

Self-Efficacy and Future Adult Roles: Gender Differences in Adolescents' Perceptions

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Abstract

While previous studies have examined perceptions of self-efficacy, relatively few have focused upon how such perceptions develop during the adolescent years. Using a national sample of high school seniors, this study examines the nature of adolescents' perceptions of self-efficacy; as such perceptions are related to future spousal, parental, and worker roles. Building upon a framework of life-course and ecological theories, both familial and individual factors are shown to be significantly associated with perceptions of self-efficacy among adolescents. Among boys, risk-taking behaviors, such as alcohol consumption and delinquency, are shown to be linked to perceptions of self-efficacy. Among girls, an interweave between future spousal and parental roles is suggested. The implications of these findings, as well as directions for future research, are discussed.

Throughout the late adolescent years, young people begin to consider the various adult statuses and roles which they could eventually occupy. In doing so, they typically weigh the combination of their own interests, aspirations, and experiences as they attempt to formulate a path for their futures (Erikson, 1968). Adolescence is generally recognized as a stage of life in which individuals are not only undergoing a substantial amount of physical, cognitive, and emotional change (Milyavskaya et al., 2009), but a time during which young people attempt to transition into the adult sphere, involving the need to make decisions about educational goals (e.g., Lui et al., 2014), occupational goals (e.g., Blustein, 2006), and familial goals, such as whether to marry and/or have children (e.g., Blair, 2010). Aside from recognizing these goals and understanding what is necessary in order to achieve them, adolescents need to have some degree of confidence about their abilities to function in those same goals (McKay et al., 2014). This involves the development of self-efficacy, which is generally recognized as “a person’s beliefs about his/her abilities to take actions necessary to perform a behavior successfully” (Bandura, 1997). While researchers have often examined the goals and aspirations of youth, comparatively less attention has been directed to the issue of adolescents’ perceptions of self-efficacy, particularly as such relate to future goals and statuses (see Peguero and Shaffer, 2015).

Understandably, perceptions of self-efficacy can have a substantial impact upon an individual's motivations, not only in regard to their performance within a given role, but also in terms of regarding it as a realistic and achievable goal (Bandura and Barbaranelli, 1996). In this study, we will examine the nature of adolescents' perceptions of self-efficacy, as these pertain to self-efficacy within the future roles of being a spouse, a parent, and a worker. An examination of adolescents' perceptions of self-efficacy should provide a greater understanding of how the development of goals and aspirations occurs in those crucial years.

Adolescents' Goals and Self-Efficacy

During the adolescent years, individuals begin to consider the various adult statuses and roles which they believe to be desirable for their adult lives. Educational attainment and occupational/career goals are central among these, as adolescents begin to weigh their abilities and strengths relative to future possibilities (Schneider and Stevenson, 1999). Of course, such goals do not develop within a vacuum, rather, the development of goals will involve social interactions within the broader range of adolescents' lives, such as those with parents, peers, and teachers. As a consequence of these interactions and personal experiences, adolescents will increasingly attempt to formulate more precise conceptualizations of their educational and occupational goals (Kerpelman and Schvaneveldt, 1999). Through the combination of family influences, peer influence, role models, and their own experiences, adolescents will develop a greater congruence between their goal aspirations and their actual pursuit of a given goal (Reynolds et al., 2006).

Familial goals, like other adult goals formulated during the adolescent years, develop through the exposure to role models, interactions with others, and direct experiences. Not surprisingly, researchers continue to call for greater research on the developmental processes involved in marital and parenthood goals of adolescents (e.g., Willoughby, 2010). Adolescents, for the most part, continue to have a positive view of marriage, regarding it as a lifetime commitment wherein divorce is considerable an undesirable outcome (Gatins et al., 2013; Martin et al., 2003). Despite their awareness of the complications and problems associated with marriage and parenthood, most adolescents hope to have a good marriage (Johnston et al., 2001).

As adolescents are formulating goals concerning marriage, parenthood, or occupations, they will certainly be affected by their own sense of efficacy in these arenas. Researchers have repeatedly shown that adolescents with a stronger sense of efficacy tend to more readily take on challenges and establish a clear, logical path to achieving their goals (Skinner et al., 1998). Even during the adolescent years, it is reasonable to assume that individuals will use perceptions of self-efficacy in future roles as a basis for formulating aspirations for those same roles. As stated by Bandura and Barbaranelli (1996: 1206): "unless people believe that they can produce desired effects by their actions, they have little incentive to act." The importance of perceptions of self-efficacy is further underscored by the manners in which they can potentially affect how the individual responds to difficulties encountered in achieving a goal, develops a sense of motivation and commitment to goals, and how well the individual can accurately attribute successes and failures along the way (Bandura, 1997). Once a goal has been specified to a high extent, individuals are prone to giving that goal greater priority, and maintain a higher level of commitment and motivation to achieving the goal (Locke and Latham, 2006). Generally, adolescents who have high performance goals tend to have higher levels of self-efficacy (Pintrich, 2000). Hence, self-efficacy can readily affect both goal motivations and eventual outcomes (Bandura and Locke, 2003).

Like adolescents' goals, their perceptions of self-efficacy tend to be oriented toward a specific outcome (Bandura, 1997). For example, a higher perception of occupational self-efficacy has been shown to quite influential in regards to the development of adult career paths (Taylor and Popma, 1990). As stated previously, self-efficacy can be derived from a variety of relationships and experiences in the lives of adolescents. The work experiences of adolescents, for example, can have a significant effect upon the development of occupational self-efficacy and eventual work goal attainment for young people (e.g., Staff and Mortimer, 2007). Despite the sometimes onerous and manual labor-intensive nature of many jobs held by teenagers (e.g., fast food cook, bagging groceries), the sum of such experiences can aid in the development of future occupational goals and the self-efficacy associated with such goals (Reynolds et al., 2006).

Perceptions of self-efficacy concerning familial goals also tend to be specific to a given goal, such as being a spouse or being a parent. Researchers have addressed these forms of self-efficacy, but have typically done with adult samples.

Parental self-efficacy is generally considered to involve the confidence and competence which an individual perceives about their own abilities to care for their child, in regard to physical, emotional, and cognitive needs (see Jones and Prinz, 2005). Child outcomes are an essential part of parental self-efficacy, as it also involves individuals' beliefs that they can meaningfully control and influence children's behavior, along with the environment in which such behavior occurs, so as to result in the positive development of children (Ardelt and Eccles, 2001). Parental self-efficacy thus involves a combination of knowledge about how to effectively raise a child, as well as having confidence in one's ability to apply that knowledge (Bandura, 1997). Studies of parental self-efficacy have shown that having greater self-efficacy is associated with higher parental satisfaction (Brage et al., 2001) and greater involvement with their children (Fagan and Barnett, 2003). Researchers have called for examinations of how parental self-efficacy develops prior to actually becoming a parent (Biehle and Mickelson, 2011). Spousal self-efficacy may develop in a similar manner to that of parental self-efficacy. In an effort to better delineate adolescents' perspectives on marriage, Carroll et al. (2009) posited that teens typically develop three distinct types of marital attitudes, which include: 1) marital importance, 2) desired marital timing, and 3) the criteria for marriage readiness. As adolescents are evaluating their own marriage readiness, such evaluations will obviously entail perceptions of self-efficacy within the spousal role. However, such perceptions of self-efficacy may also entail differences based upon gender.

Gender and Self-Efficacy

A strong consensus exists that gender remains a salient factor in the developmental processes involved in the formation of future goals and statuses. In terms of future occupations and careers, adolescent males tend to prefer jobs with greater authority, greater responsibility, and higher incomes (Konrad et al., 2000). Adolescent females, on the other hand, tend to prefer jobs which afford them more opportunities to help others, as well as jobs which allow them greater flexibility to attend to family responsibilities, and particularly childcare (Cinamon and Rich, 2002). Girls' preference for jobs which allow for the exercise of altruism appears to be a common aspiration (Weisgram et al., 2010). Creamer and Laughlin (2005) conclude that adolescent girls' attitudes toward future jobs and careers are frequently gender-typed, and that girls, more so than boys, consult others for advice about such aspirations. The development of such pro-social values among adolescent girls generally appears in mid-adolescence, with a clear differentiation from boys being clearly evident by late adolescence (Beutel and Johnson, 2004; Hitlin, 2006).

Gender differences in terms of perceptions of marriage and family are also evident among adolescents. Although substantial societal change has occurred over the past several decades, most notably in regard to women's educational attainment in the U.S., the broader culture appears to maintain the belief that marriage and motherhood are necessary conditions for young women's fulfillment (Huang et al., 2011). Even among young females who intend to pursue professional careers, there is generally the expectation that conflicts between work and family responsibilities will occur in their futures (Gerson, 2002). Gender differences may also exist in regard to how family traits affect the development of marital and parental goals. Adolescent girls, for example, appear to be more susceptible to stress-related factors within the family, such as family violence, as compared to boys (Leadbeater et al., 1995). Adolescent self-efficacy, more specifically, has also been shown to be influenced by such factors as parental control and acceptance (e.g., Purdie et al., 2004), yet the responses to parental behaviors vary substantially by gender, with boys' self-efficacy being more readily affected by parental control, while among girls, parental support was more influential (Laible and Carlo, 2004).

The development of self-efficacy begins within the familial context, as parents, siblings, and assorted kin can all play major roles in the formation of perceptions concerning abilities and skills, as they pertain to future goals and statuses. Parents, in particular, can readily control a child's environment, providing specific opportunities for children to learn not only about future roles, but the degree of ability necessary to fulfill those roles. During the childhood years, mothers and fathers also represent role models, in terms of occupational, marital, and parental roles, for their children, often providing them with vicarious knowledge concerning these roles. As individuals pass into adolescence, however, parental influence often begins to wane, and young females and males begin to develop notions of both goals and self-efficacy in a more independent and autonomous manner. Understanding adolescent perceptions of self-efficacy, then, requires the recognition of the broader environment and experiences of individuals. Ecological theories concerning development have typically emphasized that development is best understood as occurring between individuals and their surrounding social environment (Bronfenbrenner, 1989).

Understandably, the distinct socialization experiences of girls and boys would suggest that their perceptions of self-efficacy in future roles would be subjected to distinct factors, along the way.

The complex nature of these gendered socialization experiences can also be explained via a life-course paradigm (see Elder, 1998). Through this lens, the developmental trajectory of each family member is linked inextricably to all others. Within this perceptive, parents provide children with beliefs and attitudes concerning adult roles, beginning in the early childhood years. Parents function as both role models and conditioning agents of socialization, providing children with a great amount of knowledge and experiences concerning their possible future adult roles. However, the life course paradigm also recognizes that the differential treatment of daughters and sons can occur, and bring about differences in their respective perceptions of future goals and roles (e.g., Creamer and Laughlin, 2005). Within this study, we will attempt to examine whether such differences in the lives of adolescent girls and boys is associated with differences in their perceptions of self-efficacy, as it relates to spousal, parental, and occupational roles.

Data and Methods

Data for this study are taken from the 2014 wave of the Monitoring the Future survey (Monitoring the Future: A Continuing Study of American Youth). The sample used herein is a nationally representative sample of high school seniors, taken from approximately 130 public and private high schools throughout the U.S. Initiated in 1975, this cross-sectional survey attempts to gauge a combination of behaviors and attitudes of American adolescents. Respondents in this study are assured of the confidentiality of their answers; hence, the data used in this study are regarded as both reliable and accurate. After removing cases due to missing data, the resulting sample 966 female and 815 male adolescents.

Adolescents' self-efficacy for future roles was assessed in three separate manners. Respondents were asked: "How good to you think you would be as: 1) a spouse, 2) a parent, and 3) a worker on a job?" For each of these questions, the possible responses were: "poor" (1), "not so good" (2), "fairly good" (3), "good" (4), and "very good" (5). Together, these three items address three of the major adult statuses which most adolescents will eventually occupy – spouse, parent, and worker. The range of responses should allow most adolescents sufficient variation in which to determine their own future self-efficacy.

A variety of individual and family/household characteristics were included in the analyses. In terms of family composition, respondents were asked whether they had two parents (coded as 1=yes, 0=no) in their home. As previously discussed, parental characteristics can potentially influence the development of marital and parental expectations. Hence, the level of parental educational attainment was included in the analyses, with the higher of the parents' educational attainment being used herein (coded as 1=grade school, 2=some high school, 3=high school degree, 4=some college, 5=college degree, 6=graduate degree). Since religious beliefs can sometimes affect self-efficacy, particularly in regard to familial statuses, a measure of religiosity is included. The religiosity of the respondent was assessed with the question: "How often do you attend religious services?" Responses ranged from "never" (1) to "once a week or more" (4). In regard to grade performance in high school, respondents were asked to describe their average grade so far (coded with a range of 1=D through 9=A). Understandably, status aspirations will likely be associated with current perceptions of self-efficacy. As such, respondents were asked how likely it was going to be for them to graduate with a 4-year college degree. Responses to this item ranged from "definitely won't" (1), "probably won't" (2), "probably will" (3), to "definitely will" (4).

Respondents were asked about their dating behaviors with the question: "On the average, how often do you go out with a date?" Responses ranged from "never" (1) to "3 or more times each week" (6). In a similar manner, involvement in social activities, particularly those involving same-aged peers, will likely affect perceptions of future self-efficacy. Respondents were therefore asked about their level of involvement in various school activities. These activities included: a) the school newspaper or yearbook, b) music or other performing arts, c) athletic teams, and d) other school clubs or activities.

When asked about their involvement in these activities, responses ranged from "not at all" (1) to "a great extent" (5). Job experiences during the adolescents are also likely to affect perceptions of self-efficacy, and particularly those related to their future occupational statuses. As such, respondents were asked how many hours each week, on average, they were currently working for pay.

The scale for this item ranged from “none” (1) to “30+ hours” (8). Since previous studies have suggested that individual traits are typically associated with perceptions of self-efficacy, a measure of respondents' self-esteem is included. Self-esteem is measured using responses to a series of questions, wherein adolescents were asked how much they agreed or disagreed with the following statements: 1) “I take a positive attitude toward myself,” 2) “I feel I am a person of worth, on an equal plane with others,” 3) “I am able to do things as well as most other people,” 4) “On the whole, I'm satisfied with myself,” 5) I feel I do not have much to be proud of,” 6) “Sometimes I think I am no good at all,” 7) “I feel that I can't do anything right,” and 8) “I feel that my life is not very useful.” After ensuring that all items were coded in the proper direction, the resulting measure ranged from “low self-esteem” (8) to “high self-esteem” (35). Reliability for this item was quite satisfactory (Cronbach's alpha = 0.86). Respondents were also queried about their gender role attitudes. Specifically, participants were asked how they would feel about being in a marriage wherein the husband worked full-time, while the wife did not work. Responses to this query ranged from “not at all acceptable” (1) to “desirable” (4). Hence, a higher score for this item would indicate a more conservative or patriarchal attitude on the part of the respondent.

In regard to their marriage and family aspirations, adolescents were asked several questions. Respondents were asked whether they wanted to get married at some point in their future lives (with responses being yes “1” or no “2”). In order to assess their perceptions of the stability of marriage, respondents were also asked: “If you did get married, how likely do you think it is that you would stay married to the same person for life?” Responses ranged from “very unlikely” (1) to “very likely” (5), with the higher score indicating a stronger sense of stability. Adolescents were also asked about their expectations concerning parenthood, with the question: “How likely is it that you would want to have children?” As with the previous item, responses ranged from “very unlikely” (1) to “very likely” (5).

Finally, measures pertaining to risk-taking behaviors of adolescents were included in these analyses. First, a measure of delinquency was included. This measure resulted from responses to queries concerning whether the adolescent had committed any of the following over the past year: 1) “gotten into a serious fight in school or at work,” 2) “taken part in a fight where a group of your friends were against another group,” 3) “hurt someone badly enough to need bandages or a doctor,” 4) “used a knife or gun or some other thing (like a club) to get something from a person,” 5) “taken something not belonging to you worth under \$50,” 6) “taken something not belonging to you worth over \$50,” 7) “taken something from a store without paying for it,” 8) “taken a car that didn't belong to someone in your family without permission of the owner,” 9) “taken part of a car without permission of the owner,” 10) “gone into some house or building when you weren't supposed to be there,” 11) “set fire to someone's property on purpose,” 12) “damaged school property on purpose,” and 13) “damaged property at work on purpose.” Responses to each of these items were simply “yes” (1) or “no” (0). Once these scores were combined into a single variable, ranging from 0 to 13, the new measure indicates how many of the various forms of delinquent acts the respondent reported committing over the previous 12 months. Finally, respondents were asked about their pattern of substance use. Adolescents were asked how often they smoked cigarettes over the previous 30 days, with responses ranging from “never” (1) to “2 or more packs each day” (7). Similarly, respondents were asked how many alcoholic beverages they had consumed over the past month, with responses ranging from “none” (1) to “40 or more” (7). Lastly, respondents were asked how many times they have used marijuana over the past month, with responses ranging from “never” (1) to “40 or more occasions” (7).

Results

Table 1 presents the mean levels of adolescents' perceptions of self-efficacy for future roles. In regard to being a spouse one day, both young females and males appear to have a fairly positive perception of their future self-efficacy. Among females, 60% rate their self-efficacy as a spouse as very good, while 57.8% of males rates themselves likewise. In terms of being a parent, both sexes are again quite positive in their perceptions of self-efficacy. Almost 59% of females, along with 56% of males, rate their self-efficacy as very good, in regard to being a parent. Finally, in regard to their future role as a worker, approximately two-thirds of both females and males rate their self-efficacy as very good (65.4% and 67.4%, respectively). Overall, it appears that both young females and males have a rather positive perception of their self-efficacy across all three future roles (as a spouse, parent, and worker).

Table 1: Mean Levels of Future Self-Efficacy among Adolescents, by Sex

	Females	Males
Effective as a Spouse	4.43	4.38
	(0.84)	(0.91)
Poor	1.4%	2.7%
Not so good	1.7	2.1
Fairly good	9.6	8.0
Good	27.2	29.4
Very good	60.0	57.8
Effective as a Parent	4.39	4.33
	(0.89)	(0.95)
Poor	2.3%	3.2%
Not so good	1.8	1.8
Fairly good	9.5	9.7
Good	27.5	29.3
Very good	58.9	56.0
Effective as a Worker	4.58	4.56
	(0.66)	(0.77)
Poor	0.5%	1.7%
Not so good	0.2	2.9
Fairly good	5.8	3.4
Good	28.1	26.3
Very good	65.4	67.4
N	966	815

Note: Standard deviations shown in parentheses;
Sample is limited to high school seniors, aged 17-19

It is necessary to note, however, that the responses are highest in regard to the worker role, suggesting that adolescents may be more confident in their abilities to take on occupational roles in the future. The assessments of self-efficacy in regard to their spousal and parental roles, while high, are nonetheless lower than those reported for the worker role. Indeed, the responses for self-efficacy as a spouse are slightly higher than those reported for the role of parent. One possible explanation for this pattern is related to socialization experiences. Many contemporary adolescents will have already held paying jobs, and thus have at least some knowledge of the nature of work and work roles. Their perceptions of self-efficacy in the worker role, then, would understandably reflect a greater confidence in their ability to fulfill the role. Spousal and parental roles, however, are still beyond the direct experiences of most adolescents. Their knowledge of these roles would be more limited, and therefore may lead them to have less confidence in their own abilities.

Table 2 presents the mean levels of individual and family characteristics among adolescents. As shown, approximately two-thirds of both females and males came from households with two parents. Parents, on average, had achieved some college education, but slightly less than achieving a four-year degree. In regard to religiosity, adolescent females reported a significantly higher level of religious service attendance, as compared to males. Assuming the most major religions tend to be somewhat traditional and conservative in their ideologies, and particularly those related to family and work roles, this difference in religiosity could have implications for gender differences in self-efficacy concerning future roles. Adolescent females reported a higher level of school performance (i.e., high school grades), and also expressed a greater desire to obtain a four-year college degree, as compared to adolescent males. Both females and males reported spending approximately 6 to 10 hours each week in a paid job, outside of school.

Table 2: Mean Levels of Family and Individual Characteristics among Adolescents, by Sex

	Females	Males
Two parents	0.66 (0.47)	0.69 (0.46)
Parental education	4.39 (1.20)	4.34 (1.25)
Religiosity	2.69 (1.02)	2.38*** (1.02)
High school grades	6.79 (1.82)	6.41*** (1.98)
Want 4-year college degree	3.56 (0.79)	3.31*** (0.95)
Hours Employed	3.15 (2.29)	3.10 (2.36)
Dating	2.43 (1.52)	2.60** (1.56)
Self-esteem	30.39 (7.02)	31.34*** (6.86)
Gender attitudes-work	1.86 (0.86)	2.19*** (0.85)
School activities	2.30 (0.91)	2.11*** (0.83)
Want to marry	0.79 (0.40)	0.77 (0.42)
Likely to stay married	4.45 (0.78)	4.42 (0.78)
Likely to have kids	4.31 (1.07)	4.34 (0.93)
Delinquency	0.95 (1.53)	1.47*** (2.41)
Cigarette use	1.20 (0.65)	1.29*** (0.84)
Alcohol use	1.64 (1.02)	1.83*** (1.23)
Marijuana use	1.52 (1.29)	1.78*** (1.62)
N	966	815

Note: Standard deviations shown in parentheses; Significance levels indicate difference between the means of females and males; *** p < .01, ** p < .05, * p < .10; Sample is limited to high school seniors, aged 17-19

In regard to social activities, both males and females reported going out on dates about two or three times each month. Adolescent males were slightly more likely to report going on dates, as compared to their female counterparts.

Consistent with existing research, adolescent males reported significantly higher levels of self-esteem than did females (31.34 versus 30.30, respectively). Adolescent males were also more likely to espouse traditional/conservative gender attitudes concerning work roles. Females, on the other hand, reported a higher level of involvement in school activities. The expectations of adolescents concerning marriage and parenthood did not vary substantially by sex. Approximately three-fourths of females (79%) and males (77%) expressed the desire to marry, eventually. Both sexes were equally consistent in their optimism about marriage and parenthood, with the majority expecting that their marriages would be stable, and that they would have children, one day.

In regard to risk-taking behaviors, adolescent males reported a significantly higher level of delinquent behavior, as compared to females. This is to be expected, as researchers have consistently demonstrated higher levels of delinquency among teenage boys, relative to girls. Adolescent males also reported higher rates of substance use. Males reported higher usage of cigarettes, higher consumption of alcohol, and a higher usage rate of marijuana, as compared to females. These higher rates of substance use by males are, again, not surprising. What remains to be understood, however, is how these differences may influence perceptions of self-efficacy in future roles. Table 3 presents the ordinary least squares regression models of adolescents' perceptions of self-efficacy as a future spouse. Both the model for females and males are robust, and yield a substantial amount of explained variance. Among females, having two parents in the home is actually associated with a lower perception of self-efficacy ($b = -.127$). However, working longer hours outside of school is associated with a higher perception of self-efficacy ($b = .027$). Self-esteem, among females, has a strong positive association with perceptions of self-efficacy ($b = .026$). Of particular note, however, are the associations between the various marriage and parenthood expectations and girls' perceptions of self-efficacy. As shown, adolescent females who want to marry and who have a more optimistic expectation about the stability of their future marriage seem to have a substantially higher perception of self-efficacy about being a spouse, one day ($b = .293$ and $.253$, respectively). Similarly, a higher expectation of having children is also positively associated with higher perceptions of self-efficacy among females ($b = .077$). None of the risk-taking factors (i.e., delinquency and substance use traits) yielded significant associations with adolescent females' perceptions of self-efficacy as a future spouse

Table 3: Ordinary Least Squares Regression models of Adolescents' Perceptions of Self-Efficacy as a Spouse, by Sex

	<u>Females</u>		<u>Males</u>	
	B	beta	B	beta
Two parents	-.127		-.071**	
Parental education	-.003		-.004	
Religiosity	.028		.034	
High school grades	.016		.036	
Want 4-year college degree	.058		.054*	
Hours Employed	.027		.072**	
Dating	.030		.054*	
Self-esteem	.026		.220***	
Gender attitudes-work	.043		.044	
School activities	-.031		-.034	
Want to marry	.293		.141***	
Likely to stay married	.253		.234***	
Likely to have kids	.077		.098***	
Delinquency	.010		.018	
Cigarette use	.044		.034	
Alcohol use	-.038		-.046	
Marijuana use	.011		.017	
F	18.854***		14.186***	
R-square	.253		.232	
N	966		815	

Note: Standardized coefficients shown in parentheses; Significance levels, *** $p < .01$, ** $p < .05$, * $p < .10$; Sample is limited to high school seniors, aged 17-19

Among males, higher grade performance is shown to be associated with a lower perception of self-efficacy as a future spouse ($b = -.040$). However, aspirations of obtaining a college degree are associated with a higher perception of males' self-efficacy ($b = .115$). This seemingly contrasting set of effects may have to do with the distinction between short-term and long-term goals. In the immediate context, males with low-performing grade may be regarding marriage as a more achievable goal, as opposed to college attendance. For males with college degree aspirations, however, self-efficacy within marriage may well be associated with the various forms of success (e.g., financial, occupational) which are likely to come with a college degree.

Similar to the effects shown in the model among females, males who work longer hours in paid jobs appear to have a more positive perception of self-efficacy ($b = .033$). Additionally, self-esteem among males is also positively associated with perceptions of self-efficacy. Marital expectations among males yielded a similar pattern to those shown by adolescent females. Wanting to marry and greater optimism about the stability of marriage were both positively associated with males' perceptions of self-efficacy as a spouse ($b = .339$ and $.213$, respectively). However, among males, the desire to have children was not shown to be significantly associated with perceptions of self-efficacy as a spouse (unlike their female counterparts). Delinquency was also shown to be influential in regard to males' perceptions of self-efficacy, as higher rates of delinquent behavior were negatively associated with perceptions of self-efficacy as a spouse. Oddly, higher rates of alcohol consumption were shown to be positively associated with males' perceptions of self-efficacy as a spouse ($b = .087$). One possible explanation for this effect is that alcohol consumption tends to occur within a social context. If adolescent males are drinking more alcohol at social events, such as parties involving a gathering of other adolescents, this behavior may enhance their social skills, and particularly those used to relate to potential dates and partners. Over time, then, these patterns of behavior may logically affect their perceptions of self-efficacy as a future spouse.

Table 4 presents the results of the ordinary least squares regression models of adolescents' perceptions of self-efficacy as a parent. Among females, having two parents in the household is associated with a lower perception of self-efficacy ($b = -.147$). Intuitively, this seems contrary to what might be expected. However, for those adolescent females with only one parent in the home, they may already be assuming some caretaking responsibilities for younger siblings, thereby giving them both experience and confidence in performing in the role of a parent. Females who aspire to obtain a four-year college degree are shown to have greater perceptions of self-efficacy as a parent ($b = .071$). As shown in the models of self-efficacy as a spouse, females' self-esteem is again positively associated with perceptions of self-efficacy as a parent ($b = .017$). Of course, the reciprocal nature of these qualities needs to be noted, as self-esteem and self-efficacy can readily influence one another. As expected, a higher expectation of stability within marriage, as well as the expectation of having children, are associated with a higher perception of self-efficacy as a parent ($b = .081$ and $.333$, respectively). It is also necessary to note that marijuana use yields a positive association with females' perceptions of self-efficacy as a parent ($b = .042$). Although the association is relatively meager, its significance does raise questions concerning the role of substance use in regards to the development of self-efficacy in adolescence.

Table 4: Ordinary Least Squares Regression models of Adolescents' Perceptions of Self-Efficacy as a Parent, by Sex

	Females		Males	
	B	beta	B	beta
Two parents	-.147	-.077***	-.053	-.025
Parental education	.017	.022	-.022	-.028
Religiosity	.048	.054*	.042	.044
High school grades	-.023	-.047	-.038	-.079**
Want 4-year college degree	.071	.063**	.107	.107***
Hours Employed	.018	.047	.021	.053
Dating	.031	.053*	.039	.064*
Self-esteem	.017	.131***	.023	.169***
Gender attitudes-work	.040	.038	.007	.006
School activities	-.023	-.024	.036	.034
Want to marry	.073	.033	.282	.125***
Likely to stay married	.081	.070**	.123	.100***
Likely to have kids	.333	.398***	.189	.186***
Delinquency	-.028	-.047	-.022	-.056
Cigarette use	.040	.029	.000	.000
Alcohol use	.015	.017	.081	.104***
Marijuana use	.042	.061*	.017	.028
F		21.098***		12.970***
R-square		.274		.217
N	966		815	

Note: Standardized coefficients shown in parentheses; Significance levels, *** $p < .01$, ** $p < .05$, * $p < .10$; Sample is limited to high school seniors, aged 17-19

Among adolescent males, high school grades are inversely associated with perceptions of self-efficacy as a parent ($b = -.038$), while the desire for obtaining a four-year college degree is positively associated with self-efficacy ($b = .107$). As stated previously, this difference may be related to the distinction between short-term versus long-term status attainment goals. Those boys who are achieving lower grade performance in high school may see parenthood (and the parental role, specifically) as a more attainable goal for their immediate futures. Nonetheless, adolescent males who aspire to obtain a college degree may also regard the parental role as one in which they can function well. Like their female counterparts, the self-esteem of adolescent males is associated with higher perceptions of self-efficacy as a parent. Interestingly, the desire to marry is positively associated with males' perceptions of self-efficacy as a parent ($b = .282$), while this same association is not significant in the model for female's self-efficacy. In a similar manner, adolescent males who have greater confidence in the stability of marriage and who have a desire to have children also appear to have higher perceptions of self-efficacy as a parent. Oddly, alcohol use is again shown to be significantly associated with males' perceptions of self-efficacy ($b = .081$). As stated in regard to the models of self-efficacy as a spouse, this association may be related to the social nature of adolescent drinking, itself. This will be addressed further in the discussion section.

Table 5 presents the results of the ordinary least squares regression models of adolescents' perceptions of self-efficacy as a worker. Among females, high school grade performance is shown to be positively associated with perceptions of self-efficacy as a worker ($b = .031$). In addition, aspirations to obtain a four-year college degree are also associated with females' perceptions of worker self-efficacy ($b = .079$). Not surprisingly, working longer hours at a paid job is associated with higher perceptions of self-efficacy as a worker ($b = .043$). Clearly, having a paid job during the high school years may yield more than monetary benefits for adolescent females. As shown in previous models of spousal and parental self-efficacy, girls' self-esteem is positively associated with their perceptions of self-efficacy as a worker ($b = .018$). Similarly, girls with a greater expectation of marital stability appear to have higher perceptions of worker self-efficacy, as well. It is necessary to note, however, that female delinquency is negatively associated with perceptions of worker self-efficacy ($b = -.035$). Although delinquency rates among girls do tend to be lower than those reported among boys, involvement in such activities does appear to have a significant impact upon the development of perceptions of self-efficacy as a worker.

Table 5: Ordinary Least Squares Regression models of Adolescents' Perceptions of Self-Efficacy as a Worker, by Sex

	Females		Males	
	B	beta	B	beta
Two parents	.013	.009	.035	.021
Parental education	-.005	-.009	-.019	-.031
Religiosity	.016	.025	-.002	-.002
High school grades	.031	.085***	-.017	-.045
Want 4-year college degree	.079	.094***	.129	.159***
Hours Employed	.043	.148***	.028	.087**
Dating	.006	.014	.032	.065*
Self-esteem	.018	.193***	.019	.173***
Gender attitudes-work	-.015	-.019	.012	.013
School activities	.011	.015	.041	.048
Want to marry	-.035	-.022	.082	.045
Likely to stay married	.083	.098**	.075	.076**
Likely to have kids	.017	.027	-.011	-.013
Delinquency	-.035	-.082**	-.031	-.096***
Cigarette use	.007	.007	.029	.031
Alcohol use	.021	.032	.056	.090**
Marijuana use	-.008	-.015	.015	.031
F		8.148***		6.303***
R-square		.127		.119
N		966		815

Note: Standardized coefficients shown in parentheses; Significance levels, *** $p < .01$, ** $p < .05$, * $p < .10$; Sample is limited to high school seniors, aged 17-19

Among adolescent males, the desire for a four-year college degree is again positively associated with perceptions of self-efficacy, this time in regard to self-efficacy as a worker ($b = .129$). Similar to their female counterparts, it also appears that working more hours outside of school yields a positive association with perceptions of self-efficacy as a worker ($b = .028$). Hence, for both sexes, paid employment does appear to enhance perceptions of self-efficacy as an adult worker in the future. Males' self-esteem is also positively associated with perceptions of self-efficacy ($b = .019$), as is their optimism concerning the stability of their future marriages ($b = .075$). As expected, delinquency has a deleterious impact upon boys' perceptions of self-efficacy as a worker ($B = -.031$). This is to be anticipated, given the disruptive nature of delinquency upon work-related socialization experiences (i.e., criminal behaviors are not conducive to the obtainment of employment). Finally, alcohol use among boys is shown to be positively associated with perceptions of worker self-efficacy ($b = .056$). It is possible that boys who drink more frequently may have developed a somewhat distorted perception of their future role self-efficacies. Whether this represents a form of precocious development, such that the normal developmental processes are being altered by risk-taking behaviors (in this case, underage drinking) is an issue which certainly warrants greater attention. The possible meanings of this, and other findings, will now be addressed.

Discussion and Conclusion

This study was initiated with the goal of examining the nature of adolescent self-efficacy, as it related to future roles as a spouse, parent, and worker. Given that the majority of research on self-efficacy has involved adults, it was necessary to extend our understanding of self-efficacy into its development stages – specifically, during late adolescence. Building upon a combination of life-course and ecological perspectives, we attempted to examine both familial and individual factors which might affect the formation of perceptions of self-efficacy among adolescents.

Both females and males appeared to have relatively optimistic perceptions of their self-efficacy, as both sexes saw themselves as being fairly capable to take on those adult roles in the future. Notably, though, both sexes seemed to have higher self-efficacy concerning being a worker, and considerably lower self-efficacy about being a parent. This distinction may be related to the socialization experiences of teenagers, wherein many have already held a paid job outside the home, thus bolstering the understanding of their own abilities and potential job performance in the future. Although some adolescents may have provided care for a younger sibling, or perhaps worked as a babysitter, their understanding of the full-time, dedicated role of parent is still beyond their meaningful comprehension. As such, a lower perception of self-efficacy with regards to the parental role is to be expected among adolescents.

The multivariate analyses yielded several intriguing patterns. As expected, a combination of both family and individual factors were shown to significantly influence the perceptions of self-efficacy among adolescents. In regard to spousal self-efficacy, higher levels of self-esteem, as well as working in a paid job, were shown to be associated with higher perceptions of self-efficacy among both sexes. Similarly, greater desire to marry, along with higher optimism concerning the stability of marriage, were associated with higher perceptions of spousal self-efficacy for both adolescent females and males. However, among females, the desire to have children was significantly associated with spousal self-efficacy, while the same effect did not yield a significant association with males' perceptions of self-efficacy. It is quite possible that females are regarding the spousal and parental roles as being intertwined, such that they may not discern a substantial difference between the two. Given the assertions of previous researchers, that traditional gender role expectations persist in American culture (Huang et al., 2011), it is not entirely surprising that adolescent females might have difficulty in disentangling the roles of spouse and parent.

Somewhat stereotyped notions of gender roles are also evident in regard to the relationship between risk-taking behaviors and boys' perceptions of spousal self-efficacy, where higher rates of delinquency were shown to be associated with lower perceptions of self-efficacy. However, alcohol consumption was shown to be associated with higher perceptions of spousal self-efficacy among adolescent males. This finding, while rather odd, is consistent with previous studies (e.g., Carroll et al., 2009) which have noted similar patterns between adolescent substance use and attitudes concerning marriage. Here, it is quite possible that the nature of alcohol use during adolescence (i.e., it is more likely to be consumed within a social setting, such as parties or group gatherings) may provide social experiences to adolescent males which serve to embolden their perceptions of initiating and maintaining intimate relationships.

This may eventually lead adolescent males to have greater perceptions of skill and ability in their future roles as spouses. Hence, it is the social context of alcohol use, and not the alcohol consumption, per se, which is associated with this association. The models of parental self-efficacy yielded many of the same associations, particularly in regard to adolescent self-esteem and perceptions of parental self-efficacy. Both adolescent females and males were shown to have a strong linkage between self-esteem and self-efficacy. Understandably, these two constructs are typically associated with one another, which makes the issue of causality difficult, if not impossible, to discern. In this instance, however, we posit that these two factors are producing a reciprocal set of effects – higher adolescent self-esteem would bolster perceptions of parental self-efficacy, yet parental self-efficacy can also certainly enhance overall self-esteem among adolescents. Having more optimistic attitudes about the stability of marriage, as well as desiring to have children, were shown to be associated with higher perceptions of parental self-efficacy for both sexes. Among males, though, the desire to marry was also significantly associated with perceptions of parental self-efficacy. This may suggest that males who desire to have children simply have greater confidence in their abilities to rear those eventual children. Once, again, however, alcohol use is shown to be associated with greater perceptions of males' self-efficacy, this time in regard to being a parent. Clearly, the role of substance use and risk-taking behaviors during the adolescent years warrants greater attention by researchers.

In regard to worker self-efficacy, adolescents with higher levels of self-esteem were likely to have higher perceptions of self-efficacy. Both sexes appear to take a more pragmatic route to the development of perceptions of self-efficacy as a worker, as females and males were shown to have higher perceptions of self-efficacy when they wanted to obtain a four-year college degree. The role of work, itself, also needs to be addressed, as longer employment hours during adolescence was shown to be associated with greater perceptions of self-efficacy as a worker, among both girls and boys.

Employment can provide teens with not only the acquisition of jobs skills and financial gain, but clearly has a role within the development of perceptions of self-efficacy related to future occupations and careers. Certainly, the context of the work, such as relationships with managers and co-workers, as well as the job tasks involved, should be further investigated in this regard. Finally, the delinquent behavior of both females and males was shown to be significantly associated with lower perceptions of self-efficacy in the worker role. This is to be expected, as the typical pattern of delinquent behavior (e.g., theft, arson) is not consistent with the development of positive perceptions of worker ability.

Overall, these findings offer support to both the life-course paradigm, as well as ecological theories of adolescent development. Perceptions of self-efficacy in the adolescent years are undoubtedly quite malleable, and subject to influences ranging from parents, siblings, peers, neighbors, teachers, to co-workers and bosses. These analyses were intended to explore the nature of adolescents' perceptions of self-efficacy in future roles. In doing so, the findings seem to confirm that these developmental processes are complex and, like adolescence itself, involve a wide variety of contextual and individual factors. Adolescents, like younger children, are readily affected by parental and familial characteristics, as they proceed in developing perceptions of self-efficacy and the goals to which those perceptions are attached. Unlike younger children, however, adolescents clearly have greater control over their own lives. Their performance and involvement at school, their job experiences, their religiosity, and even their risk-taking behaviors all appear to be substantial factors in the development of perceptions of self-efficacy. While these analyses provide a starting point, future studies should attempt to provide a more longitudinal study of how these perceptions change over time within adolescence.

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