

Gender Comparisons in the Perception of Self-Competence Among Four-Year-Old Children

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ABSTRACT. The purpose of this study was to determine the presence of gender differences in the perception of self-competence among 4-year-old children. Sixty-one 4-year-olds (27 girls and 34 boys) from predominantly European American backgrounds participated in the study. The children's self-competence was measured using the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Preschool version; S. Harter & R. Pike, 1984), which has 4 separate subscales: (a) cognitive competence, (b) physical competence, (c) peer acceptance, and (d) maternal acceptance. A within-subject 2-way analysis of variance with repeated measures of 4 (subscales of perception of self-competence) \times 2 (gender) was performed to determine if gender differences existed in the children's perception of self-competence. Analyses of the data showed no significant gender differences in the scores on the 4 subscales for the perception of self-competence among the children. These results could be interpreted as being due to a less gender-stereotyped society and androgynous environment for these preschoolers.

Key words: gender differences, self-competence

dimensional by several researchers (Bandura, 1988; Harter, 1983, 1988). Multidimensional perception of self-competence indicates that children can perceive their confidence in achieving success in several separate domains, each independent of the other (Bandura, 1988; Harter, 1988). Harter's (1983) model of perception of self-competence among preschoolers consists of four dimensions: (a) cognitive competence, (b) physical competence, (c) peer acceptance, and (d) maternal acceptance. This is the notion behind the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children. Our study is based on Harter's paradigm.

Improving or enhancing children's perception of self-competence has multiple benefits. Research has indicated that positive perception of self-competence promotes adjustment and success in school (e.g., Anderson & Adams, 1985; Bouffard, Markovits, Vezeau, Boisvert, & Dumas, 1998; Cauley & Tyler, 1989; McAdoo, 1985; Pallas, Entwisle, Alexander, & Cadigan, 1987; Parker & Asher, 1987; Verschueren, Marcoen, & Buyck, 1998). Research has also indicated that positive perception of self-competence is correlated with higher peer and social acceptance (e.g., Downs, 1990).

The discussion of benefits of positive perception of self-competence raises questions regarding how perception of self-competence develops and what factors influence its development. Harter (1988) and Bandura (1988) proposed that with increase in age and cognitive development, children will be better able to perceive their self-competence in several areas and will also be able to verbalize an overall feeling of self, namely, global self-worth. During early childhood, children's perception of self revolves around physical characteristics, actions (Keller, Ford, & Meachum, 1978), and perceptions of what they want to be rather than what they really are (Ruble, 1983; Stipek, 1984).

The literature has indicated that the perception of self-competence is related to a number of factors that may be broadly classified as developmental and environmental. Developmental factors include cognitive, social, and behavioral development of the child (Bandura, 1988). Environmental factors include (a) parenting attitudes and behavior (e.g., Jambunathan & Hurlbut, 2000), (b) parents' perceptions of traits they want their children to have (e.g., Bowlby, 1982; Parsons, Adler, & Kaczala, 1982; Phillips, 1987; Putnick, 1993), (c) the use of developmentally appropriate practices in early childhood classrooms (e.g., Jambunathan, Burts, & Pierce, 1999), and (d) perceptions and feedback from teachers and school (e.g., Connell & Illardi, 1987; Harter, 1983; Harter & Connell, 1984).

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- Henshaw, A., Kelly, J., & Gratton, C. (1992). Skipping's for girls: Children's perceptions of gender roles and gender preferences. *Educational Research, 34*, 229-235.
- Hinde, R. A., Tamplin, A., & Barrett, J. (1993). Gender differences in the correlates of the preschoolers' behavior. *Sex Roles, 28*, 607-622.
- Jambunathan, S., Burts, D. C., & Pierce, S. (1999). Developmentally appropriate practices as predictors of the perception of self-competence among preschoolers. *Journal of Research in Childhood Education, 13*(2), 167-175.
- Jambunathan, S., & Hurlbut, N. L. (2000). *The influence of parenting attitudes about child-rearing on the perception of self-competence of four-year-old children*. Manuscript submitted for publication.
- Jensen, M. A. (1983). Self-concept and its relation to age, family structure and gender in Head Start children. *The Journal of Psychology, 113*, 89-94.
- Kaplan, P. (1991). *A child's odyssey*. St. Paul, MN: West.
- Katz, P. A. (1987). Variations in family constellation: Effects on gender schemata. *New Directions for Child Development, 38*, 39-56.
- Keller, A., Ford, L. H., & Meachum, J. A. (1978). Dimensions of self-concept in preschool children. *Developmental Psychology, 14*, 483-489.
- Lauer, R. H., & Lauer, J. C. (1994). *Marriage and family: The quest for intimacy*. Madison, WI: Brown and Benchmark.
- Liss, M. B. (1981). Patterns of toy play: An analysis of sex differences. *Sex Roles, 7*, 1143-1150.
- Major, B., Carnevale, P. J., & Deaux, K. (1981). A different perspective on androgyny: Evaluations of masculine and feminine personality characteristics. *Journal of Personality and Social Psychology, 41*, 988-1001.
- Martin, C. L., Wood, C. H., & Little, J. K. (1990). The development of gender stereotype components. *Child Development, 61*, 1891-1904.
- Massad, C. M. (1981). Sex-role identity and its relationship to self-acceptance and peer acceptance during adolescence. *Dissertation Abstracts International, 41*(9-13): 3560.
- McAdoo, H. P. (1985). Racial attitude and self-concept of young Black children over time. In H. P. McAdoo & J. L. McAdoo (Eds.), *Black children: Social, educational, and parental environments* (pp. 213-242). Newbury Park, CA: Sage.
- Meece, J. L. (1987). The influence of school experiences on the development of gender schemata. *New Directions for Child Development, 38*, 57-73.
- Mullis, R. L., & Mullis, A. K. (1989). Parents of nine-year-old children: Reports of attitudes and behaviors. *Child Study Journal, 19*(2), 145-157.
- O'Heron, C. A., & Orlofsky, J. L. (1990). Stereotypic and nonstereotypic sex role trait and behavior orientations, gender identity, and psychological adjustment. *Journal of Personality and Social Psychology, 58*, 134-143.
- Orlofsky, J. L. (1979). Parental antecedents of sex-role orientation in college men and women. *Sex Roles, 5*, 495-512.
- Pallas, A. M., Entwisle, D. R., Alexander, K. L., & Cadigan, D. (1987). Children who do exceptionally well in first grade. *Sociology of Education, 60*, 257-271.
- Paretti, P. O., & Sydney, T. M. (1984). Parental toy choice stereotyping and its effect on child toy preference and sex role typing. *Social Behavior and Personality, 12*, 213-216.
- Parker, J., & Asher, S. R. (1987). Peer acceptance and later personal adjustment: Are low accepted children "at risk"? *Psychological Bulletin, 102*, 357-389.
- Parsons, J. E., Adler, T. F., & Kaczala, C. M. (1982). Socialization of achievement attitudes and beliefs: Parental influences. *Child Development, 53*, 310-321.
- Perry, D. G., & Bussey, K. (1984). *Social development*. Englewood Cliffs, NJ: Prentice-Hall.
- Pettit, G. S., & Mize, J. (1993). Substance and style: Understanding the ways in which

- In J. Kolligian & R. Sternberg (Eds.), *Integrative processes and socialization: Early to middle childhood* (pp. 315-362). Hillsdale, NJ: Erlbaum.
- Blurton-Jones, N. G., & Konner, M. J. (1973). Sex differences in behavior of London and Bushman children. In R. P. Michael & J. H. Crook (Eds.), *Comparative ethology and the behavior of primates* (pp. 119-146). New York: Free Press.
- Boldizer, J. P. (1991). Assessing sex-typing and androgyny in children: The Children's Sex-Role Inventory. *Developmental Psychology*, 27, 505-515.
- Bouffard, T., Markovits, H., Vezeau, C., Boisvert, M., & Dumas, C. (1998). The relation between accuracy of self-perception and cognitive development. *British Journal of Educational Psychology*, 68, 321-330.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Carson, J. L., & Parke, R. D. (1996). Reciprocal negative affect in parent-child interactions and children's peer competency. *Child Development*, 67, 2217-2226.
- Carter, D. C. (1987). *Current conceptions of sex roles and sex typing: Theory and research*. New York: Praeger.
- Caulley, K., & Tyler, B. (1989). The relationship of self-concept to prosocial behavior in children. *Early Childhood Research Quarterly*, 4(1), 51-60.
- Connell, J. P., & Illardi, B. C. (1987). Self-system concomitants of discrepancies between children's and teachers' evaluations of academic competence. *Child Development*, 58, 1297-1307.
- Davies, B., & Banks, C. (1992). The gender trap: A feminist poststructuralist analysis of primary school children's talk about gender. *Journal of Curriculum Studies*, 24, 1-25.
- Downs, A. C. (1990). The social biological constructs of social competency. In T. P. Gullotta, G. R. Adams, & R. Montemayor (Eds.), *Developing social competency in adolescence. Advances in adolescent development* (Vol. 3, pp. 43-94). Newbury Park, CA: Sage.
- Eaton, W. O., & Enns, L. R. (1986). Sex differences in human motor activity level. *Psychological Bulletin*, 100, 19-28.
- Eccles, J. S., Jacobs, J. E., & Harold, R. D. (1990). Gender role stereotypes, expectancy effects and parents' socialization of gender differences. *Journal of Social Issues*, 46, 186-201.
- Etaugh, C., & Liss, M. B. (1992). Home, school, and playroom: Training grounds for adult gender roles. *Sex Roles*, 26, 129-147.
- Finnie, V., & Russell, A. (1988). Preschool children's social status and their mothers' behavior and knowledge in the supervisory role. *Developmental Psychology*, 24, 789-801.
- Fuchs-Beauchamp, K. D. (1996). Preschoolers' inferred self-esteem: The Behavioral Rating Scale of Presented Self-esteem in Young Children. *The Journal of Genetic Psychology*, 157, 204-210.
- Harter, S. (1983). Developmental perspective on the self-system. In M. Hetherington (Ed.), *Handbook of child psychology: Social and personality development* (Vol. 4, pp. 275-386). New York: Wiley.
- Harter, S. (1988). Causes, correlates and the functional role of global self-worth: A life-span perspective. In J. Kolligian & R. Sternberg (Eds.), *Integrative processes and socialization: Early to middle childhood* (pp. 67-97). Hillsdale, NJ: Erlbaum.
- Harter, S., & Connell, J. P. (1984). A model of children's achievement and related self-perceptions of competence, control, and motivational orientation. In J. G. Nicholls (Ed.) & M. L. Maehr (Series Ed.), *Advances in achievement and motivation* (pp. 219-250). Greenwich, CT: JAI Press.
- Harter, S., & Pike, R. (1984). The Pictorial Perceived Competence Scale for Young Children. *Child Development*, 55, 1969-1982.

among preschool children. Research has indicated that in the past, children were positively reinforced for conforming to socially accepted, gender-typed behavior (e.g., Blurton-Jones & Konner, 1973; Eaton & Enns, 1986; Liss, 1981). This, in turn, promoted higher perception of self-concept in specific areas by gender among preschoolers (e.g., Sugawara et al., 1986).

However, recent research has indicated that parents, teachers, and society are diverging from reinforcing gender-typed behavior among children, particularly during the preschool period, when gender roles are flexible. Many children see fathers as primary caregivers and mothers as primary breadwinners. The lack of gender differences in the four dimensions of perception of self-competence among this sample of 4-year-old children could be interpreted as being due to a less gender-stereotyped society and androgynous environment for these preschoolers.

These results are in accordance with those of previous literature (e.g., Boldizer, 1991; Davies & Banks, 1992; Major et al., 1981; Massad, 1981; O'Heron & Orlofsky, 1990; Orlofsky, 1979; Perry & Bussey, 1984; Weinraub et al., 1988), which suggests that androgynous child-rearing techniques used by parents are reflected in their children's behavior. This influence is evident in the non-gender-based perception of self-competence among preschool children.

Teachers' attitudes and behaviors are also important sources of influence on children's gender stereotyping and behavior. The androgynous attitudes of the present-day teachers promote children's participation in all activities instead of restricting them to gender-stereotyped activities (Fuchs-Beauchamp, 1996; Meece, 1987). The preschool period is a particularly sensitive phase when children are learning about gender identity and constancy. Thus, any kind of external influence or reinforcement in promoting gender-stereotyped behavior would more than likely influence the children's perception of self-competence.

The lack of gender differences in the perception of self-competence among young children may be an indication that society is moving away from reinforcing gender stereotyping and moving toward promoting androgynous behavior in children. Our results open up several avenues for further research. The findings are limited because the sample is not ethnically diverse. It would be important to investigate gender stereotyping among groups of different ethnic composition and socioeconomic status. Furthermore, researchers could also investigate other influential sources of perception of self-competence among young children, such as ethnic origin, academic curriculum, and teachers' attitudes about the children. Future researchers also could use parent self-report measures of child-rearing practices to investigate effects of gender-stereotyped versus androgynous attitudes.

REFERENCES

- Anderson, P. L., & Adams, P. J. (1985). The relationship of five-year-olds' academic readiness and perceptions of competence and acceptance. *Journal of Educational Research, 79*(2), 114-118.
- Bandura, A. L. (1988). Conclusion: Reflections on nonability determinants of competence.

TABLE 1
Descriptive Statistics of the Variables

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum	<i>n</i>
<i>Boys</i>					
Cognitive competence	3.42	.53	2.20	4.00	34
Peer acceptance	2.96	.74	1.67	4.00	34
Physical competence	3.21	.55	2.00	4.00	34
Maternal acceptance	3.08	.63	1.83	4.00	34
<i>Girls</i>					
Cognitive competence	3.50	.45	2.40	4.00	27
Peer acceptance	2.83	.68	1.50	4.00	27
Physical competence	3.11	.48	1.83	4.00	27
Maternal acceptance	2.98	.65	2.00	4.00	27

Results

The means and standard deviations of the four subscales of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children are shown in Table 1. A within-subject two-way analysis of variance with repeated measures of 4 (subscales of perception of self-competence) \times 2 (gender) was performed to determine if gender differences existed in the perception of self-competence among these 4-year-olds. Analyses of the data showed no significant gender differences in the perception of self-competence among the children: cognitive competence, $F(1, 59) = .392, p < .534$; peer acceptance, $F(1, 59) = .45, p < .506$; physical competence, $F(1, 59) = .502, p < .481$; and maternal acceptance, $F(1, 59) = .378, p < .541$.

Discussion

Given the traditional gender-typed expectations of children's competence, we expected to find significant gender differences in the perception of self-competence, with boys scoring higher than girls on cognitive and physical competence subscales, and girls scoring higher than boys on peer and maternal acceptance subscales. However, contrary to previous research, the results of the present study indicated that there were no such gender differences in the perception of self-competence of these 4-year-old children. These results are in agreement with some of the findings of earlier researchers (e.g., Samuels & Griffore, 1979; Sugawara et al., 1986). These varying results could be interpreted in terms of the changes in the influential factors that affect the development of gender differences

Method

Sample

The participants were 61 children who were 4 years old (27 girls, M age = 4 years, 1 month; 34 boys, M age = 4 years, 2 months). They were predominantly European American (60 Caucasian, 1 Asian). The children attended four different preschool programs in a midwestern U.S. town and lived in middle socioeconomic-status families.

Materials

The perceived self-competence of the children was measured using the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Preschool version; Harter & Pike, 1984). The children were tested in the preschool, at the children's and teachers' convenience. The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children has four separate subscales: (a) cognitive competence, (b) physical competence, (c) peer acceptance, and (d) maternal acceptance. Each of the subscales has 6 items.

Procedure

Each child's perceived self-competence was measured by responses to picture plates, each of which showed a picture of a more competent child and a less competent child of the same gender as the child being tested. The sample item was presented to each child in a structured alternative format. The researcher pointed to the two pictures and described the two types of children (e.g., "This girl can tie her shoes" versus "This girl cannot tie her shoe laces by herself"). The child was then asked to indicate which of the two pictures best resembled him or her. After the child picked a picture, the researcher asked the child to indicate if the response was only "sort of true" or if it was "really true" by pointing to one of the two circles beneath the picture the child picked (e.g., "Can you really tie your shoe laces by yourself?" [pointing to the large circle] versus "Can you sort of tie your shoe laces by yourself?" [pointing to the smaller circle]).

Each item on the scale was scored on a 4-point Likert-type scale ranging from *most competent* (4) to *least competent* (1). The mean score for each of the subscales was calculated. The reliability and validity of the scale were tested on 90 preschoolers (M age = 4.45 years), 56 kindergartners, 65 first graders, and 44 second graders, using coefficient correlation techniques (Harter & Pike, 1984). The computed reliability of the subscales ranged from .50 to .85 (Harter & Pike, 1984). The reliability of the total scale inclusive of all 24 items was .85 (Harter & Pike, 1984). The entire session lasted about 15–20 min for each child.

The literature has also indicated that there are variances in the extent of influence of developmental and environmental factors on the perception of self-competence among children. These variances may be explained in part by the children's presenting responses that one wants to hear. Also the age, cognitive development, and gender of the child may relate to the variances. However, there are contradictory data about gender differences in the perception of self-competence among preschoolers (e.g., Hinde, Tamplin, & Barrett, 1993; Trautner, 1992). Usually when studies refer to gender differences, they refer to differences based on the development of gender typing and gender-based role preferences (i.e., understanding and playing the appropriate gender-based roles and behavior). Jensen (1983) and Fuchs-Beauchamp (1996) found significant gender differences in preschoolers' perception of self-esteem. However, some researchers (e.g., Samuels & Griffore, 1979; Sugawara, Andrews, Adduci, & Cate, 1986) found no such differences.

Children learn to play the societal perceptions of gender-appropriate roles early in life through several opportunities, activities, reinforcement, and modeling (e.g., Kaplan, 1991; Lauer & Lauer, 1994; Martin, Wood, & Little, 1990; Santrock, 1994). This behavior has been reinforced at all levels of socialization for manifesting gender appropriateness. These levels include family socialization techniques and attitudes such as parental childrearing attitudes, parental behaviors (e.g., Carson & Parke, 1996; Carter, 1987; Eccles, Jacobs, & Harold, 1990; Etaugh & Liss, 1992; Finnie & Russell, 1988; Henshaw, Kelly, & Gratton, 1992; Katz, 1987; Mullis & Mullis, 1989; Paretti & Sydney, 1984; Pettit & Mize, 1993; Rubin, Provenzano, & Luria, 1974; Thorne, 1993; Weinraub et al., 1984), and teachers' attitudes and behaviors (Fuchs-Beauchamp, 1996; Meece, 1987). For example, society has traditionally positively reinforced boys for playing with trucks and being involved in rough and tumble play, and girls for playing with dolls and being involved in quieter and detailed play (e.g., Blurton-Jones & Konner, 1973; Eaton & Enns, 1986; Liss, 1981).

However, research has indicated that parents who have androgynous childrearing attitudes and behavioral expectations promote androgynous behavior among their children, with the result that their offspring seem to have higher self-concepts and peer acceptance (e.g., Boldizer, 1991; Davies & Banks, 1992; Major, Carnevale, & Deaux, 1981; Massad, 1981; O'Heron & Orlofsky, 1990; Orlofsky, 1979; Perry & Bussey, 1984; Weinraub, Jaeger, & Hoffman, 1988). The variance in the literature may partly be due to (a) the specific samples of children studied and (b) the wide variety of different instruments used in the studies. In the present study, we collected data on gender differences in the perception of self-competence among 4-year-old children. The results will help resolve some of the unanswered questions about that issue and add to the scarce literature on its development. This information could be used by young children's parents and educators to help them provide suitable environments for positive outcomes for children's growth and development.

- parents teach children about social relationships. In S. Duck (Ed.), *Understanding relationship processes: Vol. 2. Learning about relationships*. Newbury Park, CA: Sage.
- Phillips, D. A. (1987). Socialization of perceived academic competence among highly competent children. *Child Development*, 58, 1308-1320.
- Putnik, M. E. D. (1993). Self-concept and social information processing in six- and ten-year-old children. *Dissertation Abstracts International*, 54(4-13): 2243.
- Rubin, J., Provenzano, F., & Luria, Z. (1974). The eye of the beholder: Parents' views on sex of newborns. *American Journal of Orthopsychiatry*, 44, 512-519.
- Ruble, D. N. (1983). The development of social comparison processes and their role in achievement-related self-socialization. In E. T. Higgins, D. N. Ruble, & W. W. Hartup (Eds.), *Social cognition and social development: A sociocultural perspective* (pp. 134-157). New York: Cambridge University Press.
- Samuels, D. D., & Griffone, R. J. (1979). Ethnic and sex differences in self-esteem of preschool children. *The Journal of Genetic Psychology*, 135, 33-36.
- Santrock, J. (1994). *Child development* (6th ed.). Madison, WI: Brown & Benchmark.
- Stipek, D. J. (1984). Young children's performance expectations: Logical analysis or wishful thinking? In J. G. Nicholls (Ed.), *The development of achievement motivation* (pp. 33-56). Greenwich, CT: JAI Press.
- Sugawara, A., Andrews, D., Adduci, V., & Cate, R. (1986). Self-concept and sex role learning among preschool children. *Home Economics Research Journal*, 15(2), 97-104.
- Thorne, B. (1993). *Gender play: Girls and boys in school*. New Brunswick, NJ: Rutgers University Press.
- Trautner, H. M. (1992). The development of sex-typing in children: A longitudinal analysis. *German Journal of Psychology*, 16(3), 183-199.
- Verschuere, K., Marcoen, A., & Buyck, P. (1998). Five-year-olds' behaviorally presented self-esteem: Relations to self-perceptions and stability across a three-year period. *The Journal of Genetic Psychology*, 159, 273-279.
- Weinraub, M., Clemens, L. P., Sockloff, A., Etheridge, T., Graceley, E., & Myers, B. (1984). The development of sex-role stereotypes in the third year: Relationships to gender labelling, gender identity, sex-typed toy preferences, and family characteristics. *Child Development*, 55, 1493-1503.
- Weinraub, M., Jaeger, E., & Hoffman, L. (1988). Predicting infant outcomes in families of employed and non-employed mothers. *Early Childhood Research Quarterly*, 3, 361-378.

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- ican Journal of Clinical Hypnosis*, 29, 95-102.
- Shapiro, D. (1965). *Neurotic styles*. New York: Basic.
- Steinberg, M., Rounsaville, B., & Cicchetti, D. (1991). Detection of dissociative disorders in psychiatric patients by a screening instrument and a structured diagnostic interview. *American Journal of Psychiatry*, 148, 1050-1054.
- Tellegen, A. (1982). *Brief manual for the Multidimensional Personality Questionnaire or MPQ*. Unpublished manuscript, University of Minnesota, Minneapolis.
- Tellegen, A. (1992). *Note on structure and meaning of the MPQ Absorption Scale*. Unpublished manuscript.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology*, 83, 268-277.
- Terr, L. (1994). *Unchained memories: True stories of traumatic memories, lost and found*. New York: Basic.
- Tulving, E. (1985). Memory and consciousness. *Canadian Psychology*, 26, 1-12.
- Wakefield, H., & Underwager, R. (1994). *Return of the furies: An investigation into recovered memory therapy*. Chicago: Open Court.
- Wilkinson, C., & Hyman, I. E., Jr. (1998). Individual differences related to two types of memory errors: Word lists may not generalize to autobiographical memory. *Applied Cognitive Psychology*, 12, S29-S46.
- Winer, B. J. (1971). *Statistical principles in experimental design* (2nd ed.). New York: McGraw-Hill.
- Yapko, M. D. (1994). *Suggestions of abuse: True and false memories of childhood sexual trauma*. New York: Simon & Schuster.

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