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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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Vol. XIII

JANUARY - FEBRUARY, 1930

No. 3

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## SHADOWS

The shadow of a tree  
Is just a moving patch  
Of darkness on the grass,  
But tell me how to put it into song.  
I cannot name the loveliness  
Of softly outlined leaves,  
Nor put the rhythm  
Of its branches into sound.

At night  
The shadowed leaves  
Make tropic palms  
To sway across my wall.  
They make good dreams,  
But are too thin to shield me from the moon.

—Dorothy Bunch.

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PUBLISHED BY  
KANSAS STATE TEACHERS COLLEGE  
PITTSBURG, KANSAS

# THE TECHNE

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

W. A. Brandenburg, President

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Vol. XIII.

JANUARY-FEBRUARY, 1930

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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## TRADE AND INDUSTRIAL VOCATIONAL EDUCATION IN KANSAS

By Laurence Parker, M. S., Director of Smith-Hughes Vocational Education.

Trade and industrial vocational education is any form of education which will make a man or woman a better worker at a trade or industry than he or she can become through other agencies. When we try to plan a program of such training for workers in industry in Kansas, we look with covetous eyes at eastern states with tremendous manufacture outputs and their building programs. When we look at our own state, we realize that we never can boast of numbers served. Our only hope in this state so lacking in trade density is to make up in quality what our efforts will always lack in numbers trained. We must remember as well that each one of the handful of carpenters now at work building houses, sheds and garages at McPherson is just as much in need of additional training as though there were 500 of them; that those boys attending high school at Salina, for example, have as much right to vocational trade training as those in Wichita.

Our efforts in Kansas have been centered upon two types of service, day trade classes and evening classes. Day trade classes are organized in high schools or trade schools for the express purpose of giving boys and girls an opportunity to learn the trade they desire to learn. Four hours per day is spent with an instructor who is, among other things, a recognized master of the trade. Not less than three of the four hours must be spent upon practical work giving the skills of the trade. The other hour may, when occasion requires, be spent upon the related instruction, the science underlying the trade. Such classes run for two years and turn out advanced apprentices. Three hundred thirty-five students were enrolled this year in eighteen classes in seven centers. Wichita, with her beginnings toward a splendid vocational school, has one hundred twelve enrolled this, her first year.

I like to think of these classes as educational repair shops where a man may get a new half-sole or become better heeled in his trade. Henry Ford brings out the Model A car and auto mechanics either must learn by trial and error upon your car or mine or get instruction from Ford experts in a short course in evening school. A new baking formula was discovered a few years ago and the evening classes of Dunwoody Institute in Minneapolis were flooded with bakers. Radio has grown up and needs service, and men must be trained in evening classes. About two years ago the airplane industry developed rapidly in Wichita. The welders of the light tubing used for frames of planes were in great demand. The evening classes of the Wichita public schools stepped into the breach and retrained ordinary welders into specialists in light tubing.

An evening class may be organized therefore to teach a bit of skill or underlying theory or science whenever a reasonable number—ten or fifteen—need it. Usually, individual instruction is the method resorted to. Practical men looked up to as authorities are secured to do the teaching.

It is believed that some sort of evening instruction may be given to at least one group in any town of 10,000 or more population. There are seventeen such towns in Kansas and we have classes operating this year in thirteen of them. Four cities of less than 10,000 are now operating at least one class. There were 1964 individuals enrolled in these classes between September 1 and January 1.

Included in the evening class program are certain special services to industries. These have been conducted through the co-operation of Kansas State Teachers College of Pittsburg.

"Mopology," as the Kansas City Star called it, is being taken seriously by janitors of Kansas schools. One hundred twenty of them met and learned more about sanitation, heating, and maintenance during five days last June. Calls are coming to us to hold two such schools this summer, one in the central part of the state.

On a railroad siding at Kansas City, Kansas, near the Union Pacific roundhouse is a rolling school this month. Its instructor is a veteran engineer of the system. The students are engineers and firemen who drop in for an hour or two before or after their runs. They are learning more about locomotives and their appliances, such as stokers, feed pumps and air brakes, in order that they may not have to parrot the answers to the examinations required of them. Seven hundred engine men attended this school last year and a total of 15,648 man-hours of instruction were given. The car and its expensive equipment are furnished by the company; the instructor's salary comes from Smith-Hughes funds.

Scattered over Kansas are 700 cleaning and pressing establishments employing from one to twenty employees. There are 1500 dye stuffs anyone of which may have been applied to the yarn of your suit or mine. It is said that there are 2,000 different recognizable stains we may get upon our clothes. In addition to such troubles, almost daily, somewhere, a washerful of clothes goes up in smoke and flames as quickly as airplanes come down to the same accompaniment. The State Board was fortunate enough to secure an expert in the industry, Mr. C. C. Hubbard of Washington. In four one-day short courses in January he demonstrated modern methods of dry cleaning before 253 people in four cities of Kansas. This was done in a week of blizzard and sub-zero weather, and there would have been a fifth meeting at El Dorado had not the blizzard made travel to the town impossible. A similar service for the laundry workers is in prospect.

In Wisconsin, traveling experts hold classes for special groups. Somewhat along this line are the "air brake schools" held for railway engine men and shop men by Mr. C. M. Drennan. Some 200 men received his instruction during the last ten weeks of 1929. He is now at work at Newton and will hold classes in Herington and Kansas City shortly. Six hundred men are prospective members of his classes at Herington.

## SOME PHASES OF DEWEY'S PHILOSOPHY

By C. B. Pyle, Ph. D., Professor of Psychology

Philosophically, Dewey is all things to all men. He provides a stimulus for every philosophic creed. Santayana calls Dewey's metaphysics "Half-hearted Naturalism."<sup>1</sup> According to Dewey,<sup>2</sup> Thilly thinks Dewey's "half-heartedness" is the saving grace of his philosophy, for it implies an idealistic strain which is redeeming. Dewey confesses that he is an "empirical naturalist" or that he advocates a "naturalistic empiricism."<sup>3</sup> He is a pragmatist and instrumentalist. He is an ally of new realism, and certainly there is in his philosophy a rich vein of behaviorism. He is also a realist who advocates idealism. He combines five distinct philosophic creeds: naive realism, pragmatism, idealism, new realism, and behaviorism. We are concerned primarily with his behavioristic tendencies only. However, it will be necessary to show his behaviorism and its metaphysical implications in relation to other dominant aspects of his philosophy. We shall now give a brief exposition of Dewey's variant of behaviorism.

(1) *Exposition and Naturalistic Implication.* Dewey made one of the most significant contributions to behaviorism back in the pre-behavioristic days when he emphasized the fundamental nature and primacy of motor responses.<sup>4</sup> In his *Essays in Experimental Logic*, Dewey is a "conscious" behaviorist. Throughout his writings, Dewey records a strong protest against the "psychical," "consciousness," and "mental states" as representing any reality different from things to be found in a realistic, natural world. He vigorously attacks the "presentative theory" of knowledge partly because it implies "psychical" and "physical" entities.<sup>5</sup> In his defense of pragmatism, he clearly reveals his hostile attitude toward "mental states." At the same time, his behavioristic tendency appears in the statement, "That the pragmatist is [by his denial of transcendence] landed in pure subjectivism or the reduction of every existence to the purely mental, follows only if experience means only mental states. The pragmatist starts from a much more commonplace notion of experience, that of a plain man who never dreams that to experience a thing is first to destroy the thing and then to substitute a mental state for it. More particularly [here his behaviorism appears], the pragmatist has insisted that experience is a matter of functions and habits, of active adjustments and readjustment, of coordinations and activities, rather than of states of consciousness."<sup>6</sup>

Here Dewey surrenders to realism, even new realism, and to behaviorism. He joins the "pan-objectivists," for he obliterates consciousness altogether. There are many strong passages directed against the assumption that consciousness is "something" outside of the real thing, something different which has power to invest real things with subjectivity.<sup>7</sup> In this aspect of his thought, Dewey contends for a fundamental "immediacy" in the realistic sense. Mind as something over against the things and which can know the things, Dewey eliminates from his world

altogether. Only things remain of which the physical organism is one. Thinking is nothing psychical; it is active control of the environment. Knowledge is not limited to the "mental" even in the peculiar sense in which Dewey employs the term. For much "knowledge" or adjustment of the physical organism to its environment takes place on the non-cognitive plane. Thinking is *acting, doing*. Perceptions are not "cases of knowledge." They are "natural events" having "no more knowledge status or worth than, say, a shower or a fever."<sup>8</sup> This is Dewey's naive realism. All reality must lie within the bounds of the natural. Even "human affairs, associative and personal, are projections, continuations, complications, of the nature which exists in the physical and pre-human world."<sup>9</sup> The implication of this phase of Dewey's thought is naive naturalism or materialism.

(2) *Idealistic Implications*. On the one hand, Dewey has banished the "mental" as anything real and efficient. On the other hand, he reaffirms the "mental" in a peculiar sense, and by implication makes room in his thought for the "psychical." Dewey says that if "perceptions" are "regarded as cases of knowledge, the gate is open to the idealistic interpretation."<sup>10</sup> And by "second intention," in reflection when inferences are drawn, "perceptions" become "cases of knowledge." These "perceptions" are so important and reliable that steadfast science "hangs upon them. *For scientific purposes* their nature as evidence, as signs, entirely overshadows their natural status, that of being simply natural events." They are the "sole ultimate date, the sole media, of inference to all natural objects and processes. . . We know all things that we do know *with* or *by* them. They furnish the only ultimate evidence of the existence and nature of the objects which we infer, and they are sole ultimate checks and tests of the inference."<sup>11</sup> Dewey thus admits objective reference to an order which lies beyond "experience," and in doing so becomes a victim of an epistemological dualism for which he, usually, shows strong antipathy.

In his contention with Professor Perry over the question of the "ubiquity of the knowledge relation," Dewey says "that if any realist [and he volunteers to serve as Moses to lead all realists, new and old, out of their epistemological bondage] holds that the sole and exclusive relation of the one who is a knower to things is that of being their knower, then the realist can not escape the impact of the (egocentric) predicament. But if the one who knows things also stands in other connections with them, then it is possible to make an intelligible contrast between things as known and things as loved or hated or appreciated, or seen or heard or whatever."<sup>12</sup> Dewey first argues that "hearing a sound and seeing a color are of themselves" not "cases of knowledge." Perry holds that "sensing" is a case of knowledge, that it makes the mind aware of a characteristic of the environment. According to Dewey, this is playing into the hands of the idealist, and it acknowledges the "constitutive efficacy" of the mind in the knowing process. Yet Dewey himself admits that mind enters and makes color the "basis of inference to some

characteristic of the environment." When he does so, he passes from simple "immediacy" to the "mediate," from *naïveté* to reflection. Just here the idealistic camel thrusts his nose into the tent. For can there be any objective reference without a knower who makes the reference? Can there be "immediacy" when objective reference is required? And do not the "perceptions" which serve as *signs* of something beyond them really represent the objects beyond? In this aspect of his thought, Dewey might be called a representative pragmatist.

Furthermore, Dewey includes the "mental" in his thinking. It is true that he gives the term a peculiar status, but it means something besides physical response. Dewey divides his world of "experience" into "mental" or cognitive, and "extra-mental" or non-cognitive. He certainly does not mean by "extra-mental" "things-in-themselves," for a pragmatic empiricist "doesn't have any non-empirical realities," such as "things-in-themselves," 'atoms,' 'sensations,' 'transcendental unities,' etc.<sup>13</sup> However, unless Dewey admits a conscious knower, he does actually (without intending it) imply a transcendent "extra-mental" world of objects to which "perceptions" refer.

But if we take the "extra-mental" as Dewey intends, it is an experiential world of organisms responding to things in a naive, realistic sense. This is his behavioristic world. In addition, the "mental" means something specific. It means that physical things are implicated in a reflective situation subject to specific treatment. It means "suggestion." Where the stimulation is sufficient to start a response, there is no suggestion. A sudden cry of fire starts the organism to running by what the psychologist calls the instinct of flight. There is no time for reflection, for the response to be postponed. In this instance there is no suggestion; there is nothing "mental." It is a purely physical event. But if the response is delayed, and if reflection enters, the response "may persist as suggestion." "We may, in a sense we must, call suggestion 'mental.' But it is important to note what is meant by this term. Fire, running, getting burned, are not mental; they are physical. But in their status of being suggested they may be called mental when we recognize this distinctive status."<sup>14</sup> This status, it seems, is suggested, meant, or indicated by "certain features of the actual situation." Are the "features" all physical? If so, the flames that break through the floor from the basement would make a suggestion to the stairs that they flee, and so the stairs, to the beds in the rooms above, etc. Or must there be some mental feature present in the situation for a suggestion to arise? If so, then the "mental feature" or suggestion is present and gives meaning to the situation. Something distinct from the physical seems to be admitted here. It is necessary to recognize a distinctly mental element in order that a suggestion might arise in connection with the person only. If consciousness be absent, there would be no suggestion among things.

But Dewey insists that "certain given existences" indicate "absent existences."<sup>15</sup> This is representative, but is it idealistic? The "absent"



existences are not present in the same manner as the "immediately given" existences, but they are "present-as-absent." This is only another way of saying that they are not physically present, but they are present in thought or imagination. The "absent" existences can not be "physical;" for they are not "present-as-absent," they are always "present-as-present." So it would seem to the "plain" man. Therefore, the "present-as-absent" existences have all the characteristics of the "psychical." As Lovejoy has shown<sup>16</sup> the experience of this moment (the representation) is distinct in its existence (because temporally distinct) from the past or future that is represented as the object of knowledge. The representation must be psychical because it does not subscribe to a description of any object of physical science, and it can find no place in a physical order. Dewey is forced to broaden his conception of reality as altogether physical so as to include this "present-as-absent" reality, or he must surrender his "inter-temporal cognition." Dewey does not desire the latter, for it would close the avenue to all knowledge.

The main tendency of Dewey's thought is in the direction of dualism to which, at times, he gives clear and forceful expression. The denial of the psychical is inconsistent with the affirmation of the reality of "aims" and "ideal contents" which lie outside of their "objectives and fulfillments." Aims and ideals which are not yet realized (only set for fulfillment) are surely of a different nature than objects in a natural order. If we preserve the temporal succession of experience which Dewey insists upon doing, we must say that experience transcends the present and refers to experiences (not present) whose marked characteristics are logical equivalents of the present experience. If judgments are to be "instrumental" they must refer to objects beyond immediate experience. If knowledge is to be "useful" it must serve to illuminate a reality that transcends the "immediate." And especially, if we are to hold rational communication with one another in a society of selves, we must recognize and refer to the other minds and experiences which we can not experience directly. These constitute a real order objective to us which we can know only indirectly by influence. Since Dewey makes much of society and the social, he passes the bounds of "immediate empiricism." Strictly speaking, Dewey believes in objective reference to experience which transcends the given; he believes in a society of persons who are objective to our thought of them, but with whom we may hold reliable intercourse; and he believes in a world of natural objects which are certainly distinct from our thoughts of them. It would be easy and natural for Dewey to go on and complete his truncated world of society and nature with a spiritual superstructure to which he could make as confident reference as to any part of his system. By refusing to follow the idealistic implications of his thought, Dewey is forced to accept a dualism of mind and body, of organism and things, and finally of "things experienced as" and "transcendent things"

referred to by perceptions. The only way Dewey can avoid an ultimate dualism is to advance to the objective idealism which he so much wishes to shun.

(3) *Criticism.* In his anxiety to reduce all reality to the physical category, Dewey denies many obvious facts. Others he distorts or treats arbitrarily. His method of banishing the conscious knower is open to serious question. At the very beginning of his disquisition on *Naive Realism vs. Presentative Realism*, Dewey escapes enlightenment by a serious oversight. He cites the evidence which the idealists offer concerning the visible convergence of the railway tracks. According to Dewey, this convergence is not, as the idealist claims, a mental content; but it is the natural result of the physical laws of light and lens, and it can be "physically demonstrated in a camera." Wherefore, Dewey asks, "Is the photograph, then, to be conceived as a psychical somewhat?" Certainly, the camera is not psychical. But Dewey has omitted an important item in this connection, namely, that the camera never thinks of the rails as parallel, as men do. There is a very good reason for this also. Is it because the camera is physical only? Had Dewey answered this question, he would have seen the plight of his physical organism divested of all that we call psychical. He would have seen also that the camera can know as much about the railway track, or any other item of the world as the physical organism can. The camera "sees" the railway track as convergent, but mind sees the convergence and *thinks* the rails parallel. Had Dewey given attention to the reason for this, he would have seen the necessity of admitting a "conscious observer and thinker." Without the mind of Dewey, or the mind of the photographer to note and interpret the record upon the plate of the camera, the photograph reveals nothing of the world. Without mind, "experience" is meaningless. In a world of purely "natural events," there can be no "loving," "hating," or "appreciating."

Dewey would exercise the psychical by showing that mirrors placed in diverse positions will make a round table appear to assume elliptical shapes just as will the perceptions of observers located in different positions relative to the table. Dewey has been unfortunate in his choice of an illustration. Instead of ruling out the psychical, this illustration renders it imperative. Without some one to observe the reflection from mirrors, the mirrors alone could never cause a round table to appear elliptical. So much the greater need for a "conscious observer!" Dewey's discrimination between the "real" table and the "images" in the mirrors is also substantial evidence of the psychical. The same argument will hold relative to his illustration of the lump of wax located at different positions but subjected to the same heat. "Now the wax is solid, now liquid—it might even be gaseous. How 'psychical' these phenomena!"<sup>17</sup> But should the lump of wax be empowered to distinguish itself as a lump from itself as a liquid or gas, as Dewey seems able to do, how *psychical* indeed would be the lump of wax! Dewey seems to forget all the while that he, as a "conscious observer," is

making distinctions that no mere lumps of wax can make. It may be because of the psychical nature, which he decries, that all discriminations and comparisons are possible.

Moreover, if perceptions in their primary state are but natural events and do not concern a "knower," we are at a loss to know how, even by the mystery of "second intention," the knower can select just such perceptions from common lot in nature as will serve in the case of knowledge of definite, specific objects. Inasmuch as Dewey, at times, inclines toward monistic realism in order to point the way of escape from dualism for the new realist, he must identify the perception with the real object (he denies this at other times). Therefore, he is in the untenable position of asserting that what is perceived as a circle (round table) by one observer and an ellipse (table from another position) by another is the same thing. The perception of a circle and the perception of an ellipse are identical with each other. On the basis that perceptions are "natural events," no other conclusion could be reached.

But Dewey's philosophy will not bear the strain of such absurdity. Apparently having vanquished dualism by his conception of "immediacy," Dewey himself turns dualist in ways we have indicated, and further by reducing knowledge to matter of "anticipation." As Lovejoy has shown,<sup>18</sup> knowledge consists in reference to the past as a matter of fact and, moreover, no future plan could be laid except on the foundation of the past. If that past is unverifiable and untrustworthy as Dewey claims, it could give no clear guidance for our anticipation. Besides, it is impossible to start into a future fulfilment from a "zero" present. If the claims of the past are rejected because bygone, the trustworthiness of the future must be discounted because the future has not yet arrived. If an anticipatory experience, which has not yet become a physical experience, is allowed, then an experience which re-instates the past should be allowed, for such an experience was once a physical *experience*. Besides, Dewey himself says, "Imaginative recovery of the bygone is indispensable to successful invasion of the future."<sup>19</sup> Dewey is therefore bound to the dualistic experience of anticipation and recovery.

In contrast to his theory of anticipatory experience, Dewey as a behaviorist should insist upon the reality of *past* experience and not upon the reality of future experience. For the activities of the organism (the sole reality), presumably, leave "traces" in the organism. These can be carried forward to the present after the manner of Bergson's ball of snow. The past would thus be rolled up into the present. But nothing of the future would be represented there, for the future has not yet made any record. When perceptions are regarded as related to organic activity and not to a "knower" or "mind," their very ground is removed; they have no status whatsoever. At most, they would be but effects of one thing upon another by impact. They should be called indentions as the beatings of a hammer upon brass rather than perceptions. Even organic memory, as biologically conceived, is meaningless until we invoke con-

sciousness. The "paths" or "tracks" said to be revived operate in the interest of explanation only on the assumption of mind. They are doubtful even with that assumption. According to Dewey, "seen" is not the case of knowledge; it is on par with "gnawing" and "poking." Yet "seen" must imply that something is seen, and that it is seen by something or some one. "Poking" is a case of knowing when a blind man pokes the sidewalk; for by that act of poking he knows that he is on the sidewalk and not in the gutter. We understand "poking" quite well when consciousness is involved, but the behaviorist would be hard-pressed to tell just what "poking" means in the absence of consciousness. We wonder whether the organism would "poke" or "gnaw" in solving problems involving logarithms.

The fundamental weakness of Dewey's philosophy is laid bare when we begin to analyze his conception of "experience," which he seeks to identify with reality. In the first place, we are not always sure just what experience he means. There seem to be two notions of experience. On the one hand, experience means the interactions of "natural objects" of which the animal organism is one. The physical organism assumes no more important role in experience than any other object, for it shares the same status as other physical objects. "Thinking," "knowing," "inference," etc., are retained as terms, but they are given a new interpretation. They are deprived of all value in terms of consciousness, and are assigned values only in terms of the physical. Knowing is organic response. Inference is behaving to a certain situation. In "knowing" and "inference" the organism seems essential. Yet "experience" is a term that applies to physical behavior wherever found in the universe; it serves to preserve continuity when dualities threaten. It unifies a world which is torn asunder by such dual conceptions as are implied in the terms "organism" and "environment," "subject" and "object," "persons" and "things," and "mind" and "nature." "Experience" means "an immense and operative world of diverse and interacting elements."

If "experience" is a world of interacting natural objects of which the organism is one, experience is not necessarily tied up with the organism. Indeed, one of the things Dewey stressed most is that perceptions are not attached to a "knower." Is it unfair to say that the perceptions are not attached even to the physical organism, which has been substituted for the conscious knower? There is no presumption in favor of their attachment to the organism rather than to other natural objects, for "organism," "perceptions," and "other objects" are all alike natural objects. They all interact in a unified, continuous universe. Experience does not belong to the organism, but rather organism belongs to experience. "Things" themselves present in a non-cognitive way change into the "psychical" in the sense of serving as "clews" to future action. Reality is continuously transformed—a process in which "idea" and "object" are progressively re-made to meet the needs of the "situation." The "self" arises out of experience; it, in no sense, constitutes experience, but it is constituted of and in experience. Experience, in this sense,

is identified with reality. Dreading an Absolute, Dewey does not speak of experience as a totality. But, since there is nothing beyond experience, he does erect it into a sort of absolute. In this "pan-objective" world, "things" purely physical and objective, constitute the fundamental reality.

On the other hand Dewey gives us more organic and personal conception of "experience."<sup>20</sup> For out of a "situation" (this is an "infinity word" like "experience") "things" develop knowing experiences. As I take it, the "situation" is to be identified with the primary, non-cognitive experience before "thinking" and "reflection" have begun. Thinking and reflection "denote inquiries or the results of inquiry," and such inquiry holds an intermediate place in the development of an experience. Prior to the reflective experience, there is always the non-reflective. It is the latter that Dewey means most of the time when he uses the word "experience." It is such an experience that things are experienced first-hand, but they are not known *as objects*. Dewey would not preclude the hypothesis of *conscious* experience in the sense of some things representing other things. Indeed, this is "highly plausible," but we must never forget that the intellectual or cognitive element is always "set in a context which is non-cognitive."<sup>21</sup>

In contrast with the "experience" which seems all-embracing, we are here presented with an "experience" which is vaguely outlined, which is operative within narrower limits, and which definitely involves the organism; for, certainly, the organism is the actor in the processes of "thinking" and "reflection." Moreover, "another trait of every *res* is that it has a focus and context: brilliancy and obscurity, conspicuousness and apparency, and concealment or reserve, with a constant movement of redistribution." Even "consciousness" is a "small and shifting portion of experience." "Experience" suggests... an actual focusing of the world at one point in a focus of immediate shining apparency."<sup>22</sup> Such a description fits only a "situation" in which one of the "factors" is conscious. If "experience" means that the world focuses at one point, must not that "one point" be the organism? And a "conscious organism," or rather a conscious being is imperative in order to insure the "immediate shining apparency."

It is true that the organism is not the only factor in the "situation." A word just written on the typewriter may be the focal point for the moment. Around it shading off into vagueness "are all the physical features of the environment extending out into space no one can say how far, and all the habits and interests extending backward and forward in time, of the organism which uses the typewriter and which notes the written form of the word only as a temporary focus in a vast and changing scene."<sup>23</sup> Here again "experience" seems to necessitate the organism. Besides, when thinking or "knowledge-getting" is in progress, it is no passive or meditative affair. It involves "explorations for procuring data and the "physical analyses" by which these are rendered trustworthy; it means much reading to secure information; and it

means the comparison and manipulation of significant hypotheses. Activities of the cortex, sense organs, hands and feet, and experimental apparatus are all employed in the process of thinking. We can not be mistaken when we say that the organism, even a conscious person, is indispensable to such an experience as has just been described.

Dewey's view as expressed elsewhere confirms this notion of experience. "Where there is experience, there is a living being." The organism is not quiescent in respect to the environment. While it receives stimulating energies from environment, it modifies in behalf of its own interests and needs the surrounding forces; it utilizes the changes that are going on about it and affecting it. Here the organism seems to be set over against environment, while it seeks to control the environment for its own enrichment. If we wish Dewey's final word on the meaning of experience, at his invitation let us go to the fundamentals. We find here that the significance of experience lies not in the fact that the objects of our world are "creatures of the senses," but that men refuse longer to believe in the existence of things unless these things are capable of entering into specifiable connections with the organism and the organism with them.<sup>24</sup> Once more we may say that it is the experience of the individual organism with things.

Also if "experience," as Dewey has defined it, is "the intercourse of a living being with the physical and social environment," then experience can occur only in connection with an organism. If experience is to be identified with reality, there can be no reality except for organisms, and in relation to organisms. If this does not imply the "ubiquity of the knowledge-relation," it certainly implies the ubiquity of the organism-relation. But this conclusion conflicts with one of Dewey's latest utterances that nature (and therefore ultimate reality) exists "in a physical and pre-human [and I presume Dewey would admit a pre-organism world] world."<sup>25</sup>

Dewey's assumption rests upon the proposition that perceptions are not "cases of knowledge." But if they turn out to be cases of knowledge, then what becomes of the assumption? If "things" are what they are *experienced as* (and they are), they are not the physical objects that science recognizes in the observer's world; but they are the "features" of our environment which come and go with our perceptions and interests. "Experience" then represents my limited, human situation, and it might properly be called *my* experience because the "situation" centers about my organism and ministers to my needs. The experience is no less *mine* because I experience an objective world. And I am able to experience and know such a world only because it is the phenomenal expression of the ontological world which is its abiding ground. But Dewey's "experience," since it reaches only phenomena, leaves "Nature" ultimately dark and inaccessible.

Besides, Dewey's continuous reconstruction of experience and transformation of reality turns out to be but the continuously changing beliefs concerning a realistic nature external to the mind. Can Dewey logically

hold that "real things" like a typewriter to which we may react automatically in a smooth-running non-cognitive experience will be transformed by thinking or inquiry when something interrupts the flow of the original process? According to Dewey's theory, in what respects, other than mechanical impairment, would the typewriter be changed under the analysis from what it was under automatic reaction? And after the repair is made knowingly, would not the instrument be the same "real" thing it was before the interruption? Dewey has simply described here the fact that we may place our attention upon one thing or process, while at the same time we may by force of habit perform another act automatically. Dewey mentioned only one fact involved, that of habitual reaction, but he omitted the fact that the attention was "knowingly" on the subject matter to be expressed. What happened in this experience is that the same conscious person put his attention primarily on the message in the first instance; in the second, he placed it upon the instrument. The typewriter underwent no change, for "thinking" is not constitutive. But if we grant that non-cognitive reality changes into an object of thought under analysis, how do we know what it was before it changed? Moreover, all the "situation" does not enter into the compass of thinking and inquiry, for the "cognitive" is always "set in a context which is non-cognitive and which holds within it in suspense a vast complex of other qualities and things that in the experience itself are objects of esteem or aversion, of decision, of use, or suffering, of endeavor and revolt, not of knowledge."<sup>26</sup> If the non-cognitive portion of the "situation" and the reality which exists before its changes are unknown (these are the non-cognitive and, therefore, identical), then their appearance to the senses is also unknown. We conclude that reality can not be known at all. And that reality is assumed to be nature which is governed mechanically by law and change.

On the whole, Dewey has advanced far beyond the sensational psychology of Locke and Hume, and has substituted for a "mind" mechanically made up of impressions, sensations, and ideas according to the laws of association an aggressive biological organism which appears to understand the strategy of selection and attack relative to a changing nature.<sup>27</sup> The senses are no longer gateways to knowledge, but serve as stimuli to organic response. This conception supersedes the analytic method, and attains a certain wholeness which is commendable. Since the thinking and inquiring, even a "conscious" organism is capable of doing everything that a conscious person can do, Dewey could well advance to the conventional view of consciousness. The organism does "change the changes of nature." Therefore, it must be constitutive in experience. And especially, since reality is what is *experienced as*, and is reduced at last to *my experience* for every living being, Dewey recognizes the finite phase of experience which should be defined as a fact of consciousness. For the "things" (feature of environment) which constitutes the experience are my perceptions and thoughts of "nature." Nature is thus utilized and made to serve the purposes of

the organism. Dewey is right when he insists upon the objectivity of nature on the side of the finite, but he provides no intelligible ground for such objectivity. He could justly be charged with "subjectivity" unless he is willing to recognize a metaphysical causality of which nature is the manifestation. By refusing the overtures of the ontological, Dewey jeopardizes the phenomenal.

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3. *Ibid.*
4. "The Reflex Arc Concept in Psychology," *Psychological Review*, Vol. III (1896), pp. 357-370.
5. "Naive Realism vs. Presentative Realism," *Essays*, p. 250 ff.
6. "The Influence of Darwin upon Philosophy, etc.," *Essays*, p. 157.
7. *Creative Intelligence: Essays in the Pragmatic Attitude*.
8. "Naive vs. Presentative Realism," *Essays*, pp. 253-254.
9. "Half-hearted Naturalism": *Journal of Philosophy*, Vol. XXIV (1927).
10. "Naive vs. Presentative Realism," *Essays*, p. 254.
11. *Ibid.*, pp. 259-260.
12. "Epistemological Realism," *Essays*, p. 273.
13. *The Influence of Darwin upon Philosophy, etc.*, p. 230, quoted from "Pragmatism Versus The Pragmatist": Lovejoy, *Essays in Critical Realism*, p. 42.
14. *Essays in Experimental Logic*, p. 50.
15. "Introduction," *Essays in Experimental Logic*, p. 51.
16. "Pragmatism vs. Pragmatist," *Essays in Critical Realism*, p. 60.
17. "Naive Realism vs. Presentative Realism," *Essays*, p. 252.
18. "Pragmatism vs. Pragmatist," *Essays in Critical Realism*.
19. *Creative Intelligence: Essays in the Pragmatic Attitude*, p. 14.
20. *Essays in Experimental Logic*, "Introduction" especially.
21. "Introduction," *Essays in Experimental Logic*, p. 4.
22. *Ibid.*, p. 7.
23. "The Need for a Recovery of Philosophy," *Creative Intelligence*, p. 8.
24. "Introduction," *Essays in Experimental Logic*, p. 62.
25. "Half-hearted Naturalism," *The Journal of Philosophy*, Vol. XXIV (1927).
26. "Introduction," *Essays in Experimental Logic*, p. 4.
27. "Changed Conceptions of Experience and Reason," *Reconstruction in Philosophy*.



## STUDY TECHNIQUE: SOME SUGGESTIONS FOR TEACHER AND STUDENT

(Continued from November-December issue)

By J. A. Trent, M. A., Assistant Professor of Biology

### IX. TAKING A CRITICAL ATTITUDE

#### I. Topics to be considered:

1. Criticising.
2. Judging.
3. Deciding.
4. Evaluating.

#### II. Activities involved:

1. Generalizing experience.
2. Comprehending the products of thought.
3. Using knowledge in new situations.
4. Tracing the thought of another person.

#### III. Learning exercises:

1. Find the meaning of such terms as constructive criticism, destructive criticism, open-mindedness, impartiality, prejudice. Wherein does each apply in taking a critical attitude? Which are desirable? Which are undesirable?
2. Criticize the following:
  - a. "Political parties are helpful in maintaining good government."
  - b. "The North and the South should lay aside all prejudice and work toward a common aim."
3. Write a criticism of the modern newspaper.
4. Illustrate the effect of the following upon a conclusion: a biased mind, hasty generalization, etc.
5. Explain the following statement of Kipling's:

"I keep six honest serving men;  
They taught me all I know;  
Their names are What? and Why? and When?  
And How? and Where? and Who?"

#### IV. In what way does the maintaining of a critical attitude help in the acquiring of knowledge?

#### V. Outcomes desired:

1. The ability to criticize constructively.
2. The ability to judge with an open mind.

#### VI. References:

1. Monroe, W. S., *Directing Learning in the High School*, Garden City, N. Y., Doubleday, Doran Company, Inc., 1928, 196pp.
2. Cline, E. E., "Directing Learning," *Education*, 45: 191, 1924.

## X. THE PROCESS OF NOTE TAKING

- I. Topics to be considered:
  1. Taking notes from text.
  2. Taking notes from lectures and demonstrations.
  3. Making abstracts from supplementary reading.
  4. Keeping records of laboratory work and other records.
- II. Activities involved:
  1. Vicarious experiencing.
  2. Comprehending the products of thought.
  3. Generalizing experience.
  4. Tracing the thinking of another person.
  5. Expressing ideas.
- III. Learning exercises:
  1. Make notes of a classroom lecture in social science. Organize thoughts as presented under main and sub-heads. Under each heading give an illustration and an exception to the rule, if any. Put words of instructor into own words. Immediately after lecture, rewrite notes. Tell how a knowledge of outlining has helped in this instance.
  2. Outline a demonstration lesson under such headings as (1) Problem, (2) Materials used, (3) Method employed, (4) Observations, and (5) Conclusions. This can be used in courses like general science. Keep all laboratory records in such manner.
  3. Make abstracts of chapters of supplementary reading. Take down only important parts, such as topic sentences, illustrations, exceptions to rules, etc. Take the name of the author, the title of the article, name of the publisher, and place of publishing, the date, and page. Discuss the value of the ability to select or discriminate in the making of abstracts.
  4. Take notes from a public lecture and produce an article for the school paper from them.
- IV. Outcomes desired:
  1. The ability to make usable notes.
  2. The ability to preserve what is read in a business like way.
  3. The ability to keep an intelligent record of work.
  4. The ability to trace the thinking of others in reading and in lectures.
- V. References:
  1. Headley, L. A., *How to Study in College*, New York, Henry Holt and Company, 1926, chap. 12.
  2. Flemming, C. W., and Woodring, M. N., *Teachers' College Record*, No. 2, 1928, New York, Columbia University.
  3. Cunningham, H. A., "Teaching How to Study," *School Review*, 33:355.

4. Hall-Quest, L. A., *Supervised Study*, New York, The Macmillan Company, 1916, 188 pp.
5. Edwards, A. S., *The Fundamental Principles of Learning to Study*, Baltimore, Warwick and York, Inc., 1920, 68 pp.

#### XI. USE OF THE LIBRARY

- I. Topics to be considered:
  1. The card catalog.
    - a. Title cards.
    - b. Author cards.
    - c. Subject cards.
  2. Dewey decimal system.
  3. General reference books:
    - a. Encyclopedia type: *Encyclopedia Americana*, *Encyclopedia Britannica*, *World Almanac*. Dictionary type: *New English Dictionary*, *Webster's New International Dictionary*.
  4. Special references:
    - a. For geography: *Gazetteers* and *atlases*.
    - b. For biography: *Who's Who in America*.
  5. Public documents.
    - a. *United States Government Check List*.
    - b. *Congressional Record*.
- II. Activities involved:
  1. Using knowledge in new situations.
  2. Tracing the thinking of others.
  3. Generalizing experience.
- III. Learning exercises:
  1. Answer the following questions and exercises:
    - a. How would you find a book, knowing the title but not the author?
    - b. Who wrote the following books: *Winning of the West*, *The Making of an American*, *Ben Hur*? Tell how they are found.
    - c. For what would you use the following: *Encyclopedia Americana*, *Encyclopedia Britannica*, *New International Encyclopedia*, *Reader's Guide*, *New International Dictionary*, *Who's Who in America*, *World Almanac*, *Lippincott's New Gazetteer*, *Congressional Record*?
    - d. According to Dewey's classification system of books to what class and sub-class would call number 580.5 take you?
  2. Give the information and authority on such material as:
    - a. The number of references on "Immigration."
    - b. The number of electoral votes received by President Wilson in 1916.
    - c. The points of the Kellogg Peace Pact of 1928.

## IV. Outcomes desired:

1. The ability to use aids in the preparation of assignments.
2. The ability to find material when needed.

## V. References:

1. Monroe, op. cit.
2. Headley, op. cit., chap. 11.
3. Hall-Quest, op. cit.

## XII. THE PREPARATION OF WRITTEN ASSIGNMENTS

## I. Topics to be considered:

1. Selecting the subject.
2. Collecting data.
3. Organizing material.
4. Preparing manuscripts.
5. Revising manuscripts.
6. Adding a bibliography.

## II. Activities involved:

1. Generalizing experience.
2. Comprehending products of thought.
3. Using knowledge in new situations.
4. Tracing the thinking of others.
5. Perceptual experiencing.

## III. Learning exercises:

1. Select a subject for a narrative or a descriptive theme, one interesting, worthwhile, and not too general. After making a bibliography, collect materials by recalling own experiences, by conversing with others, and by reading reference books. Make a topical outline and then a corresponding brief. When the plan seems suitable, write the theme. After writing, revise. Add the bibliography.
2. Prepare a theme each week, following the foregoing directions. Use different types of subjects. Write both narration and description. Be ever mindful of unity, coherence and correct English. Prepare a bibliography for each theme.
3. Write a report on "How to Write a Theme." The following points should be considered: (1) selecting the subject, (2) making a bibliography, (3) collecting the material, (4) making the plan, (5) writing and fitting subject matter into the plan. Consult an English text for rules on the preparation of manuscripts.
4. Discuss the value of a plan in preparing a written assignment.
5. Prepare a bibliography on "Government Ownership of Industries." Consult both books and periodicals. Conform to the following in listing each reference: author, title, name of publisher, place of publication, date, page. If the reference is from a periodical, place the title in quotation marks.

## IV: Outcomes desired:

1. The ability to express ideas in written form.
2. The ability to collect and organize material.
3. The ability to prepare a bibliography.

## V. References:

1. Monroe, op. cit.
2. Cline, op. cit.
3. Hall-Quest, op. cit.

## XIII. PARTICIPATION IN ORAL EXPRESSION

## I. Topics to be considered:

1. Reciting.
2. Discussions.
3. Descriptions.
4. Narration.
5. Reports.
6. Oral discourses.

## II. Activities involved:

1. Generalizing experience.
2. Comprehending products of thought.
3. Using knowledge in new situations.
4. Expressing ideas.

## III. Learning exercises:

1. Discuss topics almost daily.
2. Describe in detail a personal experience, as a spring day on the farm.
2. Tell of an experience at a football game.
4. Report on special subjects in class. Observe closely parliamentary rules, correct use of English, correct posture, enunciation, and delivery.
5. Make a personal application for a position before the class, a classmate acting as employer.
6. Explain to the class how a radio set is installed, or how a garment is made.

## IV. Outcomes desired:

1. The ability to express ideas orally.
2. The ability to converse.
3. The ability to think before an audience.

## V. References:

1. Hall-Quest, op. cit.
2. Book, W. F., "Results Obtained from a Course in How to Study," *School and Society*, October 22, 1927, p. 529.
3. Churchill, J. A., *State Manual of the Course of Study for High Schools of Oregon*, Salem, State Printing Department, 1922-1924, 58 pp.

## XIV. THE ACQUIRING OF A VOCABULARY

- I. Topics to be considered:
  1. Developing a vocabulary of the words in common use.
  2. Acquiring technical words pertaining to the various school subjects.
  3. Studying the vocabularies of foreign languages.
- II. Activities involved:
  1. Comprehending the products of thought.
  2. Using knowledge in responses to new situations.
- III. Learning exercises:
  1. Test the usable or understanding vocabulary by using a standard vocabulary test, such as the "Holly Sentence Vocabulary Test," Series 3B, published by Public School Publishing Company, Bloomington, Illinois.
  2. Test your understanding vocabulary by reading several representative chapters from text-books in which courses are being given. Select chapters as free from technical terms as possible, and as equally difficult as possible. Make a list of the words not understood and compare with those that are understood. Use percentages to show the result. Copy the words in a notebook with correct usages and sentences of your own construction.
  3. Keep a list of unfamiliar words selected from your reading for a considerable time. Each day review such information concerning them as the following:—(1) meaning of the word, (2) the part of speech to which it belongs, (3) a synonym, (4) an antonym, (5) a sentence containing the word.
- IV. Outcome desired:

The development of a usable vocabulary.
- V. References:
  1. Hall-Quest, *op. cit.*
  2. Churchill, *op. cit.*
  3. Monroe, W. S., and Mohlman, Dora Keen, "Training in the Technique of Study," Bureau of Educational Research Bulletin, No. 20, Vol. 22, University of Illinois, Urbana, Illinois, 1924.

## XV. METHODS OF REVIEW

- I. Topics to be considered:
  1. Time to review.
  2. The laws of association.
  3. The principles of recall.
- II. Activities involved:
  1. Prolonging, repeating, and intensifying experiences.
  2. Comprehending the products of thought.
  3. Vicarious experiencing.

## III. Learning exercises:

1. Organize the material of a subject, English for example, that has been covered in a month. Make an index of the work covered in outline form.
2. Review a period in history, for example, the Civil War. Review each year as a whole and try to get a complete survey before you. Select the greatest battles of each year and compare them with reference to the generalship displayed, the part played by each in closing the struggle, the number of lives lost, etc.
3. Outline the subject matter that has been learned in various courses in a given period of time. Put your knowledge in condensed form.
4. Make a list of questions from work covered in various courses. Answer the questions both in writing and orally.
5. Why should the principles of recall and the laws of associating be considered in connection with review? What are the laws of association?

## IV. Outcome desired:

The ability to bring back to mind subject matter which has been previously learned and partially forgotten, and to establish more firmly the fact or principle through exercise.

## V. References:

1. Monroe, op. cit.
2. Starch, Daniel, *Educational Psychology*. New York, The Macmillan Company, 1920, 178 pp.
3. Cline, op. cit.
4. Headley, op. cit.

## XVI. PREPARING FOR AND TAKING EXAMINATIONS

## I. Topics to be considered:

1. When to prepare for examinations.
2. How to prepare for examinations.
3. How to take examinations:
  - a. Essay type of examination.
  - b. Oral type of examination.
  - c. Doing or practical type of examination.

## II. Activities involved:

1. Generalizing experience.
2. Prolonging, repeating, and intensifying experience.
3. Expressing ideas.

## III. Some suggested learning exercises:

1. Using some standard dictionary, study the meanings of these terms: classify, illustrate, contrast, compare, enumerate, characterize, describe, explain, define, list, discuss. Write out the meanings in your own words.
2. Review material covered with the view of being examined on it. Anticipate questions likely to be asked, selecting at least one

from each topic treated. If the test is to be an oral one, answer aloud or repeat the answers to someone, preferably a classmate. If the test is to be a written one, prepare for it by writing out questions and answering them in writing. If the test is to be of the doing type, prepare for it by doing the exercises, for example, the experiments in general science.

IV. Outcome desired:

The ability to prepare for an examination independently and to take it intelligently.

V. References:

1. Charters, J. A. "Methods of Study Used by College Women," *Journal of Educational Research*, 10:344-355, December, 1924; and 11:41-48, January, 1925.
2. Headley, op. cit.

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SOMETIMES

Sometimes I wish I were a man,  
and free  
To leave all this, and tramp the  
world around.  
No Ile de France or White Star Line  
for me!  
Instead, a weathered freighter, slow  
but sound  
Enough to take me either east  
or west.  
Believe I'd visit Leman first, and go  
As soon as possible to Hammerfest  
To see the cheerful Northern lights  
that glow.  
I'd like to swim the Hellespont,  
the same  
As Byron, when he was young. Per-  
chance I might  
Attempt the Matterhorn—and would  
you blame  
My visiting the Taj Mahal at night?  
There's Khyber Pass and Guam—  
I like to plan  
These jaunts. Sometimes I wish I  
were a man....

—Helen Daugherty.



## PERSONALITY ADJUSTMENTS OF SCHOOL CHILDREN

A Review by Roletta Jolly-Fritz

"Personality Adjustments of School Children," by Caroline B. Zachry, Ph. D., Director of the Department of Psychology and Mental Hygiene, State Teachers College, Upper Montclair, New Jersey. Introduction by William Heard Kilpatrick, Professor of Education, Teachers College, Columbia University. Charles Scribner's Sons, 1929. 304 pp., \$1.80.

This book is striking in many respects, perhaps most of all by reason of its good description of actual, maladjusted school children. It merits a wide circulation among both teachers and parents, in fact, among all who face the understanding of children.

Dr. Zachry may well take pride in her achievement. Her work is a thorough study of real children varying from four and a half to eighteen years of age. The book is easy to read and understand because it is written without the excessive use of technical terms. It justifies Professor Kilpatrick's foreword:

"The range of educational endeavor continually extends itself. As thought widens and deepens, facts take on new complexion. New or clearer distinctions are made. New relationships are found. Old problems present themselves in new form. New solutions are proposed.

"This is the situation presented by the book before us. In it old problems are treated in a new way. Time out of mind, some children have been found who are 'unaccountably bad,' and others who are oversensitive or who tend to withdraw from the group, finding social adjustment difficult or impossible. These problem cases have appeared in all sorts of conditions of families, even the most conscientious. What best to do with such children has troubled and perplexed, often beyond measure, those called upon to deal with them. . . It will be clear that this book does not aim to prepare teachers to supplant experts in the field of personal maladjustment; quite the contrary. But teachers have definite responsibility in the matter. . . It is a pleasure to recommend Miss Zachry's book to parents, to teachers of children, to school officials, and to teachers of teachers."

Before the contents of Dr. Zachry's book are discussed it might be well to give some facts about the author. She is director of the department of psychology and mental hygiene at the State Teachers College, Upper Montclair, New Jersey. For the case studies in her book she has drawn from her experience as a teacher and clinic worker. Her teaching experience "includes her work as a teacher of history and English in the high school department of the Lincoln School of Teachers College, Columbia University; teacher at the Horace Mann School, Teachers College, and the Barnard School for Girls; principal of the junior high school of the Social Motive School, New York City; and summer school instructor in the departments of psychology and education at the University of Delaware and Pennsylvania State College.

Dr. Zachry arouses her readers' immediate interest in the subject matter by means of her introductory chapter entitled, "The Necessity

for a Complete Study of the Child." In the opening paragraph she tells of a fourth-grade boy who has been a constant school problem because of his violent temper. She continues by asking the reader such vital questions as: "How many have had pupils who present problems similar to the one just stated? How many have had pupils who are aggressive, antagonistic, sullen, sulky, or pupils who withdraw into themselves and will not join in the class activities? How many have had cases of lying, cheating, and stealing in your classroom? What do you do about it? What insight have you gained from your courses in education that will help you to deal with the problems of these children?"

Such statements as the following demand interest: "It seems strange that education should be only in the trial-and-error stage as far as the development of personality traits in children is concerned. . . It seems strange that on the question of the development of personality traits in children education has relatively little to offer. . . Although we hear much about individual differences, the educator means by this term the differences in ability to learn. We have scarcely considered that inability to learn or unevenness of performance may be due to causes other than insufficient intellect."

At the end of this introductory chapter the author says: "It is to be hoped that these studies will throw light, not only on the problem child, but that they will give some constructive suggestions as to the best way to promote mental health through the proper adjustment of personality among average children in average classrooms."

Chapter 1 deals with "The Troublesome Child." It takes up the case study of the nine-year-old already mentioned, the boy who was a school problem because of his violent temper, giving a full description of his personality and his behavior in the school and the home. This is linked with a detailed family and personal history which suggests clues to some of the causes for the lad's maladjustment. Under the subheading, "Interpretation and Treatment," the author mentions the two factors influencing behavior and tells how, from these two angles, the study and treatment of this particular boy, Ned, began. After an excellent discussion of the habit patterns, Dr. Zachry takes up the "Mechanisms of Adjustment" which, for Ned, are insecurity, compensation, escape mechanism, defense, and identification. The whole discussion indicates that mechanisms of adjustment differ in degree, not in kind. In this same chapter the author also remarks on the "Implications of the Classroom Teacher," pointing out that any teacher may be the cause of increasing or decreasing a behavior problem in her own classroom. The chapter is completed by an account of the treatment given this particular troublesome child.

Chapters II, III, IV, and V consider the following children: Esther, the "quiet, overconscientious child;" Dick, the boy who is "irritable, assertive, arrogant and egotistical;" Emily, a child who is over-dependent; and Jim, who is a "fearful" child. In these chapters Dr.

Zachry takes up in detail the interpretation and treatment of each individual case so thoroughly and definitely that it is easy to follow each step in the study.

Chapters VI and VII are excellent. The author first discusses "The Elements of Personality and Their Development," introducing many thought-provoking questions such as: "Granted normal intelligence, good health and relatively stable glandular balance in two children, how can we account for the fact that they will react so differently to social stimuli which are apparently the same; one child becoming tense and anxious and displaying the desire to run away from the situation and the other accepting it with perhaps complete calm and poise and even pleasure?" Later she states: "Personality as we have been discussing it, might be summed up as permanent tendencies to conduct regarded from the standpoint of the reactions that they call out in the social environment."

The teacher should read carefully the last chapter, VII, for it is here that "Personality Adjustment and the School" is summed up. The curriculum, our methods of teaching, the teacher, and classroom procedure receive due consideration. The author hopes in this portion to point out the responsibilities that the school has in regard to the "personality adjustments of school children."

The book is a splendid contribution to the teaching profession and should be read by teachers, by prospective teachers, and by those parents who are mismanaging their children. In fact, I believe that no person who deals with children can afford to miss a careful reading of the book.

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### *YOU GRUBBED THE WILD THINGS*

You grubbed the wild things  
Out of my heart with reachy fingers,  
Fearing that some one else  
Might see them;  
And in their places you plotted  
Beds of more decorous flowers  
To satisfy your own intent,  
And left them there  
Expressly for the view  
Of others who would not care.

The soil is deep  
And some stray tendrils you have missed—  
Another rain will bring them up.

Take heed—the sky is murky—  
Oh, I think that wild things  
Are more fair.

—*Elsie Mitchell.*

## SPECIFIC TRAINING TO PREVENT LOSS DUE TO VACATION

By L. D. Morgan, Professor of Psychology

(Reprinted by permission from the *Journal of Educational Psychology*, September, 1929)

Kirby<sup>1</sup> has shown the effect of specific training in addition and division. He found that in the spring it required approximately thirty minutes of drill in addition to bring the group to the same level of efficiency as it had attained the previous fall by seventy-five minutes of drill. In division, "more than three-fifths as much practice was required to regain the standing reached in the experiment as was required at that time to reach it." Nelson<sup>2</sup> in a recent study has shown that it required considerable time to again attain the level of efficiency reached in the previous spring in most subjects. Bruene<sup>3</sup> has likewise shown the detrimental effect of the summer's vacation upon the fundamentals of arithmetic, reasoning problems, and spelling, while there is an increase in efficiency in reading. This was true in Grade IV. In Grades V and VI there was an increase in efficiency in reading and nature study, while there was a loss in efficiency in the fundamental processes, problem solving, history, language usage and spelling. Other writers such as Elder,<sup>4</sup> Kramer,<sup>5</sup> and Patterson,<sup>6</sup> have also shown the effect of the summer's vacation upon efficiency in school subjects.

The present study is concerned with two questions: (1) The effectiveness of specific training in preventing loss in efficiency due to summer vacation. (2) The significance of specific training.

This study was carried on in a city in Southeastern Kansas. Two Grade VI classes, designated in the study as X and Y, were used. The same teacher taught both groups in the subjects considered in this study. The following tests were given to both groups on May 11, May 25, and September 4: Compass Survey Test in Arithmetic, Form A, Thorndike-McCall's Reading Scale, Form 8, and Otis' Reasoning Test in Arithmetic, Form A. To one group, designated as Y, special training was given in the fundamentals of arithmetic, silent reading and problem solving. This training lasted for a period of two weeks. The training in the fundamentals of arithmetic consisted in administering four diagnostic tests,

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<sup>1</sup>Kirby, Thomas J.: "Practice in the Case of School Children." Teachers College, Columbia University, Contributions to Education, No. 58, 1913.

<sup>2</sup>Nelson, M. J.: "How Much Time Is Required in the Fall for Pupils in the Elementary School to Reach Again the Spring Level of Achievement?" *Journal of Educational Research*, Vol. XVIII, Nov. 1928, pp. 305-308.

<sup>3</sup>Bruene, Elizabeth: "Effect of Summer Vacation on the Achievement of Pupils in the Fourth, Fifth and Sixth grades." *Journal of Educational Research*, Vol. XVIII, Nov., 1928, pp. 309-314.

<sup>4</sup>Elder, H. E.: "The Effect of Summer Vacation on Silent Reading Ability in Intermediate Grades." *Elementary School Journal*, Vol. XXVIII, March, 1927, p. 541.

<sup>5</sup>Kramer, G. A.: "Do Children Forget during Vacation?" *Baltimore Bulletin*, VI, December, 1927, pp. 56-60.

<sup>6</sup>Patterson, M. V. W.: "The Effect of Summer Vacation on Children's Mental Ability and on Their Retention of Arithmetic and Reading." *Education*, 36, Dec., 1925, pp. 222-228.

one each in addition, subtraction, multiplication and division. Then the weaknesses revealed in these diagnostic tests were followed by remedial teaching, which consisted in using the Economy Remedial Exercise Cards. Ten minutes' practice daily for the period was devoted to this work.

In reading, mimeographed material similar to that used in the scale was used, specific questions were asked daily on the material read, and three forms of the same test used. Part of each recitation period consisted in revealing to the pupils the correct answers to the questions asked, and they were led to see that the answers were to be found in the material read.

In problem solving, an analysis was made of the last ten problems in the test, and then five similar problems were made for each of these ten problems given in the test. The pupils were asked to pay attention to the following things: (1) To understand each word in the problem, (2) to determine what is given in the problem, (3) to determine what is required, (4) to select the different processes to be used in solving the problem, (5) to lay out the solution by asking: (a) What do I have given? (b) What am I to find? (c) How am I to use what is given to find out what I am to prove? (d) How can I check my answer to prove that it is correct? (6) To check the answer. For each problem every pupil was required to have his plan checked as given in (5) above before he was permitted to proceed in solving the problem. After his plan was approved, he solved the problem and then he was required to check his answer.

After two weeks of training, the same tests were given to both groups. This was the last week of school before summer vacation began. More of the pupils in either group attended summer school. On September 4, the same tests were given again. Neither the teacher nor the pupils knew that the tests were to be administered when school convened after the summer vacation. A summary of the results are given in the tables following:

TABLE I

Group	N	Fundamentals of Arithmetic			Reading			Problem Solving		
		May	May	Sept.	May	May	Sept.	May	May	Sept.
Y .....	40	27.88	35.98	33.42	11	25	4	11	25	4
X .....	38	25.79	26.00	22.31	18.50	22.75	23.03	8.70	11.13	10.90
Difference .....		11	25	4	18.65	18.94	19.66	8.47	8.86	8.71
		1.09	9.98	11.13	.15	3.81	3.87	.26	2.27	2.19

It will be seen that group Y was superior to group X in the initial test in the fundamentals of arithmetic by 1.09 problems, and in problem solving ability by .26 problems, while group X was superior to group Y in reading ability by .15 questions.

By two weeks of training in the fundamentals of arithmetic, group Y increased in efficiency by 8.10 problems while group X increased by only .2 problems. In reading, group Y increased by 4.25 questions,

while group X increased by only .29 questions. In problem solving, group Y increased by 2.43 problems, while group X increased by only .39 problems. Table II will show gains made in AM's (arithmetic means) in the various subjects during the two weeks of training, and the index of significance of these gains.

*TABLE II*  
*Fundamentals of Arithmetic*

Group	AMgain	PEam	SD	PEdiff.	Index of significance	Difference due to specific training, AM
Y.....	8.10	.973	9.13	1.252	6.302	7.80
X.....	.21	.782	8.04			
<b>READING</b>						
Y.....	4.25	.794	7.45	1.123	3.526	3.96
X.....	.29	.795	7.28			
<b>PROBLEM SOLVING</b>						
Y.....	2.43	.401	3.76	.526	3.878	2.04
X.....	.39	.341	3.12			

It will be seen that group Y increased its gain over group X: (1) In the fundamentals of arithmetic by 7.86 problems, (2) in reading by 3.96 questions and (3) in problem solving by 2.04 problems.

We now come to the second question: The effect of the summer vacation upon the two groups. Were the two groups equally affected? In the fundamentals of arithmetic group X lost by 3.69 problems while group Y lost by only 2.56 problems or a difference of 1.13 in favor of the Y group. In reading, however, group X gained by .72 questions while the Y group gained by only .28 questions or a difference of .44 in favor of the X group. In problem solving, group X gained by .05 problems, while group Y lost by .23 problems. Table III presents a summary of the results.

TABLE III

Loss or gain by vacation	Fundamentals of Arithmetic		Reading		Problem Solving	
	Gain	Loss	Gain	Loss	Gain	Loss
Group X .....	.....	3.69	.72	.....	.05	.....
Group Y .....	.....	2.56	.28	.....	.....	.23
Difference .....	.....	1.13	.44	.....	.....	.28

For the Y group, thirty-five pupils lost in efficiency in the fundamentals of arithmetic during the vacation, three remained the same, while two gained in efficiency. In reading, sixteen pupils gained in efficiency, twelve remained the same, while twelve lost in efficiency. In problem solving, nine pupils gained in efficiency, fifteen remained the same, while sixteen lost in efficiency.

For the X group, in the fundamentals of arithmetic, thirty-five pupils lost in efficiency, one gained in efficiency and one remained the same. In reading, twenty-five increased in efficiency, five remained the same, while eight lost in efficiency. In problem solving, twenty pupils lost in efficiency, seven remained the same, while eleven gained in efficiency. The results are given in Table IV.

The ten poorest students in problem solving in group X lost in efficiency during the vacation, while in the Y group the poorest students gained and the three next remained the same.

TABLE IV

Group	Fundamentals of Arithmetic			Reading			Problem Solving		
	Gain	Loss	Same	Gain	Loss	Same	Gain	Loss	Same
Y .....	2	35	3	16	12	12	9	16	15
X .....	1	36	1	25	8	5	11	20	7

It might be asked, of just how much value was the two weeks of specific training in the two subjects? The results are given in Table V. The results in the fundamentals of arithmetic are only approximate, because the test norms do not express scores by months.

TABLE V

Groups	Fundamentals of Arithmetic—Gain, Months	Reading—Gain, Months	Problem Solving—Gain—Months
Y .....	7	20	17
X .....	2	1	1 or less
Difference due to training .....	5	19	16

The loss or gain due to summer vacation may also be expressed in months, as given in Table VI.

TABLE VI

Group	Fundamentals of Arithmetic		Reading		Problem Solving	
	Gain	Loss	Gain	Loss	Gain	Loss
X .....	-----	3.5	3	-----	-----	-----
Y .....	-----	2.5	2	-----	-----	1.5
Difference .....	-----	1.0	1	-----	-----	1.5

The following implications may be drawn from this study: First, that two weeks of specific training is productive of greater efficiency in the three subjects considered. The greatest gain was made in reading, equivalent to about twelve months. In problem solving, the increase was seventeen months, while in the fundamentals of arithmetic, it was seven months. Both groups were rather low in efficiency in the fundamentals of arithmetic at the beginning of the experiment, and even by specific training were not able to attain the norm established for the high Grade

VI. In reality these groups were practically seventh-graders. However, the writer would not have it inferred that such training would be productive of equal increments in efficiency if carried on indefinitely. *Second*, that in problem solving the loss for group Y exceeded that of group X. The greater loss may have been due to the shortness of the training period. *Third*, that in the fundamentals of arithmetic, where mere skill is involved, group Y did not lose to the same degree as group X. *Fourth*, that in reading, both groups increased in efficiency over the vacation, but group X had the greater increase. Group Y may have attained its approximate maximum of efficiency during the training period. *Fifth*, that the specific training acted as a sort of "buffer" to prevent loss of material previously learned. For in an analysis of the errors made before and after the vacation period, it was found that seventy-seven per cent of the errors were identical.

The writer is planning to repeat the experiment in Grades II, IV and VI, using two hundred pupils in each group for each grade. A larger sampling may produce different results.

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### NO HORIZON

Fleeting beauty once I knew,  
Only a little while;  
Eternal was not meant for me—  
Only a shouldered smile.  
Adown the hollow lands I go,  
Bounded by mountain walls,  
Where black and sullen rivers flow—  
If they flow at all.  
Each mountain lifts an apex sharp,  
Paling a sky of murk,  
And all the leaves are muddy dark,  
And moody dragons lurk.  
There is no sun, it never rains,  
Never a storm wind blows;  
And through a fog that never wanes  
The eternal stillness grows.

—Howard Donnelly.