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ABSTRACT
              The purpose of this paper is to develop the
framework for a teaching methodology based on the concept of
experience, especially as that concept has been defined by John
Dewey. The discussion is divided into three parts and the first
section provides a summation and analysis of behavioral objectives
(the current methodology). It is stressed that behavioral objectives
assume that ends should be separated from means and determined prior
to the activity of learning and that it is the teacher, but never the
student, who determines the ends. In the second section a comparison
is made of results produced when ends are separated from, as opposed
to conjoined with, means. The third section provides the outline for
the new methodology. The key ingredient on a philosophical level is
the distinction Dewey makes between ends in themselves and ends in
view. The latter arise out of activity and act as hypotheses to
direct but not control activity, while the former are determined
before activity and thus provide the very limits for activity. On the
educational level the key ingredient is that education be a process
of the student determining his own goals and receiving the results of
his own planning. (Author/RSM)

A METHODOLOGY OF EXPERIENCE: AN ALTERNATIVE

TO BEHAVIORAL OBJECTIVES

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BEHAVIORAL OBJECTIVES

During the decade just ended, the 1960's behavioral objec-
tives has probably been the most talked about subject in curriculum
theory. In the early sixties it was common--with the advent of pro-
grammed instruction--to see such objectives as yet another panacea for
America's educational ills. However, in a few years there appeared a
number of critics questioning both its theory and practice. Today
it is usual for symposia, journals, etc. to present the case in a
pro-con format; in short, the bloom of enthusiasm has worn off,
leaving for substance an unresolved but intriguing issue. That
issue, simply put, is whether or not educational objectives should
be framed exclusively, or even primarily, in behavioral terms. Be-
hind this, of course, is another question, whether or not education
itself should be goal oriented. The first question is concerned with
the yea or nay of framing objectives behaviorally; the second, with
objectives themselves.

One of the advantages advocated by those who favor behavioral
objectives is that such a framework is more beneficial to both the
student and the teacher by focusing attention on the learner's per-
formance rather than on the teacher's. As Popham (1969) says:

> ... precise objectives stated in terms of
> measurable learner behavior make it infinitely
> easier for the teacher to engage in curricular
> decisions. The clarity of precisely stated
> goals permits the teacher to make far more

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> judicious choices regarding what ought to be in
> the curriculum (Popham, 1969, p. 40).

Not only does this quote assume (probably validly) that there is a

certain amount of precision gained by framing objectives behaviorally,

but it also assumes, tacitly but definitely, that the whole notion of

objectives implies pre-determined and externally imposed ends--it

being the teacher who determines "what ought to be in the curricum."

In fact I believe it fair to say, and shortly will attempt to prove,

that behavioral objectives is a sub-category of the rather general

notion that the process of education is best affected when means are

separated from ends. It is this larger concept which is of interest

to me; that is the idea of objectives themselves, regardless of the

various adjectives attached, i.e., educational, instructional, be-

havioral.

Although the phrase "behavioral objectives" is itself rather

new--having obtained popularity only in the past two decades--many

of its basic aspects are as old as education itself. In terms of

twentieth century American education it is possible to find many of

today's ideas operant in the writings of such pre-1930 authors as

Bobbitt, Bode, Pressey. In terms of manifestations of behavior there

is a tradition which goes back to the turn of the century and the

"new psychology" of Watson, Thorndike and Judd. Finally the writings

of Ralph Tyler span a period of forty plus years. Thus behavioral

objectives does have a history and while Eisner (1967) has done a good

job in beginning to uncover it much work needs to be done. However, such an approach is not the one of this paper. To the extent that this paper is concerned with an historical focus on behavioral objectives it is from the year 1950 when Tyler published the syllabus for his course Education 360--Basic Principles of Curriculum and Instruction.

This work, somewhat a landmark in its field--at least to the extent that it has served as a focal point for all subsequent proponents (and opponents) of behavioral objectives--is basically:

> A rationale for viewing, analyzing and interpreting the curriculum and instructional program of an educational institution (page 1).

Toward this end Tyler's rationale is concerned with providing answers to "four fundamental questions":

1. What goals should a school seek?
2. What means should it use?
3. How should these means be organized?
4. How should the effectiveness of these means be evaluated?

A glance at these four shows three of them to be concerned with means and one with ends. Actually this is a bit misleading, for the first question is more concerned with how a school goes about choosing its goals than with the statement of what specific goals are in a school's best interests. As Tyler says, "in the final analysis objectives are a matter of choice," choice of the teachers, the administrators, the program developers--of "those responsible for the school" (page 3)--but not of the students. To be prepared for this

choice Tyler thinks the curriculum developer should be informed about
the various alternative viewpoints of progressive and essentialist
education as well as with various psychological, philosophical and
sociological theories of man. However, he has no preference for any
specific one of these theories over another. Rather Tyler is con-
cerned with the way the chosen goal is framed; his commitment is to
framing all goals behaviorally.

> Objectives are sometimes stated as things which
> the instructor is to do ...but they are not
> really statements of educational ends. Since
> the real purpose of education is not to have
> the instructor perform certain activities to
> bring about significant changes in the students'
> patterns of behavior, it becomes important to
> recognize that any statement of the objectives
> of the school should be a statement of changes
> to take place in students (page 28).

Thus it can be seen that Tyler's monograph on the basic prin-
ciples of curriculum and instruction is essentially a monograph on
methods of implementing objectives already chosen. Within this
methodology there are two assumptions operating. The first is that
all education must be goal oriented; the second is that goals ex-
pressed in a behavioral manner can be more efficiently implemented
than those expressed in other manners. As can be seen from the last
quote this second assumption is one for which Tyler offers some
support; namely, that objectives framed behaviorally are easier to
evaluate, allow for individual differentiation, for more precise and
specific formulation, and finally emphasize learning more than

teaching. However, the first assumption, although prominent, is not

supported. Tyler begins his monograph, on page three, with a lament

that "many educational programs do not have clearly defined purposes,"

and then goes on to assert that while an unusual teacher may "do

excellent educational work" without a "clear conception of goals"

such goals are a prerequisite for any curriculum which is to be

planned "systematically and intelligently." Beyond this assertion

no further support for his position is given, the logic and in-

herent rationality of the position being simply assumed. A close

reading of the monograph though reveals a key element in the

assumption; namely, that ends are to be pre-determined. In talking

of the Deweyan idea of a learning experience as the resulting inter-

action between the learner and the external environment, Tyler says:

> The teacher can provide an educational ex-
> perience through setting up an environment
> and structuring the situation <u>so as to stim-
> ulate the desired type of reaction</u> (page 41,
> underlining mine).

Ironically this last quote is very non-Deweyan for it places the

ends of the activity prior to and outside the activity itself. It is

this separation of means from ends which forms the central focus of

my criticism of behavioral objectives, while it is the integration

of means with ends which will form the focus of my methodology of

experience. However, before going to to those sections of this

paper I would first like to make some overall comments on the pro's

and con's of behavioral objectives as each has developed in the

literature.

Essentially it can be said that four categories of people could benefit from a behavioral approach: curriculum theorists, curriculum developers, teachers and students. The theorists benefit by being able to approach education in a more systematic and planned manner, constructing taxonomies and hierarchies of learning. The taxonomies of Bloom (1956) and Krathwohl (1964) as well as the structured hierarchy of Gagne (1965) are evidence of this trend. The developers of curriculum benefit from the "systems" approach, whereby feedback, testing and measurement all become important. The work of Mager (1962) and Popham (1967) is illustrative of this trend. The teacher benefits by being able to integrate objectives with instruction more precisely than was possible before. She, or he, is also able to individualize the instructional program with varied objectives for each learner. The use of programmed instruction is illustration of this trend. Finally there is the student. It is assumed he will learn better (and more) when informed as to the goals desired of and for him. As Krathwohl says (1965): "Students tend to concentrate on what counts ..." If the student is informed ahead of time as to "what counts" then indeed he can, and it is hoped he will, concentrate better. At least his focus will be narrowed.

This statement by Krathwohl and similar ones by Popham (1969) and Tyler (1964)--all concerned with advantages to the student of his

being pre-informed as to the goals and results expected of him--
warrant further attention. First of all the notion of the student
being able to make an active contribution to the process of selecting
objectives is almost totally absent prior to the mid 1960's; and
even in the three works just cited the idea of a "student point of
view" is most minimal, as well as new. Second the consideration given
to the student--and certainly behavioral objectives, especially in
the writings of Ralph Tyler, has given a lot of consideration to the
student--has been more negatively than positively oriented; that is,
his contribution to the theory of behavioral objectives has been
mostly through his lacks, needs, wants or gaps. As Tyler says: the
use of the word need often,

> ... represents a gap between some conception of
> a desirable norm, that is, some standard of phil-
> osophic value, and the actual status (Tyler,
> 1950, page 6).

Therefore in determining behavioral goals it is first necessary to
find "the present status of the students," and then compare that
status "to acceptable norms in order to identify the gaps or needs."
Third the student's role in the actual carrying out of the objec-
tives has been more that of passive receiver than of active creator;
that is the student has been expected to receive habits, training,
enculturation, and indoctrination before he is considered to have a
valid point of view or be allowed to function as an active agent.

One educator, William Estes, has labeled the above as "the

shoehorn concept of learning"; while John Dewey has emphasized the
static view of knowledge such a concept implies; and Herbert Kliebard
has pointed out that while educators might have been willing to
accept such a view of, and role for, students in the 1950's it is
hard to see them making the same acceptances in the 1970's. For
myself I am reminded of Arthur Lovejoy's observation that virtually
all past systems, social, political, educational (Lovejoy pays
particular attention to the founding of the American Constitution)
have been predicated on the assumption that man's human nature is
essentially evil. Given the opportunity to be his own person man
will inevitably and predictably cause chaos and holocaust. The tra-
ditional way to overcome this Augustinian and Calvinistic view of
man's nature has been to: (1) indoctrinate man from an early age
on, (2) submit him to the guidance of those who are "right," or more
knowledgeable, (3) create systems of government and structures of
life where controls and checks prevent him from being his own agent,
or in modern terminology from "doing his own thing." Evidence that
this view of human nature is still active in modern day society can
be found fictionally in William Golding's Lord of the Flies and
factually in Herbert Kohl's Thirty-Six Children. While it would
be absurd to say that behavioral objectivists hold such a view of
human nature it is possible to find marked similarities between
this view and the attitude objectivists display towards student

points of view. The attempt here is not to find a nefarious, and not
so subtle, way of discrediting behavioral objectives and objectivists,
but rather to call attention to the point that Eisner has recently
been making; namely that the e is a definite, if tacit, connection
between behavioral objectives and historically established philoso-
phies--both of education and of man. Those connections need to be
explored, by the behavioral objectivists and by others. The next
section on means and ends will attempt to explore one such connec-
tion.

To those who find behavioral objectives objectionable (and by
now it's obvious I must be classified in that group) one of the most
common specific criticisms raised is that of manipulation. The
argument runs that the more a methodology is designed to produce
specified forms of behavior then the more is that methodology advoc-
ating manipulation. As Arnstine (1964) has pointed out in his
article on programmed instruction--the catalyst which threw behavior-
al objectives into such prominence--the manipulation of people is not
only contrary to American ideals about the way a democratic society
should function, but is also contrary to the accepted notion of the
way education should function within such a society. As he says:

> If this (the shaping of human beings to prede-
> termined ends) were really the way in which
> Americans wanted their children to be educated,
> then this nation would be indistinguishable
> from any other totalitarian society (Arnstire,
> 1964, pages 338-339, words in parentheses a
> paraphrase).

A second objection, similar to the first and arising from it,
is a much harder one to focus. It can be found in Bruner's statement
(1961) that the art and technique of inquiry can be developed only by
engaging in inquiry; in McDonald's statement (1965) that objectives
can be known in any real sense only after completion of the act of
instruction; and in Eisner's point (1967) that the pre-determination
of objectives ignores the very heart of the interactive process,
namely the continual grouping and re-grouping of elements within
both the environment and the learner. I would like to frame all of
these statements within the general structure Dewey develops con-
cerning the logical and psychological organization of subject matter.
The former is the organization of relationships within a discipline
and between discipline into as structured, ordered and logical a
manner as can be devised at any given time. The latter is the
organization that exists between these logical relationships and
the individual's own thought constructs. As Dewey says:

> There is a strong temptation to assume that pre-
> senting subject matter in its perfected form pro-
> vides a royal road to learning (Dewey, 1916, page
> 220).

This is the difficulty with programmed instruction, or even with
textbook instruction. However, there is also another temptation for
all goal-oriented educators and that is to assume that the psycho-
logical organization can be done, or made more efficient, if one
individual does it for another. But the very nature of the concept

requires that the individual do his own organizing. Not only is there no royal road to learning, neither are there maps which the individual must merely memorize.

What is at issue here, of course, is a concept of education which is different from mere training, a concept of education which is based upon man's unique powers of consciousness, reflection, symbol manipulation and the like. The challenge then, to those who hold this concept of education, is to devise an educational methodology which is based on the individual's own assimilation of experience but which will not prescribe what those experiences are to be; a methodology which will have within it relationships between the logical and the psychological, but which will not impose the former on the latter. This is what the methodology of experience I am to propose later is designed to do; but first I would like to devote a section to means and ends, for it seems to me that this is the very heart of the behavioral objectives controversy and also the origin. from which any new methodology must emerge.

<p align="center">ENDS AND MEANS</p>

Behavioral objectivists feel, as Popham (1969) has pointed out, that ends should be separated from means in as clear and distinct a manner as possible. Further they see the two as having quite different functions within an educational system, and see the success of

that system lying in the clear, specific and behavioral description
of those functions. Many of the quotes already given provide support
for the foregoing statements, but for emphasis a few more will be
given here:

> It would seem obvious that ends must be speci-
> fied if any appropriate choice is to be made of
> means (Louise Tyler, 1969, page 100).
>
> ... the determination of what the instructional
> goals should be is essentially a curricular,
> not an instructional, decision. The purpose of
> goal-referenced instructional models is to
> achieve more efficiently whatever goals have
> been selected (Popham, 1969, page 38).
>
> All aspects of the educational program are
> really means to accomplish basic educational
> purposes (Ralph Tyler, page 3).
>
> When one specifies explicit ends for an instruc-
> tional program there is no necessary implication
> that the means to achieve those ends are also
> specified (Popham, 1969, page 47).

In all of these quotes there is either an explicit or tacit
assumption that ends should be separated from means and determined
prior to any decision about means. As Louise Tyler (1969) says
there is a basic need to prespecify objectives, a need which by its
very rationality seems obvious. In fact it seems so obvious--as
Robert Guttchen has pointed out in his article on Dewey's dif-
ferences with Mill over the separation of means from ends--that
we naturally assume the categories of means and ends to answer
not only a genuine psychological need, but also to lie "at the
core of any notion of rational as well as moral activity."

> What could be more common and commonplace than
> the idea that men seek ends and that when they
> go about this rationally, they draw upon their
> best knowledge so that the means that they use
> will be most likely to assure success?
> (Guttchen, 1969, page 28).

John Stuart Mill felt the logic of this position to be obvious

and devoted the last chapter of his sixth book on A System of Logic

to its exposition. The heart of this "Mill model" on the separation

of ends from means lies in the following paragraph:

> The relation in which rules of art stand to
> doctrines of science may be thus characterized.
> The art proposes to itself an end to be at-
> tained, defines the end, and hands it over to
> the science. The science receives it, con-
> siders it as a phenomenon or effect to be
> studied, and having investigated its causes and
> conditions, sends it back to art with a theorem
> of the combination of circumstances by which it
> could be produced. Art then examines these
> combinations of circumstances, and according as
> any of them are or are not in human power, pro-
> nounces the end attainable or not. The only one
> of the premises, therefore, which Art supplies
> is the original major premise, which asserts
> that the attainment of the given end is desirable.
> Science then lends to Art the proposition (ob-
> tained by a series of inductions or of deductions)
> that the performance of certain actions will
> attain the end. From these premises Art concludes
> that the performance of these actions is desirable,
> and finding it also practicable, converts the
> theorem into a rule or precept (Mill, 1843, 1965,
> pages 139-140, underlining mine).

Bypassing for the moment the difficulties of style and wording[1] the

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[1]For Mill Art is basically modes of action--practical action--
while Science is modes of logical organization, or categories, or
principles. Thus Mill says: "Art in general consists of the truths

main ideas of Mill can be expressed sequentially as follows:

1. Art proposes an end;
2. Science supplies a formulation of means;
3. Art judges the means practicable or not;
4. If practicable, Art converts the formulation into a rule of action.

Just how strong a separation Mill envisioned between means and ends

becomes evident a few pages later when he says:

> But though the reasonings which connect the end
> or purpose of every art with its means belong
> to the domain of Science, the definition of the
> end itself belongs exclusively to Art, and forms
> its peculiar province (page 144).

One of the difficulties with such a separation is that it puts

the ends, to use Mill's phrase, in "a class by themselves"; it sepa-

rates the "ought" proposition from the "will" propositions and re-

moves the former from all empirical validation. Thus the ends, the

very basis of the whole structure, are often no more than mere per-

sonal preferences and unassailable by the empirical evidence accumu-

lated; for such evidence deals strictly with the means, not with the

ends. This problem has been recognized by both Tyler and Mill, and

each has attempted the same solution. Mill says (page 145) that

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of science, arranged in the most con...nient order for practice, instead
of the order which is the most convenient for thought. Science groups
and arranges its truths so as to enable us to take in at one view as
much as possible of the general order of the universe. Art, though
it must assume the same general laws, follows them only into such of
their detailed consequences as have led to the formation of rules of
conduct ..." (page 143).

everyone framing ends must be prepared to justify his approbation in

terms of "general premises," which general premises form the

Doctrine of Ends and are universally recognized by all rational men.

Tyler (pages 3-6) recognizes that "in the final analysis objectives

are matters of choice," but also believes that certain "acceptable

norms" exist. However, as Kliebard (1970) has pointed out this

phrase masks a very elusive concept: just what are these norms,

and to whom are they acceptable? Much the same sort of analysis

can be made of other behavioral objectivists. In fact, in general

the removing of ends to a separate class by themselves gives to

these ends a special status since they are now no longer required

to prove themselves in the arena of justifiability. Often such

categorization serves as a shield behind which exists an individual's

most cherished, unexamined and unproven prejudices.

However, the exclusive status of ends is not the main objection

Guttchen or Dewey would bring to the Mill model; their prime objec-

tion centers around the very rationality of the model. As Guttchen

says (pages 29-42):

> [That] the bright lights of rationality and moral
> action shine where ends are clear and means are
> well chosen ... [is] one of the grandest over-
> simplifications that men, as well as most phil-
> osophers, have ever entertained.

The rationality of clear ends and distinct means is really an ex post

facto rationality; it is the result of a construct man has placed upon

his completed actions as a simplification of what he would have liked

those actions to have been.   There is in such a construct all the
logical value a simple and idealized structure has; but as an account
of how man psychologically approaches, or even frames, problems it is
woefully inadequate.   Individuals--at all levels of intellectuality--
approach their problems much more in the manner of a man stumbling
(sometimes quite skillfully) "from pillar to post," than in the
manner of a man working "with a clear blue-print in hand."   Modern
philosophers of science such as Thomas Kuhn, Michael Polanyi and
Stephen Toulmin have, in recent decades, been emphasizing this same
point in regards to the work of scientists.   They say that intuition,
imagination, perseverance, commitment to another field or idea, and
in-depth knowledge of at least two fields are some of the character-
istics of those who make scientific advances.   Bruner, of course, made
such thinking quite central to his argumentation in The Process of
Education.

In the above there is a strong resemblance to what Eisner has
been saying about teachers' not using educational objectives.   This
fact may mean that the objectives have not been clearly enough de-
fined, as the objectivists would argue; but it may also mean that
objectives themselves are not useful devices for planning action.
As Eisner says--following McDonald:

> The ends achieved are not preconceived but re-
> flected upon in retrospect rather than in pros-
> pect.   This, I believe, is what most teachers
> do in the process of curriculum development and
> what I suspect most of those reading this
> article do (Eisner, 1967b, page 279).

There is also a strong similarity with Kliebard's query that

> One wonders whether the long-standing insistence
> by curriculum theorists that the first step in
> making a curriculum be the specification of ob-
> jectives has any merit whatsoever (Kliebard,
> 1970, pages 269-270).

Kliebard makes this query because while he realizes the key to Ralph
Tyler and behavioral objectivists in general is the clear formation
of objectives, he also realizes that Tyler's elaborate scheme for
determining objectives is really no more than an assertion that ob-
jectives ultimately originate in value positions. This is, of course,
to say so little about the process of selecting objectives, especially
when there are a variety of value positions, as to be virtually
meaningless.

The issue in contention here is that of objectives themselves.
In the history of Western thought there has been the long standing
tradition that the goals and purposes of man's activity must lie out-
side that activity; that life itself is a preparation for something
else. Around this "something else" there has existed a halo of
rationality, clarity, definiteness, intellectuality and abstractness;
in fact these qualities might be said to define the limits of the
theoretical as opposed to the practical. Educationally this has
meant that goals and ends have been pre-determined, either by God
for his subjects, or by the priest for his people, or by the teacher
for his students. Within this framework ends are drastically sepa-
rated from means; they are, as Guttchen has said and as Mill has

demonstrated, in a class by themselves. However, there are a number

of people in a ber of fields who are quite dissatisfied with this

general framework. For them ends need to be brought into a closer

and more integrative relationship with means. Thus in the writings

of Eisner, Kliebard, Kuhn, McDonald, Toulmin, etc. one can see echoes

of the model Dewey proposed as an alternative to Mill.

The Dewey model, such as it may be--for Dewey's ideas on ends and

means have not received the attention Mill's have, and hence don't

warrant the label "model"--is probably best expressed in the follow-

ing quote from Human Nature and Conduct:

> Our problem now concerns the nature of ends, that
> is ends-in-view or aims. The essential elements
> in the problem have already been stated. It has
> been pointed out that the ends, objectives, of
> conduct are those foreseen consequences which
> influence present deliberation and which finally
> bring it to rest by furnishing an adequate stimu-
> lus to overt action. Consequently ends arise and
> function within action. They are not, as current
> theories too often imply, things lying beyond
> activity at which the latter is directed. They
> are not strictly speaking ends or termini of
> action at all. They are terminals of delibera-
> tion, and so turning points in activity (page
> 207).

Dewey then goes on to say that many theorists agree in placing ends

beyond human activity, even though they disagree as to what those

ends are. Hence many critics of Mill and the utilitarians while

denying pleasure as the "outside and beyond" goal, nevertheless feel

it necessary to have some goal "to induce action" and in which action

will terminate. This, of course, is reminiscent of Tyler and other

behavioral objectivists who proclaim the value of such outside and
beyond goals, but side-step the issue of what those goals are, or
should be.

The problem, as Dewey sees it and as can be determined from the
above quote, revolves around the distinction between ends-in-them-
selves and ends-in-view. The ends-in-themselves (or fixed ends) view
assumes that ends are separate from, and both prior and superior to,
means. Thus "the relation of ends-means is unilateral, proceeding
exclusively from end to means." This means that all aims or purposes
are directed and controlled by the end, with only those aims that
coincide with the end having any validity. Such a concept of activity
gives the teacher, or the program planner, a certain moral superiority
that the participator in the activity never can have. Further,
Dewey says the setting up of prior ends, with the justification of
action as a means to that end, leads to narrowness. It leads to
narrowness because:

> Fixed and separate ends reflect a projection of
> our own fixed and non-interacting compartmental
> habits. We see only consequences which corres-
> pond to our habitual courses (page 215).

Dewey then goes on to give the example of generation after generation
of people being shown targets which they had no part in constructing,
and being continually urged to shoot; they would eventually gather
the notion that "the targets existed in order that men might be
forced to be active." But activity (including learning as well as

throwing or shooting) is natural to man; the targets (varying from generation to generation, or from individual to individual) are constructed and placed by man in order that he can do his activity better. Thus ends are "turning points in activity," not termini of activity.

Finally Dewey says that the doctrine of fixed or pre-determined ends: (1) diverts attention from the examination of consequences, and (2) hinders the intelligent creation of purpose. It does the former by emphasizing, not the ends themselves, but the degree of efficiency with which the ends are achieved. In short, the correlation is between the ends and the means, not between the ends and their consequences. In regards to the second point--the intelligent creation of purpose--Dewey says that such creation can occur only when the individual has the opportunity to formulate his own purposes, act upon that formulation, and receive the consequences thereof. But a fixed ends approach emphasizes not the process of creation, but rather the product.

All of this is reminiscent (to me at least) of Guttchen's point that the Mill model is essentially a production--or thing--oriented one; of R. S. Peters' remark that to be educated is not to have arrived at a certain place, but "to travel with a different view"; and of Eisner's distinction between defining an objective and establishing a direction. Dewey's ends-in-view framework, of course, is designed to do the latter. Ends in this sense arise out of natural

effects or consequences: they are the result of acts which at first

are just hit or stumbled upon, but which upon reflection are desired

for themselves. Thus ends become projected or probable consequences,

not removed from the activity in question, but turning points in

that activity. As Dewey says:

> Men shoot and throw. At first this is done as
> an 'instinctive' or natural reaction to some
> situation. The result when it is observed
> gives new meaning to the activity. Henceforth
> men in shooting think of it in terms of its
> outcome; they act intelligently or have an end.
> Liking the activity ... they not only 'take
> aim' ... but they find or make targets at
> which to aim. This is the origin and nature
> of 'goals' of action. They are ways of de-
> fining and deepening the meaning of activity.
> Having an end or aim is thus characteristic
> of present activity.

For Dewey ends are quite different, and serve a very different

function than for Mill. Whereas Mill sees ends existing outside

activity, Dewey's idea of ends as turning points in activity places

them integrally within the continuum of human experience. To de-

velop these ideas in a model then it is necessary first to explicate

Dewey's concept of experience, for it is within this framework that

he places his famous dictum that all ends are but means to further

ends.

A METHODOLOGY OF EXPERIENCE

Simply stated, Dewey's theory of experience is that in all

ordinary occurrences there is a certain quality which pervades the

situation, and which the individual first becomes cognizant of in a
non-cognitive manner. That is, the immediate or primary qualities
of an experience are felt or had; they are not intellectualized.
However, reflection is itself a natural trait and once the quality
becomes felt it is also then the subject for analysis and scrutiny.
This cognitive aspect of an experience is what adds depth and meaning
to the experience, transforming the situation from a mere occurrence
to an experience--in the sense of "Have I just had an experience!"--
and also laying the foundation for an increased quality when a new,
but similar, experience occurs. Thus a man sipping wine first has a
sensory awareness of the experience, either liking or disliking it.
After reflection, analysis, comparison and repeated tastings new
meaning is infused into the original experience. When he next tastes
a similar wine--no experience had can be exactly re-had--the quality
of that experience will be greater than the quality of the previous
experience.

In a sense this theory of experience is Dewey's complete cos-
mology; that is, his philosophy, his psychology, his educational
and social theory can all be placed within this framework. Educa-
tionally this means there is no end to education beyond itself, no
purpose to growth other than more growth, and every end itself be-
comes a means to a further end. Dewey illustrates this in his
chapter on "Aims in Education," wherein he describes his own con-
ception of aims, as well as his differences with the Mill model.

He says:

> ... the aim of education is to enable individuals
> to continue their education--or that the object
> and reward of learning is continued capacity for
> growth ... we are not concerned, therefore, with
> finding an end outside of the educative process
> to which education is subordinate. Our whole
> conception forbids. We are concerned with the
> contrast which exists when aims belong within
> the process in which they operate and when they
> are set up from without (Dewey, 1916, page 100).

When the latter occurs--when aims are predetermined and by others--

then some (notably the student or learner) will find their aims

"determined by an external dictation," and existing as a "means to

more ulterior ends of others." However, when they are not set up

from without then "they arise from the free growth of the individual's

own experience," and can truly be called personal.

For Dewey this point about the learner formulating his own

ends or aims is a very key one; it not only lies at the heart of his

subordination of teaching to learning (that is, more emphasis on the

psychological than the logical) but it also lies at the heart of his

concept of experience. Dewey sees learning as a natural and impor-

tant by-product of human activity; as such it is the activity, not

the learning, which provides the basic framework. If the human is

naturally inquisitive, reflective and organizing then the emphasis

in education should be on the patterns of inquiry, reflection and

organization, not on the products. Production, knowledge, learning

are but by-products of the active process of inquiry; and this

process of inquiry, since it is natural, cannot efficiently and

should not morally be determined by one for another. As Dewey says:

> From one angle, almost everything I have written
> is a commentary on the fact that situations are
> immediate in their direct occurrence, and media-
> ting, and mediated in the temporal continuum
> constituting life-experience. I have pointed
> out that one person cannot communicate an ex-
> perience as immediate to another person. He
> can only invite that other person to institute
> the conditions by which the person himself
> will have that kind of situation the conditions
> for which are stated in discourse. Even if
> this difficulty condition is fulfilled, there
> is no assurance that any one will so act as
> to have the experience. The horse led to
> water is not forced to drink (Dewey, 1939,
> page 540.

A system of education, then, based on an individual's personal ex-

perience should be one which allows the individual the opportunity

to develop freely those experiences within a social context. This

last phrase--develop those experiences within a social context--is

most important, for experiences do need to be developed: they

do not come into existence full-blown, and they do not receive

meaning in isolation from other people. The development of ex-

perience requires dialogue and discussion.

The challenge then is in creating an educational structure

wherein each individual can develop his own experiences. This

structure should not be so rigid and pre-planned that the indi-

vidual has little chance to do his own development, but neither

should it be so loose and flexible that development is not en-

couraged. In regards to the evils of a rigid structure Dewey has this

to say:

>The vice of externally imposed ends has deep
>roots. Teachers receive them from superior
>authorities; these authorities accept them
>from what is current in the community. The
>teachers impose them upon children. As a
>first consequence, the intelligence of the
>teacher is not free; it is confined to re-
>ceiving aims laid down from above. Too rare-
>ly is the individual teacher so free from the
>dictation of authoritative supervisor, text-
>books on methods, prescribed courses of study,
>etc., that he can let his mind come to close
>quarters with the pupil's mind and the subject
>matter. This distrust of the teacher's ex-
>perience is then reflected in lack of confi-
>dence in the responses of pupils. The latter
>receive their aims through a double or treble
>external imposition, and are constantly con-
>fused by the conflict between the aims which
>are natural to their own experience at the
>time and those in which they are taught to
>acquiesce. Until the democratic criterion of
>the intrinsic significance of every growing
>experience is recognized, we shall be intel-
>lectually confused by the demand for adaption
>to external aims (Dewey, 1916, pages 108-109,
>underlinings mine).

In regards to setting up a structure which allows, and encourages,

development from within, Dewey, of course, favors the scientific

method or what he called the creative use of intelligence. This

is essentially the formulation of hypotheses, the observation of

results produced in the light of those hypotheses, and the reformu-

lation of other hypotheses. Within this procedure the consideration

of probable consequences in relation to those actually produced, and

the consideration of various alternatives are both very important.

The individual learns not merely by planning, but by checking the plans made with the results produced; and a variety of alternatives not only gives a better base for comparison but also makes unexpected but often needed readjustments possible. Again as Dewey says-- in a very Schwabian type of phrase:

> Where only a single outcome has been thought of
> ... one only steams ahead toward the mark. Some-
> times such a narrow course may be effective.
> But if unexpected difficulties offer themselves,
> one has not as many resources at command ...
> (page 103).

The foregoing remarks about creating educational procedures based on the development of experience where ends arise within the activity, and where actual consequences are continually being checked with planned or probable consequences brings to mind Thomas Kuhn's observations about the nature of science. Kuhn, in his book The Structure of Scientific Revolutions, points out that textbooks present the progress of science as orderly and cumulative; that is, one disclosure leads inevitably and logically to the next. However, Kuhn says, such an ordering is an ex post facto ordering and in reality scientific progress is a very halting and stumbling thing, filled with periods of crisis and doubt, and finally based more on personal commitment than on any other one factor. The prime example Kuhn gives is of Copernicus' commitment to the harmony and beauty of neo-Platonic mathematics. According to this commitment the epicycles of Ptolemy were too unharmonious to be real, and so Copernicus made

other postulates--notably a moving earth and a stable sun. Coperni-
cus' immediate successor, Kepler, shared his commitment but those
who next followed were far more interested in the results of Coper-
nicus' and Kepler's theories than in the commitments which caused
those theories to come into being. Thus they took these original
ideas and tested them under a tremendous variety of circumstances.
In these testings the original theories were changed, modified,
altered and continually reworked. It is in this stage, between
Galileo and Newton, when an idea was accepted but also tested under
new and novel circumstances that Copernican astronomy made its
biggest advances. The point that Kuhn makes from this is that science
makes progress _from_, but not necessarily _toward_.

> The developmental process described in this essay
> has been a process of evolution _from_ primitive
> beginnings--a process whose successive stages are
> characterized by an increasingly detailed and re-
> fined understanding of nature. But nothing that
> has been or will be said makes it a process of
> evolution _toward_ anything (page 169).

This idea could easily be applied to Dewey's concept of personal
experiences. Growth in such experiences proceeds from commitment out
into the complexities of the subject being studied: a move not
toward a pre-determined goal but from the simple to the complex, from
the gross to the refined, from the psychological to the logical. This,
however, is not the method of the Mill model nor of behavioral objec-
tives. The teaching of subtraction to elementary school children can
be taken as a case in point. There the usual method is for the teacher,

or textbook writer, to choose a particular way and then have the child drilled in as many examples as possible. But it would be possible for the child to devise his own method and then test that method in a variety of cases. Over a number of years--say second grade through fifth--the class, or individuals, would develop a number of methods, each one applicable to certain cases, but no one universally satis- factory. Indeed this is just the case: in a decimal system no one method of subtraction works efficiently in all cases: ones, zeroes and nines all cause troubles. Here the student would not only give a facility with subtraction, but he would also gain insight into the logical complexities of algebra and number theory, all through the development of his own experiences. The same case can be made for the reorganization of those studies such as literature, composition and history which involve a greater reliance on value-judgment. In place of wrong answer difficulties, one could substitute peer group opinion and consensus. All of this is a fine lead into Schwab.

In his most recent writings, notably College Curriculum and Student Protest (1969) and The Practical: A Language for Curriculum (1970), Schwab has been advocating the development of college cur- ricula in accord with the structure of the practical rather than with the structure of the theoretical. The Deweyan distinction is essentially a plea for making active, particular problems the center of inquiry rather than the "construction of taxonomies," "pursuit of global principles," and "search for stable sequences."

Schwag shares with Dewey a basic distrust of the theoretical as an
ex post facto reconstruction; hence, although such a reconstruction
is logical and orderly, it is also quite irrelevant to the actual
processes of inquiry that brought about the result. As Schwab says:

> The subject matter of the theoretic is always
> something taken to be universal or extensive or
> pervasive and is investigated as if it were con-
> stant from instance to instance and impervious
> to changing circumstances. The most obvious
> examples are: mass, equivalence, time, igneous
> rock, homo sapiens, electrons etc. The subject
> matter of the practical, on the other hand, is
> always something taken as concrete and particu-
> lar and treated as indefinitely susceptible to
> circumstance, and therefore highly liable to
> unexpected change: this student, in that
> school, on the South Side of Columbus, during
> the mayorality of Ed Tweed etc. ... This is to
> say that theoretic problems are states of
> mind. Practical problems, on the other hand,
> arise from states of affairs in relation to
> ourselves (1969, page 3).

Schwab would like to make all education--especially formal schooling--
practical in the sense of dealing with these particular and personal
states of affairs. However, he--again like Dewey--does not see the
immediate experiences of the student as valuable without development.

The method of development he advocates is that of putting the
student in very direct contact with the problems and practices with-
in a field. Towards this end he advocates that students sit in
(listering en mass) on faculty meetings, board of directors meetings,
scholarly seminars, etc. He advocates that they be given varying
degress of responsibility--including heading committees, marking

papers, drawing up courses, etc.--and be required to experience the
results of the actions they take; their responsibilities should be
neither sham nor token. Finally he advocates that their courses be
structured so that they come into contact in a personal manner with
conflict, compromise and complexity. What Schwab wants to do here
is create a sense of community where ideas and personality will come
into open conflict, but where compromise will also emerge; this he
feels can be accomplished if education divorces itself from rigid
principles and deals eclectically with particular problems. Once
students realize the complexity of problems and once administrators
and faculty are held accountable to the general community for both
their actions and their stated thoughts then Schwab believes such
compromise will become natural. More importantly Schwab believes
compromise, that is community participation and decision, to be
the essential ingredients in future social progress.

Throughout all of Schwab there is a definite emphasis on edu-
cation (schooling) as the development of experience, not as the place
or means by which information gets transferred from one to another.
In fact information itself is but a means to practical decision
making; and hence education should be so structured that decisions
can grow from personal and practical experiences. Within such a
concept of education ends cannot be imposed from the outside but
indeed must emerge from the actual process of decision making.

SUMMARY AND CONCLUSION

In this paper I first analyzed some of the issues surrounding behavioral objectives and then placed that analysis and the issues involved within the larger framework of ends separated from means (the Mill model). While there is a rather natural rationality to this model Dewey showed deficiencies in it and presented another model, that of ends arising from within activity. I then used this framework of Dewey's to develop an alternative to behavioral objectives, an alternative in which the goals, activities and behaviors of the student are not determined for him, but rather by him. In this model it is the process of experiencing, in the sense of both doing and receiving the results of doing, which becomes focal.

Indeed there needs to be more work done on this model than I have presented here. For one thing Dewey's concept of inquiry and his theory of knowledge are both important, but too complex for this paper; for another a more detailed study of ends and means needs to be undertaken; and for a third there needs to be developed a stronger connection between Dewey's concept of experience and the theories of modern philosophers of science. However, it appears to me that even with these projects unfinished it is possible to see within this paper the outlines of a very real and very viable alternative to behavioral objectives. If a new era in curriculum is to occur, it may well be along the lines presented here.

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