Most efforts at theory building create valuable thought, reactions, and many questions. The major question posed by Kane and Marsh is: Where are education's theorists? Or, in their own words: "Why is it that Hosford's book (1973) on a general theory of instruction is the only detailed volume to date?" Why is this the case?

Although we periodically admit that theory building is the most practical of all human endeavors, theory has taken a back seat to practical problem solving for long periods of time in the history of education. Scientists and mathematicians enjoy well-defined disciplines with a history of the proven value of theory and research. The entire engineering profession has developed to apply the theory and findings of the pure scientists. Why, then, the lag in the application of instructional theory?

Unlike science and engineering, a tremendous imbalance exists in education between theory and application. In education the number of theorists and pure researchers is small; few devote their energies and intellect to the theoretical development of basic instructional processes. Some would scoff at education being considered a discipline. I do not, and Kane and Marsh apparently do not.

Within this context, several points in their article need rebuttal or, perhaps, clarification.

Kane and Marsh claim that my theory includes elements that would be very difficult either to prove or disprove such as: "The silent curriculum gains momentary definition during teacher-learner interactions" (Hosford, 1973, p. 99). Surprisingly, Kane and Marsh selected an element which relates directly to much research since 1973. For example, Aspy and Roebuck (1977) have dramatically verified my hypothesis that:

The silent curriculum (that which is created in the process of instruction) becomes less "silent" and more reliable with increased teacher knowledge of and practice in interaction areas (Hosford, 1973, p. 153).

My current definition and discussion of the silent curriculum (1980, pp. 45, 46-50) have also motivated my own teacher evaluation research during the past seven years. Hence, I now view the silent curriculum concept as one of the most valuable elements presented in my Referent Theory of Instruction. It has been tested and confirmed by reputable research and has motivated much related research. Perhaps, then, those elements of an instructional theory that appear to be most difficult to test may often prove to be the most valuable.

Second, Kane and Marsh state that: "Furthermore, he [Hosford] suggests that his postulates are value-free, yet takes a definite child-centered, nondirective teaching stance in describing many of them." They cite no postulates to support their statement. Yet, among my postulates are the following:

- Much power of control over learner activities resides with the teacher (1973, p. 100).
- Good teachers make almost all activities serve vectors favorable to curriculum achievement (p. 100).
- Indirect influence is best for planning, clarification of goals, and striving for high level concepts; direct influence is better for other scholastic objectives. Knowing when to be direct and indirect is just as important as having the skill to be either at will (p. 101).

Furthermore, Hypothesis Four states:

- The most valid instrument for measuring teacher effectiveness can only be one that records the degree of involvement of every learner in the room throughout a fair and adequate time sample (p. 143).

The entire discussion of Hypothesis Four (pp. 143-146) points to the effective teacher as the one who puts learners in contact with the curriculum and keeps them there most of the time. This hypothesis relating teacher effectiveness to learner time-

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on-task has been strongly supported by research reported in recent years by Rosenshine and Berliner (1978), Medley (1977), and Brophy (1979), for example.

The above discussion reflects a directive teaching stance more than a nondirective stance. As to the value-free and child-centered assertion, the problem may be in what those words convey to each individual reader. Whether a writer is left or right of center on any given continuum depends on who is at center. In this case it is irrelevant. A careful study of my theory should show that any preference between child- and teacher-centered instruction will depend on the context, purpose, and objective of the instruction.

I commend Kane and Marsh for their effort to integrate criteria for a general theory of instruction and I offer only one caveat. Their fourth and fifth characteristics which call for a hierarchical order of elements presented in a pyramid-type structure should not be considered as essential criteria. They may certainly be desirable, but they are likely to prove impossible. The value of economically packaging instructional knowledge lies not in the immediate comprehension of the meaning of the entire package, but rather in the logical hypotheses generated by the interrelationships of limited numbers of its elements. A hierarchical arrangement may not be an important characteristic at all. Indeed, any attempt to force a hierarchical appearance may only damage the theory, robbing it of its greatest potential.

Applause Deserved
Kane and Marsh deserve applause for calling attention to the need for increased activity in the arena of instructional theory building. A good theory generates guesses that someday, somewhere, will be subjected to testing and then rejected, modified, or accepted as fact. Without theory our learnings derive from the plodding process of random experimentation. Testable conclusions generated from sound theory point our way to non-randomized research which can rapidly improve our instructional and supervisory skills.

Instructional theory and practice must begin to complement each other just as science and engineering do. And they will—as larger numbers of educational practitioners are actively directed by sound theory and research.

References