Dewey, Peirce, and the Categories of Learning

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Abstract

John Dewey proposes the “educative” experience as the goal of instruction. Yet, in focusing on the educative experience, Dewey may discount other sorts of learning which occur both in and out of school. This piece proposes a reconceptualization of Dewey's ideas on learning through Peirce's categorical system of experience, leading to three categories of learning. The three proposed categories, “accepting,” “analytical,” and “evaluative,” correspond roughly to learning “what,” learning “how,” and learning “why.” The intent here is not to question the importance of the educative experience, but rather to broaden the application of Dewey’s work by portraying learning as a multifaceted phenomenon.

Introduction

In Experience and Education, John Dewey described how learning should occur in schools, and what the results of that learning should be. Critiquing both the traditional educational practices of his time and the progressive schools that took some of their ideas from his own work, Dewey put forth what he called the “educative” experience (LW 13: 11) as the aim of formal instruction. The educative experience is affectively engaging, intelligently directed, and disciplined by the demands of purposeful and social activity. It leads to growth in possibilities for perception and action. Dewey contrasted the educative experience to those experiences he labeled as “mis-educative” (LW 13: 11), which, lacking some or all of the features of the educative experience, actually close off or limit such growth. He believed that the learning in schools both traditional and progressive was often mis-educative, a problem that could only be addressed if schools based their instruction on a “philosophy of educative experience” (LW 13: 13). Dewey took on the task of laying out this philosophy, in the hopes that it would come to inform educational practice.
Unfortunately, Dewey’s dream of schooling based on a philosophy of experience has not been realized. Dewey’s ideas were influential, wide-ranging, and ahead of their time, but for all that they were, and still are, largely marginalized in both educational discourse and in the practices of schooling. As Lagemann (1989) puts it, “Edward L. Thorndike won and John Dewey lost” (p. 184). While Dewey’s “loss” can certainly be examined in light of the prevailing ideas and practices of education in twentieth-century America (Berliner, 1993; Lagemann, 1989, 2000; Tomlinson, 1997), or seen as related to his untimely departure from the University of Chicago and subsequent movement away from education (Lagemann, 2000), this piece puts forth the idea that Dewey’s ideas may have lacked traction because his definitions of experience, and of educative experiences in particular, leave out much of the learning that occurs in school, and indeed in life outside of school. There is a gap between Dewey’s ideas on education and the practice thereof, and while this disconnect makes for a telling critique of schooling, it also makes for hard going for educators who are looking to teach as Dewey intended.

This gap may be bridged, however, if Dewey’s ideas are seen through the lens of Charles S. Peirce’s account of experience. While Dewey focused his efforts on describing experiences in their fullness or lack thereof, Peirce took a different approach, attempting to describe the constituent parts of which any and all experiences, or phenomena, consist (Gallie, 1966; Peirce, 1903/1997). Peirce’s approach thus led him to develop three categories of experience, categories that he considered to be fundamental, irreducible, and universal (Bernstein, 1971). In this piece, Peirce’s categorical account of experience is applied to Dewey’s various descriptions of learning to create a categorical system of learning. This system includes Dewey’s educative experience, but it also has room for experiences which, though they do not measure up to the standard of the educative, may still be regarded as learning.

In re-articulating Dewey’s ideas on learning through Peirce’s categorical lens, the applicability of Dewey’s ideas to classrooms, places where learning occurs but where not all experiences are educative, may be enhanced. It should be mentioned, however, that this is not merely an attempt to adapt Dewey to classrooms as they are. Rather, in expanding Dewey’s ideas on learning, it is hoped that educators may be able to fit a wider range of learning experiences into Dewey’s philosophical system. Educators may thus gain the power to better distinguish between those experiences which are educative and those which are not. They may also be better able to shape their practices deliberately to produce the sorts of experiences, and learning results, that they choose.

**Experiences and Educative Experiences**

Dewey defines education, at least as it should be, as “intelligently directed development of the possibilities of ordinary experience” (LW 13: 61), and claims that, in order to be such, it must be based on a “theory of experience” (LW 13: 17). Thus, Dewey’s ideas on learning begin with his ideas on experience, and are deeply con-
nected to the other ideas that Dewey derived from his philosophy of experience, namely, those around intelligence, aesthetics, and even ethics. Each of these areas of Dewey’s thought will be drawn upon to flesh out his account of learning and to emphasize its multifaceted nature.

Starting with experience, it can be seen that “having an experience,” as Dewey put it, involves not merely doing something, but doing something with a certain awareness of what one is about. The sort of experience Dewey is describing when he speaks of “an experience” is distinguished from ordinary experience (LW10: 264; Wong & Pugh, 2001). A vital piece of that which distinguishes it is the perception of relationship between actions and consequences:

An experience has pattern and structure, because it is not just doing and undergoing in alternation, but consists of them in relationship. To put one’s hand in a fire that consumes it is not necessarily to have an experience. The action and its consequence must be joined in perception. This relationship is what gives meaning; to grasp it is the objective of all intelligence. The scope and content of the relations measure the significant content of an experience. (LW 10: 50-51)

Dewey’s characterization of “an experience” as a matter of “intelligence” further emphasizes the importance of the perception of means-ends relationships. When Dewey speaks of intelligence, he means not an innate ability, but rather a certain open disposition toward action, one informed by an understanding of what one is doing and why one is doing it (Bernstein, 1966). As Dewey puts it, “the formation of purposes and the organization of means to execute them are the work of intelligence” (LW 13: 42). In essence, then, “having an experience” involves intelligent activity, which means a person is not merely doing something, but in fact doing something with a full awareness of ends and means, of purposes and consequences.

Wherever one looks in Dewey’s work, the relationship between purposes and consequences, or means and ends, or actions and outcomes, is the stuff of Deweyan experience, or at least of experiences of a more desirable sort. Perception of the relationship between action and consequence is also manifest, for example, in Dewey’s definition of aesthetic activity:

Esthetic effects belong intrinsically to their medium . . . The difference between external and intrinsic operations runs through all the affairs of life. One student studies to pass an examination, to get promotion. To another, the means, the activity of learning, is completely one with what results from it. The consequence, instruction, illumination, is one with the process . . . Means and ends coalesce. If we run over in mind a number of such cases we quickly see that all the cases in which means and ends are external to one another are non-aesthetic. This externality may even be regarded as the definition of the non-esthetic. (LW 10: 201-202)

This sort of active awareness also appears in Dewey’s discussions of what he hoped to see in school settings. Dewey did not believe that students were not having
experiences in school. Rather, he believed that they were not having the right sort of experiences. The sort of experiences he wanted for students were, perhaps unsurprisingly, ones in which they would gain an appreciation for the sorts of means-ends relationships that characterize experience, intelligence, and aesthetics: “The trouble with education is not the absence of situations in which the causal relation is exemplified in the relation of means and consequences. Failure to utilize the situations so as to lead the learner on to grasp the relation in the given cases of experience is, however, all too common” (LW 13: 56). Dewey distinguishes between the right and wrong sorts of experiences in schools by labeling them as either “educative” or “mis-educative” (LW 13: 11), with the former being his ideal.

In *Experience and Education*, Dewey lays out the characteristics of educative experiences according to two principles. The first, the principle of interaction, states that experiences must consist of a transaction between person and environment, or between internal and objective conditions. The second, the principle of continuity, operates along with the principle of interaction and states that the quality of any experience determines the quality of subsequent experiences. Both of these principles can themselves be framed in terms of the active perception of means-ends connections.

The principle of interaction demands that educative experiences involve both the person and the environment, that is, that people have the opportunity to bring their framing of purposes to activity, and that they encounter the environment such that they may manipulate means in order to reach their chosen ends. Too much focus on either the external or the internal prevents the exercise of intelligent activity. The imposition of the external can lead to objective conditions taking precedence to the exclusion of internal drives or intrinsic interests, while an excessive focus on internal or individual states can prevent a full encounter with the objective conditions of experience. Put another way, neither internally-derived ends, nor objectively present means, can dominate an educative experience. Both must be a part of it.

As with the principle of interaction, the principle of continuity also relates to the perception of means-ends relationships in activity. The educative experience, immediately alive with the interaction of person and world, then leads to growth in one’s ability to have such interactions. The question is not whether an experience has continuity, that is, whether it affects subsequent experiences, but rather whether those effects limit growth and development or enhance them (LW 13: 20-21). When one perceives and acts upon means-ends relationships in present experience, their perception grows, allowing a fuller appreciation of such relationships in future experiences. The fullness of experience, measured in terms of the present and the future, is thus the judge of whether an experience is educative or mis-educative, and the fullness of experience is only reached through an active attempt to derive purposes or ends, to shape means towards those ends, and to assess the consequences of activity against the test of original purposes.
“Other” Types of Learning: Mis-educative Experiences

So goes the educative experience, but a full accounting of Dewey’s ideas on learning also includes those experiences which are not educative, or are mis-educative. Dewey supplies descriptions of mis-educative experiences as counter-examples to those which he considers to be educative. One such counter-example describes the cooking of an egg:

For the child simply to desire to cook an egg, and accordingly drop it in water for three minutes, and take it out when he is told, is not educative. But for the child to realize his own impulse by recognizing the facts, materials, and conditions involved, and then to regulate his impulse through that recognition, is educative. This is the difference, upon which I wish to insist, between exciting or indulging an interest and realizing it through its direction. (MW 1: 27)

In using this particular example, Dewey is making a distinction between knowledge of an activity and understanding of that activity, only the latter being associated with the educative. Dewey draws a similar contrast between these types of knowing when he describes the difference between knowing about a car and knowing how it works:

The distinction between knowledge, information, and understanding is not a complicated or philosophical matter. An individual may know all about the structure of an automobile, may be able to name all the parts of the machine and tell what they are there for. But he does not understand the machine unless he knows how it works and how to work it; and, if it doesn’t work right, what to do in order to make it work right. You can carry that simple illustration through any field that you please. (LW 11: 184)

Elsewhere, he makes a similar claim when he describes how the learning of certain knowledge is not necessarily a matter of learning to use that knowledge intelligently:

Knowledge about things is static. There is no guarantee in any amount of information, even if skillfully conveyed, that an intelligent attitude of mind will be formed . . . I do not mean to say that we can have understanding without knowledge, without information; but I do mean that there is no guarantee, as I have just said, that the acquisition and accumulation of knowledge will create the attitudes that generate intelligent action. (LW 11: 183–84)

Putting all of this together, along with previously described connections between intelligent activity and the educative experience, it can be seen that the mere learning of facts and skills, of ideas and procedures, is not educative unless it is accompanied by understanding. Such understanding allows students to act intelligently in the present and in the future. In other words, such understanding consists of knowledge of the relationships between means and ends. Clearly, mis-educative
experiences do not involve students making the sort of means-ends connections that characterize educative experiences, and so we come to one way of characterizing mis-educative experiences: as learning without understanding.

Still, there is more to Dewey’s descriptions of the mis-educative. For even learning that is accompanied by understanding may not, in the end, measure up to Dewey’s ideal if the understanding is not of the right sort. Specifically, this second type of mis-educative learning includes an awareness of ends and means, but leaves out wider consideration of the purposes and consequences of activity. In fleshing out this second sort of mis-educative learning, it is useful to look at Dewey’s description of the necessity, not only of growth in learning, as the principle of continuity demands, but of directed growth. In distinguishing between the two, Dewey provides an example of learning to be a burglar, or an unsavory character of a similar sort:

a man, for example, who starts out on a career of burglary may grow in that direction, and by practice may grow into a highly skilled expert burglar. Hence it is argued here that “growth” is not enough; we must also specify the direction in which growth takes place, the end towards which it tends . . . That a man may grow in efficiency as a burglar, as a gangster, or as a corrupt politician, cannot be doubted. But from the standpoint of growth as education and education as growth the question is whether growth in this direction promotes or retards growth in general . . . when and only when development in a particular line conduces to continuing growth does it answer to the criterion of education as growing. (LW 13: 19-20)

If growth itself does not suffice to distinguish an educative experience, this means that even learning experiences that do forge links between means and ends, and that result in abilities to apply knowledge and exercise skill and judgment, are not necessarily educative. Learning, then, cannot simply be separated into learning with understanding (the educative) and learning without understanding (the mis-educative). A further distinction in required, as learning with understanding can result either in properly directed growth or in misdirected growth.

The distinguishing mark between properly directed and misdirected growth seems to be a matter, as experience itself is, of awareness. Learning can be mis-educative, not because of a lack of awareness of means and ends, but instead because of an awareness that is too narrow. Growth is a matter of ever expanding abilities in the realms of perception and action, and is further connected to a greater connection to life, the world, and one’s fellow humans, which not only makes growth the desired end in education, but even imbues it with moral value (MW 4: 213). A career in burglary, in directing growth narrowly, lacks the moral value of these connections. As Dewey says, when defining moral activity: “All conscious human life is concerned with ends, and with selecting, arranging, and employing the means, intellectual, emotional, and practical, involved in these ends. This makes conduct. But it does not follow that all conduct has moral import” (MW 8: 190, italics in original). The difference between moral and non-moral activity comes down, not
to a failure to make means-ends connections, but rather to just which means and ends are being considered. According to Dewey, there are two differing ways in which activity is induced and guided by ideas of valuable results. In one case the end presents itself directly as desirable, and the question is only as to the steps or means of achieving this end. Here we have conduct which, although excited and direct by considerations of value, is still morally indifferent. Such is the condition of things whenever one end is taken for granted by itself without any consideration of its relation to other ends. It is then a technical rather than a moral affair. (MW 8: 191)

This distinction between learning with understanding that is educative, and that which is not, may be further clarified by borrowing from Dewey’s ideas on the aesthetic. As with the educative versus the mis-educative, where even learning that leads to skill and understanding is not necessarily educative, so it is that, in the matter of aesthetics, even great skill does not necessarily make one an artist. When, for example, Dewey writes about the need for teachers to be artists, he says that if education is going to live up to its profession, it must be seen as a work of art which requires the same qualities of personal enthusiasm and imagination as are required by the musician, painter or artist. Each one of these artists needs a technique which is more or less mechanical, but in the degree to which he loses he personal vision to become subordinate to the more formal rules of the technique he falls below the level and grade of the artist. He becomes reduced again to the level of the artisan who follows the blue prints, drawings, and plans that are made by other people. (MW 15: 186-187)

As can be seen here, Dewey separates skillful activity in and of itself, or executed according to external directives, from skillful activity undertaken under the direction of “personal vision.” Another interpretation of this separation, connected to the above distinction between moral and technical affairs, can be seen when Dewey writes about the difference between an artist and a technician: “the difference between the artist and the mere technician is unmistakable. The artist is a masterful technician. The technique or mechanism is fused with thought and feeling. The ‘mechanical’ performer permits the mechanism to dictate the performance” (MW 14: 51).

As in the first example, the difference between artist and technician is not phrased in terms of skills. Art has its technical aspect, and skill is necessary, but skill alone does not make for art. The artist and the technician are doing different work, and this is so because of the sort of awareness each brings to activity. Certainly, skilled technicians have an awareness of means and ends, else they would not be able to carry out their activities with knowledge of what they are aiming to accomplish. And yet, the means-ends awareness of the technician is limited to the activity at hand, dictated by “the mechanism,” by the technical requirements of
the task, with other purposes and consequences left out of consideration. In other words, while a technician may operate with great skill, and may indeed exercise judgment and make links between means and ends, these judgments are bounded. They do not go beyond the activity. Artistry demands a sort of judgment that goes beyond even means and ends, and which might be phrased more accurately as a consideration of purposes and consequences.

This then brings us back to the matter of the educative and the mis-educative. As with the difference between moral and technical guidance in activity, and between artist and craftsman, the difference between the right sort of growth and the sort that is characterized by increasingly proficient burglary comes down to the awareness one brings to the activity being carried out. In both examples, Dewey describes an exercise of skill without attention to larger questions, and this sort of means-ends awareness in relation to skillful practice is insufficient to reach the level of the moral, the aesthetic, or the educative. One must not only act with skill, but must ask, essentially, “why” one is engaging in activity, rather than either not asking the question (as in the case of the burglar) or letting mechanism or external forces answer it (as in the case of the technician). This point can also be described in terms used by Field and Latta (2001), who, in a Deweyan take on teacher education, claim that proficiency is not the same as wisdom. However the distinction is described, it can be seen that the awareness of means-ends relationships, while necessary for the full nature of the educative experience, is not sufficient to it.

Overall, then, experiences which fall outside of the definition of the educative experience can be divided roughly into two types, or two ways of learning. The first of these is learning to do something, but without an understanding of the process, the means and ends, by which something works. The product of such learning is an inflexible approach to skills and knowledge. In the second sort of learning, a student may indeed engage in figuring out the ends and means of activity, and may end up with an extensive understanding that leads to skill in execution, yet still have an experience that stops short of the educative. This second sort of mis-educative learning comes about when a student’s understanding is bounded by the activity itself, and does not touch upon the wider purposes and consequences, the aesthetic or moral issues, surrounding the activity.

**Turning to Peirce’s Categories of Experience**

Having laid out the two varieties of mis-educative experiences that Dewey describes, one can add the educative experience to the mix, making a total of three types of experiences that define the workings of learning. Utilizing a set of terms that Dewey employs to describe the various features of activity in general (LW 16: 337-340), and focusing on the activity of learning in particular, these types of experiences can be described as learning “what” to do, learning “how” to do something, and learning “why” (or, as Dewey also puts it, “what for”) to do something. These three descriptions correspond, respectively, to learning without understanding,
learning with understanding in a narrow or technical sense, and learning with understanding in the broadest moral or aesthetic sense, this last corresponding to the educative experience.

Once learning experiences are divided up into these three types, the gap between the educative experience and everyday learning experiences becomes clear. Learning “what” to do often proceeds without understanding, as anyone who has memorized their multiplication tables can confirm, and it is realistic to believe that a great many eggs are cooked, every day, without a grasp of the larger relations behind the activity. As to the distinction between learning “how” and learning “why,” between technical and moral or aesthetic activity, students often demonstrate great skill in school without asking “why” questions or bringing their creative capacities to bear, the purposes and shape of the work being supplied by grades, teacher directives, and pre-determined measures of performance. This carries over out of school as well, as skillful performance in any field does not necessarily imply that purposes and consequences, outside of the immediate and technical demands of the tasks in question, are opened up to examination in either an aesthetic or a moral sense.

If such common learning experiences fall outside of the realm of the educative, then Dewey’s educative experience can seem quite disconnected from classroom learning. It might be argued that this disconnect is the point of Dewey’s critique of schooling, and less a problem than a call for change, but this is not a particularly helpful answer to teachers who are aiming to follow Dewey’s path in schools today. Since such teachers can only be said to be teaching according to Dewey’s philosophy when their lessons achieve the educative, they end up spending the rest of their instructional time wandering somewhere off the philosophical map. Teachers can respond to this haphazard guidance in a number of ways, none of them satisfactory. They might abandon the idea of teaching as Dewey intended, seeing it as too removed from “real” classrooms. They might water down Dewey’s ideas to something more manageable on an everyday level, throwing an occasional student-centered activity into the daily routine. Or they might doggedly attempt to reach the educative at all times, probing at the aesthetic and moral aspects of times tables and egg cooking and such, this effort likely leading to failure as well as to a neglect of the “what” and “how” aspects of subject matter.

What is needed, then, is a new system for describing learning experiences, one which maintains Dewey’s insights on learning while bridging the gap between educative experiences and other everyday learning experiences. This is where Charles S. Peirce is brought into the picture. Like Dewey, Peirce made a determined attempt to understand “experience,” but where Dewey laid out the concept of “an experience” and situated all experiences according to their closeness to or distance from this ideal, Peirce took experience and divided it up into its constituent parts. He in fact proposed a triadic conception of experience, claiming that all of experience was made up of three universal categories. If Dewey’s three types of learning, one educative and two mis-educative, could be fit into Peirce’s categorical conception
of experience, the result would be a philosophical system that remains rooted in Dewey’s work yet also acknowledges and legitimizes learning in its several forms, providing teachers with guidance that covers all the learning that happens in classrooms, not only educative experiences.

If Dewey’s types of learning experiences are indeed to be seen through the lens of Peirce’s categories of experience, it is necessary to first explore those categories so as to ascertain what Peirce was getting at and how his system might be applied to Dewey’s. Peirce wished to dig down to the roots of experience so as to ascertain the parts of which any and all experiences are made. He determined that all experience could be divided into three categories, which he called firstness, secondness, and thirdness. Peirce described his three categories in this way: “The first is that whose being is simply in itself, not referring to anything nor lying behind anything. The second is that which is what it is by force of something to which it is second. The third is that which is what it is owing to things between which it mediates and which it brings into relation to each other” (qtd. in Corrington, 1993, p. 125). In a similar formulation, Peirce notes: “First is the conception of being or existing independent of anything else. Second is the conception of reaction with something else. Third is the conception of mediation, whereby a first and second are brought into relation” (qtd. in Gallie, 1966, pp. 182-183).

Some additional exploration reveals other features of the three categories. Describing firstness, Bernstein (1971) also refers to its “immediate quality,” but brings, too, the sense of “unattached possibility” that also comes with it (p. 180). Corrington (1993) adds a list of attributes of firstness, including “freshness, presentness, newness, originality, spontaneity, freedom, having no unity, having no parts, feeling, and pure quality” (p. 126). Firstness may be described as feeling itself, but not a feeling, per se, because a feeling requires comparison that firstness, a quality that is not intellectualized, does not (Peirce, 1903/1997). The main point to come out of this, for the purposes of this piece, is that firstness is a piece of experience that is not intellectualized, compared, or explored. It merely is.

While firstness is associated with a monad, secondness is by contrast a dyad, where two elements are distinguished and mutually defining. This can be characterized, for example, in the relationship between self-other, or between effort and resistance (Bernstein, 1971, p. 180). Secondness is “brute existence, duality, opposition, and conflict” (Corrington, 1993, p. 100), and its attributes include “compulsion, effect, effort, independence, result, negation, relation, and occurrence” (p. 127). Knight (1965) relates that “[e]pistemologically it is an idea of fact, struggle, resistance, power, volition, or effort, to name a few of Peirce’s synonyms for it. It is realized in the psychological states of shock, surprise, action, and perception. Metaphysically, it is characterized as otherness, the non-ego” (p. 77). While firstness represents possibility unrealized, secondness represents realization and reaction, of pushing
and pushing-back, of “otherness and opposition” (Spinks, 1991, p. 32). Secondness 
thus has a dualistic nature, a sense of pushing back and forth between person and 
world. Unlike firstness, secondness is a matter of awareness.

Going beyond and bringing together the monad of firstness, and the dyad 
of secondness, thirdness is the triadic relationship. Of thirdness, Bernstein (1971) 
says: “The final category, Thirdness, is at once the most intriguing and difficult to 
understand. Habits, laws, rules, potentiality, intentions, concepts, signs, meaning, 
and conduct are all classified as Thirds” (p. 182). Peirce’s own example of third- 
ness is where A gives B to C, where the idea of giving, which is a matter of intent 
and cannot be reduced to a mere action that transfers B from A to C, represents 
a third (Bernstein, 1971, p. 182). The triadic relationship, then, is characterized 
by intent, and by laws that give meaning to actions done with intent. Corrington 
links this emphasis on intent and lawfulness to morality, stating that, “The move 
from mere behavior to self-controlled conduct is a move possible only because of 
the power of thirdness . . . In describing thirdness, [Peirce] at the same time gives 
it a strong moral cast” (1993, p. 135).

Thirdness, in a sense, combines aspects of firstness and secondness. First- 
ness is possibility, secondness specific action, and thirdness is general action. As 
a general, it goes beyond the specifics of secondness, but as an action, thirdness 
transcends the mere possibility of firstness. The link that brings possibility and 
action together is purpose, the intention to do something, and circumstances or 
lawfulness that gives that something an identity. Thirdness is not closed off, since 
what one will do in any given situation is not contained by all that has been done 
before, yet neither is thirness entirely unspecified, since it is governed by intention 
and by the situation at hand (Corrington, 1993). Essential in all this is the relation 
of thirdness to purpose, meaning, and morality. If firstness is unconsidered, and 
secondness is considered in an immediate sense, then thirdness is considered in 
a wider sense, one which involves past and future, as well as intent and purpose. 
With purpose, and the addition of what has been and what will be, meaning comes 
in. And with meaning, with thought of what is to happen, comes the ability to ask 
how consequences fit with intent.

An example may shed further light on the nature of the categories. Taking 
the categories in terms of the self, firstness corresponds to feeling, secondness to 
experience, which forces one to think, and thirdness to thought for the future, for 
the possible consequences of what one does (Corrington, 1993, pp. 99-100). The place 
of monad, dyad, and triad are clear here: the monad is feeling unintellectualized, 
the dyad a matter of confronting something, of resistance that forces thinking and 
effort that characterizes it, and the triad a matter of intention and situation, where 
meaning is determined by what is happening and what is intended to happen, the 
link between action and consequence determined by a third realm and not merely 
by a dyadic push-back.
The Categories of Learning

Having examined Peirce’s triadic conception of experience, the next step is to apply the universal categories of experience to the types of learning experiences that exist in Dewey’s system. Overlaid onto Dewey’s various descriptions of the processes and results of learning, Peirce’s categories can indeed produce a system that encompasses all the types of learning described above. The unconsidered nature of firstness corresponds to cooking the egg, to doing without understanding, to learning “what” to do. The dyadic nature of secondness, with its idea of awareness and push between person and world, corresponds to the more analytical nature of doing with understanding, yet without evaluative and moral judgment of the educative experience. It is learning “how” something works, without consideration of “why” questions. Thirdness, with its flavor of intent and purpose, and moral cast, corresponds with the educative experience, with wider judgments around purposes and consequences being made, judgments that come from asking “why” or “what for.”

Another way of labeling the three types of learning, suggested by the processes and products associated with each, is to refer to firstness, secondness, and thirdness in learning as “accepting” learning, “analytical” learning, and “evaluative” learning, respectively. These labels will be used here to refer to, and to distinguish between, the categories at they refer specifically to learning.

Each of these categories of learning—accepting, analytical, and evaluative—can be further described by looking, in Deweyan fashion, at both product and process. Accepting learning, or learning “what,” resembles the original activity in appearance and may manifest itself as imitation, parroting, or following directions without thought to the meaning behind the directions. The sense of possibility inherent in the general category of firstness, the pure, fresh, unanalyzed quality, comes through in this application to learning via the unintellectualized nature of imitation. One does, without “thinking” about it, what one is told or shown, as with Dewey’s egg-cooking example. The product of accepting learning is likely to be knowledge that is inapplicable outside of the very narrow context in which is has been learned. While such knowledge may undoubtedly be useful, it is still akin to “rote” or “inert” knowledge.

Analytical learning, or learning “how,” would go beyond following directions or imitation, and would look toward the workings of the activity, an understanding of how what is being done relates to the steps and goals of the activity. Put another way, it is a matter of function, as opposed to accepting learning, which is a matter of form. This manifestation of secondness describes a causal or analytical sort of learning, where the learned act resembles the original through comparison of similarities and differences in execution. Analytical learning is thus distinguished from accepting learning by intellectualization, and by the dualistic struggle entailed in figuring out, not just what one is doing, but also the reasons for one’s actions, through a test of action against world.

The results of learning “how” are thus more broadly applicable than those of learning “what,” and analytical learning equips a person to act, not merely with
skill, but with flexibility, the power to modify or exceed the original procedure. Also, while accepting learning can be accomplished through repetition, analytical learning requires some thought, and is associated with activity that is not merely repetitive but also reflective. This is the realm of analysis, and thus the realm of competence, even craftsmanship. Still, as with the activities of Dewey’s technician, the understanding resulting from analytical learning is bounded by the activity, or the “mechanism.”

Evaluative learning, learning “why,” or the educative experience, is distinguished from the other two levels by its going beyond imitation in form or understanding of function. The character of this thirdness is imparted, not by outward resemblance or functional similarity, but by intention and consequence, purpose and circumstance, past occurrences and future plans. The relational or meditative aspect of thirdness comes through as the “what” is being done is combined with the “how” in the examination of consequences. If firstness relates to doing, and secondness to understanding, then thirdness relates to meaning. Thus, evaluative learning is the study of a subject, skill, or idea from a standpoint which includes consideration of purpose, intention, situation, and consequence. These considerations, this work in the realm of meaning, link the educative to the aesthetic. Another way to view this category, echoing Corrington’s (1993) description of thirdness in general, is that the educative in learning works upon the moral level, and that this is what distinguishes learning “why” or “what for” from learning “what” or learning “how.” The outcome of such learning is the widest of awareness, that which reaches the level of meaningful activity, and which equips the learner with understanding that can be applied to continued growth through future experiences of the same sort.

Conclusion: Application of the Categories of Learning

This categorical system, built from Dewey’s descriptions of educative and miseducative experiences and Peirce’s categorical classification of all experiences, is in its present form far from fully developed. A more complete picture of each of the categories remains to be worked out. Further consideration of the work of Dewey and Peirce is needed to reveal additional connections and to find potential areas of incompatibility. Relationships between these categories and other theories of learning, particularly those which have arisen in educational psychology since the days of Dewey and Peirce, can and should be explored. And the categories themselves need additional definition, as it remains to be determined whether the categories should be viewed as aspects of all learning experiences or as separate types of learning experiences.

Interesting though they may be, these issues must remain unexplored here, not only because of considerations of space, but also because the categories of learning have some practical applications to which due attention should be given. The idea of dividing Deweyan learning experiences into Peircian categories was, after
all, born out of the gap that exists between Dewey’s educative experience and the everyday learning experiences that occur in schools as well as outside of them. The categories of learning laid out here are meant to close that gap, and may thus have the potential to change the work of those teachers who would teach in a Deweyan manner. Some ideas about the direction such changes might take are explored below, along with a few additional applications of the categories which, though they do not make for a definitive list of potential uses, at least hint at what might be done with this alternative perspective on learning and experience.

This categorical framework’s appeal for teachers comes from its combination of Dewey’s insights on experience with an acknowledgement of the existence and legitimacy of all three of the types of learning. This inclusiveness means that teachers employing this framework could keep Dewey as their guide even when they teach lessons that do not measure up to the educative. The gap between the educative and other types of learning is thus closed. And yet, the educative itself is not left out. It is, in the form of evaluative learning, an integral part of this categorical system, meaning that teachers who would use such a system, even as they are relieved of the burden of reaching the educative at all times, would still be faced with the necessity of getting their students there eventually. This is the other side of the statement that Dewey’s educative experience is not common in everyday learning, and particularly in schools. The categories of learning acknowledge this, but they can also be used to change it. And by enabling teachers to think philosophically about their lessons no matter what type of learning they represent, these categories can make this change happen in a way that helps teachers to move closer to Dewey’s ideal of teaching carried out according to a philosophy of experience.

If it is accepted that the variety of learning experiences found in classrooms can be brought under the umbrella of the categories of learning, and these categories can also be employed to see that all aspects of learning are addressed, there still remains the question of just how the use of these categories might shape teaching practices. Several possibilities immediately suggest themselves. These categories could be incorporated into teachers’ planning processes, and learning goals and objectives could be written to include, not only the content to be addressed, or the behaviors expected, but also the types of learning intended. Rote learning of names and dates or basic terms, or the repetitive practice of basic procedures, may be necessary preliminary steps in a teacher’s larger plan, and practices appropriate to accepting learning may be employed to carry out these steps. Analytical lessons in which students employ processes reflectively, work problems, gain experience with equipment, or apply theories across settings can be pursued in a similar fashion, put into lessons as necessary but not entirely sufficient steps toward an overall learning experience. Along with all this, “why” questions can also be addressed at various times, employed in designing anticipatory or culminating experiences, incorporated into applications that go beyond the technical and into the creative, or
used to start students down paths that even the teacher may not have yet explored. Such an approach could lead to substantial differences in lesson planning, and implementation, even as it encompasses familiar sorts of learning experiences. One can imagine a family at the dinner table, and the parents asking their children not only “what did you learn at school today?” but also “what type of learning did you do at school today?”

Leaving the world of teaching, possible uses for this framework can be imagined for educational researchers as well. In studying learning from this experiential and categorical perspective, questions could be asked not only about whether students are learning the subject matter, and how deep or flexible that learning might be, but also about the students’ purposes for learning and the relation between those purposes and the ends to which learning may eventually be put. Accepting learning may be useful, but its unconsidered and potentially inflexible nature may result in inert knowledge. Analytical learning may lead to great skill and understanding, but may lead to action that is, to use a formulation employed by Field and Latta (2001), competent but not wise. The educative experience involves judgment and the self, but it seems that this sort of learning may indeed be the rarest, and so researchers’ task may be to search it out, or to ask where it is occurring. In any case, classroom learning could be examined in terms of its means and ends and according to the three categories, with attention given to how students are experiencing, and being prepared to employ, subject matter both inside and outside of the classroom.

Such work may also lead to a more general application of the three categories of learning, namely, consideration of the purposes and consequences of the sorts of learning theories that are applied to education. Broadly, learning theory can be divided into behaviorist, cognitive, and situative strands (Greeno, Collins, & Resnick, 1996), and each of these brings to schools certain practices. Schooling can be seen as being conducted with a mix of these theories in mind, though the behaviorist, and to a lesser extent the cognitive, are dominant modes (Berliner, 1993; Brown, 1994; Lagemann, 1989; Resnick, 1984; Tomlinson, 1997). Bringing Dewey’s ideas, in the form of the categories of learning, to bear on these theories opens up questions around the practices supported by each, and of the consequences, for students, of employing such practices. Much of the form of school practice has been determined by tradition and by a narrow conception of what “works,” that is, what is effective in maintaining the system of schooling as-is and producing a particular, and limited, set of outcomes. Asking what schooling produces in terms of students’ abilities to perceive and act in the world shifts the conversation, bringing in a more full and meaningful range of the possible outcomes of learning.

This framework might also be employed to ask such questions from an even wider perspective, getting at the relationship between school and society that was so important to Dewey. In the realm of policy, national education reform efforts such as No Child Left Behind, or the Obama administration’s more recent Race to
the Top initiative, could be examined from the perspective of what types of learning they are demanding, supporting, or promoting in schools. While much attention has been given to accountability, to the idea that all children can learn and that schools must be taken to task if learning is not occurring, little attention has been given to just what is meant by “learning.” Because learning is left undefined, or is defined merely by achievement on standardized tests, the debate about whether these policy initiatives are appropriate or effective focuses on other realms, such as funding, sanctions, merit pay, or Federal versus state prerogatives. Looking at such policy decisions through the lens of the categories of learning brings the types of learning that are occurring to the forefront, going beyond even asking whether tests can measure learning to asking what types of learning are produced by the school practices promoted by the policies in question. Critiques of such reforms might thus be guided by considerations of “why” questions as well as “what” and “how” questions, and by attention to the ways that people, and citizens, are shaped by the learning experiences they have in the public schools. The debate could then encompass not only learning, but also personal development, and not only personal development, but also the preparation of an educated citizenry for participation in a democratic system of governance. Surely, if Dewey were alive today, he would be asking such questions of our educational policies, pushing us to strive for a version of political pragmatism that goes beyond bipartisanship or a focus on results, one that harkens back to his own interpretation of the term as based the consideration of, and the search for, meaning.

Stepping back even further, it can be seen that all of these possible applications, in the end, are related to the results, for society, of learning along accepting, analytical, or evaluative lines. It is proposed here, following Dewey’s lead, that educative experiences are necessary to prepare the sorts of citizens and workers that a modern democratic society needs. If accepting learning is a primary emphasis, the inflexible and hard to apply knowledge that results, along with the necessity or being told what to do, will make for poor workers and poor citizens, lacking in initiative and in the ability to engage in meaningful political activity. If analytical learning represents a main emphasis, those who are gaining great skill in school might make better workers and more informed citizens, but might not be gaining a corresponding ability to take a broad view of the purposes and consequences of their actions. In this day and age, when the best and brightest in government, academia, and business have led the nation into difficult times, it is just such ability that seems to be absent. Educators, then, must look to the development not only of knowledge, skill, and understanding, but also of judgment and even wisdom. They must look for evaluative learning, for educative experiences. Only in doing this can Dewey’s hopes for the role of schools in society be fulfilled, perhaps improving both in the process.
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References

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