The focus of this study was to compare the relative influence of the two theories commonly utilized to explain the development of a child's self-concept and to examine some contingencies under which one or the other process is more important. The "mirror theory" looks to the reflected appraisals of significant others as the important influence on a person's self-concept. The "model theory" holds that the child's self-concept is modeled after the images of the significant others in his environment.

Questionnaire data were obtained from four family members for 219 families. The findings consistently showed that mirror relationships are stronger than model relationships. This means that the parent's evaluation of the child was more strongly related to the child's self-evaluation than was the parent's self-evaluation. The results do favor the "looking glass" conception of self-concept formation, but because the correlations were somewhat low, findings are more suggestive than conclusive of the relative importance of mirroring versus modeling process. (WS/Author)
The Development of Self-Concept in the Child:
Model Theory Versus Mirror Theory

by

Viktor Gecas
Washington State University

James M. Calonico
Louisiana State University
New Orleans

Darwin L. Thomas
Brigham Young University

Paper read at the annual meetings of the
American Sociological Association, New Orleans, 1972
The Development of Self-Concept in the Child: Model Theory vs. Mirror Theory

Two of the most popular, and to some extent competing, explanations of the development of the self-concept can be identified as the "reflection" theory and the "imitation" theory, or "mirror" vs. "model" as descriptive metaphors for the two central processes involved. The first position is associated with G. H. Mead, C. H. Cooley, and William James and is an integral part of the symbolic interactionist tradition. This view holds that the self-concept is a product of the reflected appraisals of others, especially significant others. Cooley's metaphor of the "looking-glass self" explicitly points to this tendency of the self to derive its substance from the social "reflections" or feedbacks of the various audiences in our lives. Similarly, Mead's conceptualizations of the "generalized other" and the process of role-taking rooted the emergence and maintenance of the self in social interaction through the individual's assessment and internalization of the evaluative responses of others. In this sense, we become what others think we are.

However, not all audiences are equally relevant to a person's self-conception. The credibility and importance of evaluative reactions of others for the person varies to the extent that these audiences constitute significant others in the individual's social space. A child, for example, is highly dependent for his self-concept on the evaluations of him by his parents and, perhaps, other family members, since the family is usually the first primary group to which an individual belongs. As the social world of the child expands, other reference groups take on importance.
The second explanatory system derives from social learning theory, most notably from the work of Bandura and his associates. This position which we call modeling theory, states that a child acquires most of his behavioral characteristics, and from these his attitudes, through the process of imitating various others in his environment. Attitudes toward the self develop in the same way as attitudes toward other objects, i.e., through the incorporation of the behaviors and attitudes of (significant) others in the social environment. Identification is the term usually associated with this process (cf. Kohlberg, 1963; Howes, 1950; Lazowick, 1955), but Bandura considers it as simply one type of imitation which can be classified under the general label of vicarious processes (Bandura, 1969, p. 119). A child who identifies with a parent, for example, is engaging in the same process characteristic of all modeling behavior, i.e., acquiring self attributes through the perception and incorporation of the attributes of another.

For Bandura, the mechanism which links modeling behavior to self-concept formation is self-reinforcement. Bandura, in reviewing some of his own research, states that "people generally adopt the standards for self-reinforcement exhibited by exemplary models, they evaluate their own performances relative to that standard, and then, as their own reinforcing agents, reward themselves according to the internalized standards" (Bandura, 1969, p. 33). In conceptualizing self-concept from a social learning framework, Bandura defines the self in terms of the relative frequency of positive to negative self-reinforcements, so that a negative self-concept
would be one which has a high frequency of negative self-reinforcements. If we substitute the word self-evaluation for self-reinforcement, Bandura's definition would be quite congruent with Cooley's. Furthermore, this substitution is tenable in that self-evaluations are necessary in order for self-reinforcements to be made.

In summary, these two theoretical systems rely on two different processes to account for the development of self-conception. The mirror theory stresses the evaluative responses of others, that is, the feedback others give to a person as to how he appears to them. The modeling theory focuses on the conditions under which a person adopts as his own the characteristics of another.

The available empirical research supports both explanations. Research emanating from the symbolic interactionist tradition has consistently found that a person's self-conception is associated with the conception held of him by others, especially significant others (Miyamoto and Dornbusch, 1956; Couch, 1958; Kemper, 1966; Maehn, et al., 1962; Preiss, 1968; Quarantelli and Cooper, 1966). Thus, the central hypothesis derived from the mirror theory is that parental evaluation of the child is positively related to the child's self-concept.

On the other hand, research stemming from behavioristic psychology supports the notion that self-concept develops through modeling behavior and the internalization of standards and attributes of the model (Marston, 1965; Bandura and Kupers, 1964; and cf. Bandura, 1969, for a review of the research in this area). Therefore, the central hypothesis from
modeling theory is that parental self-concept is positively related to the child's self-concept.

Although available evidence does appear to indicate that both modeling and mirroring are credible as explanations of self-concept development, an important empirical question remains: Which theory, modeling or mirroring, offers the better explanation of the development of self-concept? Various aspects of the child's self-concept may be differentially affected by each of these processes. Gecas (1971), for example, found that two dimensions of adolescent self-evaluation were differently affected by parental support, i.e., the child's sense of self-worth was more strongly related to level of parental support than was his sense of power. We might legitimately expect these two dimensions of self-evaluation (as well as others) to be differently related to the two processes of parental influence under consideration.

In addition, it becomes important to ask under what conditions, e.g., age, sex of child, sex of parent, etc., might one process prove to be more strongly related to the child's self-concept. For example, Bandura suggests that the modeling relationship should be stronger for parent and child of the same sex (Bandura and Walters, 1963:10); while mirroring, or what Turner (1970) calls response bonds, should be stronger between the parent and child of the opposite sex. Since there is usually considerable social pressure exerted on the child to develop sex-appropriate characteristics, there is pressure on the child to identify with (model) the same sex parent. Turner's rationale for the expectation of the opposite
tendency in mirroring relationships is a direct consequence of the pattern suggested for modeling. The establishment of identification bonds (modeling) usually leads to admiration and respect which often impairs easy and warm interaction both on the part of the parent and of the child. By contrast, since identification is less prevalent in cross-sex parent-child relationships, the interaction can be freer and more open. As a result, the child may be more influenced in his self-concept by the evaluative responses of the cross-sex parent.

Research on parent-child interaction has consistently shown that girls have a greater tendency to be influenced by parents and to conform to their expectations than do boys (Gecas, 1971; Thomas and Weigert, 1971; Weigert and Thomas, 1970). This evidence fosters the expectations that girls will mirror and perhaps model parents more than will boys. From both model and mirror frameworks, we would also expect that stronger tendencies for their respective relationships would be exhibited by younger children, living at home, than by older children, away at school.

It is the comparison of the relative influence of parental modeling and mirroring on the child's self-concept, and the contingencies under which one or the other process is the more important that constitutes the focus of the present study.

METHODOLOGY

Sample and Procedure

In order to test the hypothesized relationships, data were gathered from both parents and children in 300 families. A "face sheet" requesting necessary information about the student and his family was administered
to approximately one thousand students in both upper and lower division classes at Washington State University. From the responses to this instrument a purposive sample (N=528) of the student population was compiled. The sample was drawn such that it was representative of the student body on the following characteristics: sex, year in school, major field of study and grade point average. A requirement for inclusion in the study was that the student was a member of a family composed of mother, father, and at least one high school aged child. A random sample of 300 qualifying families was drawn from the families meeting the necessary criteria.

During the summer a packet of materials was sent to each family chosen for participation. Each packet contained four questionnaires, one for each of the four selected family members along with a cover letter and instructions to assist the respondents in the completion and return of the questionnaires. Separate return envelopes were included for each respondent to allow as much confidentiality as possible from other family members. Four mailed follow-ups were sent to families at approximately ten-day intervals, the first being sent ten days after the family received the original packet of materials. At the beginning of data analysis, questionnaires had been returned by 82.8% (994) of the 1200 family members in the sample (four members in each of 300 families). Only data from "completed" families, i.e., families in which all four family members completed and returned their questionnaires. 219 such families were available for analysis. This represents 73% of all families in the original sample.
Measure of Self-Evaluation and the Evaluations of Others

The measure of self-evaluation and the evaluation of other family members was a semantic differential comprised of ten adjective pairs each set on a five-point Likert-type scale. Each family member was asked to rate himself and each of the other participating family members on these semantic differentials. This procedure produced our measures of self-concept (of each family member), parents' perceptions of their children, and children's perceptions of parents.

The items constituting the semantic differential were factor analyzed by varimax rotation to produce a principal axis factor and a three-factor solution. On the basis of the factor loadings (cf. table 1) four evaluation scales were constructed: 1) General Evaluation comprising all of the items except "stern-mild"; 2) Sense of Worth, based on the items "good," "just," "attractive," and "happy"; 3) Sense of Power comprised of "stern" and "powerful"; and 4) Sense of Active from the four items, "active," "brave," "friendly," "clever." Weighted scale scores for each of the factors were used to create the various evaluation scales. The three factors produced by the varimax rotation are quite similar to Osgood's (1962) three dimensions emerging from his extensive analysis of semantic space: evaluation, potency, and activity.
FINDINGS AND DISCUSSION

The question of which process, mirroring or modeling, has the greater effect on the child's self-concept is addressed by comparing the size of the correlation coefficients for the respective relationships. It is apparent in table 2 that for every comparison the mirror correlations are stronger. That is, the relationships between parents' evaluation of child and child's self-evaluation are stronger than those between parents' self-evaluations and child's self-evaluations. The differences in the size of the correlations between mirroring and modeling are statistically significant beyond the .05 level for three of the eight comparisons.

| Table 2 about here |

Of the three dimensions of evaluation considered, the differences between the mirroring and modeling coefficients are greatest on the activity dimension, followed by the power dimension, and are smallest on the evaluative dimension. This suggests that the development of a behavioral self-concept—an image of oneself in terms of power and action—is more dependent on the responses of one's social environment than on the models present in that environment. This is consistent with Becker's (1962) view that man as an active agent defines himself largely in terms of the effect he has on his environment. Similarly, Foote and Cottrell's (1955) concept of "interpersonal competence," which they define as the ability to produce intended effects (p.38), and White's (1965) "sense of efficacy," both stress the importance for the self of being a causal agent in the environment. And the most direct evidence of being a cause is observing the consequences of one's actions, such as the responses of others.
How are these relationships modified when sex of child is considered in combination with sex of parent (table 3)? Both mirror and model correlations are consistently higher for girls than boys, supporting our expectation that females are more dependent on, and susceptible to, parental influence than are males. The average correlations for modeling are .16 for girls and .06 for boys, while those for mirroring are .28 and .17 for girls and boys respectively.

Table 3 about here

We had predicted that modeling processes would be stronger for same-sex parent-child relationships while mirroring would be stronger for cross-sex relationships. The findings only partially support this expectation. Boys' self-evaluations are slightly more strongly related to their mothers' evaluations of them than they are to fathers' evaluations, at least on the power and worth dimensions; and girls' self-evaluations tend to mirror father more than mother. This gives tentative support to the notion that the most important self-other relationship for the child's "looking-glass self" in the family is the cross-sex parent-child relationship.

Modeling correlations, on the other hand, do not support the expectation that they would be strongest along same-sex lines. On all of the evaluation dimensions, father appears as the more influential model for both boys and girls. The average correlations on modeling are .14 for father compared to .07 for mother. One post hoc explanation of this finding is that power may be more relevant than gender for modeling processes. That is, children
may be more strongly inclined to identify with, and model, those persons in their family environment which they perceive as having the most power. In most American families this is usually the father. Bandura and Walters (1963) have, in fact, identified power as one of the more relevant characteristics of a model, and in psychiatric literature this tendency has been conceptualized as "identification with the aggressor."

When we consider the age of the child (table 4), we find that younger children tend to model their parents more than older children. This is consistent with the rather common observation that children begin to identify less with parents as they get older and their scope of social relations expands. We do not find the same tendency for the mirroring influence of parents. The correlations indicate that parental influence is stronger for older children on Power and Activity. As parents decrease in importance as significant others for the child as he grows older and leaves home, we would expect a decrease in influence on both modeling and mirroring processes. Our failure to find this pattern for older children on the Power and worth dimensions suggests that either our categories of "older" and "younger" child are not different enough in age to make a difference on these variables, or our method of tapping parental influence on child's self-concept is weak.

A few words of methodological caution are warranted at this point. The generally higher correlations for mirroring relationships may be an artifact
of the methodology in that the correlated scores in these instances were child's descriptions of self and parent's description of child. Two persons describing the same object should correlate higher than two persons describing two different objects, e.g., parent's description of self and child's description of self which were the variables used for the modeling correlations. Thus, the higher correlations for mirroring may be a result of knowledge rather than influence. On the other hand, the perceptions we have of people often have little correspondence to the nature of the person as such, but they do have implications for the way we act towards those persons. And it is these actions which often create the person which we imagined we perceived. In this sense, socialization of the child by the parent becomes the creation of a social reality or, to use a more colorful expression, a "self-fulfilling prophecy" (cf. Rosenthal and Jacobson, 1968).

CONCLUSION

The overall trend of the data, with significance reached in a number of comparisons, indicates that a child's self-concept is more closely related to his parents' perceptions of him than to his parents' self-conceptions. Within this general pattern there were some interesting sex variations. Girls had higher correlations than boys for both model and mirror relationships. There was also a slight tendency for mirror correlations to be stronger for cross-sex parent-child relationships. With respect to modeling, both boys and girls tend to model father more than mother. We suspect that this is a function of the father being perceived as a more powerful figure than the mother.
The correlations for both the modeling and the mirroring relationships were lower than expected: model correlations ranged from -.14 to .31 and mirror correlations from -.05 to .41. This means that most of the variance in self-concept is unaccounted for by the familial factors we've considered. Thus, while the data do favor the "looking-glass" conception of self-concept formation, the findings are more suggestive than they are conclusive of the relative importance of mirroring verses modeling processes.
FOOTNOTES

1. Both parents were selected to participate in the study. In addition, the WSU student and one of his (or her) brothers or sisters were selected. In the study the student was considered the Older Child and the high school-aged sibling the Younger Child. In a number of instances parents were asked to answer questions about each child and children were asked to answer about the participating sibling. Where necessary, the names of children (siblings) were written in on the appropriate questionnaires to ensure that the parent (sibling) had the correct member in mind when answering the questions.

2. Weighted scale scores were created by standardizing the scores for each adjective pair (variable) to have a mean of zero. Then the score for each variable in the factor was multiplied by its respective factor loading in that factor. The resultant scores were then summed to achieve the weighted scale score. Cut-points can be set at any level desired by the researcher. For the present study, no score with a factor loading below .50 was used.

3. The measure of association used in these analyses is Pearson's $r$. 
REFERENCES

Bandura, A.

Bandura, A. and C. J. Kupers

Bandura, A. and R. H. Walters

Becker, E.

Couch, C.

Denzin, N. K.

Foote, N. and L. S. Cottrell, Jr.

Gecas, V.
1971 "Parental behavior and dimensions of adolescent self-evaluation." Sociometry 34:466-482.

Helper, R. M.


Kemper, T. D.

Kohlberg, L.
Lazovick, L.

Naehn, H., J. Mensing and S. Nafager

Harston, A. R.

Niyamoto, S. F. and S. Dornbusch

Rawer, O. H.

Osgood, C. E.

Preiss, J. J.

Quarantelli, E. L. and J. Cooper

Rosenthal, R. and L. Jacobson

Sherwood, J. J.

Staats, A. W.


Staats, A. W. and C. K. Staats
Thomas, D. L. and A. J. Weigert

Turner, R. H.

Weigert, A. J. and D. L. Thomas

White, R. W.
1965  "The experience of efficacy in schizophrenia." Psychiatry 28:199-211.
<table>
<thead>
<tr>
<th>Adjective</th>
<th>I North</th>
<th>II Power</th>
<th>III Activity</th>
<th>Item Variance</th>
<th>Principal Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good-Bad</td>
<td>.85</td>
<td>.01</td>
<td>.12</td>
<td>.74</td>
<td>.72</td>
</tr>
<tr>
<td>Just-Unjust</td>
<td>.78</td>
<td>.04</td>
<td>.15</td>
<td>.63</td>
<td>.68</td>
</tr>
<tr>
<td>Attractive-Repulsive</td>
<td>.75</td>
<td>.07</td>
<td>.21</td>
<td>.61</td>
<td>.71</td>
</tr>
<tr>
<td>Happy-Sad</td>
<td>.55</td>
<td>.21</td>
<td>.40</td>
<td>.51</td>
<td>.67</td>
</tr>
<tr>
<td>Stern-Mild</td>
<td>.07</td>
<td>.81</td>
<td>.09</td>
<td>.67</td>
<td>.05</td>
</tr>
<tr>
<td>Powerful-Powerless</td>
<td>.38</td>
<td>.51</td>
<td>.45</td>
<td>.61</td>
<td>.61</td>
</tr>
<tr>
<td>Active-Passive</td>
<td>.05</td>
<td>.03</td>
<td>.78</td>
<td>.61</td>
<td>.56</td>
</tr>
<tr>
<td>Brave-Cowardly</td>
<td>.22</td>
<td>.26</td>
<td>.63</td>
<td>.52</td>
<td>.60</td>
</tr>
<tr>
<td>Friendly-Unfriendly</td>
<td>.27</td>
<td>.46</td>
<td>.59</td>
<td>.63</td>
<td>.56</td>
</tr>
<tr>
<td>Clever-Foolish</td>
<td>.25</td>
<td>.09</td>
<td>.59</td>
<td>.42</td>
<td>.58</td>
</tr>
</tbody>
</table>
TABLE 2
Correlation for Dimensions of Child's Self Concept with Parent's Self Concept (Modeling) and with Parent's Evaluation of Child (Mirroring).

<table>
<thead>
<tr>
<th>Dimensions of Self Concept</th>
<th>General Evaluation</th>
<th>Worth</th>
<th>Power</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model</td>
<td>Mirror</td>
<td>Model</td>
<td>Mirror</td>
</tr>
<tr>
<td>Mother</td>
<td>.11</td>
<td>* .26</td>
<td>.10</td>
<td>.17</td>
</tr>
</tbody>
</table>

Here and throughout the remaining tables, significance levels are for Z-tests of significant differences between correlations.

* = .05  
** = .02  
*** = .002
TABLE 3

Correlations for Dimensions of Child's Self Concept with Parent's Self Concept (Modeling) and with Parent's Evaluation of Child (Mirroring) by Sex of Child

<table>
<thead>
<tr>
<th>Dimensions of Self Concept</th>
<th>GENERAL EVALUATION</th>
<th>WORTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>Mirror</td>
</tr>
<tr>
<td>Father</td>
<td>.12</td>
<td>.20</td>
</tr>
<tr>
<td>Mother</td>
<td>-.02</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>Mirror</td>
</tr>
<tr>
<td>Father</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>Mother</td>
<td>-.01</td>
<td>.14</td>
</tr>
</tbody>
</table>

Male Child N = 214 : Female Child N = 224
TABLE 4

Correlations for Dimensions of Child's Self Concept with Parent's Self Concept (Modeling) and with Parent's Evaluation of Child (Mirroring) by Age-Group of Child.

<table>
<thead>
<tr>
<th>Dimensions of Self Concept</th>
<th>GENERAL EVALUATION</th>
<th>NORTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Older Child</td>
<td>Younger Child</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>Mirror</td>
</tr>
<tr>
<td>Mother</td>
<td>.12</td>
<td>.16</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>-.05</td>
</tr>
</tbody>
</table>

Older Child N = 219 : Younger Child N = 219