The study tests four hypotheses derived from the proposition that positive self-concept is partly due to an ability to utilize self-initiated verbal reinforcement. Subjects were 131 (66 boys and 65 girls) white fourth grade students from a suburban middle class school. The Piers-Harris self-concept measure was administered to all students. The Intellectual Achievement Responsibility Questionnaire and the Minnesota Tests of Creative Thinking were each given to half the students. Students were asked to rank order nine statements on a continuum of "good to say to myself while doing schoolwork". A spelling test was administered in conjunction with value statements chosen specifically for the analysis. The procedures provided the following scores: self-concept, locus of control, verbal fluency, statements chosen as good to say to oneself and statements chosen after task. The results show positive relationships between (1) self-concept and children's belief that they are responsible for their academic success, (2) self-concept and verbal fluency, (3) self-concept and positiveness of designated as "good to say to myself while doing schoolwork", and (4) self-concept and positiveness of self-divided statements chosen to say after completion of an academic task. (author/HC)
Learning Deficit in the Ability to Self-Reinforce as Related to Negative Self-Concept

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The present study tested hypotheses derived from the proposition that positive self-concept is partly due to an ability to utilize self-initiated verbal reinforcement.

It is well established that much conversation is private, in the sense that it is directed inward, and that one type of self-directed speech is criticism and praise of self (Henle and Hubbell, 1938; Kohlberg, Yeager, and Hjertholm, 1968; Piaget, 1942). Marston (1965) has pointed out that this type of self-directed speech can be viewed as a link between self-concept and overt behavior. When the self-concept is verbalized statements are produced which could be regarded as verbal reinforcement. When one says that a person has a poor self-concept he is saying that he evaluates himself in negative terms, and it is implied that the person gives himself relatively little positive verbal evaluations and hence little verbal reinforcement.

Four relationships which are predicted from this framework were investigated.

The first relationship investigated was self-concept and locus of control (Rotter, 1954). If high self-concept is related to self-reinforcement then the person who possesses a positive self-concept will perceive of himself as being in control of his success. Since these successes will be

1. Paper presented at the Annual Meeting of the American Educational Research Association, Minneapolis, March, 1970. The research was supported in part by funds from the Internal Support Research Program of the Department of Education, Purdue University.
met by self-administered verbal rewards he will not be dependent upon someone else for his rewards and hence will perceive that he, rather than someone else, is in charge of his successes.

**Hypothesis 1:** There is a positive relationship between self-concept and children's belief that they, rather than other people, are responsible for their academic successes.

The second relationship studied was self-concept and verbal fluency. In order for a person to give himself much verbal reward and praise it is necessary for him to engage in verbal production. The individual who does not engage in verbal production will be lacking in this aspect of self-reinforcement.

**Hypothesis 2:** There is a positive relationship between self-concept and verbal fluency.

The third and fourth relationships investigated dealt with self-concept and children's choices of verbal statements in connection with school tasks. If self-concept is due, in part, to the individual use of self-initiated positive verbal comments, then it would be expected that those with positive self-concepts will choose positive statements to say to themselves while doing school work.

**Hypothesis 3:** There is a positive relationship between self-concept and positiveness of statements designated as "good to say to myself while doing school work."
Hypothesis 4: There is a positive relationship between self-concept and positiveness of self-directed statements chosen to say after completion of an academic task.

Method

Subjects were 66 boys and 65 girls, white fourth-grade pupils in a suburban, middle class school. The pupils were distributed in four classrooms. Different classroom combinations were used in testing the hypotheses. This accounts for the different number of subjects in testing particular relationships.

The Piers-Harris (Piers and Harris, 1965) self-concept measure was administered to all subjects. The Intellectual Achievement Responsibility Questionnaire (Crandall, Katkovsky, and Crandall, 1965), a measure of locus of control, was administered the same day to pupils in classes one and two.

Subjects in classes three and four were given the Minnesota Tests of Creative Thinking, Research Edition (Torrance, 1962) approximately two months after the Piers-Harris scale was given.

One week later, pupils in classes one and two were asked to rank order nine statements on a continuum of "good to say to myself while doing school work." A rank order correlation between the rankings of class one and class two was .93. A deviation score for each pupil was computed for the three most positive statements and the three most negative statements. This score was computed so that a high score indicated that the individual, in relation to the class, had ranked the positive statements as being better
to say to himself when studying and the negative statements as being worse to say. This score will be referred to as the "Good to Say" (GTS) score.

Pupils in classes three and four were given spelling words in an individual spelling situation. The words used were randomly chosen from the fourth, fifth, and sixth grade lists in Horrocks and Staiger (1965a); Horrocks and Staiger (1965b); and Horrocks, Sackett, and Staiger (1965). Each subject was tested on ten words.

Each pupil was brought to the testing room and seated opposite the experimenter. The order of subjects and experimenter were randomly assigned.

The subject was read a short story in which a fictitious fourth-grade pupil said things to himself. After each spelling word the subject was asked: "Which of these things would John (the fictitious pupil in the story) say to himself if he were you?"

They were then presented with the nine statements. Data collected was correctness of spelling and scale value (mean rank of statement as ranked by classes one and two) of statement chosen. A total score for the scale values of the statements chosen was used in the analysis.

The procedures thus provided the following scores: self-concept; locus of control; verbal fluency; statements chosen as good to say to oneself (GTS); and, statements chosen after task.

Results

The results for each hypothesis will be reported separately.

Hypothesis 1: There is a positive relationship between self-concept and children's belief that they, rather than other people, are responsible for their academic successes.
The analysis was conducted on boys and girls separately and is reported in Table 1.

**TABLE 1.**

Correlations between the Piers - Harris self-concept measure and the Intellectual Achievement Responsibility Questionnaire.

<table>
<thead>
<tr>
<th></th>
<th>Piers - Harris and IAR Total</th>
<th>Piers - Harris and IAR +</th>
<th>Piers - Harris and IAR -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys N = 30</td>
<td>-.245</td>
<td>.015</td>
<td>-.380*</td>
</tr>
<tr>
<td>Girls N = 36</td>
<td>.233</td>
<td>.574**</td>
<td>-.074</td>
</tr>
<tr>
<td>Total N = 66</td>
<td>.018</td>
<td>.324*</td>
<td>-.194</td>
</tr>
</tbody>
</table>

* p < .05  
** p < .01

The correlations between the Piers - Harris and the IAR + support the hypothesis for the total sample and for the girls but not for the boys.
Hypothesis 2: There is a positive relationship between self-concept and verbal fluency.

The correlation between the Piers-Harris and the verbal fluency subscore of the Torrance Test of Creative Thinking was .351 (N=60; p < .01) for the total sample and .205 (N=32) for boys and .432 (N=28; p < .02) for girls. These data support the hypothesis but, once again, there is a difference in the correlations when analyzed by sex.

Hypothesis 3: There is a positive relationship between self-concept and positiveness of statements designated as "good to say to myself while doing school work."

Since the correlations between self-concept and the "Good to Say" score for boys (r=.367; N=28) and girls (r=.339; N=33) were not significantly different from each other they were combined into one group for the analysis.

The correlation for the total group was .33 (N=61; p < .01) and supported the hypothesis.

Hypothesis 4: There is a positive relationship between self-concept and positiveness of self-directed statements chosen to say after completion of an academic task.

The correlation between self-concept and scale value of statements chosen after a task were not significant (Total Group N=62, r=.13; Boys N=33, r=.101; Girls N=29, r=.182) and hypothesis 4 was not supported.
Discussion

The results for the total samples supported three of the four hypotheses and would indicate that this approach to self-concept development has some validity. The differences in results for boys and girls also offers some information on possible sex differences in self-concept development. The results for girls were supportive of three of the four hypotheses. The relationships predicted were supported in only one of the hypotheses for the boys.

An interesting sex difference was found in the relationship between self-concept and locus of control. For girls there was a positive relationship between self-concept and acceptance of responsibility for positive things which happened to them. This relationship was predicted. For boys there was a negative relationship between self-concept and responsibility for negative things which happened to them, i.e., high self-concept and denying responsibility for "bad" happenings were associated. This relationship raises the possibility of sex differences in the mechanisms that are used to maintain or develop high self-esteem.
References


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