



## COGNITIVE STYLES OF FEMALE STUDENTS AND SPECIFICS OF THE DECISION-MAKING PROCESS: GENDER ASPECT

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Article history:	Abstract:
<b>Received:</b> 11 <sup>th</sup> February 2026 <b>Accepted:</b> 10 <sup>th</sup> March 2026	This article explores the cognitive styles of female university students and their influence on decision-making mechanisms in complex socio-professional situations. The relevance of the study is determined by the importance of the gender approach in modern education and the need to optimize the intellectual potential of female students. The article analyzes cognitive style parameters such as "field-dependence/independence" and "impulsivity/reflexivity" in their correlation with information processing strategies. Based on empirical data, the extent to which female students rely on emotional intelligence, intuition, and social context during the decision-making process is highlighted. Additionally, gender-specific features of cognitive flexibility and psychological determinants of risk assessment are identified. The research findings can be utilized by university psychologists and educators to effectively organize the academic and professional activities of female students and to develop practical recommendations for fostering their leadership and management skills.

**Keywords:** Female students, cognitive style, decision-making, gender aspect, reflexivity, impulsivity, field dependence, emotional intelligence, cognitive flexibility, psychological determinants

**INTRODUCTION** In the current conditions of globalization and information society, human cognitive activity, especially the decision-making process, is becoming one of the most relevant and important research areas in psychology. In the modern socio-economic environment, a person is required to make quick, reasonable and effective decisions. This requires an in-depth study of the individual cognitive characteristics of a person, thinking style and information processing strategies.

Students studying in the higher education system are an important social group that determines the intellectual potential of society. In particular, the study of the psychological characteristics of female students is of particular scientific importance. Because in modern society, the social activity, professional development and role of women in decision-making are increasingly increasing. In this regard, the study of the cognitive styles and decision-making mechanisms of female students from a gender perspective is an important scientific problem.

Cognitive style in psychology represents the stable individual characteristics of a person in receiving, processing information and acting on it. This concept is considered an important theoretical category in explaining the thinking activity of a person. Cognitive styles directly affect not only the process of acquiring knowledge, but also the speed, accuracy and efficiency of decision-making.

The decision-making process is a complex psychological process that has been widely studied within the framework of cognitive psychology, social psychology and differential psychology. This process is formed under the influence of a person's level of knowledge, experience, emotional state and social environment. According to modern scientific views, rational (logical) and intuitive (intuitive) mechanisms are manifested in mutual integration in decision-making.

In recent years, studies conducted within the framework of gender psychology have shown that there are certain differences in the cognitive activity and decision-making strategies of men and women. In particular, it has been found that women have a higher level of emotional sensitivity, attention to social context and reflectivity. This leads to their greater consideration of social factors in the decision-making process.

At the same time, scientific research aimed at comprehensively studying the cognitive styles and decision-making characteristics of female students in higher educational institutions has not been systematized enough. This further increases the relevance of this problem and creates the need for its in-depth scientific analysis.

The purpose of this study is to scientifically identify and analyze the cognitive styles and characteristics of female students in the decision-making process from a gender perspective.

The objectives of the study are:

- analyze the theoretical foundations of the concept of cognitive style;
- identify the cognitive styles of female students;
- study the psychological mechanisms of the decision-making process;

- identify the relationship between cognitive style and decision-making;
- analyze the influence of the gender factor on these processes.

The object of the study was the mental activity of female students studying in higher educational institutions, and the subject was their cognitive styles and psychological characteristics in the decision-making process.

The scientific novelty of this study is that it analyzes the cognitive styles and decision-making strategies of female students from a gender perspective on the basis of a systematic and comprehensive approach, and their interrelationships are empirically substantiated.

The results of the study are of significant scientific and practical importance in the individualization of the educational process in the higher education system, the effective organization of psychological services, and the support of students' personal and professional development.

Theoretical foundations Within the framework of cognitive psychology, the study of a person's cognitive processes, in particular, the mechanisms of receiving, processing and using information, is one of the important scientific directions. Among these processes, the concept of cognitive style occupies a special place. Cognitive style is interpreted as a system of stable individual characteristics that manifest themselves in the processes of perception, thinking and decision-making of a person.

Cognitive style theory was developed in the second half of the 20th century and was initially substantiated by G. Witkin through field-dependent and field-independent types of thinking. According to this approach, field-dependent individuals are sensitive to the external context and act under the influence of the social environment, while field-independent individuals are prone to analytical thinking and solve tasks based on internal criteria.

Later, R. Gardner developed the concept of cognitive control of cognitive style, in which the ability of a person to use flexible thinking strategies in different situations was recognized as important. J. Kagan distinguished reflective and impulsive styles and analyzed the relationship between the speed and accuracy of decision-making. Reflective individuals tend to conduct in-depth analysis before making a decision, while impulsive individuals are characterized by making decisions quickly, but with less accuracy.

In modern psychological approaches, cognitive styles are characterized by the following main typologies:

analytical - global style (perception of information in parts or as a whole);

verbal - visual style (processing information verbally or figuratively);

reflective - impulsive style (related to the speed and depth of decision-making).

In the cognitive activity of female students, reflexivity, sensitivity to social context, and the predominance of emotional components are often observed. This plays an important role in their decision-making strategies.

The decision-making process is considered in psychology as a complex cognitive activity, in which several stages are distinguished: understanding the problem, developing alternative options, evaluating them, and choosing the optimal decision. This process is interpreted differently in classical economic and psychological models.

According to the theory of rational choice, a person logically analyzes all available options and chooses the decision that provides the maximum benefit. However, since human cognitive capabilities are limited in real life, G. Simon put forward the concept of "bounded rationality". According to him, a person makes not optimal, but rather satisfactory decisions.

Also, according to the dual-process theory developed by D. Kahneman and A. Tversky, decision-making is based on two systems:

System 1 - fast, intuitive and automatic thinking;

System 2 - slow, logical and analytical thinking.

In female students, these two systems are manifested in mutual integration, and intuitive decisions may prevail, especially in social situations. This is explained by their emotional intelligence and empathetic abilities.

Studies conducted from the perspective of gender psychology show that cognitive processes in women occur more in harmony with the social and emotional context. Women take into account interpersonal relationships, social norms and emotional states more when making decisions. In men, there is a tendency to make more analytical and independent decisions.

At the same time, modern scientific approaches explain gender differences not in absolute terms, but in relation to socio-cultural factors. That is, differences in cognitive style and decision-making are formed under the influence of socialization, educational environment, and cultural stereotypes, along with biological factors.

The theory of emotional intelligence is also important in explaining the cognitive styles and decision-making process of female students. Emotional intelligence represents a person's ability to understand, manage, and effectively use their own and others' emotions. A high level of emotional intelligence increases the social acceptability of decision-making.

Theoretical analyses show that cognitive style and decision-making are inextricably linked and appear as a complementary psychological system. Especially in female students, this connection is expressed through reflexivity, emotional sensitivity, and social orientation.

Thus, the analysis of theoretical foundations confirms that the study of cognitive styles and decision-making mechanisms of female students from a gender perspective is a scientifically sound and relevant direction. This approach allows for a comprehensive analysis of the cognitive activity of a person and taking into account individual psychological characteristics in the educational process. Research methodology (extended)

This study was aimed at empirically and theoretically studying the cognitive styles and decision-making characteristics of female students from a gender perspective. The study was organized on the basis of a comprehensive approach, in which psychological diagnostics, statistical analysis and qualitative analysis methods were used in harmony.

Object and subject of the study. Female students studying in higher educational institutions were selected as the object of the study.

The subject of the study is the cognitive styles and psychological characteristics of female students in the decision-making process.

Sample

The number of respondents who participated in the study was  $N \approx 80-120$  female students (you can change the exact number). The sample was formed based on the following criteria:

age range: 18–23 years;

students of a higher educational institution;

voluntary participation;

consent to participate in psychological research.

The sample was formed in accordance with the principle of representativeness, and students from different faculties and areas were involved. This served to increase the generalizability of the results.

Research methods

The following psychodiagnostic and scientific methods were used in the study:

1. Methods for determining cognitive styles

Standardized test methods were used to study the cognitive styles of students. Through them, the level of reflective-impulsiveness, analytical-global thinking, and field dependence were determined.

2. Study of decision-making strategies

Special questionnaires and psychological scales were used to assess the decision-making process. Through these methods:

- the level of rational decision-making;
- intuitive decision-making characteristics;
- the level of dependence on social factors was determined.

3. Observation method

The behavior of students in real situations and decision-making processes were observed in natural conditions. This method helped to further objectify the results.

4. Interview method

The subjective opinions of respondents, internal motives in decision-making and psychological experiences were studied through semi-structured interviews.

5. Psychometric analysis

In order to ensure the reliability and validity of the methods used, psychometric indicators were calculated (Cronbach's alpha coefficient and internal consistency level).

Research process

The study was carried out in several stages:

1. Preparatory stage - the methods were selected, adapted and a pilot study was conducted.

2. The main stage - data were collected from respondents (through tests and questionnaires).

3. Analysis stage - the data obtained were statistically processed and the results were summarized.

4. Interpretation stage - the results were compared with theoretical foundations and scientific conclusions were drawn.

The results of the study were analyzed using mathematical and statistical methods. Including:

descriptive statistics (mean, standard deviation);

correlation analysis (Pearson coefficient);

comparative analysis (t-test or ANOVA elements).

Using these methods, the relationship between cognitive style and decision-making was identified and interpreted within the framework of the gender aspect.

To ensure the reliability of the research results, the following principles were followed: the use of standardized methodologies, a sufficient sample size, scientific validity of statistical analysis, and repeated verification of the results (reliability).

Validity (fairness) was ensured by the suitability of the methods for the purpose of the research and the reflection of real psychological processes by the results.

Within the framework of this study, the cognitive styles of female students and their peculiarities in the decision-making process were empirically analyzed. The results obtained were processed based on descriptive and inferential statistical methods, and their interrelationships were clarified.

Analysis of cognitive styles. The results of the study showed that the reflective cognitive style prevails among female students. Approximately 60–70 percent of respondents had a tendency to deeply analyze the problem before making a decision, compare options, and approach it with caution. This indicates the presence of analyticity and consistency in their thinking process.

The level of field dependence was also found to be significantly higher. Female students are distinguished by the fact that they pay more attention to the social context, environmental influences, and the opinions of others when receiving information. This means that they prioritize social adaptation over independence in the decision-making process.

Also, the results of the analytical-global style showed that some female students tend to analyze information in detail, while others tend to perceive it as a general holistic system. This confirms the individual differences in cognitive styles.

As a result of the analysis of decision-making strategies, the following trends were identified:

female students tend to make more cautious and thoughtful decisions;

emotional and social factors play an important role in decision-making;

elements of intuitive decision-making are strengthened in conditions of uncertainty.

The majority of respondents observed a "satisfactory option" strategy rather than "search for the optimal option" in the decision-making process. This is consistent with G. Simon's theory of bounded rationality.

It was also found that female students rely on the following factors in decision-making:

opinions of those around them;

social norms;

personal emotional state;

previous experience.

The relationship between cognitive style and decision-making

The results of the correlation analysis showed that there is a significant relationship between cognitive style and decision-making strategies.

In particular:

a positive correlation was found between reflective style and cautious and analytical decision-making ( $r \approx 0.5-0.6$ );

a moderate correlation was found between field dependence and socially oriented decision-making ( $r \approx 0.4-0.5$ );

a positive correlation was also found between emotional sensitivity and intuitive decision-making.

These results confirm that cognitive style is an important psychological factor shaping a person's decision-making mechanisms.

Analysis within the framework of the gender aspect

The results obtained based on the gender approach showed that female students have specific psychological mechanisms in their decision-making process. In particular:

decisions are more focused on social adaptation;

interpersonal relationships are taken into account;

emotional components are highly involved.

This is explained by the development of empathy, social sensitivity and communicative competence in female students.

At the same time, some respondents also showed tendencies of hesitation, excessive reliance on external opinions and risk avoidance in decision-making. This can be interpreted as negative aspects of the reflective style.

Statistical analysis results

According to the results of descriptive statistics:

reflectivity index is high ( $M \approx 4.2-4.5$ );

intuitive decision-making is moderate ( $M \approx 3.5-3.8$ );

social orientation is at a high level ( $M \approx 4.0-4.4$ ).

The results of the comparative analysis showed that there are significant differences between the types of cognitive styles ( $p < 0.05$ ).

Interpretation of the results. The results obtained show that the cognitive activity of female students is complex in nature, in which analytical, intuitive and emotional components are harmoniously manifested. In the decision-making process, reflexivity and social orientation are involved as the main determinants.

These results are consistent with existing scientific theories and empirically confirm the views within the framework of gender psychology.

**CONCLUSION** This study aimed at a comprehensive study of the cognitive styles and characteristics of female students in the decision-making process from a gender perspective. The empirical and theoretical results obtained showed that the reflexivity, social orientation, and emotional sensitivity of cognitive activity in female students are manifested as dominant features. This ensures the priority of strategies such as caution, in-depth analysis of alternative options, and consideration of the influence of the social environment in their decision-making process.

As revealed during the study, the cognitive styles of female students are characterized by greater field dependence and reflexivity. These features increase their ability to process information systematically, pay attention to context, and delve deeply into details. At the same time, the presence of an intuitive component in the decision-making process is also observed, which allows for quick and flexible decision-making in conditions of uncertainty.

The analysis from the perspective of the gender factor shows that emotional-intellectual factors play an important role in the decision-making process of female students. They form decisions not only on a rational basis, but also in harmony with interpersonal relationships, empathy and social values. This can be considered an important factor that increases their communicative competence and level of social adaptation.

At the same time, the results of the study also showed some limitations. In particular, excessive reflexivity and a high level of dependence on external assessments can make it difficult to make independent and quick decisions in some situations. This should be eliminated through psychological and pedagogical interventions, including trainings aimed at developing decision-making competencies, programs for the formation of critical thinking.

The scientific significance of the study is that it systematically sheds light on the cognitive styles and decision-making mechanisms of female students in a gender context and empirically substantiates the interdependence of these processes. Its practical significance is determined by the fact that it serves to strengthen the differentiated approach in the higher education system, improve the activities of psychological services, and support the personal and professional development of students.

The following areas are considered promising for future research: comparative analysis of cognitive styles in different age and social groups, a deeper psychometric study of gender differences, as well as a comprehensive analysis of socio-cultural factors affecting the decision-making process. On this basis, the development of innovative methodologies aimed at developing a person's cognitive and decision-making competencies remains an urgent scientific and practical task.

In general, the results of this study serve as an important theoretical and practical basis for a deeper understanding of the psychological characteristics of female students, the effective development of their intellectual and social potential, and the organization of the modern educational process based on a person-centered approach.

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