental writers, Watson objects that they are "perfectly orthodox parallelists."<sup>20</sup> While the "objective school" may not have influenced Watson much, it has modified the whole situation by stressing the physiological and objective phases. Frost does not stand alone in the respect paid to these physiologists.

While Professor Frost concludes that consciousness is a "Begeiter-scheinung" (epiphenomenon), which biology can easily part with, he retains it in the sense in which Titchener defines it, that is, as a process. Instead of consciousness, he employs the strange term "consciousizing process" which means that a nervous change can become aware of a preceding one, even project it into the outer world to create the world of nature. Thus Frost loses consciousness entirely in the tortuous arcs nerve pathways. This affords a splendid illustration of the desperate plight a behaviorist finds himself in when he attempts to explain knowledge without the assumption of a conscious individual. Weiss also reduces conscious phenomena to neural processes, but his is stratified neurology integrated as a whole. Therefore, his major interests lie with the extreme group.

The title of Colvin and Bagley's "Human Behavior," suggests more behaviorism than we find in the book. "Psychology the Science of Consciousness" is the first topic in the first paragraph.<sup>21</sup> "Psychology is the study of the mind" is the first statement therein. A dominant place is given to mind in "directing movements and controlling behavior." They approach the behavioristic category in their treatment of attention. We "interpret attention in others through their behavior." The bodily attitudes are stressed as important. In their treatment of perception, the pragmatic trend, as well as the behavioristic, is to be noted. Behavior is the criterion of the true and false.

<sup>18</sup> "The Effect of High Resistance in Common Nerve Paths," *Psychological Review*, Volume XXIII (1916).

<sup>19</sup> "Can Biology and Physiology Dispense with Consciousness?" *Psychological Review*, Volume XIX (1912).

<sup>20</sup> "Preface," *Psychology From the Standpoint of a Behaviorist*.

<sup>21</sup> *Human Behavior*, p. 1.

If my perception will "work" in my behavior, it is true; if it will not work, it is false. Colvin's "The Learning Process" also bears out this same conception. Bode, and Bawden and Dewey in part, represent the pragmatic attitude.

Professor Bode has given a different turn to the conception of consciousness.<sup>22</sup> He emphasizes control by the future, by which he means that the organism reacts to the future consequences as though the future were moved down to the present, and it served as a stimulus. He adopts the view of all behaviorists when he says, "The situation and the motor activity fit together like the sections of a broken bowl."

Bode's peculiar contribution to the subject is to be found in the distinction he draws between mechanical and conscious behavior. In one, the stimulus set off the response "like pulling the hair-trigger of a gun."<sup>23</sup> In the other, consciousness intervenes when there is a dead-lock among reflexive and instinctive responses, and guides the behavior from within. "This selective or teleological character is the fundamental and differentiating trait of conscious behavior." The most important addendum is that stimulus and response mutually push each other forward. This is Dewey's conception which is one of the first contributions to behaviorism. Movements are first and sensations follow. Bode adopts this view in the statement, "The real beginning is the act of seeing; it is looking, not a sensation." Sensory stimulus and central connections and motor responses are not separate entities, but functioning elements within the whole. "Conscious behavior" means bodily integrations moving in ever larger co-ordinations. The behaviorist is thus ever faithful to his creed which is: Reduce the psychical to the physical.

Parmelee, in his "The Science of Human Behavior," does not restrict his subject to psychology, but defines it so as to include biological and sociological aspects of behavior. He combines the results of recent investigations in biology, zoology, neurology, comparative psychology, and anthropology; and he shows the bearing of these investigations on "the science of behavior." He takes the standpoint of the comparative psychologist, who studies the animal by observing its behavior; but he recognizes the subjective in a sense, and gives it a part in determining behavior. Mind may be "reduced to a certain extent, if not entirely, to terms of behavior."<sup>24</sup>

For Parmelee, the basis of behavior is reflex action, which is witnessed only in organisms that have a central nervous system. He

<sup>22</sup> "Consciousness and Psychology," *Creative Intelligence*, pp. 228-281.

<sup>23</sup> *Fundamentals of Education*, p. 207.

<sup>24</sup> "The Reflex Arc Concept in Psychology," *Psychological Review*, Volume III (1896, pp. 357-370).

<sup>25</sup> *The Science of Human Behavior*, p. 423.

differs from Loeb, who identified tropisms, reflexes, and instincts, in that he applies the term instinct to integrated reflexes which work toward a definite end.<sup>26</sup> Instinctive behavior is not always marked by the mental or conscious element, but by the fact that the behavior is partly determined by the external, selective forces. Intelligent behavior is a more comprehensive integration of reflexes, and instincts, and tropisms (all lower forms), which have been combined in novel ways by and in experience, "so as to constitute new forms of behavior." In short, intelligence is no extra-natural "entity" or organ which can affect the body, but a term applied to the highly integrated activities of the organism. Mental processes depend upon physiological changes of the central nervous system.<sup>27</sup> Mind serves in between the stimulus and motor discharge, which causes the behavior. On the subjective side, the mental is experienced "in the form of images, ideas, feelings, emotions, etc., while its presence is made known to the observer by means of certain kinds of variations of behavior." The psychic phenomena arise from the physical and in turn "pull the trigger" that releases physiological movements which can not be described fully in terms of purely mechanical reflexes.

We may sum up the position of Parmelee by saying that there are three planes of behavior; biological, psychological which involves the psychic, and sociological. The psychological comprehends the tropistic, reflex, and instinctive; while the social behavior comprehends these with the intelligent, and is, therefore, the highest form of behavior, expressing itself in aesthetic, moral, religious, economic, and political phenomena.

Paton conceives consciousness as no entity, but as a process of dynamic movement. He makes no distinction between the conscious and unconscious, and mind and body; but they constitute a "unity of personality."<sup>28</sup> The personality embraces two distinct functions: the selective processes or intelligence, and the energizing, driving powers, which he calls character.<sup>29</sup> The organism is biologically related to a remote ancestral past; sociologically, it is adjusted to the customs, institutions, and morals of society by "psychic" and "symbolic" adjustments. Parmelee and Paton are biosociological behaviorists.

Another group represent the anti-physiologists. They labor to save the mental, yet make no distinction between the physical and psychical. They regard both as involved in the response of the individual. "A thought process is not only mental, but also physical, social and human,"

<sup>26</sup> Ibid., p. 208.

<sup>27</sup> Ibid., p. 322.

<sup>28</sup> Human Behavior, p. 56.

<sup>29</sup> Ibid., p. 95.

says Kantor.<sup>20</sup> "Every fact of consciousness is a conscious behavior, a complex action always involving, besides the mental factors, organic, muscular, and glandular processes." It seems incredible to Kantor that Watson should attempt to reduce "conscious" behavior, as exhibited in higher animals or human beings, to reflexes and motor habits, or emotion to "muscle twitching" and glandular secretion, or language to mere motor habits. Taking his cue from Dewey, Kantor emphasizes the horizontal series of attitudes, relative to the setting of the organism in human situations, as the substance of psychological behavior. "States of consciousness" and "muscle-twitching" are alike distasteful to him. Conscious behavior must be described as organic events, which are in relation to circumstances necessary for their production, and which have other events following as consequences."<sup>21</sup>

"Organismic" psychology is an inquiry into the causes of the reactions of the psychological organism to its environmental stimulations, a description of what occurs, and an interpretation of what has been observed. While previously Kantor made a plea to retain introspection, he closes definitely against it in his "Principles of Psychology" (1924). He spurns stimulus-response. The behaviorist only ostensibly surrenders the wrong attitudes of the structuralist. "He demolishes mental states but wishes to substitute just as vicious a formalism in terms of stimulus and response."<sup>22</sup>

Tawney's conception of psychology as a science of organic behavior, including the mental and physical without division, lies very close, in this respect, to Kantor. Both strive to avoid a mechanical interpretation of the mental in physiological terms. "The tendency of psychic organisms first to select and then to keep within their control whatever is necessary to their life,"<sup>23</sup> states the essence of "aesimation"—a life urge, an "elan vital," which unfolds, by its selection and control, into intelligence, character, and, modified by the social environment, personality. Psychology is not primarily concerned with "intelligence," "character," or "personality," but with the kind of behavior of the organism which selects and controls environment in its own interests, and thus results in these social products. Tawney agrees with Kantor that psychology should not encroach upon physiology.

The only claim Tolman can make for a place in this group is that we must have a behaviorism which is not "mere physiology." He agrees with Holt in this respect, and feels that Kantor and Perry are of this

<sup>20</sup> "Psychology as a Science of Critical Evaluation," *Psychological Review*, Volume XXVI (1919), p. 14.

<sup>21</sup> See Dewey's *Democracy and Education*.

<sup>22</sup> "Psychology on a Science of Critical Evaluation," *Psychological Review*, Volume XXXI (1909) p. 6.

<sup>23</sup> "What is Behavior?" *Journal of Philosophy*, Volume XII (1915).

persuasion. He quotes Grace A. De Laguna approvingly, who also wishes a behaviorism which is not physiology.<sup>34</sup> Though his thesis urges that a non-physical behaviorism is possible, he parallels very closely physiological psychology with his (a) stimulating agency, (b) behavioristic-cue, (c) behavior-object, and (d) behavior-act. The new formula for Behaviorism would embrace behaviorism proper and all the good of introspective psychology and thus the wolf and the lamb shall dwell peacefully together, and the "leopard shall lie down with the kid." (Isa. 11:6.).

Grace A. De Laguna also seeks to refute dualism by conceiving the organism as a total natural unit, reacting to a physical and social environment. She deserves this classification because she will not allow behavior to descend to the physiological category. Chemical processes, reflexes, and physiological factors generally are given a subordinate place, if a necessary one, while behavior resolves the psychical into a function of the natural organism as a whole. The scientific method of observation is the only reliable one; for how can private knowledge have any scientific value?<sup>35</sup>

Professor Mursell belongs properly to this category since he adopts quite whole-heartedly the organismic behaviorism of Kantor. To this, he adds the principle of mnemic causation, which Russell makes so much of in his *Analysis of Mind*, and which both adopt from Semon. This means that the present act is not explained by the immediately preceding stimulation, nor yet by a long mechanical chain of causes and effects, but by the total past events of the organism, borne along by the developing individual, like Bergson's rolling snow ball, and, now, dynamically ready for some new departure in behavior. Mnemic causation is the "principle of integration that is required by objective psychology. It is broad enough to include both individual and social behavior, and circumscribes all partial integrations of the organism. It merges the "mental" and "physical" into a unitary, organic response; it synthesizes the behavior, and characterizes it as a distinctive variety."

A considerable number of present day psychologists advocate a modified form of behaviorism. They present a compromise-psychology by attempting to unite the strong features of conventional psychology and

<sup>34</sup> "A New Formula for Behaviorism," *Psychological Review*, Volume XIX (1922), p. 45.

<sup>35</sup> "Dualism and Animal Psychology, a Rejoinder," *Journal of Philosophy*, Volume XVI (1919); "Dualism in Animal Psychology," *Journal of Philosophy*, Volume XV (1918); and "The Empirical Correlation of Mental and Bodily Phenomena," *Journal of Philosophy*, Volume XV (1918).

<sup>36</sup> "The Principle of Integration in Objective Psychology," *American Journal of Psychology*, Volume XXXI (1924), p. 14.

behaviorism. Among these we should place Warren, Seashore, Pillsbury, Woodworth, Allport, and Hunter.

Roback classes Warren as a "mild" behaviorist. He may be said to be a mild conventionalist also; for he threatens in the end, as Miss Calkins shows, to allow "consciousness" to slip back into the physical circuits and be lost.<sup>3</sup> Warren intends, by his "double-aspect" theory, that the physical and psychical shall move upon even keel. In his *Introduction to Psychology*, Professor Seashore also has adopted the "double-aspect" theory. He employs behavioristic method, but for the most part he is a conventionalist.

Though Woodworth defines Psychology as "the science of mental life," his mental life is not distinguished from the physical. He builds his psychology upon reflexes rather than sensations and has placed the content of conventional psychology entirely within the frame of behaviorism. He includes thought within the "stimulus-response" formula. Pillsbury's functional viewpoint leads him to interpret all actions in behavioristic terms, but his convictions lie chiefly with consciousness and knowledge. Allport joins Hunter in denying all efficiency to consciousness. For them, consciousness is never a cause of behavior, nor a link in the chain of causes leading to bodily reactions. However, introspection may aid in our interpretations and help render the account complete.

Finally, there are the purposive behaviorists represented by McDougall and Yerkes. For them, mind is the driving force in the evolutionary change. The efficient mental factor is conation which rises to the surface in conscious form. They agree that all mental life, however lowly, struggles toward a goal—that goal more or less clearly pre-visualized. McDougall's Psychology is an emphatic protest against all forms of "static" mentalism. The mind as constituted of "sensations," "ideas," or any other discrete units like "states of consciousness," McDougall peremptorily sets aside in the interests of a "purposive psychology" which demands a "subject," "person," or "organism" that experiences something.

We have shown the variety of behaviorists and behavioristic doctrine, and have seen how diversified behaviorism is. We shall now summarize the chief characteristics of behaviorism upon which almost all behaviorists more or less agree.

First, behaviorism stresses behavior instead of consciousness as the proper study of psychology.

Secondly, the introspective method is subordinated, or rejected in the interests of the objective method of observation.

<sup>3</sup> "The Truly Psychological Behaviorism," *Psychological Review*, Volume XXVIII (1921).



Thirdly, behaviorism is monistic. It strives to bring all of its facts under one rubric—the physical category.

Fourthly, behaviorism is avowedly phenomenalistic. It either denies metaphysical reality, or ignores it. This is methodological behaviorism.

Fifthly, behaviorism is in a large measure purposive. It is divided between conscious and unconscious purpose.

Finally, behaviorism is a strenuous attempt to be scientific. This is one of its strong features.

## ADVANTAGES AND DISADVANTAGES OF OBJECTIVE EXAMINATIONS

By L. D. Morgan, Associate Professor of Psychology

With Suggestions Relative to Their Formulation

### I. The Fundamental Purposes of Measurement.

- A. To diagnose individual difficulties of pupils by locating specific weaknesses, and by providing specific remedial material for weaknesses revealed.
- B. To motivate the work of the pupils.
  - 1. By revealing their position in the group.
  - 2. By competing with their own past record.
  - 3. By competition between groups.
  - 4. By competition between pupils in same group.
- C. To provide a basis for reviews.
  - 1. By placing emphasis on the most important items.
  - 2. By affording a better organization of subject matter.
- D. To provide a basis for measurement of the pupils' progress and achievement.
  - 1. By providing data for the teacher.
    - (a) To compare efficiency of different methods.
    - (b) To determine whether textbook contains sufficient drill material to build efficient skills, etc.
    - (c) To provide marks or grades for pupils.
  - 2. By holding pupils to their tasks, by revealing their specific difficulties, and by supplying them with material to correct weakness revealed.
- E. To provide data for administrative and supervisory purposes.
  - 1. For sectioning of classes.
  - 2. For recording performance of pupils.
  - 3. For teaching efficiency.
  - 4. For promotion of pupils.
  - 5. For comparison of pupils with norms in various subjects.
  - 6. For comparison of different school systems.
  - 7. For comparison of same grade in same building or different buildings in the same system.
  - 8. For compulsory attendance purposes.
  - 9. For guidance purposes.

**F. To provide data for research purposes.**

1. To determine the relative merits of different methods.
2. To determine relative value of various teaching materials and devices.
3. To determine amount of drill necessary to establish and retain a specific skill.
4. To determine the rate of learning of various materials for pupils of the same chronological age but with varying I. Q.'s.
5. To determine the effect of specific factors, such as sex, race, maturity, etc.

**II. Kinds of Objective Tests and Examples of Each.****A. Recall type.****1. Simple recall.**

- (a) "The Tale of Two Cities" was written by (Dickens).
- (b) Hydrogen is a (gas).

**2. Completion form.**

- (a) Once upon a (time) there was a (woman) who lived in a (shoe).
- (b) (Things) equal to the same thing are equal to (each other).

**B. Recognition type, in which there are alternatives.****1. A choice between two alternatives.****(a) Two response type.**

- (1) Columbus discovered America in 1456, 1492.
- (2) Sound travels at the rate of 1090, 1200 feet per second.

**(b) True—False.**

- (1) Shakespeare wrote "Ivanhoe." True, False.
- (2) Puer bonus familiam cura perpetua afficit.  
True, False

**(c) Yes—No type.**

- (1) Is the South more of an industrial region now than before the Civil War? Yes, No
- (2) Does a yard contain a greater number of inches than a meter? Yes, No

**2. Multiple Response.****(a) Three-response.**

- (1) Longfellow wrote "Lady of the Lake," "Snow Bound," "Evangeline."
- (2) Chisels are used for sawing, surfacing, cutting.

## (b) Four-response.

- (1) The normal temperature of the human body is 78.5, 98.5, 103.5 degrees F.
- (2) O. Henry was a writer of historical novels, short stories, poetry.

## (c) Five-response.

- (1) An important character in "Les Miserables" is Jean Valjean, Oliver Twist, Bill Sykes, Peter Grimm, Nancy Hanks.
- (2) The attraction between particles of different substances is called capillarity, inertia, adhesion magnetism, cohesion.

## (d) Seven-response.

- (1) The rate of change in speed of a moving body is called acceleration, velocity, gravity, distance, kinetic energy, foot-pounds.
- (2) Hack saws are best for cutting wood, stone, cement, glass, metal, cloth, ice.

## (e) Cross-out.

- (1) 2, 4, 8, (10,) 16, 32.
- (2) I boy read a book.

## (f) Analogies.

- (1) Hand : arm :: foot : ? (leg, toe, finger, wrist, elbow).
- (2) Oil : toil :: ? : hate (love, work, boil, ate, hat).

## (g) Similarities.

- (1) Cup, plate, saucer (fork, table, eat, bowl, spoon).
- (2) Hat, collar, glove (hand, cane, head, shoe, house).

## 3. Matching test.

- |               |                         |
|---------------|-------------------------|
| (3) Tennyson  | 1. "Treasure Island"    |
| (2) Eliot     | 2. "Silas Marner"       |
| (1) Stevenson | 3. "Idylls of the King" |
| (5) Shelley   | 5. "To a Skylark"       |

## 4. Best answer or judgment test.

- (a) The British government insisted upon taxing the colonies because,
  - .....(1) England needed the tax money.
  - .....(2) A majority of the English people wanted the colonies to be taxed.
  - .....(3) The colonies were eager to pay the tax.
  - .....(4) The king wanted to enforce his authority.

- (b) Freezing water bursts pipes because,
  - .....(1) The ice melts the pipes.
  - .....(2) Cold water makes the pipes weak.
  - .....(3) Water expands when it freezes.
  - .....(4) Ice stops the flow of water.

C. Analogy (not possessing recognition aspect as in 2-f above).

- (1) Ice : water :: water : ? (steam).
- (2) Clothes : man :: fur : ? (animal).

### III. A Comparison of Various Types of Tests.

A. Ruch recommends the recall and multiple-response as being superior to the true-false type.

- (1) The multiple-response type is more difficult to construct, and also takes more time to give. Ruch claims that 188 true-false questions can be given in the same time as 100 multiple-response questions.
- (2) The multiple-response type is not usually corrected for chance.
- (3) The recall type is better adapted to thought questions than any of the other types. It is also the most difficult type.
- (4) The true-false type is more difficult than was formerly thought, according to Stoddard.
  - (a) The student gets a lower score on the true-false test than for any other type, when it is corrected for chance.
  - (b) The recall test is the most difficult when uncorrected for chance.
- (5) The judgment test, according to Russell, measures in a somewhat better way than the others the ability of pupils to recognize the principles upon which certain facts are based.
- (6) The recognition form, according to Patterson, gives a measure of the pupil's "acquaintance with" the many phases of the subject matter, whereas the recall type is more likely to give a better measure of the pupil's "knowledge about" the subject matter.
- (7) The recognition type has the following advantages over the recall type, according to Ruch and Stoddard.
  - (a) It is purely objective in scoring.
  - (b) It is rapidly scored.
  - (c) It is more easily prepared than the completion type.
  - (d) It tends to reduce guessing to a minimum.

- (8) The recall and five or seven-response type seem to be the most reliable. The two-response is very similar to the true-false type, except it is easier.
- (9) The matching test can be used only in a limited way.
  - (a) It is not practical for a large number of items.
  - (b) It is not reliable for a small number of items.
- (10) The completion test is made too much of a puzzle, if too many blanks are to be filled out.
- (11) The best-answer type is a variation of the multiple response.
- (12) The simple recall has many variations.
- (13) The reliability of various types.
  - (a) The recall is .81.
  - (b) The 7-response is .81.
  - (c) The 5-response is .80.
  - (e) The 2-response is .74.
  - (f) The 3-response is .60.
  - (g) The true-false is .56.

B. Basis for determining the type of test to use.

- (1) Subjects to be considered.
  - (a) Wood shows that the true-false test is best adapted to physics and is also very useful in economics.
  - (b) Wood also shows that the completion form is best adapted to history, but the difference is small.
  - (c) Wood's conclusions are that the true-false type has shown itself to be an effective instrument for checking up on the scope and attentiveness of a student's reading.
- (2) Purposes of the examination.
- (3) Length of proposed examination.
- (4) Preference of teachers.
- (5) Preferences of pupils.
- (6) Time available for the examination.
- (7) Size of the class.
- (8) Whether factual knowledge is to be tested.
- (9) Whether thinking is to be tested.

#### IV. Time to Allow for Various Types and Approximate Length of Each.

##### A. Time to allow.

- (1) The student can answer about 4 questions per minute in the completion, the recall, and the seven-response types.
- (2) The student can answer about 5 questions per minute in the five and three-response types.
- (3) The student can answer about 6 questions per minute in the two-response or the true-false types.

B. Approximate length of objective tests to be valid. The prevailing opinion seems to be that such tests, to be valid, should contain from 75 to 100 questions.

#### V. Advantages of Objective Examinations.

##### A. The reasons for their superiority as set forth by Horace Mann.

- (1) They are impartial.
- (2) They are just to the pupil.
- (3) They are more thorough than the essay type, because we can secure a larger sampling of the pupil's total knowledge in the same time.
- (4) They are effective in preventing the "official interference of the teacher."
- (5) They are more effective instruments for determining the effectiveness of teaching.

##### B. The objective tests are also superior for following reasons:

- (1) They are more reliable than old essay type.
- (2) They are more valid than the old essay type.
- (3) They are more comprehensive than the old essay type.
- (4) They are less dependent upon the physical endurance, ability to write rapidly, neatly, etc.
- (5) They are more effective in revealing a wider distribution of scores than the old essay type.
- (6) They are efficient in testing skill, organization of facts, appreciation and problem solving, as well as mere recall or recognition.
- (7) They are more economical of teachers' time because they require less time to grade.
- (8) They are efficient because they set exact knowledge as goals, rather than vague generalizations.
- (9) They are efficient because the teacher must be able to recognize and isolate the most important items in order to formulate such tests.
- (10) They are efficient because they tend to eliminate subjective factors such as choice of English, poor spelling, poor handwriting, etc.

## VI. Disadvantages of Objective Tests.

- A. They measure recognition instead of production, and the world of experience places a premium on production rather than on mere recognition.
- B. They have other shortcomings.
  - (1) They do not measure ability to organize, summarize, compose, discuss, etc., which are very essential.
  - (2) They place a premium on guessing (this argument is not valid if correction is made for guessing).
  - (3) They have little or no value for diagnostic purposes, because we have no means of discovering how the pupil reached a decision (this was likewise true in many of the old essay type questions).
  - (4) They place a premium on mere memorizing (true-false) the textbook. (If the facts are worth memorizing this criticism does not appear to be serious.) In life we do not always find it necessary to say a thing is all true or all false.

## VII. Preparation and Use of Objective Examinations.

- A. A uniform method of marking the papers should be used.
- B. The true-false questions should be arranged in a random order.
- C. A scheme for transmuting scores to grades should be devised.
- D. The question should be stated in concise form.
- E. The questions should be distributed over all the important items of the course or unit tested.
- F. An excess number of questions should be prepared so as to allow ample opportunity for the selection of the best questions for the examination.
- G. The questions should be so worded as to prevent ambiguity.
- H. The difficulty alone should not be the basis for either accepting or rejecting a proposed question.
- I. The examination should include an approximate number of easy, moderately difficult, and hard questions.
- J. The questions should be arranged in an ascending order of difficulty. The first half dozen questions should be answered by 90-95% of the class. These easy questions will serve as "a shock absorber."
- K. A question should be an independent unit in and of itself.
- L. The questions should be grouped together according to type, if more than one type is to be used in the examination.



- M. The directions should be given at the beginning of each type of test.
- N. The questions should be arranged according to topical sequence of the course (it would be difficult to arrange the questions according to sequence and also according to difficulty).
- O. The questions should be presented to the student on a mimeographed or typewritten sheet.
- P. The weighting of questions according to difficulty or importance is rendered unnecessary.
- Q. The questions may be presented to the students on equivalent forms by arranging one half of the test one way and the other half still another way, and by giving different forms to students sitting adjacent to one another. This will tend to prevent mere copying.

### VIII. Teacher Difficulties.

#### A. Correction for chance in objective examinations.

- (1) Should such examinations be corrected for chance? Dr Ruch, Stoddard, and others believe that such a correction should be made.
- (2) Should students taking such a test be instructed to guess or not to guess?

Dr. Ruch has produced data to prove that the most valid and reliable results are obtained on a true-false test by instructing students not to guess. Dr. Wood's investigations proved the same. However, Dr. McCall found the reverse to be true.

#### (3) Correction for chance.

- (a) Ruch and Stoddard found that correction for chance by the formula:

Score equal Rights minus Wrongs, divided by  $n-1$ , where  $n$  is the possible number of responses (in a multiple-response test), increased the reliability of an examination both when the students were instructed to guess and when they were instructed not to guess.

- (b) Paterson and Langlie, however, produce data to prove that chance correction lowers the reliability. The consensus of opinion and of data available holds that correction for chance by the above formula renders such tests more reliable.

**B. Transmuting of scores to grades.**

- (1) Rank scores in order and apply percentage distribution of grades (A, B, C, D, F) according to the normal distribution curve, being careful to remember that the curve is not valid for small number of cases.
- (2) Locate the class mean of the scores of the test at the mid-point of the average "C" grade class interval. Then locate each grade at each class interval at, above, and below "C," according to the standard deviation (of the test scores) units.

**IX. Suggestions As to Possible Elimination of Correction for Chance.**

A. By making the examination twice as long as in the past. Each true-false question to be stated both ways, and to be placed on different sheets. If this is done, a check can be made for guessing. If the question is missed on either sheet, no credit is to be given.

B. By making approximately  $\frac{1}{2}$  of the questions "double barreled."

- (1) One-third of these questions to have both parts true.
- (2) One-third of these to have both parts false.
- (3) One-third of these to have one-half true and the other half false.

These questions to be marked in the following manner:

- (a) If both statements are false, to mark as false.
- (b) If both statements are true, to mark as true.
- (c) If one-half of statement is true and one-half false, to be marked zero.

C. By making the test in exactly the same way as given in IX B above, but marked in the following manner:

- (1) Mark simple true statements by T.
- (2) Mark simple false statements by F.
- (3) Mark double barreled false statements in which both parts are false by F.
- (4) Mark double barreled true statements in which both statements are true by T.
- (5) Mark double barreled statements in either of two ways, depending upon which part is true and which part is false.
  - (a) If the first part of the statement is true and the last part is false, mark thus: TF.
  - (b) If the first part of the statement is false and the last part is true, mark thus: FT.

## BIBLIOGRAPHY

(The most important references are starred.)

1. Brinkley, S. G. Values of New Type Examinations in High School. T. C. Contributions to Education, Vol. 161, Bureau of Publications, Teachers College, Columbia University, New York, 1924.
- \*2. Buckingham, B. R. Research for Teachers. Boston, Silver, Burdett and Company, 1926.
3. Cook, C. G. New Type Questions in Chemistry. New York, Globe Book Company, 1927.
4. Knight, F. B. Data on the True-False Test as a Device for College Examinations. Journal of Educational Psychology, 13: 75-80, Feb. 1922.
5. McClusky, H. Y. and Curtis, F. D. A Modified True-False Test. Journal of Educational Research, 14: 213-224, Oct. 1, 1926.
6. Monroe, DeVoos, and Kelley. Educational Tests and Measurements. Boston, Houghton Mifflin (new ed.), 1924.
7. Paterson, D. G. Do New and Old Type Examinations Measure Different Mental Functions? School and Society, 24:246-248, August 21, 1926.
- \*8. Paterson, D. G. Preparation and Use of the New Type Examination. Yonkers, World Book Company, 1925.
9. Paterson and Langlie. Empirical Data on the Scoring of True-False Tests. Journal of Applied Psychology, 9: 339-348, 1925.
10. Remmers and Remmers. The Negative Suggestion Effect on True-False Examination Questions. Journal of Educational Psychology, 17: 52-56, June, 1926.
- \*11. Ruch, G. M. The Improvement of the Written Examination. New York, Scott, Foresman and Company, 1924.
12. Ruch, G. M. and DeGraff, M. H. Correction for Chance and Guess versus Do Not Guess Instructions in Multiple Response Test. Journal of Educational Psychology, 17:368-375, Sept., 1926.
- \*13. Ruch and Stoddard. Measurement in High School Instruction. Yonkers, World Book Company, 1927.

- 
14. Ruch, G. M. et al. *Objective Examination Methods in Social Studies*. New York, Scott, Foresman and Company, 1926.
  15. Ruch and Stoddard. *Comparative Reliabilities of Five Types of Objective Examinations*. *Journal of Educational Psychology*, 16: 89-103, 1925.
  16. Russell, Charles. *Classroom Tests*. Boston, Ginn and Company, 1926.
  17. Sormzand, M. J. *American History Teaching and Testing*. New York, Macmillan, 1926.
  - \*18. Symonds, P. M. *Measurement in Secondary Education*. New York, Macmillan, 1927.
  - \*19. Weideman, C. C. *How to Construct the True-False Examination*. T. C. Contributions to Education, No. 225, Bureau of Publications, Teachers College, Columbia University, New York, 1926.
  20. Wood, Ben D. *Measurement in Higher Education*. Yonkers, World Book Company, 1923.

**VERSIFICATION**

By I. G. Wilson, Professor of English

**VERSIFICATION** (Vertere, to turn) is the art of making verse.

**PROSODY** (Pros, to; odia, song) treats of the quantity or accent of syllables, and verse making. The two terms, verse making and prosody, are used as synonyms.

**VERSE** (Versus, turn) is poetry divided into lines or turns.

**FOOT** is one of the regular divisions of a verse or line.

Iambus (G. Iaptein, to assail) was first used in satires to assail people. Iambic feet have one short syllable and one long.

Example: I came, I saw, I went.

"The heights by great men reached and kept  
Were not attained by sudden flight  
But they, while their companions slept,  
Were toiling upward in the night."  
"The stag at eve had drunk its fill,  
Where danced the moon on Monan's rill."

Trochee (G. Trekhein, to run) is a running foot. The trochaic foot has a long syllable and a short, the reverse of the iambic.

Example:

"One a mountain,  
Two a fountain."  
"Earth to earth and dust to dust,  
Here the evil and the just;  
Here the matron and the maid,  
In one silent bed are laid."  
"Then I thought I heard a hollow sound,  
Coming up again from lower ground."

Anapest (G. Anna, back; paiein, to strike) is the opposite of the Dactyl—the Dactyl struck back. It consists of two short syllables and one long. Examples:

"I am monarch of all I survey.  
My right there is none to dispute."  
"The Assyrian came down like the wolf on the fold."  
"All our labor must fail,  
If the wicked prevail."

Dactyl (G. Daktulos, finger) has a long and two short syllables.

Examples:

"Bird of the wilderness,  
Blithesome and cumberless,  
Light be thy matin o'er moorland and lea."  
"Light again, leaf again, life again, love again."

Spondee (G. Sponde, a drink offering) is a foot of two long syllables. Examples:

Childhood.  
Football  
Bookstore  
Field glass  
Top coat

The Spondee at best is merely a substitute foot. It is used to vary the meter. It is commonly used before the caesura, or at the end of a verse.

"Blossomed the lovely stars, the forget-me-nots of the angels."

A caesural pause occurs in the middle of a foot and near the middle of the verse. It is after primeval in, "This is the forest primeval// the murmuring pines and the hemlocks."

Pyrrhic (G. Purrhikhos, name of the inventor) has two short syllables. Example:

"Brought death into the world and all our woe."  
This was used in the Greek war dance.

Amphibrach (G. Amphi, both; brakkhus, short) has three syllables; a short, a long, and a short. Example:

"Three fishers went sailing away to the west."  
"Inspecting, rejecting, prospecting."

Amphimacer (G. Amphi, both; makros, long) has a long, a short, and a long syllable. Example:

"Disagree, meditate, circulate, amputate,  
Hesitate, palpitate, candidate."

### Feet to the Line or Verse

Monometer (G. Monos, one; metron, a measure) Praying/

Dimeter (G. Di, two; metron, measure) "I come/ I come/"

Trimeter (G. Tri, three) "From the cen/ter auu round/ to the sea/"

Tetrameter (G. Tetra, four) "The heights/ by great/ men reached/  
and kept/"

Pentameter (G. Penta, five) "We think// our fath/ers fools/ so wise/  
we grow/"

Hexameter (G. Hexa, six) "On 'a/ mountain;/ stretched' be/neath  
a/ hoary/ wil low/"

Heptameter (G. Hepta, seven) "The mel/anchol/y days/ have come/,  
the sad/dest of/ the year/."

Octameter (G. Octa, eight) "Once up/on a/ midnight/ dreary/ as I/  
pondered/ weak and/ weary."

Scansion is the indication of the feet of a verse by pauses and emphasis, or by written marks. Oral scansion is valuable in analysis, but it will not produce good readers.

Scandere, a Latin word, means to climb.

Blank verse is poetry without rhyme. It is used in the longer poems.

### Words as Type Feet

Many times words may be found that correspond to the standard type feet. Examples:

Iambus	de ter	to him
Trochee	ham per	ask me
Spondee	head ache	clear harp
Pyrrhic	in to	of the
Dactyl	hap pi ly	out of me
Anapest	In ter cede	and the stretch
Amphibrach	se clu sion	the insight
Amphimacer	fol de rol	swung in air
Tribrach	ruining	of us all

### End Rhymes in Stanzas

Examples—One syllable rhyming:

#### Masculine:

We think our fathers fools, so wise we grow,  
Our wiser sons, no doubt, will think us so.

#### Feminine—Two syllables rhyming:

And the vast cathedral leave him,  
God accept him, Christ receive him.

Made her tremble and shiver;  
Or the black flowing river.

Loop up her tresses,  
Whilst wonderment guesses.

#### Triple—Three syllables rhyming:

Touch her not scornfully  
Think of her mournfully.  
Picture it—think of it,  
Lave in it,—drink of it.  
Perishing gloomily  
Spurred by contumely.

### Middle Rhyme

As of someone gently rapping, rapping at my chamber  
door.  
"Surely," said I, "surely that is something at my window  
lattice,  
Let me see then, what thereat is, and the mystery explore."

### Lines

End-stopped lines are those which have the meaning concluded at the end. These are used in blank verse. Examples:

To the water side I must conduct your grace;  
Then give my charge up to Sir Nicholas Vaux,  
Who undertakes you to the end.

"King Henry VIII."

Yet I am richer than my base accusers,  
That never knew what truth meant. I now seal it,  
And with that blood will make 'em one day groan for't.

"King Henry VIII."

Run-on lines require the next line to complete the meaning. Examples:

If ever any malice in your heart  
 Were hid against me, now to forgive me frankly.  
 Henry the Seventh succeeding, truly pitying  
 My father's loss, like a most royal prince,  
 Restored me to my honors, and out of ruins  
 Made my name once more noble.  
 I think you hit the mark; but is't not cruel  
 That she should feel the smart of this? The cardinal  
 Will have his will, and she must fall.

"King Henry VIII."

Blank verse was used by

Shakespeare in his dramas.  
 Milton in his "Paradise Lost" and "Paradise Regained."  
 Tennyson in his "The Idylls of the King," "The Holy Grail,"  
 "Enoch Arden."  
 Browning in his "The Ring and the Book."  
 Arnold in "Sohrab and Rustum."  
 Wordsworth in his "Michael."  
 Bryant in his "Sella."  
 Lowell in his "Rhoecus."

Blank verse is usually iambic pentameter. The lack of rhyme makes it an easy verse to use in big themes.

If the verse falls short a syllable to complete the regular type, the line is called catalectic.

The snow/ had begun/ in the gloam/ing.\*

If the line has more syllables than the regular number, as is often found in Chaucer, the line is said to be hypercatalectic.

Whan that/ April/le with/ his shour/es soo/te  
 The droghte/ of Marche/ hath per/ced to/ the roo/te,

If the line be exactly right as to a standard number of syllables to the verse, it is said to be acatalectic.

And bath/ed ev/ery veyne/ in swich/ licour/  
 Of which/ vertu/ engen/dred is/ the flour;/

### Stanzas

A Stanza (L. Sto, Stare, to stand) is several verses.  
 Types:

1. Couplet or Distich is two lines of matched verse.

Whoever thinks a faultless piece to see,  
 Thinks what ne'er was nor is, nor e'er shall be.  
 Pope: "Essay on Criticism."

Compare her face with some that I shall show,  
 And it will make thee think thy swan a crow.  
 Shakespeare: "Romeo and Juliet."

Lo! the poor Indian, whose untutored mind  
 Sees God in clouds, or hears him in the wind;  
 His soul proud science never taught to stray  
 Far as the solar walk or milky way;  
 Yet simple nature to his hope has given,  
 Behind the cloud-topped hill, an humbler heav'n.  
 Pope: "Essay on Man."



2. Triplet, Tercet, is three lines that generally rhyme.

He clasps the crag with crooked hands;  
Close to the sun in lonely lands,  
Ring'd with the azure world, he stands.  
The wrinkled sea beneath him crawls;  
He watches from his mountain walls,  
And like a thunderbolt he falls.

Tennyson: "The Eagle."

Triplets that do not entirely rhyme: "Vivien's Song," "Elaine's Song," "Enid's Song," "The Swallow's Message" (Tennyson).

3. Quatrain is a stanza of four lines.

- a. Elegiac Stanza—Four iambic pentameter lines with alternate rhymes.

From you, Ianthe, little troubles pass (a, b, a, b)  
Like little ripples down a sunny river;  
Your pleasures spring like daisies in the grass,  
Cut down and up again as blithe as ever.

Landor.

2. Long Meter—Four iambic tetrameters.

Lord of our life, God whom we fear; (a, a, b, b)  
Unknown, yet known; unseen, yet near;  
Breath of our breath, in thee we live;  
Life of our life, our praise receive.

Samuel F. Smith: "Song."

- c. Short Meter—First, second, and fourth lines iambic trimeter, the third line being iambic tetrameter.

Still with thee, O my God,  
I would desire to be:  
By day, by night, at home, abroad,  
I would be still with thee.

James D. Burns: "Song."

- d. In Memoriam Stanza: The rhyme scheme is a, b, b, a. Iambic tetrameter.

Thou wilt not leave us in the dust;  
Thou madest man, he knows not why,  
He thinks he was not made to die;  
And thou hast made him; thou art just.

Tennyson: "In Memoriam."

- e. Omar Quatrain is an elegiac stanza with a peculiar rhyme scheme. The scheme is a, a, b, a. Iambic pentameter.

The Worldly Hope men set their Hearts upon  
Turn Ashes—or it prospers; and anon,  
Like Snow on the Desert's dusty Face,  
Lighting a little hour or two—was gone.

Fitzgerald: "The Rubaiyat of Omar Khayyam."

- f. Ballad Stanza usually has the rhyming scheme a, b, c, b; or a, b, a, c; or a, b, a, b. Lines one and three are iambic tetrameter, while lines two and four are iambic trimeter.

a, b, c, b:

The loud wind never reached the ship,  
Yet now the ship moved on!  
Beneath the lightning and the moon  
The dead men gave a groan.

Coleridge: "The Ancient Mariner."

a, b, a, b:

The Pilot and the Pilot's boy,  
I heard them coming fast:  
Dear Lord in Heaven! It was a joy  
The dead men could not blast.

Coleridge: "The Ancient Mariner."

- g. Common Meter is called a ballad meter. It commonly has the first and third lines iambic tetrameter, and the second and fourth lines iambic trimeter.

a, b, a, b:

O Thou who driest the mourner's tear,  
Hark how this world would be,  
If, when deceived and wounded here,  
We could not fly to thee!

Thomas Moore: "Song."

#### 4. Five-line Stanza. Quintet.

a, b, c, c, b:

This Hermit good lives in the wood  
Which slopes down to the sea.  
How loudly his sweet voice he rears!  
He loves to talk with mariners  
That come from a far countree.

Coleridge: "The Ancient Mariner," Part 7.

a, b, a, a, b:

Ale, that the plowman's heart up-keeps  
And equals it with tyrants' thrones,  
That wipes the eye that over-weeps,  
And lulls in sure and dainty sleeps  
The o'er wearied bones.

"The Home Book of Verse, 1890."

Other rhyme schemes for the Quintet are:

"The Meadow in Spring," Edward Fitzgerald.	a, b, c, b, a
"The Blackbird," Alfred Housman.	a, b, c, b, b
"To a Skylark," Shelley.	a, b, a, b, b
"The First Swallow," Charlotte Smith.	a, b, a, a, b
"My Thrush," Mortimer Collins.	a, a, b, a, b
"Outward," John G. Neihardt.	a, a, a, b, b
"Only Seven," Third Stanza, Wordsworth.	a, b, a, a, b
"Darius Green," Last Stanza, Trowbridge.	a, a, b, b, b
"Dow's Flat," Bret Harte.	a, b, a, b, b

"The Washers of the Shroud," Lowell.	a, b, a, b, a
"Alice Brand," Part III, 2, Scott.	a, b, c, c, b
"The Rondeau," Dobson.	a, a, b, b, a
"Alexander's Feast," Chorus, Dryden.	a, a, b, b, a
"Alexander's Feast," Third Stanza, Dryden.	a, a, a, a, b
"Unkindness," George Hervert.	a, b, a, a, b

A canner, exceedingly canny,  
One morning remarked to his granny,

"A Canner can can Anything that he can; But a canner can't can a can, can he?"	a, a, b, b, a
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Caroline Wells: "Limericks."

#### 5. Six-line Stanza. Sestet.

Who has robbed the ocean cave  
To tinge thy lips with coral hue?  
Who from India's distant wave  
For thee those pearly treasures drew?  
Who from yonder orient sky  
Stole the morning of thine eye?

a, b, a, b, c, c

John Shaw: "Song."

"Persuasions to Enjoy," Carew.

a, a, b, b, c, c

"When, Dearest, I but Think of Thee,"

John Suckling.

a, a, b, c, c, b

Song, "The Miller's Daughter," Tennyson.

a, b, c, b, d, d

"Across the Fields," Burton.

a, a, b, c, b, c

"Forgettin'," Moira O'Neill.

a, b, c, b, d, d

"Song Against Women," Wright.

a, b, c, b, d, b

"How They Brought the Good News," Browning.

a, a, b, b, c, c

"Lost Love," Andrew Lang.

a, b, a, b, a, b

#### 6. Seven-line Stanza. Heptad.

Rhyme Royal (a, b, a, b, b, c, c). Seven iambic pentameter verses.

But when his woful wery gostes tweyne  
Retorned beenther—as hem oughte dwelle,  
And that som-what to wayken gan the payne  
By lengthe of pleynte, and ebban gan the welle  
Of here teres and the herte unswelle,  
Wit broken boys, al hoors for-shright,  
To Troilus thise like wordes seyde:

a  
b  
a  
b  
b  
c  
c

Chaucer: "Troilus and Criseyde."

"The Heritage," Lowell.

a, b, a, b, b, c, c

"Children's Son," Ford Madox Hueffer.

a, a, b, b, b, c, c

"Man," Henry Vaughan.

a, b, a, b, c, a, c

"A Shadow Boat," Arlo Bates.

a, a, b, c, b, c, b

"Maude" (Song), Tennyson.

a, b, a, b, c, d, c

"How Can the Heart Forget Her?" Davison.

a, a, b, b, c, c, b

"Doubt of Martyrdom," John Suckling.

a, a, b, b, c, c, d

"A Leave Taking," Algernon Swinburne.

a, a, b, a, b, b, b

- a, a, b, a, b, a, a  
 "O World, Be Nobler," Laurence Binyon. a, b, c, c, b, a, a  
 "Candor," Henry Bunner. a, b, b, a, c, c, a  
 "In the First Dutch War," Charles Sackville. a, b, a, b, c, c, d
7. Eight-line Stanza. Double Quatrain. Octet.  
 "The King of the Cradle" a, b, a, b, c, d, c, d  
 Draw back the cradle curtains, Kate,  
 While watch and ward you're keeping;  
 Let's see the monarch in his state  
 And view him while he's sleeping.  
 He smiles and clasps his tiny hand,  
 With sunbeams o'er him gleaming,  
 A world of baby fairyland  
 He visits while he's dreaming.
- "Flowers," Thomas Hood. a, b, c, b, d, b, e, b  
 "Our Wee White Rose," Gerald Massey. a, b, c, b, d, e, d, e  
 "Mother Goose," Gerald Massey. a, b, a, b, b, c, d, b  
 "The House of Christmas,"  
 Gilbert Keith Chesterton. a, b, c, b, d, d, d, b  
 "The Shadow-Child," Harriet Monroe. a, b, a, b, a, b, a, b  
 "Are the Children at Home?"  
 Margaret Sangster. a, b, c, b, d, e, f, e  
 a, b, c, b, c, d, e, d  
 a, b, c, b, c, d, e, d  
 "Tired Mothers," May Riley Smith. a, b, a, b, c, d, c, d  
 "Angel in the House," Coventry Patmore. a, b, a, b, c, d, c, d  
 "A Match," Algernon Swinburne. a, b, c, c, a, b, a, b
8. Spencerian Stanza: Nine lines, eight iambic pentameter, the last iambic hexameter or Alexandrine.  
 A gentle knight was pricking on the plaine, a  
 Ycladd in mightie armes and silver shields, b  
 Wherein old dints of deepe wounds did remaine, a  
 The cruell makes of many a bloody fielede; b  
 Yet armes till that time did he never wield: b  
 His angry steede did chide his foming bitt, c  
 As much disdayning to the curbe to yield: b  
 Full jolly knight he seemed, and faire did sitt, c  
 As one for knightly giusts and fierce ancounters fitt. c  
 Spencer: "Faerie Queene."
- "Childe Harold," Byron. a, b, a, b, b, c, b, c, c  
 "The Eve of St. Agnes," Keats. a, b, a, b, b, c, b, c, c  
 "The Cotter's Saturday Night," Burns. a, b, a, b, b, c, b, c, c

Nine lines not Spencerian.

I remember the sea-fight far away,	a
How it thundered o'er the tide!	b
And the dead captains as they lay	a
In their graves, o'erlooking the tranquil bay	a
Where they in battle died.	b
And the sound of that mournful song	c
Goes through me with a thrill:	d
"A boy's will is the wind's will	d
And the thoughts of youth are long, long thoughts."	e
"America to Great Britain,"	
Washington Allston.	a, b, a, b, c, d, d, d, c
"Gloucester Moors,"	
Wm. Vaughn Moody.	a, b, a, b, c, d, c, c, d

9. Ten-line Stanza.

"Gloucester Moors," last stanza,	
Wm. Moody.	a, b, a, b, a, d, e, f, c, c, f

10. Eleven-line Stanza.

"Our Sister," Horatio Nelson Powers.	a, a, b, b, c, c, d, d, e, e
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11. Twelve-line Stanza.

"The Cry of the Children,"	a, b, a, a, b, c, d, c, d, e, d, e
Elizabeth Browning	a, b, c, b, d, e, d, e, f, g, f, g
"Rokeby,"	a, b, a, b, b, c, b, c, d, e, d, e
Walter Scott.	a, b, a, b, a, c, a, c, d, e, d, e

12. Fourteen Lines. These are generally sonnets.

A sonnet is iambic pentameter. The sonnet has two distinct divisions—the octet or octave, and the sestet—each with its own thought.

The Shakespearean or English sonnet has three quatrains and a couplet.

The Italian or Petrarchian has two quatrains of "In Memoriam" type and a sestet of various forms.

The Omar sonnet has three Omar quatrains and has a couplet rhymed to the third line of the third quatrain.

### Examples of Sonnets

Spencerian Sonnet.

The sovereign beauty which I do admire,	a
Witness the world how worthy to be praised!	b
The light whereof hath kindled heavenly fire	a
In my frail spirit, by her from baseness raised;	b
That being now with her huge brightness dazed,	b
Base thing I can no more endure to view:	c
But, looking still on her, I stand amazed	b
At wondrous sight of so celestial hue.	c
So when my tongue would speak her praises due,	c
It stopped is with thought's astonishment;	d
And when my pen would write her titles true,	c
It ravished is with fancy's wonderment:	d
Yet in my heart I then both speak and write	e
The wonder that my wit cannot indite.	e

Spenser: "Sonnets of Amoretti."

## Petrarchian or Italian Sonnet.

No more, my Dear, no more these counsels try; a  
 O give my passions leave to run their race! b  
 Let Fortune lay on me her worst disgrace; b  
 Let folk o'ercharged with brain, against me cry; a  
 Let clouds bedim my face, break in my eye; a  
 Let me no steps but of lost labor trace; b  
 Let all the earth with scorn recount my case; b  
 But do not will me from my love to fly! a  
 I do not envy Aristotle's wit; c  
 Nor do aspire to Caesar's bleeding fame; d  
 Nor aught do care, though some above me sit; c  
 Not hope, nor wish another course to frame, d  
 But that which once may win thy cruel heart: e  
 Thou art my Wit, and thou my Virtue art. e  
 Philip Sidney, Sonnet 64, "Astrophel and Stella."

## Shakespearean or English.

Mine hath played the painter and hath steeled a  
 Thy beauty's form in table of my heart; b  
 My body is the frame wherein 'tis held, a  
 And perspective it is best painter's art. b  
 For through the painter must you see his skill c  
 To find where your true image pictur'd lies, d  
 Which in my bosom's shop is hanging still, c  
 That hath his windows glazed with thine eyes. e  
 Now see what good turns eyes for eyes have done: e  
 Mine eyes have drawn thy shape, and thine for me f  
 Are windows to my breast, where through the sun e  
 Delights to peep, to gaze therein on thee; f  
 Yet eyes this cunning want to grace their art; g  
 They draw but what they see, know not the heart. g  
 Shakespeare: Sonnet 24.

## "Sonnets From the Portuguese,"

E. Browning, a, b, b, a, a, b, b, a, c, d, c, d, e, d  
 N. 5 a, b, b, a, a, b, b, a, c, d, c, d, c, d

## "Sonnet on Science,"

Edgar Allen Poe. 15 lines. a, b, a, b, c, d, d, c, c, d, e, d, e, f, f

## "Sonnet," Meredith.

(Modern love.) 16 lines. a, b, b, c, d, d, c, e, f, f, e, g, h, h, g

## "Sonnets," Millay. 15 lines.

There seems to be a tendency to make sonnets of other numbered rhymes than the usual fourteen.

## Odds and Ends of Poetry

An alexandrine line is a verse of twelve iambic syllables. Spencer used it in the "Faerie Queene."

Rhyme is an exact matching of one or more syllables.

A ballad is a combination of narrative and lyrical poetry which is adapted for singing or gives the effect of a song.

A ballade is a popular French type, whose structure is extremely strict. It consists of three stanzas of eight lines each and an envoy of four lines. The rhyme scheme is usually ababbcbc and the half-

stanza has baba. No rhyme word can be used more than once. Each of the three and a half stanzas must end with the same refrain. In other words, the last line in all three and a half must be the same. Many times the refrain asks a question. In such cases there is sometimes a variation of a word or so, but this is not the strict ballade.

Blank verse is verse that does not rhyme.

Bucolics. These are the pastorals of Virgil.

Caesura is a pause in or at the end of a verse. It accentuates the beat of the rhythm.

Cadence is a natural fall of the voice in reading or speaking. It is made use of in free verse.

Cliche is a word used by modern poets to denote a hackneyed poeticism.

Distich is a couplet.

Epic is a narrative poem that is immense, heroic in sweep. It usually depicts the influence upon a great hero as he meets the two opposing forces. "Paradise Lost," "Paradise Regained," "Divine Comedy," "Drake," "Iliad," "Odysseus," "Aeneid," "The Song of Roland," "The Song of the Nibelungs."

Free Verse is based upon no fixed pattern; it has a general rhythm, however. Amy Lowell called it cadenced verse. The unit is the strope or one complete movement. "Song of Solomon," the Book of Job, "Leaves of Grass."

Idyl represents scenes from pastoral life or natural objects.

Lyric originally was a song, sung to the accompaniment of music. It must be able to be sung.

Ode has no form. It may be philosophical, lyrical, a long apostrophe. It is usually profound, highly serious and emotional. "On the Morning of Christ's Nativity," "Intimations of Immortality," "On a Grecian Urn," "To a Skylark," "Ode to a Nightingale."

Ottava Rima is a particular form of the eight-line stanza taken from the Italian and is expressed by the letters abababcc.

Pantoun was popularized by Victor Hugo. It has four-line stanzas in which the second and fourth lines become the first and third of the succeeding stanzas. See Arthur Dobson's "In Town."

Pindaric Odes are loose and irregular odes, although Pindar's were regular.

Rispetto is an Italian form of inter-rhyming lines (eight) on the rhyme scheme of abab aabb.

Rondeau is a popular French form of thirteen lines and two refrains. There are but two rhymes throughout. The refrain is commonly but half of the first line, is sometimes unrhymed, and is used at the end of the second and last stanzas.

Rondel is an early form of the rondeau. Its scheme is A, B, b, a, a, b, A, B, a, b, b, a, A. (The capitals indicate an entire line repeated.)

Roundel is a variation of the rondeau. It is Swinburne's creation. The scheme is abaX bab abaX. X is the refrain and usually rhymes with a b-line. It has 11 lines.

Terza Rima is a stanza of three verses with the rhyme scheme of aba, bcb, cdc, ded, efe. They usually have 11 syllables.

Triolet is a French form and consists of a single stanza of eight lines with the scheme A B a A ab A B. The capitals are repeated lines. See Henley for Triolets.

Villanelle is used for pastoral or idyllic subjects. It has five three-line stanzas with four lines for the closing stanza. The refrain forms eight of the nineteen lines. There are only two rhymes throughout. Note the scheme AbC, cbA, cbC, cbA, cbC, cbA, C. The capitals are complete lines. W. E. Henley wrote "The Villanelle."

### Types of Poetry

#### 1. Narrative Poetry.

1. An Epic consists of episodes that further the time or action of a great hero. The language is generally sublime and lofty. The epic gives a complete history of the race or time of the hero. Morals and love are subjugated. "Beowulf" and "Odysseus" are examples.
2. The Metrical Romance is a love affair written in verse. "Robin Hood" and "King Arthur's Round Table" are examples.
3. Ballads are the songs of the uncultured, who repeat them in their own fashion. Ballads are full of superstition, love, hate, revenge, courage, and tragedy. Type, "Robin Hood and Allan-a-Dale."
4. The Metrical Tale is a short narrative poem. The characters are common, and leave but a single impression, like a short story. "Canterbury Tales," "The Tent on the Beach," by Whittier; "The Highwayman," by Noyes.

#### 2. Lyric Poetry.

1. The Ode is the exalted form of lyric poetry. It usually exalts majestically through enthusiasm, loftiness, reflection, and dignity. Examples: "Alexander's Feast," "Ode to the West Wind," "The American Flag."
2. A Sonnet consists of fourteen lines usually, although there are some of fifteen and sixteen. There are usually an octette and a sestet. Spencer, Shakespeare, and Mrs. Browning are typical writers of sonnets.
3. The Elegy expresses grief as a result of sorrow or death, or loss. Typical elegiacs are: Tennyson's "In Memoriam," Gray's "Elegy," Shelley's "Adonais," and Milton's "Lycidas."
4. Songs are intended to be sung.

##### a. Sacred—

Hymns: "Nearer, My God, to Thee," Sarah Adams.

Anthems: A prose selection, usually from the Psalms, "Praise Ye the Lord."

Oratorios: Handel's "Messiah."



- b. Secular: Have any theme, such as love, hate, enthusiasm. "The Four-Leaf Clover," "After the Ball," "O Them Golden Slippers."
  - 5. Simple lyrics are not so majestic as to come under the other four heads. "The Song of the Shirt," "The Psalm of Life," "The Marshes of Glynn," "The Barefoot Boy," "We Are Seven," "Invictus."
3. Dramatic Poetry.

1. Old Drama.

- 1. Greeks used drama centuries before Christ was born.
- 2. English did not use till the eleventh century after Christ.
  - a. The priests acted out Bible stories for church service.
  - b. Miracle Plays and Mystery Plays depicted the life of a saint, and later other Biblical events.
  - c. Occupations played cycles of events.
  - d. The players were not always willing to stay to the truth, and thus came the comedy. Here the actions terminate satisfactorily to the main character.
  - e. The tragic element was also prominent. This ended disastrously to the main character. Much blood was spilled. They slew a goat for the blood (tragos-goat, odia-song).
  - f. Moralities were coincident with or a little later than the miracle and mystery plays. They tried to illustrate truth or to teach a lesson.
  - g. Interludes were generally comedies used for entertainment between courses of the dinner.
  - h. In general, all dramas must have a struggle, a conflict. They must be unified, and plain, and have suspense and surprise.
  - i. The old plays had five acts:
    - Act 1 introduces the characters and starts the action.
    - Act 2 advances the plot by the development of the conflict.
    - Act 3 furnishes the climax and turning point.
    - Act 4 unravels the plot and the action is retarded.
    - Act 5 or the denouement satisfactorily concludes the action according to the tenor of the other four acts.

The Mask was a drama placed on such a stupendous basis that it never became popular. It had an enormous setting and scenery, costumes, to illustrate the hidden or allegorical. Great pageants have largely superseded it.

- k. Dramatic Monologue has only one speaker and is used for speaking purposes. "My Last Duchess" is a type.

## 2. Modern Drama.

1. Romantic plays try to make us hide ourselves from the realities of the world. The characters are imaginary. Clyde Fitch and Augustus Thomas are typical writers of these.
2. Realistic Plays have the situations plain and simple, a very few characters play the parts, they succumb to the modern causes that are real and, therefore, make environment and heredity the cause of change. "The Melting Pot," by Zangwill, is an example.
3. Symbolic Plays are allegorical and abound in representative imagery. "The Hour Glass," by W. B. Yeats, is an example.
4. One-act plays are now quite popular. "The Rising of the Moon," by Lady Gregory, is an example.
5. Poetic Plays so far have not been dramatic and poetic at the same time. "Sherwood," by Alfred Noyes, is an example.
6. The Irish Plays depict the stories and old legends of native Irish peasant life. Yeats and Lady Gregory are representative writers.

### Modern Plays in General

Asides are simple and fewer.

There are no spectacular effects.

They are written in prose usually.

Artificial devices are seldom used.

They develop character rather than plot.

No romantic characters.

The speeches are plain, instead of euphuistic.

They have from one to four acts.

Commonly only one scene to an act.

Few pathways to one side.

Reflect real life of the people.

The end of the play is real and may leave the problem unsolved.

It usually starts where the old play is in the catastrophe.

Many times the dramatic interest is in the sayings or speech of the characters.

The center is many times not so much what the characters do as what they have to put up with.

"The Doll's House," by Henrik Ibsen.

"The Pigeon," by John Galsworthy.

"The Furnace," by W. W. Gibson.

"Spreading the News," by Lady Augusta Gregory.

"The Land of Heart's Desire," by W. B. Yeats.

"Ulysses," by Stephen Phillips.

"The Blue Bird," by Maurice Maeterlinck.

"The Servant in the House," by Charles Kennedy.

"The Passing of the Third Floor Back," Jerome K. Jerome.

"The Mouse Trap," by William Dean Howells.

"Chantecler," by Edmond Rostand.

## STONE'S METHOD OF SUBTRACTION

By W. H. Hill, Professor of Mathematics

The adoption of the Stone Arithmetics as the standard texts for the State of Kansas has introduced a number of new teaching problems in arithmetic. The one which has been called to the attention of the teachers more than any other, and the one which is the most pronounced, is the problem of subtraction.

The method of subtraction that has been used more nearly universally for the past thirty years is the one known as the borrowing or decomposition method. Another, less widely used and variously known as the equal additions method, the Austrian method, and the addition method, has been tried out at various times but has not been accepted in general.

Stone's method is a complete departure from the borrowing method, and although some parts are like those of the Austrian method, yet it varies from the latter method in most particulars. Stone designates his method as the additive method. His greatest point in its favor is that "the additive method of subtraction is undoubtedly the most direct transfer from the skills of addition. The only thing really new is the notations."

The Austrian method and the additive method are alike in problems where every number in every column is larger than the one to be subtracted from it. The problem, to find the difference between 467 and 324, will illustrate this point.

467	Think, 4 and 3 are 7. Write 3. Think, 2 and 4 are 6. Write 4.
324	Think, 3 and 1 are 4. Write 1.

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These methods differ widely when any number in any column is less than the one below it. A solution of a problem taken directly from Stone's "How to Teach Subtraction," illustrates the difference between these two methods. Thus, by the additive method:

80163	"To find the difference between 80163 and 25728: Think, 8 and 5 are 13. Write 5, carry 1. Think, 3 and 3 are 6. Write 3. Think, 7 and 4 are 11. Write 4, carry 1. Think, 6 and 4 are 10. Write 4, carry 1. Think, 3 and 5 are 8. Write 5.
25728	
———	
54435	

"This is not the way the additive method, then called the Austrian method, was generally taught when first introduced here about thirty years ago. For example, the above example was explained as follows:

80163	Since 3 is less than 8, borrow 1 from 6. This makes 13.
25728	8 and 5 are 13. 2 and 3 are 5. Since 1 is less than 7, and since you cannot borrow 1 from 0, borrow 1 from 8. This with 0 makes 10. Borrow 1 from 10. This with 1 makes 11. 7 and 4 are 11. 5 and 4 are 9. 2 and 5 are 7.
54435	

"By the additive method the pupil gets no thought of 'borrowing' and 'paying back.' He is adding enough to 7 to get the next number ending in 1, which is 11. The 11 is not from anything that has been borrowed. Also, in addition, 1 is carried when the sum is 11. So he 'carries' 1 to 5, and does not pay back to 5, what he carried from 8 and gave to 0, and then borrowed from 10 thus formed."

The question is often asked, "What shall I tell the child when he asks why the 1 is carried?" Mr. Stone makes the following statement in his book mentioned above: "The additive method needs no rationalization. In the additive method the pupil always sees the right hand figure of the minuend used (enough to suggest it) and does not have to look at one number and think another. While the carrying of 1 to the subtrahend has changed the number, this is a skill carried over from addition. The pupil is continually adding an unseen number to a seen one." Again, "While we have given up the idea that it is necessary to rationalize every step in the process, there are children who will ask 'why?' Hence it is better to select a method in which the child sees why from the development and has no question to ask."

Mr. Stone's method for the subtraction of whole numbers is also employed in the subtraction of mixed numbers, as can be seen from the following examples:

7             $\frac{5}{8}$  and  $\frac{3}{8}$  make 1 to carry; 5 and 2 are 7.

$4\frac{5}{8}$

$2\frac{3}{8}$

$9\frac{1}{8}$

$6\frac{3}{8}$

$2\frac{3}{4}$

$\frac{3}{8}$  and  $\frac{5}{8}$  make 1;  $\frac{5}{8}$  and  $\frac{1}{8}$  are  $\frac{6}{8}$  or  $\frac{3}{4}$ ; 7 and 2 are 9. ("The carrying 1 is a skill brought over from whole numbers of carrying 1 when the number in any column is less than the one below it.")

In algebra, Mr. Stone says, "The additive method relieves the mind of 'change the sign of the subtrahend and add.' Thus in exercises

$$\begin{array}{r r r r} 3a & 7a & -3a & -2a \\ 5a & -3a & 8a & -6a \end{array}$$

the pupils thinks, 5a and  $-2a$  are 3a;  $-3a$  and 10 a are 7a; 8a and  $-11a$  are  $-3a$ ; and  $-6a$  and 4a are  $-2a$ ."

He advocates that "a larger saving of time than any yet shown is seen in solving problems in which the sum of several numbers is to be subtracted, as when the sum of several withdrawals is to be subtracted from a deposit or balance. Thus,

Old balance \$325.20  
Checks        79.65  
              37.28  
              42.52

New balance \$165.75

Think, 2, 10, 15, and 5 are 20. Write 5, carry 2.  
Think, 7, 9, 15, and 7 are 22. Write 7, carry 2.  
Think, 4, 11, 20, and 5 are 25. Write 5, carry 2.  
Think, 6, 9, 16, and 6 are 22. Write 6, carry 2.  
Think, 2 and 1 are 3. Write 1."

Among the advantages Mr. Stone claims for the additive method is the one that nearly all the time for learning the 100 independent primary facts is saved.

He predicts that "when teachers know how to teach the additive method and see the ease with which it is taught, it will undoubtedly become universally used. The writer has given various demonstrations within the last few years in many schools to show how to teach it. Within a class period of about thirty or forty minutes he has been able to have a class give all the subtraction facts corresponding to known addition facts and to use them in written work both with and without carrying."

A number of persons who are now teaching have reported favorably on the results they are obtaining from teaching Stone's method of subtraction. The additive method should be taught to the children beginning the subject of subtraction, and not to those who have mastered one of the other methods. This procedure will save much time and possible confusion to the child.

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## CAMPUS JOTTINGS

Ignace Paderewski, the world's most celebrated pianist, was heard in concert at the College the night of February 23. His appearance was the major event in music at the College for the winter season and drew a large number of music lovers from surrounding towns. Paderewski's program consisted of selections from the classics.

Miss Mae Rankin of Pittsburg, a senior, was chosen Kanza Queen in the annual charm contest sponsored by the staff of the college year-book. Maids of honor elected at the same time were Miss Hazel Hadlock, Cherokee; Miss Mildred Dail, Fulton; and Miss Vesta Deffibaugh, Chanute. During the contest, in which students obtained votes for their favorites by selling subscriptions to the annual, the largest number of annuals was sold that has ever been sold in a similar campaign here. All the seven nominees for the queenship were placed in the field by sororities.

Earl Farnsworth of Douglass, a junior, has been appointed editor of the Kanza for the second year. The business manager for the 1929 edition will be Conrad Lange of McCune. Perdue Graves, the manager for 1928, will be graduated this spring. Farnsworth and Graves are this year doing all the work of manufacturing the book except the engraving and the binding.

The third annual high school scholarship contest to be held at the College is scheduled for April 28. Professor J. A. Yates is chairman

of the faculty committee in charge. More than 700 students participated in the contest last spring and plans are being made to accommodate a still larger number this spring.

The first high school wrestling tournament ever announced in Kansas will be held at the College March 23 and 24. Oklahoma and Missouri schools have also been invited to enter teams. George Walker, wrestling coach, will be in charge of the meet.

Misses Alta and Fern Smith of Lyons, who were John Coolidge's preferred dancing partners when the president's son visited Yellowstone Park last summer, resumed their studies at the College at the opening of the second semester. They have not yet decided whether to return to the Park next summer as entertainers and waitresses in one of the big hotels, or to continue their studies here so that they may teach next winter. Both are members of the college orchestra, Miss Fern playing cello and Miss Alta the violin.

A novel course in the Department of Music is that in the art of conducting, in which Professor Walter McCray, director of the department, is instructor. The musical organizations on the campus are so numerous that each student in his class gets practical experience in directing choral or orchestral music. The student conductors give demonstrations with their glee clubs or orchestras once or twice each semester. Professor McCray has collaborated with Carl Busch, the noted composer, in writing a textbook on conducting that will be published within a few months.

A five-day course for janitors and engineers of public buildings was given at the college in December. Professor Marion W. Smith, one of the Kansas directors of federal vocational education with his office at the college, was in charge. This was the first time that a course in the scientific principles and practical methods by which efficient janitors do their work had ever been given in a Kansas college.

Judges in the annual Interstate High School Music Contest to be held in the College April 26 and 27 will be Henry P. Eames of the American Conservatory, Chicago, John Selby, music editor of the Kansas City Star, and Arthur Uhe, head of the violin department in Bethan College, Lindsborg. High schools of this part of the country are already making plans for the contest.

Nineteen out-of-town extension classes have been operated by the College this year. Twelve members of the faculty have done the teaching in twelve different towns. The largest enrollment has been at Kansas City, Kan. Late afternoon classes are also held on the campus for the benefit of teachers in Pittsburg and neighboring towns.

Erection of a music hall will begin shortly after the state lets the contract early in March. The new building, for which Charles D. Cuthbert, state architect, drew the plans, will be three stories high and will in style harmonize with the new Porter Library completed last spring. It will center around an auditorium seating about 500 and will contain a large number of sound-proof practice rooms, an orchestra room, class rooms, and studios. Plans include a two-manual organ for teaching purposes.

The local chapter of Sigma Sigma Sigma, educational sorority, was recently informed by its national officers that it had won the national prize for general scholarship for the fourth year, this last award being for the college year 1926-1927. The sorority is now only in its sixth year. Twenty-five co-eds made up last year the membership which did the work that won the prize.

Twenty-two juniors and seniors have been pledged to Kappa Delta Pi, scholastic fraternity for educators, and will be initiated at an early date. The list is made up of students who, besides earning high grades in their classes, have been active in college affairs and promise more than average achievement in the field of education. Those honored by the fraternity are as follows: Seniors—Miss Ester Rose Edwards, Radley; Miss Santa Maria Craig, Pittsburg; Miss Mary Gladys Altman, Independence; Miss Myrtle Moeller, Earleton; Robert Britton, Lewis; Mrs. Kate E. Wilson, Pittsburg; Miss Olive Falls, Neodesha; Miss Doris Eva Lutes, Fort Scott; Miss Eller Fowler, Arcadia; Miss Dana Jones, Miami, Okla; Miss Willma Tullis, Bartlett; Miss Maude Ramey, Spring Hill; Miss Mildred Matzler, Parsons; Miss Margaret Lill, Leon. Juniors—Miss Enid Frogue, Pittsburg; Miss Edith Thomas, Coffeyville; Mrs. Ethel Porter Weede, Pittsburg; Miss Merle C. Gray, Bonita; Miss Iris Cheverton, Pittsburg; Earl R. Farnsworth, Douglass; Howard Merle Farnsworth, Douglass; Miss Ellen Penn, Coffeyville.

Professor C. W. Wright, Department of History and Social Sciences, resigned at the close of the fall semester in order to devote his time to his business interest. He had been a member of the faculty since 1921. Miss Willa Dush, who had done her graduate work in New York University, joined the faculty just after the holidays as a member of the Commerce Department, a vacancy having been created last fall by the death of Professor E. F. Sholtz. Professor Ralph A. Fritz of Iowa City is a new member of the Department of Education. His coming at midyear was made necessary by Professor D. M. Bowen's suffering a fractured hip, an injury from which recovery is necessarily slow.

One of the finest training school buildings in the country is now in operation at the College since the new Horace Mann building was opened about December 1. The building is constructed on the unit plan

so that for each of the six grades housed in it there is a study hall and two small recitation rooms. The kindergarten also has a spacious room with supply rooms attached. Other facilities include a clinic, shower baths, pupils and teachers' wardrobes in each main room, gymnasium-auditorium, demonstration room, and an ungraded room. The building was erected by the city of Pittsburg and was equipped and is manned by the college. The pupils come from that part of the city surrounding the college. One hundred twenty college students can each do one hour of practice teaching each day in the buildings. Dr. H. C. Pryor, head of the Department of Education and Teacher Training, has general supervision jointly with Superintendent M. M. Rose of Pittsburg. Miss Jane M. Carroll is the principal in charge.

Kenneth Pettit of LaHarpe will lead the 1928 football squad. The new captain will be a senior with a reserve letter for his freshman year and regulation "K's" for his sophomore and junior years to his credit. Spring football practice will be held this year for the second season.

Intra-mural basketball teams for both men and women were organized in sufficient number this season so that every student interested in the game had a chance to play. All members of the varsity squad were ruled out of these teams.

Seven sororities at the college pledged sixty-two co-eds as a result of their rushing campaign early in November. Initiation took place at the beginning of the second semester after it was certain that all freshman girls pledged had earned grades entitling them to admission.

The college orchestra numbers about thirty-five this year. Miss Hallie Mathey of Parsons is concert master and Carl Carter of Moundridge, Mo., heads the trumpet section. Prof. Walter McCray trains the festival orchestra of about fifty players.