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Relations Among Perspective Taking, Egocentrism, 
and Self-Esteem in Late Adolescents

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I certify that I have read this thesis and find that, in scope and quality, it satisfies the requirements for the degree of Master of Arts.

Committee Chair-Dr. James Tromater

Committee Member-Dr. Barbara Sholley

Committee Member-Dr. Sharon Paulson
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Abstract

This study examined the relations among perspective taking, egocentrism, and self-esteem in a sample of 113 undergraduate college students. Self-report measures of the three constructs were used. Subjects in different levels of perspective taking did not differ significantly from one another in either egocentrism or self-esteem. Pearson correlations revealed that egocentrism was not related to self-esteem in level 2 perspective takers, but that these two constructs were negatively related in level 3 perspective takers. Additionally, when subjects were in level 2 perspective taking, feedback did not alter their perceptions of themselves. However, when in level 3, feedback did affect subjects' self-esteem, dependent upon whether the feedback was congruent or incongruent with the subjects' self-esteem. The theoretical importance of the results was discussed.
Introduction

Perspective taking, egocentrism, and self-esteem are three constructs which have individually received a great deal of attention in psychological literature. There is even some evidence suggesting a theoretical link between any two of these constructs, but no efforts were found in the literature to establish a relationship among all three. The empirical research is also limited to studies that focus on samples of children. The goal of this study was to examine theoretical and empirical relations among these three constructs in a sample of late adolescents.

More specifically, it was the aim of this study to provide empirical answers for the theoretical questions concerning the connections between the constructs: (1) Can egocentrism and perspective taking coexist in adolescents, and if so, do adolescents differ in egocentrism depending on their level of perspective taking? (2) Is self-esteem related to egocentrism and does the relationship depend on the level of perspective taking present? (3) Are changes in levels of self-esteem related to an adolescent's level of perspective taking?

Nearly all of the literature on the three constructs of perspective
Relations taking, egocentrism, and self-esteem, or any pairing thereof, have focused on children. Furthermore, the majority of those articles have been on young children approximately preschool to early grade-school age (Strayer & Mashal, 1983; Johnson, 1975; Leahy & Huard, 1976; Gjerde, Block, & Block, 1986; Chandler, 1973; Johnson & Johnson, 1983), although several studies have examined a slightly older population (Simmons, Rosenberg, & Rosenberg, 1973; Elkind & Bowen, 1979; Zuckerman, Kernis, Guarnera, Murphy, & Rappoport, 1983). It is also notable that almost no work has been done on a "normal" sample of older adolescents and that such work would be a valuable addition to the existing literature.

Selman's (1980) theory of perspective taking was derived from a Piagetian perspective, and this construct is defined as "the ability to understand how a situation appears to another person and how that person is reacting cognitively and emotionally to the situation" (Johnson, 1975, p. 241). Selman proposed five developmental levels of perspective taking (levels 0-4). Levels 0-2 occur during childhood while levels 3 and 4 of perspective taking are present in adolescents. Level 3 of perspective taking generally occurs for adolescents between the ages of ten and fifteen. At this level, adolescents can
adopt more abstract, third person perspectives that enable them to take interpersonal relationships as objects of reflective thought (Flavell, 1985). Selman's level 4 theoretically occurs somewhere between age twelve and adulthood. During this stage, additional knowledge and skills are present, including the ability to consider still more abstract and generalized points of view, such as that of one's whole society.

Adolescents in level 3 of perspective taking interpret information using assimilation, and this upsets their intellectual balance. Assimilation is the ability to interpret external information based on one's existing cognitive structures (Piaget & Inhelder, 1969). Because adolescents at level 3 perspective taking tend only to assimilate information, they remain egocentric when incorporating others' perspectives by maintaining their existing cognitive structures. They may even distort information to do so. It is only when adolescents are in level 4 perspective taking and can accommodate information that the intellectual balance is restored. According to Piaget and Inhelder (1969), accommodation is the restructuring of one's existing cognitive structures based on new external information. Because adolescents who develop to level 4
perspective taking can accommodate others' perspectives, they adapt their cognitive structure to this external information, at which time they overcome egocentrism.

When theorists and researchers discuss perspective taking ability, they assume that this ability involves accurately perceiving the information others are relaying and integrating the information properly into one's cognitive structures. However, even among adolescents who have perspective taking abilities, there is often a tendency to distort true information when it is of a nature that is inconsistent with their personal theory (Lecky, 1945; Looft, 1972; Epstein, 1973; Markus, 1977; Block, 1982; Harter, 1983; Harter, 1990). Adolescents who engage in such behavior are probably in Selman's level 3 of perspective taking and still assimilating information. It is only when adolescents are at level 4 that they are able to understand others' points of view.

Elkind's (1967) theory of egocentrism, like Selman's theory of perspective taking, was derived from a Piagetian perspective. Elkind proposed that egocentrism progresses through a number of stages. Egocentrism of the formal operational stage is called "adolescent egocentrism." Based on Piaget's theory of cognition, Block (1982)
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proposed that when the use of assimilation exceeds the use of accommodation, as it does in early adolescence, then thought evolves in an egocentric direction, meaning that adolescents' thoughts are preoccupied with their own cognitions. In general, Elkind (1967) defined egocentrism as the inability of an individual to perceive a situation or event in a way different from his or her own way (Ford, 1979). Such a definition of egocentrism is generic and would seem to preclude having perspective taking abilities at the same time. Many theories have suggested that children are either egocentric or are able to take the perspective of others, but that both of these constructs cannot exist simultaneously. Were this true, adolescents would have to switch instantaneously from being egocentric to having the ability to take the perspective of others. However, such an immediate transition is not possible, and the acquisition of perspective taking skills, like any other skill, involves a process.

Langer (1969), for example, outlined such a process in his definition of "perspectivism." He believed that adolescents have a progressive capacity to differentiate cognitively among several aspects of an event and between their own and others' points of view (Looft, 1972). By specifying that this capacity is progressive in
nature, Langer implied that there is a transitional period during which egocentrism and perspective taking coexist. Elkind (1967) also believed in this sort of gradual process. He stated that egocentrism declines as adolescents interact with peers and adults and learn to recognize and integrate others' views with their own (Elkind, 1967). Falk and Johnson (1977) lent further support to the notion that perspective taking and egocentrism can coexist when they concluded that egocentric listeners limit their perception. By using the term "limit", they implied that a certain amount of perception is being accomplished, limited as it may be. Although perspective taking and egocentrism appear to be opposites and seem incapable of occurring simultaneously, most theories have provided support for the notion that acquiring one from the other is a process, during which both will simultaneously occur at some point.

Elkind (1967) formulated that it is the ability to take into account other people's thoughts which is the crux of adolescent egocentrism. This egocentrism emerges, because adolescents can now recognize the thoughts of others, but they incorrectly assume that others are concerned with the exact same issues which occupy their own thoughts. In other words, though adolescents may realize that others
also have thoughts, they do not necessarily understand that others' thoughts may be different from their own.

Two separate aspects of egocentrism have evolved out of this theory. The first aspect is "imaginary audience," that reflects adolescents' intense self-consciousness, as well as their problem in differentiating the thoughts of the self from those of others. The second related aspect is "personal fable", that allows adolescents to feel as if their thoughts and feelings are experienced uniquely by themselves.

How do adolescents overcome this egocentrism to reach level 4 of perspective taking? It can be conquered on two dimensions. The first one is cognitive in nature and is closely associated with the imaginary audience aspect of egocentrism. On this dimension, egocentrism will be overcome as a result of the eventual realization that others' thoughts may be different from one's own (Looft, 1972). The second dimension is affective in nature and occurs when adolescents gradually recognize and integrate the feelings of others with their own feelings (Looft, 1972). This second dimension is associated with personal fable. Only when all of these processes are accomplished can adolescents conquer egocentrism and reach
Selman's level 4 of perspective taking.

Adolescents' levels of self-esteem, or feelings of self worth (Harter, 1983), have been found to be vulnerable to a number of transitions that occur during the adolescent period (Simmons et al., 1973; Simmons & Blyth, 1987). It may seem reasonable to assume that adolescents' perceptions of themselves may be dependent upon their level of cognitive development. It has been empirically concluded by Zuckerman and colleagues (1983) that individuals with high self-esteem, rather than those with low self-esteem, are more likely to be egocentric. In that study, Zuckerman and colleagues (1983) asked subjects to estimate their role as the cause and/or target of a confederate's behavior. Subjects tended to exaggerate their role as such and also exaggerated the amount of attention they attracted during the interaction. After obtaining measurements of each subject's self-esteem, he concluded that those subjects with higher self-esteem scores were more likely to make egocentric attributions than were those with low self-esteem scores. Along the same lines, it has been found that the self-evaluations of depressive people agreed more with observer ratings than did the self-evaluations of a non-depressed sample. The non-depressed subjects
had relatively inflated self-evaluations, producing what is sometimes referred to as the "halo effect" (Lewinsohn, Mischel, Chaplin, & Barton, 1980). Therefore, it appears that adolescents who lean more toward an egocentric direction have higher self-esteem than those who are less egocentric. These results also provide support for the theory that it is the "perceived self," what we think others think of us, rather than the actual self, that affects our self-attitudes (Rosenberg, 1979, & Harter, 1990).

However, it should be noted that the relationship between egocentrism and self-esteem, as described here, may only be true for individuals in level 3 of perspective taking. At level 4, because adolescents are no longer egocentric, this relationship would not be applicable. Fundamentally, when adolescents can distort reality and assimilate information to maintain an existing positive cognitive structure, then they will have high self-esteem. For those adolescents who can perceive and integrate (accommodate) the views of others, without a cognitive bias, self-esteem is placed in a more vulnerable position and may consequently be lowered.

The hypothesis just described seems to make intuitive sense, yet there are some potentially faulty assumptions associated with it that
cannot be ignored. By stating that integrating viewpoints of others will lower adolescents' existing positive self-esteem is to assume two things. First, it assumes that adolescents' levels of self-esteem are inherently positive until information contrary to the fact is accommodated. Second, it assumes that the viewpoints that may be integrated are negative in nature. After all, if the views were positive and one integrated them properly, they could not serve to lower self-esteem. It seems as if the theory postulated in the preceding paragraph, based on the current literature, may be too simplistic. Changes in self-esteem which may occur when adolescents move into level 4 of perspective taking may depend on the nature of the feedback that they are perceiving and accommodating from others. Therefore, more egocentric adolescents (those in level 3 perspective taking) may not necessarily have higher levels of self-esteem than those lower in egocentrism (in level 4 perspective taking). This theory needs further examination.

It seems reasonable to say that the literature supports a relationship between perspective taking, egocentrism, and self-esteem. Empirical work would, therefore, be a contribution to the current literature. However, in conducting research on the topic,
researchers have suggested that attention be given to the issues discussed. In this study, the constructs of egocentrism, perspective taking and self-esteem were measured in a sample of college students. To examine the questions discussed earlier about the relations among the three constructs, a brief description of the design will be specified as each expectation is introduced:

(1) Each adolescent's level of perspective taking was assessed and his or her level of egocentrism was measured. It was expected that adolescents in level 3 of perspective taking would be more egocentric than those in level 4. By level 4, adolescents should no longer be egocentric due to the consolidation of formal operational thought. This expectation is also intended to demonstrate that perspective taking and egocentrism can, indeed, exist simultaneously within a single adolescent.

(2) Next, levels of self-esteem were measured for each adolescent, in order to examine the relation between egocentrism and self-esteem at each level of perspective taking. It was expected that those adolescents who were more egocentric would have greater self-esteem when in level 3 of perspective taking, but that this relationship would not hold true for adolescents in level 4 of
perspective taking. By virtue of being in level 4, the adolescents have overcome adolescent egocentrism; therefore, it should no longer effect their self-esteem.

(3) In order to assess if changes in self-esteem occur, it was necessary to measure this construct twice and compare the two results. Specifically in this study, self-esteem was measured, then a feedback manipulation was performed, and self-esteem was measured again in order to determine if the manipulation affected it. It was expected that adolescents in level 4 of perspective taking would exhibit a greater change in self-esteem than adolescents in level 3 as a result of the feedback. More specifically, it was expected that when in level 3, adolescents' self-esteem would not change when they received information about the self, because they were egocentric and still assimilated information. By doing do, adolescents would change the information to suit their existing cognitive structure, rather than change the cognitive structure based on the information. For those adolescents in level 4, however, their level of self-esteem would change in accordance with the feedback they received. Specifically, if their level of self-esteem was either positive or negative before the manipulation and the feedback received was
congruent with their self-esteem, then that level of self-esteem would not be altered because it had been reinforced by the feedback. If, however, the feedback they received was incongruent with their existing level of self-esteem, then the self-esteem would change to some degree in the direction of that feedback, because adolescents in level 4 of perspective taking would accommodate information. Therefore, if their level of self-esteem was positive and negative feedback was received, then those adolescents' self-esteem should be lowered, and if their level of self-esteem was negative and positive feedback was received, then their self-esteem should be raised.

Method

Subjects

Subjects were recruited from the student population at an urban university (n=113). The age of the subjects ranged from 18 to 25. Both gender and race were allowed to vary, because they have not been found to have significant effects on self-esteem or perspective taking (Harter, 1983). Almost all people should have attained one of these two levels by their college years.

Each subject completed an "informed consent" form and was guaranteed anonymity and confidentiality. The subjects were told
that they could withdraw participation from the study at any time.

**Measures**

**Perspective taking.** The Selman & Byrne (1973) sociomoral dilemmas were used to measure cognitive perspective taking ability. This measure was chosen because it could be used with an older population, and because the scoring system was arranged in such a way that each subject was classified into the appropriate perspective taking stage (0-4), as specified by Selman's theory. According to Enright and Lapsley (1980), Selman's sociomoral dilemmas have been shown to have the best construct validity and stable reliabilities, ranging from .62 - .99.

An open-ended dilemma was read by the subjects, then they answered a series of questions about the story (see Appendix A for a copy of this measure). This task measured the extent to which the subject can take multiple perspectives. The highest level exhibited by the subject's responses determined his or her final score. Three trained coders rated the responses and interrater reliability was calculated, $k = 0.98$.

**Egocentrism.** As the second measure, the Adolescent Egocentrism Scale - Revised or AES-R (Lapsley, 1991) was used to assess
egocentrism (see Appendix B for a copy of this measure). This test measured imaginary audience and personal fable—two major aspects of adolescent egocentrism. This measure was derived from the original Adolescent Egocentrism-Sociocentrism Scale (Enright, Shukla, & Lapsley, 1990), which was found to be highly valid and reliable. In this study, internal reliability was calculated for the new subscales. For the personal fable subscale, the alpha coefficient was .77, and for the imaginary audience subscale, alpha was .91. Also, a nonsignificant correlation between the two subscales was obtained for this sample (r=.06).

The AES-R is a Likert-type scale, in which subjects read a statement and decided on a 4-point or 5-point scale the degree of importance which the statement holds for them. There were a total of 88 egocentrism items, 46 in the personal fable subscale and 42 in the imaginary audience subscale. Scoring of each item on the personal fable subscale ranged from 1 (strongly disagree) to 5 (strongly agree), and examples of items include, "I believe I can do anything I set my mind to;" "Nothing seems to really bother me;" "I'm somehow different from everyone else." Scoring for each item on the imaginary audience subscale ranged from 1 (never) to 4 (often)
and asked how often the subject daydreams about certain situations. Examples of this subscale include, "Winning a lot of money;" "Winning an important game for your team;" "Saving someone's life." A total score was obtained by summing the totals per item (1-4/5); a higher score indicated a greater level of egocentrism.

**Self-esteem.** The Rosenberg Self-Esteem Scale (Rosenberg, 1979) was used to measure self-esteem (see Appendix C for a copy of this measure). It has been referenced by Ruth Wylie (1974) as being one of the most valid self-esteem scales. It is also valid for college-aged subjects. Silber and Tippett (1965) reported a reliability of $r = .85$.

Sample questions of this scale include "On the whole, I am satisfied with myself," "At times I think I am no good at all," "I feel that I am a person of worth, at least on an equal plane with others." There were 10 questions, and each subject responded on a 4-point scale to each question - strongly agree, agree, disagree, strongly disagree. The scale was based on "contrived items," meaning a mixing of certain items, and yielded a 7-point scale. To evaluate the construct on a continuous scale, the total number of points that indicated a favorable self-esteem was recorded.

This scale was administered twice, once before and once
following the manipulation, in order to determine if a difference in self-esteem existed due to the manipulation.

**Procedure**

Three professors with large classes at the university were contacted in order to recruit students from their classes. Upon meeting the students, I informed them of the nature of the study and the estimated time it would take to participate. (See Appendix D for script.)

Packets of information were given to those students who volunteered. A single packet included an information page which provided instructions, a consent form, a sheet for demographic information, the self-esteem scale, the perspective taking dilemmas, the egocentrism scale, and a piece of paper with an identification number on it. The three tests were alternately arranged in the packets to avoid order effects.

After the packets were collected, two sets of feedback were administered to the students, one positive and one negative (see Appendix E). The feedback was based on the subject's original self-esteem score and was assigned in the following way: half of the subjects with high self-esteem received positive feedback while the
other half received negative feedback. This same pattern was used for subjects with low self-esteem. All of the positive feedback was identical with one another, as was the negative feedback, so that no variance could be attributed to differences in the feedback. The purpose of the feedback was to give the subject information about himself or herself and to analyze how self-esteem scores might be affected by it.

At the same time the feedback was administered, the subjects were given the self-esteem scale for a second time. The subjects were asked to read the feedback and complete the final measure in their packet at the end of class. Students were told that this feedback and the measure were based on their performance on the first packet. They were not allowed to take this packet home in order to ensure that the scale was completed immediately upon reading the feedback. Finally, the subjects were orally debriefed and were given a written statement of debriefing (see Appendix F).

Results

For this sample, subjects fell into all four categories of perspective taking. There was 1 subject at level 1, 26 subjects at level 2, 83 at level 3, and 3 subjects at level 4. The mean score of
the egocentrism measure was 243.04, with scores ranging from 178 to 311. The mean score on self-esteem was 17.55 before the feedback was administered (ranging from 6 to 38) and 17.29 after the feedback (ranging from 6 to 43). Because of the small number of subjects falling in the fourth perspective taking level, comparisons of subjects in level 3 and level 4 of perspective taking were impossible. Also, it is believed that the perspective taking measure may have depressed the scores of the subjects; this conclusion will be addressed thoroughly in the discussion section. Therefore, subjects in levels 2 (n=26) and 3 of perspective taking were compared in the manner proposed for levels 3 and 4.

It was expected that subjects in the lower level of perspective taking would be more egocentric that those in the higher level. A one-way analysis of variance was performed to determine if there was any difference between the two groups. Subjects in level 2 ($M = 248.96, s = 22.05$) were not found to be significantly different from those in level 3 ($M = 240.94, s = 23.37$) in egocentrism, $F(1,107) = 0.13$.

In the second purpose of the study, it was expected that egocentrism and self-esteem would be positively related in the lower
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level of perspective taking and that these two constructs would not be related in the higher level of perspective taking. Contrary to expectation, Pearson correlations revealed that egocentrism was not related to self-esteem in level 2 perspective takers, \( r = .33, \text{n.s.} \); but that egocentrism was negatively related to self-esteem in level 3 perspective takers, \( r = -.32, p<.01 \).

It was further expected that subjects in the lower level of perspective taking would be higher in self-esteem than those in the higher level. A one-way ANOVA revealed that the two groups were not significantly different on self-esteem (\( M = 17.19, s = 6.94 \) and \( M = 17.87, s = 6.44 \) for level 2 and level 3 respectively, \( F(1,107) = 0.65 \)).

In order to assess if adolescents' self-esteem changes when given feedback which is either congruent or incongruent with their current level of self-esteem, two 2x2 ANOVAs, one at each level of perspective taking, were employed. Both ANOVAs used congruence of feedback (congruent or incongruent with self-esteem) and polarity of feedback (positive or negative) as the independent variables and a score of change in self-esteem as the dependent variable. Means of the changes in self-esteem for each group are shown in Table 1.
For level 2 perspective takers, the two-way interaction between congruence and polarity of feedback was not significant $F(1,22)=3.03,$ but for level 3, it was significant $F(1,79)=19.56$, $p<.001$. To determine which specific differences were significant in the second ANOVA, a simple effects test was performed. As expected, a significant difference in the change in self-esteem was found between positive and negative feedback groups when the feedback was incongruent with the original self-esteem levels; i.e., the change in self-esteem was positive when subjects received positive feedback and negative when subjects received negative feedback. However, when the feedback was congruent with the pre-existing
level of self-esteem, there was not a significant difference in the change in self-esteem. There were no main effects for either congruence of polarity of feedback at either perspective taking level.

Discussion

In this study, it was necessary to compare level 2 and 3 perspective takers rather then levels 3 and 4, as proposed, due to the small number of level 4 perspective takers. It is important to clarify this issue before discussing the findings of the study. As mentioned in the Results section, it is believed that the lower perspective taking scores were artifacts of the perspective taking measure. For example, the majority of subjects (n=109) fell in either level 2 or 3 of perspective taking, and only 3 subjects comprised the level 4 group. Given that the sample was derived from a college population, subjects should have fallen within the range of levels 3 and 4. Rather than assuming that there was a characteristic problem with the sample, it was more parsimonious to believe that the measure itself could have produced these results. Specifically, the Selman dilemmas were originally designed to be used in an interview format. However, it is stated in the user's manual that they can be used in a written form, which was the method chosen for this study given the limited
resources and time available. Unfortunately, it is believed that the questions identified for use with the written format did not probe enough for high level answers in the manner that the interview could. For example, one of the questions elicited the same response from nearly every subject that was subsequently coded as a level 2 response. There would seem to be something inherent in the question to produce such an answer as opposed to all of the subjects thinking identically.

Despite the instructions that directly asked for detailed answers, most subjects responded to the questions with one or two sentences. Such brevity of response gave the coders little information with which to work. Also, there are fewer questions used in the written format than would be used in the interview. An apparent solution would be to use all of the interview questions on the questionnaire. However, this solution was not auspicious. Because several subjects complained of the length of the written measure as it existed, it seemed improbable that a greater quality of response could be obtained using more questions. The subjects did not provide detailed answers on the questions asked, therefore, they probably would not provide detail on an even greater number of questions. Perhaps,
rather than merely asking separate questions that relate to the story, subjects could be asked more probing questions about the questions already established for the written form of this measure. Given the opportunity to answer more probing questions, subjects' answers may have been more diverse, with many of them deserving a code indicative of a higher level of thought.

An alternative explanation could be that subjects were responding with what might be called "everyday thinking." It has been found that most people tend to think at levels of thinking lower than they are capable, especially when considering day to day tasks (Lave, 1988). Subjects may have approached these dilemmas using their "everyday thinking" strategies rather than resorting to more complex levels of thinking, i.e. they used concrete operational thought rather than the formal operational thought. The interview method would be more likely to involve these higher levels of thinking.

The first hypothesis that adolescents in a lower level of perspective taking would be more egocentric than those in a higher level was not supported. Although it cannot be stated that people in lower levels of perspective taking were more egocentric than those in higher levels, these results lend empirical support to the notion
that perspective taking and egocentrism can exist simultaneously. Because subjects in levels 2 and 3 of perspective taking exhibited at least median levels of egocentrism, it was evident that both constructs coexisted within a single person. Such empirical support is crucial, because although the literature has proposed the possibility of the coexistence of perspective taking and egocentrism (Elkind, 1967; Falk & Johnson, 1977; Langer, 1969), the work has been almost exclusively theoretical.

The results from the first hypothesis were in the predicted direction, but were not significant. It was originally proposed that the higher level perspective takers would no longer be egocentric due to the consolidation of formal operational thought. Despite the fact that level 3 perspective takers were analyzed in the manner suggested for level 4, it was quite possible that these subjects were not true level 4 perspective takers, and therefore, had not consolidated formal operational thought. By definition, until one has completed this final Piagetian cognitive stage, one is still egocentric.

In the second hypothesis, it was expected that egocentrism would be positively related to self-esteem at the lower level of perspective
taking. However, the results suggested that at level 2 perspective taking, egocentrism and self-esteem were not related. It is possible that the sample size (N=26) was too small to detect the moderate correlation (r=.33) which existed between egocentrism and self-esteem at level 2 perspective taking.

Furthermore, it was expected that at the higher level of perspective taking there would be no correlation between egocentrism and self-esteem, because by being in this level, one should have overcome adolescent egocentrism such that a relationship between the two constructs would no longer exist. Contrary to this expectation, egocentrism and self-esteem were negatively correlated. This result suggests that the more egocentric one was at level 3, the lower one’s self-esteem was. Although this was not the predicted result, a correlation between these two constructs was not surprising given the findings from the first hypothesis, which demonstrated that egocentrism still existed at level 3 perspective taking. Because egocentrism was still evident for these subjects, it is a viable conclusion that a correlation between self-esteem and egocentrism existed at level 3 perspective taking. However, based on previous research (Zuckerman et al., 1983), a
positive correlation would be expected.

The negative correlation may be attributed to the way the subjects process information. It was conceivable that subjects in level 3 perspective taking neither fully assimilate nor fully accommodate information. Instead it seems as if the subjects in this level were using a combination of both techniques. Based on the current literature, when individuals assimilate information, their self-esteem should remain invulnerable, because they could potentially distort information which threatened their personal theory (Lecky, 1945; Looft, 1972; Epstein, 1973; Markus, 1977; Block, 1982; Harter, 1983; Harter; 1990). On the other hand, when individuals accommodate information, they have completed formal operational thought and should no longer be egocentric. Neither of these statements was entirely true for level 3 perspective takers in this study. The results demonstrated that they were still egocentric, yet their self-esteem was not as positive as might be expected from individuals who assimilate information. Therefore, it was conceivable that these level 3 perspective takers were using a combination of the two techniques. Perhaps level 3 is a transitional phase toward being able to successfully accommodate all
Additionally, it was proposed in the second hypothesis that subjects in the lower level of perspective taking would have higher self-esteem than those in the higher level of perspective taking. Results revealed that subjects in levels 2 and 3 perspective taking did not differ significantly from each other in self-esteem. The original expectation was also based on the belief that at the higher level of perspective taking, adolescents should have overcome egocentrism and should accommodate information, which would place their self-esteem in a more vulnerable position. Given that the subjects in level 3 perspective taking were still egocentric, the reasoning behind the expectation was no longer valid. Therefore, it was a viable result that there was no difference among these two groups of perspective takers on self-esteem.

The expectations for the third hypothesis were supported by the results. When in level 2 perspective taking, there were no significant changes in self-esteem. It seemed obvious that the feedback did not alter a level 2 subject's perception of him or herself. This finding supports the notion that people in this level of perspective taking continued to assimilate information presented to them. Such was not
the case for level 3. The results suggested that when in level 3 of perspective taking, feedback from others can affect one's self-esteem. Specifically, when the feedback was congruent with the person's self-esteem, his/her self-esteem did not change after receiving the feedback. However, when the feedback was incongruent with subjects' self-esteem levels, they changed their self-esteem in accordance with the feedback. These results suggested that at higher levels of perspective taking, individuals were able to accommodate information provided to them. This is an important distinction in information processing. The results also supported the idea that many previous theories were too simplistic. Most suggested that when accommodating information, self-esteem would become more vulnerable and may, consequently, be lowered. However, these data suggested that self-esteem may also be aided by feedback when it is positive. This has important implications for various areas, including counseling. From the existing literature, it is easy to believe that knowing the truth can only hurt an individual, as evidenced by such concepts as depressive realism (Lewinsohn et al., 1980). Yet, the findings from this study clearly demonstrated that there can also be a positive side to accurately accommodating information.
Although levels 2 and 3 perspective taking were compared in the manner originally proposed for levels 3 and 4 respectively, it has not been established that the perspective taking measure did lower the subjects' written responses. It would be a worthwhile endeavor to compare the written form of the Selman perspective taking measure to its original interview format. Hopefully, such a comparison would not only establish if the scores are different from one another, but it could also determine the magnitude of the difference. Once a definitive difference was established or refuted, the interpretation of results based on this measure would not only be easier, but more meaningful as well.

The main significance of this study was of a theoretical nature. The possibility of the coexistence of perspective taking and egocentrism has received empirical support. There is also support for a relationship between the three constructs of perspective taking, egocentrism, and self-esteem. These are two basic and important points that needed to be established.


Table 1

Number of subjects in each cell of the 2 x 2 ANOVAs

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<th>Polarity</th>
<th>Positive</th>
<th>Negative</th>
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<td>Group</td>
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<tr>
<td>Level 2</td>
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<tr>
<td>Congruent</td>
<td>-0.67</td>
<td>4.67</td>
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<td></td>
<td>(9)</td>
<td>(3)</td>
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<tr>
<td>Incongruent</td>
<td>1.00</td>
<td>-1.27</td>
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<td>(3)</td>
<td>(11)</td>
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<tr>
<td>Level 3</td>
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<td>Congruent</td>
<td>0.00</td>
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<tr>
<td>Incongruent</td>
<td>6.13</td>
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<td>(8)</td>
<td>(31)</td>
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Note. Number of subjects in each group are shown in parentheses.
Appendix A

Please read the Ping-Pong story carefully and answer the questions which follow it on separate sheets of paper. Elaborate as much as possible when answering each question. Write down anything that comes to mind as you reflect on the story. There are no right or wrong answers. Write whatever you think is true. Even though it may be more convenient for you to answer these questions with short answers, we would appreciate you being as detailed as possible.

The Ping-Pong Story

Keith, 10, and Jerry, 8, live across the street from each other and are good friends, even though Keith is older. They have a lot in common, but Keith especially likes playing ping-pong at Jerry's house. However, Keith always wins, and finally one day when he beats Jerry 21-10, Jerry throws down his paddle and says that's it. There's no sense in his playing ping-pong anymore because he always loses.

He and Keith argue, Keith saying he should keep trying, Jerry saying you don't know what it feels like to lose all the time. Keith says, "You don't want me to think you're a poor sport, do you?" Jerry says it's not being a poor sport, it's just no fun for him when he never wins. Keith says, "Think about me. If you won't play with me, where am I going to play? No one else has a ping-pong table." They argue louder and louder, and Jerry's 11 or 12 year old sister, Jean, and her friends, Lisa and Ellen, come in to see what's the matter. When the boys tell Jean, she says she can see that they both have a point. Why don't they not play ping-pong with each other for a while, and she will let Jerry practice with her. Then maybe when he gets better,
he could try playing with Keith again. At first Jerry says that wouldn't do any good. Jerry says he doesn't think he's good enough, and he doesn't want to lose. Jean says he'll never know if he doesn't try. So they play.

At the beginning of the game, Jerry says that if he loses this time, he'll give up ping-pong for good. Keith claims he's out of practice, says Jerry has gotten a lot better. Jerry wins and is all excited, but Lisa says, "Boy, Keith, you sure didn't do very well." Jerry stops leaping around and says, "You were just out of practice, right? You didn't let me win, did you?"
1. If Jerry wins, but finds out that Keith let him win, how will Jerry feel? Why? Could he feel more than just happy about winning? Could he be both happy and upset? Happy that he won, but upset that Keith let him win? How could that be? How can you feel two ways about something?

2. If Jerry is happy about finally winning, but sad that Keith let him win, how would he feel overall? Could he have mixed feelings? What would that mean? Have you ever had mixed feelings about something? Tell me about it? How can feelings be mixed, like happy and sad?

3. If Jerry is smiling even after he finds out that Keith let him win, does that mean he is happy? Is a person always happy when you see him smiling? Could a person look happy on the outside, but be sad on the inside? How is that possible?

4. Could Jerry fool himself into thinking he didn't care about the game? How could he do that? (Why couldn't he do that?) Is it ever possible to really fool yourself? Have you ever fooled yourself? How did you fool yourself?

5. If Jerry tells himself he is going to lose, will that affect the way he plays the game? Why would that be?

6. Do you think that Jerry is a poor sport (or sore loser, stubborn, thin-skinned, overly competitive)? What would that tell you about him? What does it mean when you say a person is a poor sport? What makes a person become a poor sport?

7. Is there a difference between being a poor sport and just being tired of losing? What is the difference?
8. What kind of personality do you think Jerry has? What does it mean when you say that you know what kind of personality someone has? Can a person have more than one personality? How is that possible?

9. If Jerry is a poor sport now, what will he be like when he grows up? Do you think he will change or will he stay the same? What might make him change? How do people change as they get older? Have you changed as you've become older?

10. If Jerry knows he is a poor sport, do you think there is any way he can change the way he is? How can persons change themselves?

11. If you were Jerry's friend, how might you help him change from being a poor sport? Anything besides letting him win? What might you say to him to help him change? Why that?
People believe different things about themselves. We would like you to read the questions below and use the following scale to rate how you feel about each of the questions:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Kind of disagree</th>
<th>Don't really agree or disagree</th>
<th>Kind of agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>

1. I believe I can do anything I set my mind to.
2. Nothing seems to really bother me.
3. No one has the same thoughts and feelings that I have.
4. I think that I am more persuasive than my friends.
5. I believe that no one can stop me if I really want to do something.
6. I'm somehow different from everyone else.
7. It often seems like everything I do turns out great.
8. I don't think anything will stand in the way of my goals.
9. I'm the only one that can understand me.
10. I believe that other people control my life.
11. I don't believe in taking chances.
12. I believe that I am unique.
13. I think I can be anything I want to be.
14. I'm a fragile person.
15. I think that deep down everyone is the same.
ID Number: __________

Strongly disagree  Kind of disagree  Don't really agree or disagree  Kind of agree  Strongly agree

--- 1 --- 2 --- 3 --- 4 --- 5 ---

16. I believe that everything I do is important.
17. I believe in knowing how something will turn out before I try it.
18. I'm just like everyone else.
19. I think I'm a powerful person.
20. I believe in taking risks.
21. Everybody goes through the same things that I am going through.
22. I think that I am better than my friends are at just about anything.
23. I tend to doubt myself a lot.
24. It's hard for me to tell if I am different from my friends.
25. I often feel that I am insignificant and that I don't really matter.
26. Other people don't influence me.
27. There isn't anything special about me.
28. I often think that people don't listen to what I have to say.
29. There are times when I think that I am indestructible.
30. I honestly think I can do things that no one else can.
31. I can get away with things that other people can't.
32. Everyone knows that I am a leader.
33. Nobody will ever really know what I am like.
34. No one sees the world the way that I do.
35. It is impossible for people to hurt my feelings.
36. People always do what I tell them to do.
37. People usually wait to hear my opinion before making a decision.
38. I usually let my friends decide what we are going to do.
39. My feelings are easily hurt.
40. Special problems, like using drugs or becoming pregnant could never happen to me.
41. I enjoy taking risks.
42. It is easy for me to take risks because I never get hurt.
43. I don't take chances because I usually get in trouble.
44. I am always in control.
45. I am not afraid to do dangerous things.
46. Sometimes I think that no one really understands me.
ID Number: 

How often do you daydream about, or imagine yourself to be in the following situations? In order to tell us how often you think about these situations, just place a mark on the appropriate line under either "never," "hardly ever," "sometimes," or "often."

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Hardly ever</th>
<th>Sometimes</th>
<th>Often</th>
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<tbody>
<tr>
<td>1. Winning a lot of money</td>
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<td>2. Being a rock star</td>
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<tr>
<td>3. Being a movie or t.v. star</td>
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<td>4. Winning an important game for your team</td>
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<td>5. Being popular with friends</td>
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<td>6. Being admired for the way you look</td>
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<td>7. Being a good athlete</td>
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<td>8. Being admired because of the way you dress</td>
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<td>9. Being an important leader</td>
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<td>10. Performing in front of your school in a play</td>
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<td>11. Being admired because of how smart you are.</td>
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<td>12. Having a popular boyfriend or girlfriend</td>
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<td>13. Performing in front of your school in a band.</td>
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<td>14. Rescuing a friend from danger</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>15. Saving someone's life</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>16. Standing up to a bully</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>17. Winning an important award</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>18. Showing others that you are strong</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>19. Imagining how others would feel if you were gone</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>20. Showing others that you are kind and friendly</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>21. Having a lot of friends</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>22. Getting your feelings hurt in public</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>23. Making people sorry for hurting you</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>24. Getting back at an enemy</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>25. Developing a friendship with someone who doesn't like you</td>
<td>[ ] Never [ ] Hardly ever [ ] Sometimes [ ] Often</td>
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<td>26. Imagining how others would feel if you lost your mother or father</td>
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<td>27. Imagining how others would feel if you were in the hospital</td>
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<td>28. Giving an important speech</td>
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<td>29. Being rejected by a boyfriend or girlfriend</td>
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<td>Hardly ever</td>
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<td>30. Being admired because you are funny</td>
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<td>31. Being admired because of the car you have or want to have</td>
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<td>32. Being admired because of your records or stereo system</td>
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<td>33. Imagining what others are thinking about the way you look</td>
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<tr>
<td>34. Asking a popular boy or girl for a date</td>
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<td>35. What it's like to be married</td>
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<td>36. Making a good impression on your teachers</td>
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<td>37. Imagining what everyone will think if you become famous</td>
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<td>38. Other people seem to enjoy it when I'm the center of attention</td>
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<td>39. Thinking about who would come to your funeral and what would be going through their mind</td>
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<td>40. Imagining if other people think you are attractive</td>
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<td>41. Being admired for being &quot;cool&quot;</td>
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<td>42. Wondering what it would be like to have special powers.</td>
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Appendix C

ID Number: ____________

Please indicate if you strongly agree, agree, disagree, or strongly disagree with each of the following statements by putting the appropriate number next to the item.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th>agree</th>
<th>disagree</th>
<th>strongly disagree</th>
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<tbody>
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<td>___ 1.</td>
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<td>___ 10.</td>
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___ 1. On the whole, I am satisfied with myself.
___ 2. At times I think I am no good at all.
___ 3. I feel that I have a number of good qualities.
___ 4. I am able to do things as well as most other people.
___ 5. I feel I do not have much to be proud of.
___ 6. I certainly feel useless at times.
___ 7. I feel that I'm a person of worth, at least on an equal plane with others.
___ 8. I wish I could have more respect for myself.
___ 9. All in all, I am inclined to feel that I am a failure.
___ 10. I take a positive attitude toward myself.
Appendix D

Hello. My name is Dawn Leister, and I am a graduate student in psychology at the University of Richmond. I am conducting my thesis on egocentrism and perspective taking levels of college students and am interested in using the students here, at VCU, because there may be a greater diversity of egocentrism and perspective taking levels here than at Richmond. You are more representative of the "real world."

All this would require would be for you to fill out a couple of questionnaires at two different times. You can take them with you, and I will pick them up here at the beginning of your next class. Also, your name would only be on a consent form which will be collected separately from the questionnaires, so your answers would be completely anonymous. Also, I will be the only one looking at the responses, so your answers would also be kept confidential. You have the right to withdraw your participation at any time if you feel uncomfortable for any reason. I would only ask that you return your packet to me. The first set is the longer of the two and should take about an hour to complete. The second set should take about 5 minutes. You will get that at a later time, after I have analyzed the first part.

Are there any questions? I would greatly appreciate anyone and everyone's cooperation. Would anyone like to volunteer?

I will be back one week from today to pick up the packets. Please keep your identification number, because that is the only way I can match your second set of packets with the first sets.
Appendix E

Negative Feedback

Your answers provided on the egocentrism measure show that you are, in fact, an egocentric individual. It seems that you believe yourself to be unique among all other persons. You believe that others are as concerned as you are with what you think and do. Although this sense of egocentrism is quite common among younger adolescents, most people have outgrown it by your age. However, there are obviously a few exceptions, such as yourself.

Positive Feedback

Your answers provided on the egocentrism measure show that you are not an egocentric individual. It seems that you realize that there are many people in the world who are as unique as you are. You believe that others may be concerned with matters that are completely separate from your own concerns. Although a sense of egocentrism is quite common among younger adolescents, most people have outgrown it by your age, as you have.
Appendix F

This experiment was designed to determine if there is a relationship between perspective taking, egocentrism, and self-esteem. A secondary purpose of the study was to discover if self-esteem would be affected by feedback. To see how your self-esteem might change, I gave you random feedback. I have not yet looked at the results of your egocentrism task, and therefore, have no idea how each of you really did. Please keep in mind that the feedback given was completely random, with no indication of your actual score on the egocentrism task. Also I mentioned in some of the feedback that by college, most people have overcome egocentrism; this is not necessarily true. Some people will have overcome egocentrism, and others may remain egocentric forever. Neither is considered normal; it is a matter of individual differences.

Thank you for your cooperation. You have been a great help to me and to the study of these constructs. Should you have any questions about your results, you may contact me next semester at the following address:

Dawn Leister
Department of Psychology
University of Richmond
Richmond, Virginia 23173
Figure Caption

Figure 1. Self-esteem as a function of congruence and polarity of feedback in level 2 of perspective taking.
Relations

- Congruent
- Incongruent

Change in Self-Esteem vs. Polarity of feedback

Positive: 1, 2, 3, 4, 5
Negative: -1, -2, -3, -4, -5

Positive feedback increases self-esteem, while negative feedback decreases it. Congruent feedback is more effective than incongruent feedback in changing self-esteem.
Figure Caption

Figure 2. Self-esteem as a function of congruence and polarity of feedback in level 3 of perspective taking.