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Assessing Possible, not Just Intended Outcomes."

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This paper comments on the thesis that cognitive style and affective reaction variables ought to be taken into account in the evaluation of instruction. Observations are expressed as questions relating to cognitive style; Which style is it better for an individual to have? Can cognitive style be adapted to fit a particular learning task? Can it be shaped by another person? How can it be measured? In what way does it aid in estimating gain in the learning efficiency of pupils? Are cognitive styles relatively independent or do they complement one another? The answers to such

questions are considered essential before decisions are made regarding the role of cognitive styles in the instructional program. A related document is EA 002 473 (MLF)

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# COMMENTS ON PROFESSOR MESSICK'S PAPER ENTITLED "THE CRITERION PROBLEM IN THE EVALUATION OF INSTRUCTION: ASSESSING POSSIBLE, NOT JUST INTENDED OUTCOMES"

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#### Paul Blommers

In spite of my sheltered life as a statistician rather than specialist in measurement, I do not profess to the doctrine of the "average pupil." Further, I am fully cognizant of the importance of the interaction issue, although after more than 25 years of statistical consulting with staff and students and serving on countless doctoral examining committees, I cannot recall a single instance of a completely reversible or negative type of interaction.

I find little to quarrel about in Dr. Messicks's comments concerning the role of value judgments in both the design and evaluation of instructional programs. I could accept the view attributed to Dyer that "it may not be possible to decide what the objectives ought to be until one has first measured the outcomes." The possible validity of this view, it seems to me, stems largely from man's failure to appreciate or anticipate all the implications of what I shall loosely call his educational decisions, so that the very results of his evaluative efforts may first call his attention to his errors. These judgments must reflect the goals of education in American society; this is no platitude regardless of which dictionary meaning is to ascribed to platitude.



But while supporting Dr. Messick, these statements primarily are prefatory to his thesis, which, as defended in his paper, is that cognitive style and affective reaction variables ought to be taken into account in the evaluation of instruction. It applies largely to the role of cognitive style in the evaluation of instruction. While affective variables are included in his thesis, their value is treated as more or less axiomatic. Perhaps this is a sufficient and proper treatment, but somehow they do not seem quite to belong with cognitive style. I doubt, for example, that the interaction argument is applicable to them, and it is difficult to conceive that enhancing curiosity to a greater or lesser degree could operate in any way save to enhance learning to a greater or lesser degree, which is applicable to all types of individuals. It would not apply to all types of individuals to an equal extent, but I doubt the existence of a type of individual who ought to be isolated and shielded from activities which enhance curiosity-whatever such activites may be. On the other hand, I recognize the pertinence of the value judgment argument. Were I a fascist educationist I would certainly restrict the development of curiosity to a limited set of situations; and if I thought that curiosity once developed might be a general sort of phenomenon, I would not be likely to support its development at all--indeed I might rather seek ways of stifling it.



While I have no strong objections to the way Dr. Messick treated affective variables, it does seem to me that his argument is better limited to cognitive styles. This brings me to the final observations regarding his thesis as it applies to cognitive styles. I shall express these observations in the form of questions which are not intended to be rhetorical. I do not know their answers, but answers may exist or may be found.

First, taking a given cognitive style, say articulated vs. global, which is it better for an individual to be? If, as Dr. Messick's careful review of the literature appears to suggest, it is better to be articulated for some types of tasks than for others, then I ask for what types of classroom learning tasks specifically is it better to be articulated and for what type is it better to be global? In asking for this specificity I stress the words "classroom learning tasks."

Second, is it possible for a person to shift his cognitive style to optimize his method of attack upon the particular classroom learning tasks confronting him at any given moment?

Third, can I possibly shape his cognitive styles, and if so, by what means? Given this knowledge, is it desirable to do so?

Remember that in the case of field independence vs. dependence I might make a recluse of him in one way, or an alcoholic in another. I say might because no knowledge about cause and effect exists for these variables.



Fourth, to evaluate efforts to shape cognitive styles, or at least to take them into account in teaching, how do I measure them? Will it cost much to do so, and am I apt to introduce any negative side effects, such as the invasion of privacy?

Fifth, how do I estimate gain in the learning efficiency of my pupils by giving attention to cognitive styles?

Sixth, are cognitive styles relatively independent? If, for example, I somehow make a pupil more field independent am I apt, at the same time, to make him a narrow categorizor, or an intensive scanner? Do these styles complement one another?

Answers to such questions are essential before decisions can be made regarding the role of cognitive styles in the instructional program and in the evaluation of the instructional program. To advocate attention to cognitive styles, while not finding answers to such questions, is not necessarily wrong, but perhaps a bit premature.

I definitely do not wish to discourage further pursuit of Dr. Messick's proposals. As a graduate student in mathematics I remember reading Bishop George Berkeley's indictment of the notion of the square root of a negative number, a notion originally conceived as a purely philosophic extension of the number system, but one which has since come to enjoy great practical value. In this respect, I do not want to be Berkeleian. As of now, I am not yet ready to become an active disciple of taking cognitive styles into account in either the instructional program or its evaluation.

