

Self-Concept Research: The Gap Between Social Theory and Educational Practice

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This inquiry focusses upon recent concerns with student self-concept as an illustration of the difficulties in relating social science research to educational policy and practice. Early research into self-concept is reviewed, and the subsequent impact upon schooling is traced. A more critical review of the research tradition and its recent development then reveals significant gaps in understanding between science and pedagogy. Current observations of the school system suggest that these gaps have in turn led to failures in reform practices. Finally, the worlds of the teacher and the scientist are contrasted, and the possibilities for better communication are explored.

Cette recherche porte sur une question dont on se préoccupe depuis quelque temps, à savoir: le concept de soi chez l'élève comme illustration des difficultés de lier la recherche en sciences sociales aux politiques et pratiques d'éducation. On fait d'abord une revue des premières recherches portant sur le concept de soi et de leur influence dans le domaine de l'éducation. Un examen plus critique de cette même tradition de recherche et de son évolution récente révèle un sérieux hiatus quant à la compréhension entre la science et la pédagogie. Des observations effectuées en milieu scolaire semblent indiquer que ces incompréhensions ont donné lieu à certains échecs au plan des réformes pratiques. Enfin on met en opposition l'univers de l'enseignant et celui de l'homme de science et l'on explore les possibilités d'une meilleure compréhension entre eux.

The past two decades have produced a flood of research, in sociology, psychology, and education, relating student self-concept to school performance variables. This paper will explore the thesis that educators have largely misread and misapplied this growing body of social scientific inquiry into self-concept, deriving both inappropriate policies and classroom practices.

SELF-CONCEPT: THE EARLY RESEARCH

While the enthusiastic application of self-referents to educational problems is a recent phenomenon, there is a well-established research tradition in social science. Central to this theoretical tradition has been the view of selfhood as an ongoing reflexive process in which the actor is both subject (I) and object (me), taking the role of others in order to view and evaluate behaviors. Further, it is basic to this perspective that behavioral alternatives are projected and appraised in terms of both images of self and imagined responses of reference groups. To the extent that the

actor develops a more or less stabilized self-image, this becomes an important determinant of his behavior: The actor responds not to some objective situation, but to a motivational context in which self-conceptions and the internalized valuations of others figure importantly.

The early work of Wilbur Brookover (1962, 1967) is most often cited as exemplary and pivotal in the application of self-concept theories to learning. Brookover and his colleagues stated their basic hypothesis in the following terms:

It is hypothesized that the child learns what he perceives he is able to learn. It is further hypothesized that his self-perception is acquired during interaction with significant others who hold expectations of the student as a learner. (Brookover, 1962, p. 3)

The present wide and perhaps uncritical acceptance of such a thesis tends to blind us to its initial ideological and practical import, of which the authors were fully aware. Two major structural challenges faced North American school systems in the early 1960s. First, there existed the demand for democratization and an upgrading of the educational attainments of socially and economically disadvantaged groups. Second, there appeared to be a pressing need for investment in human capital, for the creation of a more highly skilled and motivated labor force. The old presuppositions and approaches to learning offered little promise of success in these endeavors: Native intelligence or endowed aptitudes placed a seemingly firm ceiling upon the broad upgrading of educational attainment. In contrast to this fixed-ability model of attainment, with its concomitant emphasis upon the testing of mental abilities and aptitudes (Singh, 1977), the growing attention to social psychological determinants of school performance offered a broad new avenue for intervention and amelioration. If underachievers were merely acting out their own and others' prophecies of failure, then appropriate manipulation of the school setting and its feedback system would make it possible to alter self-conceptions and the consequent levels of performance. Student self-concept thus became the critical intervening variable between the expectations of others and the student's levels of aspiration and attainment.

If self-concept is subject to modification, as theoretically postulated, and if modification in the images and expectations which others hold for the student takes place, then significant enhancement of achievement may be possible. (Brookover, 1962, p. 76)

Not only was the postulation of created as opposed to inherited differences more palatable as an explanation of variability in achievement, but it opened the way to planned intervention. Brookover, like most other researchers in this decade, had found relatively high positive correlations between academic self-concept and grade point averages even with intelligence controlled ($r = .42$ for males, $.39$ for females). A growing body of data seemed to offer solid empirical support to the self-concept theories.

As educators and policy-makers began to take note, the social scientists were themselves moved to proselytize more openly and actively. In a volume designed primarily for teacher education Brookover and Erickson argued that "a significant number of students are being needlessly hindered by low self-conceptions of academic ability. . . . strategies must be developed for enhancing the self-conceptions of ability for a larger proportion of our students" (Brookover & Ericson, 1969, p. 106).

In a volume entitled *Educational Implications of Self-Concept Theory*, Labenne and Greene (1969) included a section labelled "Students Become What They Are Thought to Be," in which the authors argued that students behave in accordance with the perceptions of their teachers, "incarcerated in . . . pockets of self-concept" (Labenne & Green, 1969, p. 32).

The awesome power with which teachers were endowed by such statements reflected mounting belief in a corresponding ability to effect changes in the level of student motivation and performance. The popularity of Rosenthal and Jacobson's *Pygmalion in the Classroom* (1968) contributed strongly to the credibility of self-concept manipulation; the book caught the spirit of the times and became a symbol of the new pedagogical concerns.

Group differences as well as individual variation were approached now from the same theoretical perspective. Disadvantaged minorities were redefined as victims of the school's socio-cultural environment and teachers' prejudice:

Negro students . . . are faced with teachers who expect them to be poor students, to be unmotivated, and the like. As a result of the students' acceptance of this label they confirm their teachers' expectations by behaving poorly. Thus the prophecy of poor achievement fulfills itself. (Guskin & Guskin, 1970, p. 109)

The passages cited above are merely samples from an enormous body of literature which emerged between the early sixties and the mid seventies. These, board-level studies, teacher manuals, textbooks, workshops, and professional development conferences reiterated and embellished the themes established above. Educators had embraced the new theories and "scientific" findings with energy and confidence.

EDUCATIONAL POLICY AND IDEOLOGY

How did self-concept research affect the policy shifts and pedagogical reforms of this period? Many concerns, both practical and theoretical, provided the impetus for the reforms of the sixties, and the move into student-centred classroom practice. At the most general level, the whole educational ideology shifted from mastery of an external technical and social environment to concern for introspective, unique development aspects. The personal character of learning came explicitly to the fore.

All our policy documents and curricular guides paid particular attention to the goal of cultivating both self-awareness and a sense of self-esteem. In part, this was an autonomous educational goal, viewed as a philosophically desirable outcome of the schooling process. In part, however, self-concept enhancement was sought as a means to higher levels of motivation and achievement.

Children need to feel that they are accepted and that their efforts are appreciated. Failure in our society too often takes the form of a public stigma and unfortunately the loser in the early years of school acquires an image of himself as a failure, which becomes deeply ingrained in his psyche. (Hall-Dennis, 1968, p. 56)

Beyond informing a general philosophy of education, assumptions about the import of self-concept entered very specifically into six areas of change having a direct impact upon the classroom.

First, the democratic permissive classroom and the relaxation of traditional discipline was approached, in part, as a means to self-concept enhancement. "Students who misbehave generally have a negative self-regard . . . People tend to behave in ways consistent with their self-concept." (Labenne & Greene, 1969, p. 107)

Second, evaluation practices were reassessed from the perspective of subjective meaning and motivation as opposed to earlier interest in their objectivity, validity, or utility in sorting and selecting. Citing the persuasive Rosenthal (1968) study, the Hall-Dennis report emphasized the growing view that grades were a primary means by which teachers communicated expectations rather than valuation of accomplishment:

The children who most need the incentive of good marks are least likely to get them, even when given for effort rather than achievement. . . . One cannot help but suspect that some children are victims of self-fulfilling prophecies made by teachers prejudiced by their stereotyped judgments of children. (Hall-Dennis, p. 57)

Thirdly, in the corollary area of promotion practices, continuous progress was endorsed in large part because of the presumed effects of failure upon self-concept, and hence upon subsequent motivation and performance.

When the student views nonpromotion as a degradation and impugning of his abilities, he is likely to see himself as one who can't perform. The reinforcement of this self-concept does not promise improvement. Rather, it can be expected to create new problems. (Labenne & Greene, 1969, p. 75)

A fourth quite specific outcome was felt in the area of counselling. As this field shifted in emphasis from the vocational to the personal, concern for student self-image heightened. A great deal more attention was given to "hotting up" students and to averting drop-out than to the older concern for "cooling out" students at the limits of those abilities which had earlier been assumed to be fixed (Clark, 1960).

The fifth identifiable area of impact was that of streaming or ability grouping. In particular, the strategy of self-concept enhancement was invoked to support the reintegration of special education classes. Hall-Dennis deplored "labelling the child and making him think that he fits the label" (Hall-Dennis, 1968, p. 106).

Finally, self-concept theories had an impressive effect on classroom materials, not only upon those designed for self-awareness or self-concept enhancement (Anderson & Miner, SRA, undated), but upon the scrutiny of all textual materials for their latent impact upon ethnic, religious, or sex minority student self-images.

By way of an aside, it is interesting to note that, initially, all these changes enjoyed apparent success, because in many instances the usual criteria of success such as grades, student retention, promotion rates, or indices of student satisfaction were, in fact, the variables now being manipulated experimentally.

Thus far we have observed that early applications of self-concept theories to educational research offered promising new solutions to the timely problems of raising achievement and retention rates. In turn, we have sampled evidence that the self-concept theories were employed, albeit not alone, to substantiate virtually all the key elements of the massive reorientations of policy and pedagogy which took place in the late 1960s. Now we must ask a most disturbing and consequential question: Did the policy-makers and educators correctly understand and interpret this research which was so basic to their decision-making?

What we can do, by way of a reply, is invite the reader to consider the following set of problems which clearly indicate wide gaps between scientific self-concept research and the emerging self-concept ideology in education. These problems were not well articulated in the early and enthusiastic research cited above, but became more evident as inquiry evolved through the next decade. We will consider six areas: (a) problems in measurement, (b) causal modelling, (c) unconscious motivators, (d) possibilities for intervention, (e) general vs. specific self-concept, and (f) age-linked learning.

By way of caution, the reader should be aware that any complete review of the very extensive research literature is far beyond the scope of a single paper. What follows is necessarily selective and aims primarily at identifying key issues and trends.

THE EVOLUTION OF SELF-CONCEPT RESEARCH: EMERGING PROBLEMS

Problems in Measurement

Most of the researchers writing about self-concept have warned of the dangers of reifying a construct which is hypothetical and purely utilitarian. To the working scientist, a self-referent construct is an inferred

postulate: a reflexive process implied by some set of directly observable behaviors, verbal or otherwise. Thus is the stage set for the critical problem of measurement: There are as many observable indices as there are strategies for observation, interview, or self-report, for example. The research into self-concept has been developed with a wide variability in both type and quality of measurement procedures. Each procedure typically yields somewhat divergent results. In turn, this indicates either considerable imprecision in measurement (unreliability) or measurement of divergent rather than identical phenomena (invalidity).

Wylie (1974) has provided a very extensive monograph devoted entirely to a review of measurement and method in self-concept research. The findings are pessimistic indeed: Wylie concludes that most current studies involve measurement instruments "completely unvalidated for their purpose" (Wylie, 1974, p. 324).

Measurement is not some trivial, technical matter to which those applying self-concept research need not attend. It is critical. There remain valid questions as to the utility of postulating such hypothetical self-referent constructs in the first place, and as to the possibility of ever measuring them satisfactorily. As researchers whittle patiently away at these larger problems in piecemeal fashion, their disclaimers and methodological cautions must be read most earnestly. For the social scientist, these problems lie at the core of the problem, not the periphery.

In this regard, attention to the terms used by researchers is most illuminating. Educators frequently use such labels as self-image, self-concept, self-awareness, or self-esteem in a univocal way. Scientists, on the other hand, generally mean something quite specific by each term. Although there is little unanimity among researchers, most attempt definitions which distinguish the descriptive (image) and evaluative (esteem) components. Throughout this general review, we shall use terms such as image, awareness, or perception to refer in a general way to the descriptive component, whereas esteem, assessment, feeling, or concept will, following convention, imply a stronger component of evaluation.

Causal Modelling

When Brookover discovered that academic self-concept and grades remained solidly correlated even after the effects of intelligence had been partialled out, he argued that self-concept of ability is a significant factor affecting achievement (Brookover, 1962, p. 42). Repeated empirical evidence for the existence of such a relationship has led many educators to the same inference.

There is a gap here, however, in meaning and in context. When the statistical analyst speaks loosely of one variable affecting another, he often refers only to an artificial or mathematical effect produced by the

frequently arbitrary designation of variables as dependent or independent. Correlation does not imply causality. Thus cross-sectional data showing self-concept to be related to achievement by no means tell us that the former is the cause, in any sense, of the latter.

To a large degree research examining relationships between academic achievement . . . and students' self-concept has been presented in a form that suggests causality. Some researchers imply that self-concept is a fundamental determinant of academic performance. Others hold the opposing view, that achievement is a prominent determiner of self-concept. The recent upsurge of humanistic philosophies of education has shaded these interpretations of causality, favouring one directed from self-concept to academic achievement. (Marx & Winne, 1975, p. 30)

To the causal alternatives noted by these authors, one may add the possibility of accounting for some part of the observed correlations by identifying a spurious component. This might well result from the causal effect of family neighborhood, class, or other variables upon both self-concept and performance. Researchers have generally been very cautious about reporting their findings in causal terms. The great bulk of empirical inquiry has so far yielded only descriptive evidence of modest correlations, which in turn lend themselves to quite divergent causal meanings. Moreover, the inference of strong effects drawn by teachers or politicians is largely gratuitous. Marx and Winne, in the conclusion to their correlational analysis of self-concept and achievement for a lower class black population, argued that the observed causal relationship was a weak one, and that the strategy of bolstering achievement through self-concept enhancement may be "misdirected" (Marx & Winne, 1975, p. 31).

A second problem surrounds the question of the type of causality under discussion. From the beginning, self-concept was hypothesized to be a necessary cause, but not a sufficient one in relation to achievement. As Brookover discovered, virtually all high achievers had relatively high self-concepts, but not all those with high self-concept had high performance levels (Brookover, 1967, pp. 12, 46, 94, 95). If self-concept does prove to be such a "threshold variable," then elevating student self-concept alone would prove inadequate to the task of raising educational achievement levels. Indeed, there is the danger of raising expectations and motivations beyond certain levels of ability, endowed or acquired. Belief in one's capabilities may be necessary as a basis for the acceptance and pursuit of goals: alone, it may well prove insufficient for attainment.

The most recent causal investigations have employed path analytic models, in which relationships among a set of variables are decomposed to provide a causal mapping. Any comparison of the various models is bedevilled by differences in the selection and measurement of the variables.

Following Brookover, Gilbert (1977) interposed self-concept between

mental abilities and academic achievement, finding that the major effects of background factors such as class or ability were mediated by this variable. Self-concept also showed a substantial influence upon the students' levels of educational and occupational expectation.

Somewhat parallel findings were the outcome of research conducted earlier, in Newfoundland, by Bulcock (1975). Taking educational aspirations as the major dependent variable, this researcher found that self-concept was second only to academic program in its total causal effects. Moreover, self-assessment intervened in the effect of prior home and school background variables.

By contrast, a number of recent researchers (MacKinnon and Anisef, 1978; White, 1976; Wilson and Portes, 1975) have constructed models in which self-concept is viewed as dependent upon academic achievement, as well as both objective factors and self-report of reference group assessments. In addition, the Wilson and MacKinnon models move on to explain attainment (longevity in schooling) as the ultimate dependent variable.

Contrary to the expectations raised by Brookover's work, all three models demonstrate academic performance criteria (grades) to be the most important in determining self-concept, more important than either "objective" factors such as class or mental ability, or "subjective" factors such as reference group assessments. MacKinnon and Wilson differed in their findings regarding attainment: The former concluded that self-concept was an important mediating variable whereas the latter argued that "self-assessment appears to be only a by-product of the ability variables, interesting perhaps in its own right but not a systematic part of the causal process of status attainment" (Wilson & Portes, 1975, p. 357).

The divergence of findings with even the best methodologies is partly a function of measurement and population differences. In part, however, it stems from the limitations of path models. Most current models are recursive, which is to say that they exclude, by definition, reciprocal causality and feedback loops. If achievement, self-assessment, and goal setting are mutually influential over time, then reciprocal causality is precisely what must be investigated. Further, the exploration of data with path modelling provides for no unique mathematical solution. The apparent causal implications are therefore to a large extent a function of a priori decisions by the researcher on the placement of sequencing of his variables. This is particularly so when the data are, in fact, cross-sectional rather than longitudinal.

To sum up, there is a growing body of evidence, albeit far from conclusive, which suggests that self-concept is as much a product of performance as a cause. In any case, as more sophisticated models are introduced the effects of self-referent variables seem to be substantially reduced in both size and theoretical significance.

Unconscious Motivators

Research in self-concept has, perforce, relied heavily upon self-report of self-images and self-feelings. This has implied a strongly rational view of the actor: Behavior in any situation flows from the way in which the actor defines that situation.

By contrast with the conscious rationalism expressed in this symbolic interactionist position, strong alternative research traditions in both psychology and sociology have placed greater emphasis upon unconscious or affective motivators. Theorists such as Marx, Freud, and Pareto have viewed much of the individual's cognitive mapping as rationalizations of behavior rather than rationales for behavior. Such an approach would explain, equally well, those correlations which do exist between self-reported beliefs and behaviors, but would challenge the viability of any causal intervention through self-concept modification.

The Possibilities for Intervention

As early as 1962, Brookover had argued that the real test of his hypotheses would indeed be a longitudinal experiment designed to manipulate the feedback from significant others within the school setting, in order to enhance performance levels through the intervening variable of student self-concept. By 1967 Brookover had completed several such projects and his students were engaged in numerous others. Three different experiments attempted to raise student self-concept and academic performance (grade point average) through (a) parental influence, (b) intervention of a university "expert" in the school setting, and (c) the activity of school counsellors. The research followed a cohort of students through four years of secondary schooling. And the result? "There is no evidence that the hypothesized effects occurred after the termination of the experiments" (Brookover, 1967, p. 137).

Although the highly transient effect of parental intervention showed some promise of success (Brookover, 1967, p. 147), the "experts" had no effect, and the experimental group worked on by counsellors actually tended toward greater insecurity and lower grades.

Interestingly, the very theories which legitimated Brookover's research might also have been used to predict the ineffectiveness of intervention tactics. Interactionist theory posits a very diffuse and subtle process of social feedback, in which primary (familial, personal, warm) relationships are among the most significant channels for meaningful and affectively sanctioned messages concerning the "self." The school is a secondary setting in which the student, with advancing years, increasingly identifies and acts out the more formal and depersonalized relationships with functionaries in the education bureaucracy. Even a teacher who is close to a student, enjoying respect and trust, has a relatively circumscribed sphere of interaction with the student, over a fairly short portion

of the life span. Theory would predict that self-concept would be much more responsive to long-term familial and peer evaluation, often communicated in very subtle ways, than to the contrived and transient efforts of a single organizational setting such as the school.

Another important theoretical concern is the question of vicarious typing or self-labelling processes. The student learns well the sorts of labels and evaluations appropriate to particular behaviors. He has access to an objective range of behaviors with which he may identify, irrespective of feedback from teachers, for example. If the pupil observes that all his classroom peers can read certain materials or perform particular mathematical operations, while he alone cannot, then he may apply the label of "slow learner" or "dummy" to himself, even where others continue to express conflicting expectations.

The school invariably entails the presence of a large peer group within which some elements of invidious comparison and ranking are possible on the basis of directly observed differences in skill at such valued activities as reading, writing, speaking, or social and athletic participation. Access to peer standards and subtle peer evaluation offers a more abiding and pervasive form of feedback concerning the self than any which can be manipulated by the teacher.

In sum, far from predicting an obvious and effective avenue of intervention, both our theory and our research experiences suggest that it will be very difficult to override prior and ongoing feedback processes by the contrived manipulation of expectations within a single organizational setting.

General vs. Specific Self-Concept

In one area, a consensus among researchers does seem to be emerging: The necessity of parcelling out quite specific aspects or "dimensions" of self-concept for investigation. While educators have become increasingly interested in "global" notions of positive self-concept or self-worth, as a prized goal, researchers have progressively abandoned such a variable in favor of very specific measures. Each of us has a number of capacities which call for varying images and estimations of worth. A pupil may view himself quite differently in the roles of scholar, athlete, or dating partner. Recent evidence suggests that some dimensions may vary inversely: Marx and Winne (1975) found that as academic self-concept came to be viewed more favorably, social self-concept became less positive, and vice versa ($r = -.36$). Moreover, measures of general self-concept or self-esteem have consistently yielded small evidence of relationship with either the specific dimensions or academic performance criteria.

At the conclusion of an early but thorough investigation involving both general and specific measures, Borislow (1962) concluded that "the

findings . . . do not support general self-evaluation, based on the global concept of personality adjustment, as a factor in investigating nonintellectual factors in academic achievement" (Borislow, 1962, p. 253).

Brookover's research also rejected the utility of general self-concept measures in favor of a very exclusive interest in academic self-concept. More recently, White's inquiries (1976) corroborated the trend of this research in demonstrating only weak relationships between general self-concept and school-specific variables, where Brookover's academic scale yielded much stronger measures of association within the same sample.

Thus, on the one hand, much of the excitement and interest of educators surrounds the task of encouraging general feelings of self-worth for their pupils, partly on the assumption that this can lead to higher levels of achievement and competence. On the other hand, researchers have collectively found little evidence of relationships between such global concepts and achievement levels. By contrast, they have concerned themselves with exploring a host of role-specific self-images and evaluations, which may vary positively, inversely, or independently with one another. The gap between the research literature and the expressed understandings of educators is very substantial in this area.

Age-linked Learning

One of the latent assumptions of early self-concept research was that of the effectiveness of personal confidence and goal-setting in the overall achievement process. In rejecting the fixed-ability models based on native intelligence, researchers obscured or overlooked the critical role of acquired academic aptitudes. To the extent that the learner interacts with an age-graded sequence of learning materials and settings, the pupil must respond not only to his self-assessment of academic potential but to his evaluation of readiness for tasks and materials demanding prior learning and work habits. If the student has, or develops, a relatively favorable academic self-concept, while achievement lags, the response may be self-labelling as an under-achiever, but this does not necessarily lead to higher levels of goal setting or performance. Brookover's threshold concept is thus validated, in part, by the gap between acquired skill levels and curricular materials. The student with severely inadequate reading skills in the senior elementary grades may well discover that content and format of the materials which he can master are indeed too childish for him. More important, learning to read may be deemed an inappropriate task for an adolescent, as it is for an adult in our society. Regression to the level where acquired skills may be adequate can prove costly in terms of peer relations and social stigma (Hall & Carlton, 1977, p. 71). These are critical problems for teachers engaged in remedial work or in adult retraining.

The appropriate inference is that academic self-concept as measured by current unidimensional scales may represent only one element in a more

complex set of self-referents. Students may well make quite independent assessments of their capabilities and of their readiness, in terms of acquired skills and work habits, for certain schooling situations. By over-emphasizing personal determinants of learning at the expense of both objective and socio-cultural environmental elements, self-concept research has ignored the problems of fit encountered by the student within a setting where learning activities are implicitly stratified by age and prestige.

What conclusions can be drawn from this review of research progress? The firm inferences are meagre indeed. First, self-concept is somehow modestly related to a host of other variables including ability, performance, and attainment levels as well as the perceptions of significant others. Causality is very obscure. Self-assessment is probably a limiting or threshold variable both influencing and responding to achievement levels. It appears also to mediate the effects of a number of other factors such as parental expectations. In any case, the effect of self-concept upon achievement levels is probably quite small as a proportion of total causal effects. Finally, there is really neither adequate theoretical nor empirical justification for belief that the school can deliberately and effectively modify self-referents for large groups.

Do these very unpretentious findings justify the recent use made of self-concept research by the educational system? On the contrary, they force the conclusion that such ideology, and perhaps policy as well, has been misguided. While pedagogues speak of self-concept enhancement as if this were some basic educational truth supported by solid scientific research, the scientists themselves are not at all sure what self-concept is, whether it can be measured, or what its causes and effects really are.

THE OUTCOMES OF MISGUIDED POLICY

If the promises attributed to early self-concept research were less than securely founded, then the outcomes can be expected to disappoint. There are three areas in which system failures may even now be traced to false confidence in student self-concept enhancement and the policies thus generated.

First, our efforts to eliminate the presumably negative experience of failure from the classroom have generated an even more subtle and devastating form of peer humiliation. The student promoted beyond the level of his current abilities is faced with daily classroom exposure in tasks and activities deemed appropriate to his age. In a recent study which the author carried out in collaboration with Oswald Hall, there was substantial evidence of this new dilemma:

Pupils can't read the encyclopedia or do research while the others can: their self-concept goes down. The student knows he is reading things with fewer words, smaller words . . . faces this every day . . . a subtle failure: perhaps

worse than saying: 'Repeat this grade'. (Teacher, quoted in Hall & Carlton, 1977, p. 69)

Far from enhancing student self-concept, contrived messages of unwarranted promotion, praise, or grades will likely be recognized for the ruse that they are, undermining the student's respect and legitimation for school process, while plunging him into situations with which he cannot cope.

A second problem emerges at the structural level. In a meritocratic system, schools are charged not only with addressing inequalities in opportunity but in redressing motivational deficiencies. Efforts to escalate the expectations and goals of systematically disadvantaged groups have led us away from another set of responsibilities involved in educational and occupational allocation. Some students must be cooled-out as well: Continuance in the school system may involve costly burdens of personal failure and squandered resources. Continuance in formal education has become almost a moral expectation, while dropping-out is borderline to delinquency. The present crisis in the growth and cost of educational services is generating new evidence of the occupational irrelevance of much secondary and tertiary work. We may have employed as motivational tools the very selective mechanisms which could have kept the schools accountable and cost-effective in terms of both personal and social benefits.

Thirdly, there is the problem of clearly declining standards of scholarship at all levels of the system. Sociologists have long recognized that norms or standards are created and sustained by the maintenance of boundaries: We know what is good or appropriate only in so far as we can identify what is bad and inappropriate. Rules which are not publicly enforced cease to exist: Expectations which are not met will themselves decline. One of the latent but nevertheless important functions of failure and non-promotion within the school system was the maintenance of expectations and standards for the successful majority. Individualistic and humanistic philosophies have focussed attention upon the effects for those sanctioned while diverting attention from larger system outcomes. The strong belief in continuous positive feedback stimulated by self-concept ideologies may have contributed materially to the decline of general expectations and achievement standards. This is most certainly the case in our modern universities.

Easy achievement norms have filled the expanding school system, but personal and societal dissatisfactions with the outcomes are now surfacing.

SCIENCE AND PEDAGOGY

It would be tempting to dismiss the observed gap between self-concept theory and educational practice as a problem in communication, to note that what is written in one context may shift meaning when read in another. There are, nevertheless, deeper roots to the present translation

difficulties. Without cynicism, it must be noted that there are strong motivations for both social scientists and educators to exploit rather than bridge gaps in understanding. Researchers need support at both personal and organizational levels; the claim to firm and practically relevant findings is a strong lever upon such support. As well, such claims offer access to scarce rewards of prestige or power. For their part, many policy-makers or planners are quite prepared to use science to legitimate undertakings which involve other very pragmatic expectations of benefit. Desired policies or practices can often be made socially acceptable when introduced as the offspring of research.

From another perspective, however, the educator may be involved in the empathetic and motivational reinterpretation of cool social science concepts. The author is indebted to Professor B. Y. Card for drawing attention to the way in which the liberal humanistic traits of optimism and celebration of self link self-concept theory to the whole progressive educational movement. For the educator, it may be a cause rather than a theory which is at stake: Affective rather than analytic norms prevail.

In any case, the history of self-concept research as applied to schooling illustrates a more general problem created by the growing dependency of educational policy and practice upon the social sciences. For better or worse, policy and pedagogy, which formerly rested upon philosophical or practical wisdom, have come to depend even more upon narrow empires of scientific expertise. The rapid creation and legitimation of intermediary occupations and organizations attest to the health and probable hardness of this new liaison. Teachers and public now seem to feel that all classroom strategy and system planning must rest securely upon prior empirical research. This shift mirrors the larger process in which the social sciences have greatly extended their influence over all areas of social, economic, and personal planning.

If theory and practice are to articulate more closely than they have done in the application of self-concept research, a better dialogue between educators and social scientists must ensue. The new dependencies require that researchers, for their part, renew a sense of excitement in communicating clearly about their science, with all its shortcomings as a basis for action. Educators, in turn, will have to embrace the research literature with more critical caution and rather less exuberance.

The erosion of traditional humanistic roots by the new currents of interest in an empirical and technical basis for educational policy and practice offers both promise and pitfalls. It is a fundamental shift in perspectives. It may also be a liaison dangereuse!

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