

The Personal Fable and Risk-Taking in Early Adolescence

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Abstract Elkind's (1967) theory of adolescent egocentrism proposes two distinct, but related, constructs – the *imaginary audience* and the *personal fable*. A corollary to the imaginary audience, the personal fable (PF) yields a sense of invulnerability and speciality commonly associated with behavioral risk-taking. When regarded as a developmental phenomenon, risk-taking is thought to be the result of cognitive immaturity. However, few adolescent health programs address the

egocentric dimension of decision making. We believe that a valid and reliable measure of PF would aid assessment of risk-taking potential and inform preventive interventions. The present paper reports the results of a newly constructed measure of PF and its relation to risk-taking behavior. The following three hypotheses were tested using data from an availability sample of 119 middle school students: 1. PF scores will increase with age; 2. males will score higher than females on the invulnerability dimension of PF; and 3. PF and risk-taking will be positively correlated. As predicted, PF scores increased significantly across the age range studied. Of the two PF dimensions, only invulnerability significantly varied across grades. Males reported significantly higher invulnerability scores than females, and PF and risk-taking were positively correlated. Suggestions for the implementation of this new and, arguably, reliable and valid scale are presented.

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The concept of adolescent egocentrism (Elkind, 1967) links the cognitive structures peculiar to adolescence and the behaviors characteristic of this developmental period. While the origins of adolescent egocentrism are arguably cognitive, this construct has affective, non-cognitive characteristics including self-consciousness, invulnerability, and speciality (Elkind, 1967, 1978). Indeed, the concept of adolescent egocentrism was introduced, in part at least, in an attempt to tie cognitive structures to affective facets of adolescent personality.

Within the Piagetian theory of cognitive development, egocentrism is broadly defined as a lack of differentiation in subject-object relations that takes a unique form and is reflected in a unique set of thoughts and actions at each stage of mental development (Piaget, 1962). The young child, for

example, fails to distinguish between the name and the thing. At this age, the child refuses to accept the fact that the same object can have different names and that the name can be changed. After the age of six or seven and the attainment of concrete operations, the child is freed from the egocentrism of words and things but falls prey to a new form of egocentrism. At this stage, the child fails to distinguish between a self constructed hypothesis and the facts. When playing a game that requires a change of strategies, the school age child sticks with the initial strategy and tries to make the facts fit the hypothesis.

The emergence of formal operations, e.g., the capacity to mentally construct all the possibilities in a system and generate contrary-to-fact propositions (Inhelder and Piaget, 1958), frees the young adolescent from his or her hypothesis/fact egocentrism, but gives rise to a new type of failure of differentiation. Building upon Piaget's theory, Elkind (1967) has proposed a theory of adolescent egocentrism with two distinct, but related, constructs – the *imaginary audience* and the *personal fable*. The imaginary audience is the adolescent's assumption that his or her preoccupation with personal appearance and behavior is shared by everyone else (Elkind, 1967, 1978). Elkind contends that the presence of an admiring or fault-finding (imaginary) audience helps to account for the heightened self-consciousness characteristic of early adolescence. Elkind and Bowen (1979) constructed an Imaginary Audience Scale (IAS) and administered it to 4th, 6th, 8th, and 12th grade subjects. As expected, 8th grade participants scored significantly higher than did the other age groups. These results were replicated by other studies (Enright, Shukla, and Lapsley, 1980; Gray, 1984; Ryan, 1994).

The personal fable is the corollary to the imaginary audience. Thinking of himself or herself as the center of attention, the adolescent comes to believe that it is because he or she is special and unique. "Other people will not realize their ambitions, but not me; other people will grow old and die but not me; other people will get hooked on drugs but not me." Thanks to this personal fable, the young adolescent believes that his or her feelings and emotions are different, more intense and excruciating, than those of others. Elkind (1967) suggests that the personal fable gives rise to a sense of invulnerability and speciality with a propensity for behavioral risk-taking. While others have constructed measures to assess the personal fable (e.g., Enright, 1980), the present paper is the first attempt by Elkind and students to construct and test out their own measure of the personal fable.

As the above research indicates, the theory of adolescent egocentrism predicts a curvilinear increase and decrease in adolescent egocentrism between childhood and middle-to-late adolescence. That is to say, preadolescents and late adolescents are expected to score significantly lower on the dimensions of adolescent egocentrism than those early

teenagers just acquiring formal operations. Previous research has provided support for this predicted developmental pattern (Elkind, 1979; Enright, Shukla, and Lapsley, 1980; Green, Morton, Cornell, and Jones, 1986).

We believe that a valid and reliable measure of the personal fable would be an invaluable aid to assessing adolescent risk-taking potential and preventive intervention. Adolescents are disproportionately represented in virtually every category of risk-taking behavior (Arnett, 1992). Substantial human and financial resources are devoted each year to developing programs that target adolescent risk behavior (Greene, Krmar, Walters, Rubin, and Hale, 2000). Risk-taking behavior is typically conceptualized as a learned behavior, a personality characteristic, or a developmental phenomenon. When regarded as a developmental phenomenon, risk-taking is thought to be the result of cognitive immaturity. That is to say, it is assumed that adolescents are not sufficiently able to assess the risks, the costs and benefits, of engaging in risky behavior. While cognitive-social immaturity is a plausible explanation for risk-taking behavior in adolescence, few adolescent health programs take into account the egocentric dimension of decision making (Greene et al., 2000). Understanding the egocentric basis of risk-taking behavior may have important implications for identification and for preventive educational programs.

Given the theoretical and intuitive link between the personal fable and engagement in risk behaviors, researchers have constructed their own personal fable measures and sought empirical evidence for their association (e.g., Greene et al., 2000; Hudson and Gray, 1986; Lapsley, 1989; Melton, 1988). Greene et al. (2000) obtained adolescent self-report data to examine the predictive power of egocentrism in adolescent risk-taking behavior. Results indicated that a high personal fable (score) was a key component in the explanation of most risk-taking behavior. Specifically, the invulnerability dimension of the personal fable was significantly associated with patterns of risk-taking behavior. In early studies conducted by Greene and colleagues (1995, 1996), the speciality dimension of personal fable was a significant predictor of adolescents' attitudes toward risk behavior. The invulnerability dimension in these studies was inversely associated with adolescents' perceived intentions to avoid risk behaviors.

Sex effects are present for both personal fable and risk behaviors (e.g., Greene et al., 1996; Hudson and Gray, 1986). While there is general agreement that males engage in significantly more risk behaviors than females, the effect of sex on the personal fable is inconsistent in the literature. In a study by Hudson and Gray (1986), females scored significantly higher on personal fable measures than their male counterparts. However, Greene, et al. (1996) found that males scored higher on this construct than females. This apparent inconsistency in the literature warrants further attention.

Because the personal fable measures used in the studies reported above are rather long and cumbersome (49 items), we wanted to find a brief measure of the personal fable that would discriminate between age groups and relate to measures of every day risk-taking. The present paper reports the results of a newly constructed measure of the personal fable and its relation to risk-taking behavior. We tested three hypotheses. 1: that scores on the personal fable scale will increase with age over the early adolescent years; 2: that males will score higher on the invulnerability dimension of personal fable than females; and 3: that there will be a positive correlation between personal fable and risk-taking scores.

Method

Subjects

An availability sample of 119 middle school students (66 males, mean age = 13.38 years, SD = 1.05 years; 53 females, mean age = 13.31 years, SD = .96 years) from a New England town was recruited for this study. The sample included sixth graders ($n = 34$), seventh graders ($n = 41$), and eighth graders ($n = 44$). In accord with theory and past research indicating the emergence of adolescent egocentrism around the ages of 11 and 12 (Elkind, 1967; Enright, Lapsley, and Shukla, 1979), students 10 years of age and below were not included in the study. This age range criterion was implemented by asking participants for their age in years and months on the day of testing. Participants' sex was also obtained through self-report. The school draws from a lower middle class white neighborhood.

Scales

Personal fable

The personal fable component of adolescent egocentrism was measured with the new Personal Fable (PF) scale. The PF scale is a 12-item Likert-type scale, with five anchors per item (i.e., "this is . . . *never, rarely, sometimes, often, and always* . . . true for me"). Each item presents a belief statement and participants must indicate using the 5-point scale the degree to which they regard the statement as "true for me." Scoring for each item ranges from 1 ("this is *never* true for me") to 5 ("this is *always* true for me"). The PF scale is comprised of two subscales, invulnerability and speciality, comprising six items each. Examples of PF scale items include: "I know I get away with a lot of stuff other kids get in trouble for" (invulnerability); "When my parents or friends tell me that they know how I feel, I don't believe that they really do" (speciality). A total score per subscale is obtained

by summing the item scores (1–5) in that subscale. The total score for each subscale, then, can range from 6–30. A composite score for the personal fable construct is obtained by summing the two subscales. Scores for the personal fable construct can range from 12–60. See Appendix for items.

Although a relatively new measure, the PF scale has been field tested to investigate sex and age group differences in adolescent egocentrism (e.g., Elkind, Fallon, Maynard, Pisano, Schwartz, and Murray-Cohen, 2005). Based on a sample of 2,390 participants (males = 1179; females = 1211), Elkind et al. (2005) found that the average personal fable score for this population was 33.1. Males reported significantly higher levels of personal fable than females ($F(1, 2301) = 56.71, p < .001$). The internal reliability of the PF scale for this sample approached unity (Cronbach alpha = .60).

Risk-taking

Adolescents' orientation to risk-taking was assessed with the Risk-Taking (R-T) scale. The R-T scale is composed of 10-items, each of which presents the participant with a hypothetical situation. Participants indicate how they would respond to this hypothetical situation by selecting one of three multiple choice, fixed responses. Although the content of the response options vary depending on the given hypothetical situation, the response format is consistent in that each item's response options represent similar degrees of orientation toward risk-taking (i.e., would take risk, would hesitate or take calculated risk, would refrain from risk). Scoring for each item ranges from 1 (would refrain from risk) to 3 (would take risk). A composite score for the risk-taking construct, then, can range from 10–30.

The R-T scale was created to reflect common risk behaviors associated with developmental domains including social (e.g., with regard to authority and peers) and physical, and relevant issues including novelty and social conformity. The following is an example of a social risk item related to authority: "When a teacher says something that I know is wrong, I . . ." a) let them know that they are wrong, b) mention it to a friend, but not the teacher, or c) don't say anything. An example of a physical risk item is: "If I got the chance to go skydiving, I . . ." a) would definitely do it, b) might try it, but would be pretty nervous, or c) would say, "no way." The following item is meant to capture risk associated with novelty: "When asked to play a game I have never played before, I . . ." a) give it a try, b) watch others before I play, or c) choose not to play. Finally, an example of a social conformity item is: "If a group of my friends are trying cigarettes for the first time, I . . ." a) join right in, b) want to join them, but decide not to, or c) don't try it.

The R-T scale was developed for the purposes of the present study. As such, psychometric statistics for this scale

are unavailable in the existing literature. However, using Cronbach's alpha of internal consistency, the R-T scale was shown to be adequately reliable for the current sample (Cronbach alpha = .62).

Design and procedures

Participants were recruited by one of the authors from a local middle school. Six classrooms, two per Grades 6, 7, and 8, were targeted for this sample. Once permission had been obtained from the school district superintendent and principal, information packets were sent to classroom teachers for distribution among the students. The information packet contained a letter explaining the purpose of the study and a parental consent form. Students were asked to deliver the information packet to their parent(s) for consideration. Teachers were responsible for collecting returned materials and for keeping track of which children had parental permission to participate. Participation was extremely high as all targeted students, with the exception of one, were given permission to take part in the study.

Data collection was conducted by two of the authors throughout a single day. Students were excused from health class to complete the two questionnaires (i.e., PF scale and R-T scale). Since data were collected from two classes per grade, a total of six "collections" took place over the course of a school day. Signed parental consent forms were collected and child assent was obtained prior to participation. Verbal instructions were provided by one of the two authors in advance of the distribution and completion of the questionnaires. All participants were told that the purpose of the study was to examine decision-making and risk-taking in early adolescence and that their responses would be treated confidentially and anonymously (no identifying information, with the exception of sex and age, was required of the participants). Participants were assured that there were "no right or wrong, good or bad" answers to any of the questions and were asked to respond with all honesty. Participants were also instructed that they could skip any questions that they did not wish to answer.

Each of the six classes were group-administered the three, paper-and-pencil instruments. As a control for possible order effects, the sequence of the three questionnaires followed one of six possible permutations. One way analyses of variance (ANOVA) were computed to examine the existence of an order effect on participants' responses to the PF and R-T scales. Results indicate the absence of significant differences among permutations for both PF and R-T scales ($F(5, 113) = .587$, n.s. and $F(5, 113) = 1.179$, n.s., respectively), so data were combined for subsequent analyses. After completing the questionnaires, participants were debriefed and thanked for their participation. The entire procedure took between 15 and 20 minutes for all groups to complete. Re-

Table 1 Mean scores for personal fable, invulnerability, and speciality at grades 6, 7, and 8

	Mean scores		
	Grade 6	Grade 7	Grade 8
Personal fable (total score)	32.12	33.34	35.75*
Invulnerability (subscale score)	15.88	16.64	18.30*
Speciality (subscale score)	16.24	16.88	18.33

*Across-grade comparison is significant at the .05 level.

sponses to the questionnaires were scored by the coauthors. All analyses were conducted using SPSS release 13.0.

Results

Scale reliability

Preliminary analyses were concerned with obtaining reliability estimates of the Personal Fable and Risk-Taking scales. Using Cronbach's alpha of internal consistency both scales were found to have adequate internal reliability: Personal Fable = .60; Risk-Taking = .62. The average personal fable score for the present sample was comparable to that found by Elkind et al. (2005) ($M = 33.88$).

Hypothesis 1: Personal Fable Scores will increase significantly across the age range studied.

The results supported our first hypothesis. The mean scores for each grade level were 32.12 (6th grade), 33.34 (7th grade), and 35.75 (8th grade) as shown in Table 1, and the differences were significant at the .05 level. Similar increases were found for both the invulnerability and speciality subscales, however, only invulnerability subscale means significantly varied across grades, as shown in Table 1.

Hypothesis 2: Males will score higher than females on the invulnerability dimension of personal fable.

As predicted there were also significant sex differences in performance on the invulnerability dimension of personal fable, as shown in Table 2. Males reported significantly higher invulnerability scores than their female counterpart, ($F(1, 117) = 7.284$, $p < .01$).

Table 2 Mean scores for males and females of the invulnerability dimension of the personal fable construct

	Mean scores	
	Males	Females
Invulnerability (subscale score)	17.97	15.61*

*Sex difference significant at $p < .01$.

Hypothesis 3: Personal Fable and Risk-Taking scores will share a positive correlation.

In keeping with hypothesis 3, we found a significant correlation between scores on the personal fable and risk-taking scales, $r = .365$, $p < .01$.

Discussion

The results of the present study are generally in keeping with the findings of earlier research on the personal fable. Based on Elkind and Bowen's (1979) finding that Imaginary Audience scores peak in 8th grade, we expected that this construct's counterpart, the personal fable, would likewise increase across the age range studied. Indeed, personal fable scores significantly increased across Grades 6, 7, and 8. Consistent with Greene et al.'s (1996) findings, males scored significantly higher than females on the invulnerability dimension of personal fable. The significant covariation between personal fable and risk-taking, which has been replicated by several researchers (e.g., Greene et al., 2000; Hudson and Gray, 1986; Lapsley, 1989), implicates the relevance of cognitive-social immaturity in addressing the risk behaviors of adolescents. As such, adolescent health programs might benefit from consideration of the egocentric dimension of decision making. The major contribution of the present investigation is the introduction of a short personal fable scale that appears to be both reliable and valid. As such, it may provide a useful instrument for further studies of the personal fable construct with other populations (say at risk groups) and other variables (such as impulsivity and reflectivity).

Limitations to the study should be noted. The sample was of a limited demographic group—predominantly white, middle class youth—and cannot be generalized to other ethnic and socio economic groups. Likewise, as with all cross sectional studies, we cannot say the extent to which either the personal fable or risk-taking is a short-lived developmental phenomenon, or an abiding personality trait. While we hypothesize that the personal fable is a transient developmental phenomenon, for some young people it may well be an abiding personal trait. Future research might be designed to discriminate between these transient and abiding fable and risk-taking behaviors.

Appendix

Personal fable scale items

- *1. Even though other kids, besides me, got A's on their papers, I feel that the teacher liked mine the best.
2. I know I get away with a lot of stuff other kids get in trouble for.

- *3. When I realize I have said or done something really hurtful to a good friend it seems to me that no one else has ever done anything quite so bad.
4. Some kids don't worry about getting injured when they play sports.
- *5. Although I know that many other people may never realize their goals and ambitions I am sure that I will.
6. Some kids believe that even if they try drugs they will never get hooked on them.
- *7. When teams are picked in gym or at recess, I know I will never be the one picked last.
8. I don't worry about what I eat because I know I won't get fat.
- *9. When my parents or friends tell me that they know how I feel, I don't believe that they really do.
10. Some kids believe that they don't need to put on their seatbelt every time they get in a car.
- *11. Sometimes when I see a good-looking girl/boy, I think that they are looking at me in a very admiring way.
12. Some kids think that wearing a helmet while skateboarding, biking, or rollerblading is unnecessary because nothing is going to happen to them.

*Denotes speciality items.

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