

High School Final Year Students' Career Decision-Making Self-Efficacy, Attachment Styles and Gender Role Orientations

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Abstract The purpose of this research was to investigate the relation between final year high school students' career decision-making self-efficacy and attachment styles. The research group consisted of 808 final year students selected at random and receiving high school education in the province of Trabzon, Turkey in the 2013–2014 academic years. Participants completed a Personal Data Form prepared by the researchers, the Career Decision-Making Self-Efficacy Scale in order to measure career decision-making self-efficacy, the Relationship Scales Questionnaire and the BEM Gender role Inventory. Results showed that career decision making efficacy was significantly correlated with the secure and fearful and attachment styles, and career decision making self-efficacy varied according to gender roles. Subjects with masculine and feminine gender roles had greater career decision making self-efficacy than those with indeterminate roles, and those with androgynous roles had greater career making self-efficacy than those with masculine, feminine or indeterminate gender roles.

Keywords High school students · Career decision-making · Self-efficacy · Attachment styles · Gender roles

Introduction

Rapidly developing and changing technologies have eliminated some traditional occupational groups and led to the existence of new occupations requiring expertise in new and different fields. Thus, career selection is now a matter requiring even greater care. In making this choice, which will influence individuals' entire lives, it seems important to investigate all the factors affecting it (Bandura et al. 2001).

Various theories have been produced to account for career choice and development in literature. The basic concept behind one of these, the social cognitive career theory, is that of self-efficacy expectations. Self-efficacy refers to individuals' beliefs that mediate their discharge of responsibilities and success. These beliefs provide information concerning whether relevant behavior will be tried or not, whether it will be effective and how long it will be persisted with in the event of failure (Bandura 1986). Levels of self-efficacy expectation are important to behavior resulting in success. Individuals with high self-efficacy expectations are reported to exhibit higher levels of attempting to cope with difficulties patiently and persistently (Gibson and Dembo 1984; Pajares 1996; Ritter et al. 2001). Individuals with an inadequate level of self-efficacy expectation, however, avoid exhibiting the behavior described and are unwilling to assume responsibility (Bandura 1986). However, individuals' failure to exhibit self-efficacy in parallel to their existing abilities may be interpreted as inaccurate perception of performance. If individuals objectively assess their abilities and establish a realistic self-efficacy perception, then they will probably possess the degree of determination and level of motivation required to achieve a selected objective and develop new skills (Bandura 1986; Lent 2005). Individuals' self-efficacy perception cannot be generalized to all decisions taken during life. Self-efficacy perception is related to the described behavior and may be expected to vary.

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In the social cognitive career theory, individuals' belief in their successful performance of tasks required in career selection is described as career decision making self-efficacy (Taylor and Betz 1983). Career decision making self-efficacy influences individuals' selection of career (Lent and Hackett 1987; Hackett and Betz 1989; Lent et al. 1984; Hackett 1995; O'Brien et al. 1999) and sphere (Betz and Hackett 1981; Lent et al. 1984, 1986; Hackett and Betz 1989; Peterson 1993; Bergeron and Romano 1994). Career decision making self-efficacy, derived from the application of Bandura's theory (1977), was also inspired by Crites' model of career maturity which sought to determine the skills required in the career decision making process (Betz and Luzzo 1996). Awareness of one's own interests, values and abilities, access to information about a chosen career, selection of realistic and level-appropriate targets, making plans concerning the chosen target and seeking to cope with difficulties are all thought to play an important role in determining the individual's career decision making self-efficacy. The question of how ready adolescents are for career choices reveals the need to examine the psychological processes and variables affecting their career decision efficacy.

One of the variables investigated in association with career decision making self-efficacy in this study is attachment styles. The concept and theory of attachment was developed by the British psychologist Bowlby (1958) and is used to explain attachment behavior that a child develops toward its mother. However, the object of attachment may be someone other than the mother who provides the baby's care and security (Ainsworth 1979). As the care provider protects the baby, the baby seeks to become acquainted with its surroundings in a confident manner (Sümer and Güngör 1999). The theory of attachment is one of personal development based on causality, object relations and psychodynamics (Bretherton 1992). Attachment is not a process that affects babyhood alone. The attachment that many individuals form toward a parent continues into adulthood (Bowlby 1969; Genius 1994). In contrast to babyhood, however, expectations of the object of attachment may change in adolescence. Examination of attachment behaviors in this period has shown that in addition to seeking physical closeness, individuals also establish a relationship with an attachment figure to share emotions, anxieties and fears (Zimmermann and Becker-Stoll 2002). Attachment in adolescence consists of more than one attachment figure, and the most basic task in this period is separation and independence (Allen and Land 1999). In adolescence, the individual is striving to become an individual with all the changes being experienced, and goes through a period in which self-centered thinking again manifests itself. Sharpening of the difference between self and others in adolescence causes the individual to perceive himself independently of the attachment figure and to regard himself as a separate and independent individual from his parents (Erikson 1968). A knowledge of the attachment styles that adolescents develop with their parents will permit a greater

understanding of adolescents and also help shape assistance, career guidance and counseling during the career selection process.

The first researchers to use Bandura's self-efficacy expectation theory (1977) in the field of careers counseling were Hackett and Betz (1981). In a study investigating the concept of self-efficacy in women's career development, they reported that the development of self-efficacy expectations and obstacles to these reaching the desired level were perceptions associated with women's traditional gender role orientations. They thought that under the influence of traditional gender role orientations women find it difficult to evaluate themselves accurately, and are at a disadvantage in terms of such behaviors as objective determination, gathering information about careers, making plans for the future and problem solving. Another variable considered in this study is gender roles. Gender roles are definitions of masculinity and femininity that represent society's template regarding gender, learned forms of expressing masculinity and femininity derived from readiness to codify and arrange cultural information (Bem 1981). It is suggested that when individuals with career decision-making self-efficacy choose a career, that self-efficacy will be as much affected by gender roles learned in association with the society in which they live as it is by collection of information about careers. Determination of the extent to which individuals with different gender roles who are today expected to make an equal contribution to the work force exhibit career decision-making self-efficacy is important in terms of support for disadvantaged groups.

The purpose of this study was therefore to determine the relation between final year high school students' career decision-making self-efficacies and attachment styles, and to examine whether final year high school students' career decision-making self-efficacies vary depending on such variables as gender role orientation, gender, type of school, birth order, perceived level of income and parental levels of education. The study sought to answer the following questions:

1. Is there a significant correlation between final year high school students' career decision making self-efficacy and attachment styles?
2. Do final year high school students' career decision-making self-efficacies vary depending on their gender roles?
3. Do final year high school students' career decision-making self-efficacies vary depending on such demographic variables as gender, type of school, order of birth, perceived level of income and parental levels of education?

Method

This relational screening study investigated the relation between final year high school students' career decision-

making self-efficacy and attachment styles, and variation in terms of gender role orientations. Relational studies permit the explanation of behaviors by examining relations between two or more variables. In that context, behavioral patterns involving complex processes and relations between variables giving rise to behaviors can be examined (Cohen et al. 2007; McMillan and Schumacher 2006).

Participants

The research group consisted of 808 final year students selected at random and receiving high school education in the province of Trabzon in the 2013–2014 academic year; 439 females (54.3 %) and 369 males (45.7 %). The participants consisted of 308 (38.1 %) students from Anatolian high schools, 28 (3.5 %) from Science high schools, 198 (24.5 %) from Technical and Vocational schools, 101 (12.5 %) from Anatolian Imam Hatip high schools, 111 (13.7 %) from Business high schools, and 62 (7.7 %) from other (regular) high schools. In terms of birth order, 303 (37.5 %) participants were first children, 199 (24.6 %) were middle children, 292 (36.1 %) were last children and 14 (1.7 %) were only children. Fifty-seven (7.1 %) students had an insufficient level of income, 479 (59.3 %) had an average level of income, and 272 (33.7 %) had a good level of income. Fourteen (1.7 %) participants reported that their mothers were illiterate, while 27 (3.3 %) participants had literate mothers. In addition 292 (36.1 %) mothers were educated to primary level, 169 (20.9 %) to middle school level, 201 (24.9 %) to high school level, 18 (2.2 %) had received a college education, 80 (9.9 %) were educated to university level and 7 (9.95) mothers were educated to postgraduate level. In terms of fathers' educational levels, 5 (0.6 %) fathers were literate, 14 (1.7) were literate, 176 (21.8) were educated to primary school level, 136 (16.8 %) to middle school level, 239 (29.6 %) to high school level, 31 (3.8 %) had a college education, 174 (21.5 %) were educated to university level and 33 (4.1 %) were educated to postgraduate level.

Materials

The Career Decision-Making Self-Efficacy Scale (CDMSES), the Relationship Scales Questionnaire the BEM Gender role Inventory and a Personal Information Form were used for data collection.

Career Decision-Making Self-Efficacy Scale

Developed by Bozgeyikli (2004) the CDMSES is a Likert-type scale consisting of 27 items. A guideline statement appears at the beginning of the form. The CDMSES contains

three sub-dimensions, Assessment of Personal and Occupational Features (APOF), Occupational Informational Collection (OIC) and Realistic Planning (RP). The highest possible scores from the CDMSES sub-dimensions range between 40 and 55. Based on factor analysis results, the 11 items in the APOF subscale account for 30.91 % of total variance, the 8 items in the OIC subscale account for 5.64 % and the 8 items in the RP subscale account for 4.99 %. Internal consistency coefficients calculated to examine the scale's internal consistency are .89 for the APOF subscale, .87 for the OIC subscale, .81 for the RP subscale and .92 for the scale as a whole. One study calculated internal consistency coefficients of .85 for the APOF subscale, .89 for the OIC subscale, .76 for the RP subscale and .91 for the entire scale (Bozgeyikli 2004). Sub-dimensions were examined in this study as variables from total scores.

Relationship Scales Questionnaire

The Relationship Scales Questionnaire developed by Griffin and Bartholomew (1994) was used in order to determine the attachment styles of the students in the study group. The scale was adapted into Turkish by Sümer and Güngör (1999). It consists of 17 items and is used to measure four attachment styles (secure, dismissing, fearful and preoccupied). The participants were first asked to indicate how they identified themselves on 7-point scales (1 = does not define me in any way, 7 = exactly defines me). Secure attachment style was measured with five items, and dismissing, fearful and preoccupied attachment styles with four items for each. Participants were evaluated as being in the attachment style group from which they obtained the highest score on the basis of their subscale scores. Relationship Scales Questionnaire subscales have relatively low internal consistence coefficients in studies performed abroad, but have acceptable test retest test reliability (Scharfe and Bartholomew 1994). In investigations of the validity and reliability of the scale using a Turkish sample, Sümer and Güngör (1999) established that the Relationship Scales Questionnaire consisted of a four-factor structure, secure, dismissing, fearful and preoccupied, and calculated, using the repeat test retest technique, that the reliability coefficients in all dimensions varied between .54 and .61. Ainsworth and Bell (1970) classified individuals' attachment styles under three dimensions. However, their study was performed on babies. Griffin and Bartholomew conducted their measurements on an adolescent population with a mean age of 19.5 and identified the presence of a four-dimensional structure. This gave rise to the idea that the attachment styles of adolescents differ from babyhood measurements. From that perspective, Griffin and Bartholomew's four-dimensional scale provides a wider classification. The problem with the reliability of the scale, as Griffin and Bartholomew (1994) also

stated, stems from the items containing descriptions concerning both the individual and the other party.

Bem Gender Role Inventory

Developed by Bem (1974), the inventory was adapted into Turkish by Kavuncu (1987). Validity and reliability were investigated by Kavuncu (1987) and Dökmen (1999). The seven-point self-assessment inventory measures feminine and masculine personality traits and consists of 60 adjectival phrases. It contains three separate subscales, “femininity,” “masculinity” and “social desirability.” This study used the form of the inventory containing only femininity and masculinity scales. Reliability coefficients using the split half technique are .71 for “masculinity” and .77 for “femininity” (Dökmen 1999).

Personal Information Form

A personal information form was prepared consisting of six structured questions inquiring into students’ gender, type of school, order of birth, level of income and mother and father’s education levels. In line with the principle of confidentiality, no information regarding identity was collected on this form.

Procedure

Permission to use the scales employed in the research was obtained from the individuals who developed or applied them. Before application, the relevant permission for the administration of the scales to students attending different high schools in the province of Trabzon was obtained from the Trabzon Provincial Directorate of Education. Meetings were held with school principals at which the content of the permission document received was set out. Administration using optic forms took place in a class setting in a single session in the presence of the first author and school counselors in those schools from which approval was obtained. Administration of the scales was completed in 20-min sessions over a 2-week period. Eight hundred fifty scales were administered in schools, but 42 of these were excluded from analysis due to missing or incorrect markings, and data from 808 scales were eventually transferred to computer.

Data Collection and Analysis

Data were analyzed on SPSS 15.00 software. Significance was tested at a level of .05, and other significance levels used are set out separately. Pearson product moment correlation, one-way analysis of variance (ANOVA) and the independent group t test were employed.

Results

Analysis and results in terms of whether there is a significant correlation between final year high school students’ career decision-making self-efficacy and attachment styles, whether these vary depending on gender roles and whether or not they vary significantly on the basis of such demographic variables as gender, type of school, birth order, income level and parental education levels are shown.

Correlation Between Final Year High School Students’ Career Decision-Making Self-Efficacy and Attachment Styles

Pearson product moment correlation coefficient analysis was used to determine relations between final year high school students’ career-making efficacies and attachment styles. The results are shown in Table 1. The results showed that career decision-making self-efficacy was significantly positively correlated with secure ($r = .11, p < .01$) and fearful ($r = .12, p < .01$) attachment styles. No significant correlation was determined between career decision-making self-efficacy and preoccupied or dismissing attachment styles.

Career Decision-Making Self-Efficacy Variation by Gender Roles

One-way analysis of variance (ANOVA) revealed a significant difference in career decision making self-efficacy in terms of gender roles ($F_{(3, 804)} = 44.90, p < .001, \eta^2 = .14$). These results are shown in Table 2. Post hoc analysis was applied in order to determine the source of the variation post. The relevant literature contains numerous post hoc analyses permitting comparisons to be made among groups. Within the scope of the present study, we used Scheffe post hoc analysis. This method was developed in order to compare all possible linear combinations among groups. Moreover, it keeps the margin of error under control by considering group counts.

Table 1 Correlations between career decision making self-efficacy and attachment styles

| | 1 | 2 | 3 | 4 | 5 |
|---|--------|-------|-------|-------|-------|
| 1. Career Decision Making Self-Efficacy | 1 | | | | |
| 2. Secure | .11* | 1 | | | |
| 3. Preoccupied | .02 | .04 | 1 | | |
| 4. Fearful | .12* | .28* | .11* | 1 | |
| 5. Dismissing | -.03 | -.27* | .22* | .28* | 1 |
| Mean | 105.02 | 19.84 | 15.67 | 17.98 | 19.19 |
| SD | 13.13 | 5.60 | 3.89 | 4.54 | 4.47 |

* $p < .01$

Table 2 Career decision making self-efficacy variation by gender roles

| | Source | SS | df | MS | F | p | η^2 |
|--------------|----------------|------------|-----|---------|-------|------|----------|
| Gender roles | Between groups | 19,967.38 | 3 | 6655.79 | 44.90 | .001 | .14 |
| | Within groups | 119,179.16 | 804 | 148.23 | | | |
| | Total | 139,146.55 | 807 | | | | |

SS Sum of squares, df Degrees of freedom, MS Mean square

Scheffe post hoc analysis does not take the assumption of equal observation counts among groups into consideration (Scheffe 1959). Subjects with masculine or feminine gender roles exhibited greater career decision making self-efficacy than those with undifferentiated gender roles, while students with androgynous gender roles had greater self-efficacy than students with masculine, feminine or undifferentiated gender roles.

Variation in Career Decision-Making Self-Efficacy Between the Genders

The mean values for career decision making self-efficacy were 105.77 (Sd: 12.82) for females and 140.13 (Sd: 13.45) for males. The independent t test revealed no significant difference in career decision making self-efficacy ($t_{(806)} = 1.76$, $p > .05$, $d = .12$).

Variations in Career Decision-Making Efficacy Levels by Type of School, Birth Order, Perceived Income Level and Parental Education Levels

ANOVA was used to determine whether career decision-making self-efficacy levels varied in terms of type of school, birth order, perceived income level or parental level of education. Final year high school students' total career decision-making self-efficacy scores did not differ significantly on the basis of school type ($F_{(7, 800)} = 0.94$, $p > .05$, $\eta^2 = .001$) or birth order ($F_{(3, 804)} = 0.58$, $p > .05$, $\eta^2 = .001$). However, total career decision-making self-efficacy scores did vary significantly by income levels ($F_{(2, 805)} = 6.71$, $p < .05$, $\eta^2 = .02$). The Scheffe test was performed in order to identify the source of the variation. That analysis showed that subjects with good income levels had better total career decision-making self-efficacy scores than those with average or insufficient income levels. No significant difference in total career decision-making self-efficacy scores was determined between subjects with average or insufficient income levels. Additionally, total career decision-making self-efficacy scores did not vary significantly on the basis of maternal ($F_{(7, 800)} = 1.339$, $p > .05$, $\eta^2 = .01$) or paternal ($F_{(7, 800)} = 0.94$, $p > .05$, $\eta^2 = .008$) education levels.

Discussion

Career decision-making self-efficacy was significantly positively correlated with secure and fearful attachment styles in this study. The higher the secure or fearful attachment style scores of the students in the study, the higher their total career decision-making self-efficacy scores. Individuals with a secure attachment style have positive perceptions of self and others, regard themselves as meeting the definition of career decision-making self-efficacy and regularly endeavor to meet specified objectives. Career decision-making self-efficacy scores increasing with an individual's secure attachment score is an expected finding.

One study indirectly supporting our finding, by Amiri et al. (2013) reported that individuals with secure attachment have higher self-efficacy than individuals with avoidant or ambivalent attachment. Individuals with fearful attachment styles, however, have negative perceptions of themselves and others. That increases their avoidance and anxiety levels (Lopez and Gormley 2002). Yet the findings obtained from the study show a significant negative correlation between a fearful attachment style and career decision-making self-efficacy. Our scan of the literature revealed no studies examining the relation between attachment styles and career decision-making self-efficacy. However, research by Betz and Voyten (1997); Feinstein-Messinger (2007) and Restubog et al. (2010) shows that individuals with high career decision-making self-efficacy experience less difficulty in making decisions when necessary regarding career choices. Fearfully attached individuals' high anxiety levels suggests that they are impatient and desirous on the subject of career decision-making and that since they may exhibit a tendency to avoidance they probably develop more defense mechanisms against difficulties.

Bartholomew and Horowitz (1991) emphasized that fearfully attached individuals have negative perceptions of themselves and others and experience fear of rejection, for which reason they place themselves under protection and avoid establishing close relations with others. However, the data from this study suggest that these individuals exhibit efficacy on the subject of career decision-making despite negative self-perception and fears of rejection. Within a general picture of negativity, these individuals may seek to prove themselves to themselves and others by being prepared to strive for an objective they determine, collecting information about careers

they choose and becoming acquainted with careers and themselves. Becoming effective individuals by choosing good careers may lead them to think they can protect themselves and those around them from criticism. Individuals whose needs are not met promptly during babyhood and who are deprived of access to the care giver at times of need develop fearful attachment styles. Considering the parental pressure applied in these individuals' choice of career and university, it may be that such individuals work harder than others to increase their levels of career decision-making self-efficacy in order to gain approval and recognition.

This research also investigated whether career decision-making self-efficacy levels vary depending on gender roles. The findings show that individuals with feminine or masculine gender roles have higher levels of career-making self-efficacy than those with indeterminate gender roles. In addition, individuals with androgynous gender roles had higher levels of career decision-making self-efficacy than those with feminine, masculine or indeterminate gender roles. Thanks to their entrepreneurial abilities (O'Heron and Orlofsky 1990) and moderate temperament (DeLucia 1987; Gianakos 2000), individuals with androgynous gender roles are thought to be at an advantage in terms of career development. Individuals with androgynous gender roles having higher levels of career decision-making self-efficacy than those with other gender roles may be attributed to their being less affected by societal pressure and traditional impositions. Individuals with feminine gender roles are thought to be likely to avoid feeling interest in careers that are prescribed by society and described as male careers. In the same way, individuals with masculine role models are reported to be capable of being unresponsive to feminine careers. Individuals with androgynous gender roles exhibiting efficacy on the subject of career selection is an expected outcome in the light of their self-interest and abilities. There are studies in the literature concerning individuals with androgynous roles having high career decision-making self-efficacy. One study, by Brown et al. (2006), stated that students with feminine and androgynous gender roles also exhibited significantly higher career decision-making self-efficacy.

This study also investigated whether decision career-making self-efficacy varies in terms of various demographic characteristics; gender, type of school, birth order, perceived income level and parental levels of education. This study first investigated whether total career decision-making self-efficacy scores varied according to gender. No significant difference was determined. Studies in the literature have reported similar or different findings regarding whether gender represents a significant difference in career decision making self-efficacy. Bozgeyikli et al. (2009) reported higher career decision making self-efficacy in males compared to females.

One study reporting findings parallel to our own was performed by Wilson (2000). That study reported no significant

difference between levels of career decision making self-efficacy in terms of gender. This may indicate that the traditional distinction between male and female has blurred with the changing conception of work and career in recent years. It may be that efforts to become an individual in society have closed the gap between male and female at the level of career decision-making self-efficacy. It may be that the disadvantage facing the female group in terms of career selection efficacy has been overcome through increased environmental stimuli in this time of progression from modernity to postmodern life. The research results show no significant difference in total career decision-making self-efficacy in terms of type of school. The type of school variable has only been considered in a limited number of studies involving levels of career decision making self-efficacy in Turkey. One study examining the relation between career decision making self-efficacy and school type reported significant variations (Sarı and Şahin 2013). That study concluded that students from science high schools had significantly higher total career decision-making self-efficacy scores than those from general high schools and Anatolian high schools. The fact that no difference was determined between students' career decision-making self-efficacy levels in this study may be evaluated as a welcome outcome in terms of establishment of equality of opportunity for all school types.

This study also examined whether another demographic variable, birth order, resulted in any significant variation among total career decision making self-efficacy scores. Our scan of the literature revealed no studies involving career decision making self-efficacy that considered this variable. Yet birth order influences habits, career choice, opposite gender preferences, decisions where to live and political changes (Sulloway 2007). No significant findings were obtained in the sample in this study. However, re-examination of birth order with another sample group might be recommended. Examination of the study data revealed significant variation in total career decision making self-efficacy scores by perceived income levels. Subjects with good levels of income had higher total scores than those with average income levels. Similar findings have been reported in the literature (Bozgeyikli et al. 2009; Sarı and Şahin 2013).

Under present-day conditions, although access to information and means of communication is increasing, the most significant determinant of the level of that access is level of income. The difference between perceived level of income and the family's socio-economic level, including income, is quite significant. Subjects with high levels of perceived income also having higher career decision making self-efficacy than those perceiving their income as average suggests that these subjects have higher standards of living. Other variables considered in this research are mother and father's education status. The analysis findings showed no significant relation between these two variables and career decision

making self-efficacy. Inconsistent results have been reported in the literature. Some studies have suggested that the family's level of education increases career decision making self-efficacy levels (Gesinde 2001; Ferry 2006), while others have reported that parental education levels do not affect career decision making self-efficacy (Şeker 2013). It is an established fact, however, that under present-day conditions, when urbanization is increasing rapidly, no matter what their level of education, families encourage their children to have a profession. The absence of any variation in this study may be attributed to families' supportive and encouraging attitudes.

There are a number of limitations to this research. The research sample consisted of studies in their final year in various high schools in the Trabzon city center. In terms of being able to generalize the study findings, new studies with a more varied population should be performed. However, think that our study findings will be useful for workers in the field developing programs aimed at improving career decision-making self-efficacy. This study investigated and attempted to explain the relation between career decision making self-efficacy and attachment styles and gender roles. Future studies might investigate relations between career decision making self-efficacy and variables such as academic success, academic postponement, self-perception, rational planning and problem solving. We think that variations between career decision-making self-efficacy levels and ethnic identity, which are frequently encountered in studies from abroad (Chung 2002; Creed et al. 2002; Mau 2000), should also be investigated in Turkey. Activities aimed at increasing levels of career decision making self-efficacy should start from sub-classes and be monitored through longitudinal research.

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Compliance with Ethical Standards All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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