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Personality traits and decision-making

Cechy osobowości a podejmowanie decyzji

Słowa kluczowe: podejmowanie decyzji, cechy osobowości, płeć, pięcioczynnikowy model osobowości.

Streszczenie: Artykuł koncentruje się na dyskusji na temat dokonywania wyborów i podejmowania decyzji w kontekście cech osobowości mężczyzn i kobiet. Przeprowadzono wywiady z grupą 65 studentów w wieku 20 lat (±3 lata). Uczestnikami było 36 mężczyzn (55,4%) i 29 kobiet (44,6%). Uczestnicy byli studentami kierunku zarządzania. Respondenci odpowiadali na zestaw pytań dotyczących takich kwestii, jak ocena własnych decyzji i zachowań, metody podejmowania decyzji, ocena konsekwencji decyzji oraz stopień niezależności w podejmowaniu decyzji. Wyniki odniesiono do indywidualnych cech osobowości zdefiniowanych przez teorię Wielkiej Piątki, a mianowicie ekstrawersji, neurotyczności, sumienności, ugodowości i otwartości na doświadczenia. Stwierdzono, że w dużej mierze kobiety i mężczyźni kierują się podobnymi zasadami. Istnieją jednak pewne obszary aktywności, wynikające z nich decyzje, poglądy i rozwiązania, które różnią się między obiema płciami. Ogólnie rzecz biorąc, mężczyźni są bardziej ekstrawertyczni i mniej zaniepokojeni konsekwencjami swoich działań i decyzji. Kobiety natomiast są bardziej stabilne i odpowiedzialne. Uzyskany wynik obejmuje pewien wycinek rozległego zagadnienia podejmowania decyzji. Badania nad tym złożonym tematem w kontekście cech osobowości wymagają dalszej pracy i analizy.

Key words: decision making, personality traits, gender, five-factor model of personality.

Abstract: The article focuses on a discussion concerning choice-making and decision-making in the context of men's and women's personality traits. A group of 65 students aged 20 ±3 years were interviewed. 36 participants (55.4%) were men and 29 (44.6%) were women. The participants were students of Management. The respondents answered a set of questions on such issues as evaluation of their own decisions adecisions, and the degree of independence in decision-making. The results were related to individual personality traits as defined by the Big Five theory, namely extraversion, neuroticism, conscientiousness, agreeableness and openness

to experience. It was found that to a large extent that women and men are guided by similar principles, However, there are some areas of activity, the resulting decisions, views and solutions that differ between the two sexes. In general, men are more extroverted and less concerned about the consequences of their actions and decisions. Women, on the other hand, are more stable and responsible. The result obtained covers a certain section of the vast issue of decision-making. Research on this complex topic in the context of personality traits requires further work and analysis.

Introduction

Decision-making is a mental activity that has intrigued researchers since the beginning of time, as the fate of the world often depended on what decision was made. In everyday life, it is a key action that determines the fate of a single person, family, friends and the surrounding environment. Therefore, researchers have dealt and continue to deal with every aspect of this issue. Despite intensive research, still a lot is unknown regarding the possibility of predicting how a single individual makes decisions and what factors influence a given behavior instead of other. On the other hand, multiple studies carried out in this field leave an extensive body of knowledge, covering methods of making decisions, factors influencing decision-making, models of management and decision-making, and other aspects related to the actions and reactions of individuals to stimuli with the surrounding. However, there is no doubt that one's type of personality significantly affects decision-making. Studies indicate that even if managers' decisions are based on managerial procedures, personality also influences their decisions (Monzurul 2013). It was found that personality traits of a decision-maker have a significant impact on the quality of their decisions (Strohhecker and Größler 2013). The influence of personality on decision-making was studied in the work of Erjavec et al. (Erjavec, Zaheer and Trkman 2016). The researchers found that neurotics have less confidence and make bad quality decisions. Self-assured and less agreeable individuals who are not depressed are considered good candidates for decision making tasks. The concept of two-system decision making was introduced (PBS402a Student Reading 2024). One is reactive, instinctive, quick and holistic (System-1). The other is reflective, deliberative, analytical, and procedural (System-2). Both these valuable systems function simultaneously, often checking and balancing each other, and either one can override the other. The personality is associated with human performance (Gudonavicius and Fayomi 2014). In particular, the connections of the five-factor model of personality with employees' skills were studied, making their potential capabilities and skills dependent on individual personality factors (Hurtz and Donovan 2000).

The five-factor model of personality (the so-called Big Five) by Costa and McCrae (McCrae and Costa 1985) is one of the most popular personality theories. This model includes five main personality factors: neuroticism, extraversion, openness

to experience, agreeableness and conscientiousness (Hasanah, Kusmaningtyas and Riyadi 2022).

Neuroticism means "susceptibility to experiencing negative emotions such as fear, confusion, dissatisfaction, anger, guilt and sensitivity to psychological stress" (Stroud 2018). Neurotic people are prone to controlling their urges and struggling with stress" (Zawadzki and Strelau 1995). High neuroticism results in vulnerability to stress, particularly when conditions are interpreted as threatening (McCrae and Costa 1987, 1999). Neuroticism is the tendency to experience emotions such as anxiety, anger or sadness (Widiger and Oltmanns 2017). People with high levels of this trait are prone to stress and sensitive to difficulties. They sometimes interpret ordinary situations as threatening and minor frustrations as difficult. Their emotional reactions persist for a long time, which means they find it hard to return to a state of emotional equilibrium. Elevated levels of neuroticism have overall negative effect. Neuroticism affects the specifics of decision-making (Savchenko, Muzychka and Kolesnichenko 2021, Toledo and Carson 2023). When the level of an individual's unhealthy neuroticism increases then the ability to regulate one's own emotional state and behavior decreases. Pessimistic predictions about the likely results of actions carried out steadily intensify. Individuals with lower levels of neuroticism are perceived as emotionally stable and in control. They cope with stressors of all kinds and difficult emotions. They often take an optimistic view of the world, perhaps approaching some problems with too much composure.

Agreeableness is the trait responsible for our attitudes toward the social world. Agreeable people are perceived as warm, positive and cooperative (Babakr and Hasan 2023). They are trusting, altruistic, sincere and straightforward (Connolly and Seva 2021, Rey and Extremera 2016, Bradley et al. 2013) They often agree to make concessions because they dislike disputes. A lesser degree of agreeableness is characteristic of individuals who are perfectly capable of looking after their own interests and do not agree to proposals that are unfavorable to them. They can derive additional motivation from competition with others. Such individuals do not yield to social pressure.

Openness is a general appreciation of art, excitement, adventure, imagination, curiosity and variety of experiences (Mohan and Mulla 2013, Nusbaum and Silvia 2011). People with a high intensity of this trait are creative and open to experiences from both the external and internal world (Kaufman et al. 2016). They show tolerance to novelty. They are open to emotions and aware of their feelings. They are interested in new ideas. At the same time, as Costa and McCrae (McCrae and Costa 1999) (authors of the Big Five model) mention, they are unconventional and inclined to question authority. People who are open to experiences often seek self-realization by seeking intense and euphoric experiences (Raya et al. 2023). People at the other pole of this scale prefer the familiar and the tried and proven. They do well in repetitive tasks and do not artificially seek novelty. They value tradition and are often fixed in their views.

Conscientiousness is the tendency to show self-discipline and persevere to achieve set goals (Rezaei et al. 2014). Conscientious people are dutiful, meticulous and do their work reliably. High intensity of this trait can result in workaholism. In contrast, people at the other end of the scale place less importance on fulfilling their duties. They often take action spontaneously and show ease in making quick decisions.

Extroverts are sociable and talkative people, inclined to have fun (Bayram and Aydemir-Dev 2017). They have a strong need to experience stimulating experiences and engage in interesting activities. Such people are perceived as full of energy. Sometimes in company, they may appear dominant in their interactions with others. Introverts, or those at the other end of the scale, show reserve in social interactions (Gopinath 2015). They seem to have less energy and be less involved in the social world. They do not need as many stimulants as extroverts. They are self-reflective, focused on their inner world, but also on their partners within interaction.

Studies have revealed that with age, most adults become more conscientious and agreeable and less neurotic. Levels of agreeableness and conscientiousness tend to increase over time, while extraversion, neuroticism and openness tend to decrease. Studies have also shown that changes in the Big Five personality traits depend on a person's current stage of development (Kraczla 2017). Expanded schemes for describing the Big Five factors are also proposed (Strus, Cieciuch and Rwiński 2011). Personality traits have been found to influence decision-making (Richert et al. 2023) and the quality of work.

Research also suggests that people who are considered leaders tend to exhibit lower neurotic traits, maintain higher levels of openness, balanced levels of conscientiousness and extraversion (Ma'Amor et al. 2016, Wood and Roberts 2006, Johnson 2018). Personality traits shape a certain pattern of human behavior (Gastil 2024, Salah et al. 2015, Stangor and Walinga 2014, Skinner 2014). They influence all areas of a person's life and play a significant role in the area related to professional work.

Differences in behavior and decision-making between men and women are caused by many factors (Harris and Jenkins 2006, Iswari and Budiyono 2023, Combet 2024). The question arises whether it is possible to condition them on a limited number of personality factors. The article attempts to analyze this issue in the research of a group of representatives of the academic community, limited in number and environment.

Research methodology

All the 65 questionnaires distributed among students were analyzed. They were students of a public university. The average age of students was 20 +/- 3 years. 36 participants (55.4%) were male and 29 (44.6%) were female. The participants were students of Management.

The survey asked questions about decision-making and evaluating the consequences of making one's own decisions. Table 1 shows the survey questions that respondents were asked. Closed questions with zero-one answers (Yes or No) were asked. This prompted respondents to make clear declarations and choices, even if the Yes/No answer option did not quite reflect their actual attitude to the issue. The percentage of YES responses from women and men was determined, in relation to the numerical share in the survey.

Table 1. Survey questions

No	Questions	YES	NO
1	Do you feel that you are a confident person?		
2	Do you make decisions quickly or after a short reflection?		
3	Do you make decisions on your own, without the opinion of third parties?		
4	Do you consider yourself to be an open and friendly person?		
5	Do you interact easily with others?		
6	Do you respond to emails as quickly as possible?		
7	Stress does not affect your wellbeing.		
8	Your workplace is tidy.		
9	Do you often feel a compulsion to justify yourself to others?		
10	Winning an argument matters less to you than the well-being of others.		
11	Do you feel superior to other people?		
12	Being organized is more important to you than being flexible.		
13	You don't mind being the center of attention.		
14	You think you are more creative than practical.		
15	People rarely get you off balance.		
16	You often have trouble understanding other people.		
17	Your mood changes very quickly.		
18	You believe that getting to the truth is more important than the wellbeing of others.		
19	You seldom worry about the consequences of your decisions.		
20	Your working style is methodical and organized.		
21	You often envy others.		
22	An interesting read or a good game is sometimes better than the company of other people.		
23	The most important part of action is a good plan and sticking to it.		
24	You rarely get carried away with fantasies and ideas.		

25	If someone doesn't call back or respond to an email you worry that something is wrong.		
26	As a parent, you would rather your child be smart than nice.		
27	Do you allow others to influence your actions.		
28	Your activities focus on the real world and events.		
29	You are able to engage quickly with new communities and groups of people.		
30	Emotions control you more than you control them.		
31	You prefer to improvise rather than plan.		
32	You are a withdrawn and quiet person.		
33	You would not feel loyalty to inefficient and bad employees.		
34	You wonder about the meaning of existence.		
35	Logic is more important than feelings when making important decisions.		
36	You make decisions after long and deep consideration.		
37	You don't think about the consequences of your decisions.		
38	You analyze in detail the possible consequences of your decisions.		
39	You make decisions spontaneously.		
40	You feel that the decisions you have taken have mostly benefited you.		
41	You always consult people you consider as friends when making important decisions.		
42	You like to discuss your decisions in a larger group.		
43	You do not reveal your decisions to others.		
44	Free choice is more important than a list of tasks.		
45	You rarely feel insecure.		
46	You have no problem arranging and adhering to your own schedule of tasks and activities.		
47	When it comes to teamwork, you'd rather be right than collaborate.		
48	You believe that one should respect the views of others regardless of whether they are based on facts or not.		
49	You have more energy after meeting other people.		
50	You often lose things.		
51	You consider yourself emotionally stable.		
52	Your mind is full of ideas and plans.		
53	You don't consider yourself a dreamer.		
54	You feel stressed when speaking in front of other people.		
55	You rely more on experience than imagination.		
56	You worry too much about what other people think.		
57	When the room is filled with people you stand closer to the wall than the center.		

58	You tend to procrastinate until there is not enough time left.		
59	In a stressful situation you feel anxious.		
60	You think it pays more to be liked than to have power.		
61	You have always been interested in unconventional and ambiguous things, e.g. in books, art, films.		
62	In social situations you often take the initiative.		
63	You like to show off in company and be the life of the party.		
64	You don't change decisions under the influence of other people's opinions.		
65	You believe that your decisions are right and in line with your character.		
66	You do not hesitate to make decisions that benefit you regardless of others.		
67	You are only interested in your own affairs and do not pry into other people's lives.		
68	You do not take decisions that are very risky.		
69	Regardless of the risks, you are making decisions that have the potential to bring big rewards.		
70	You are cautious and don't like to take risky decisions.		
71	You always prepare carefully for important decisions.		
72	You make decisions by intuition rather than reason.		
73	You often make decisions rashly and then try to back out of them.		
74	You never change decisions once taken.		
75	Under the influence of new circumstances or persuasion from third persons, you change decisions.		

Among the survey questions, groups can be distinguished that regard the following topics:
- questions about evaluating respondents' own decisions and behavior
- questions about how decisions are made
- questions assessing the impact of decisions
- questions assessing the degree of independence in decision-making

Research results

Fig. 1 shows the percentage of YES responses from female respondents. The highest number of YES responses was found for question No. 28 – *Your activities focus on the real world and events*. The lowest number of YES responses was found for question No. 7 – *Stress does not affect your wellbeing*.

The result indicates the respondents' focus on the real world and conscious participation in events. It also suggests a significant vulnerability of women to stress, of which they are aware. Vulnerability to stress is related to the neuroticism factor in the Big Five theory (Lücke et al. 2024, Uliaszek et al. 2010).
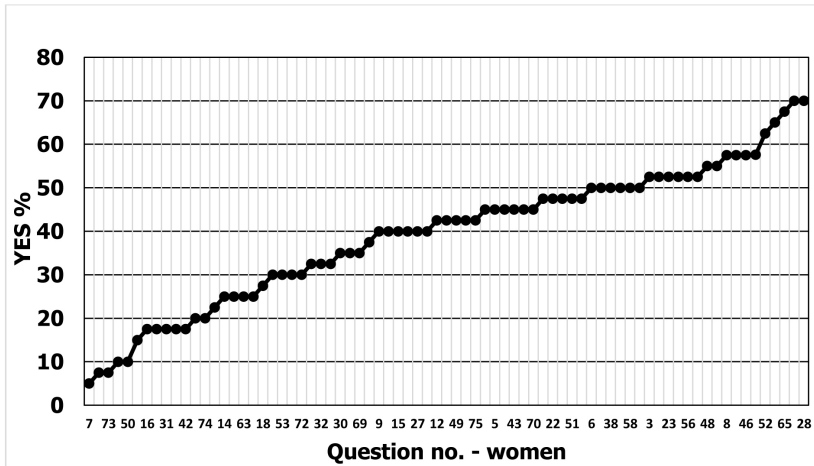
Fig. 1. Percentage of YES responses for male respondents

Fig. 2 shows the percentage of YES responses from male respondents. The largest share of YES responses was obtained for question No. 28 – *Your activities focus on the real world and events.* This result is identical to that of female respondents and signifies a focus on the real world and events.

The least number of YES answers was obtained for question No. 37 – *You do not think about the consequences of your decisions.* Men think about the consequences of their decisions and have the ability to anticipate them. They anticipate the consequences of their actions. This is related to the prudence of male respondents and to the conscientiousness factor in the Big Five theory (Furnham and Crump 2017). Conscientiousness has the greatest impact on the reliability of professional tasks and is important in the recruitment of employees (Roberts et al. 2005, Ma'Amor et al. 2014).
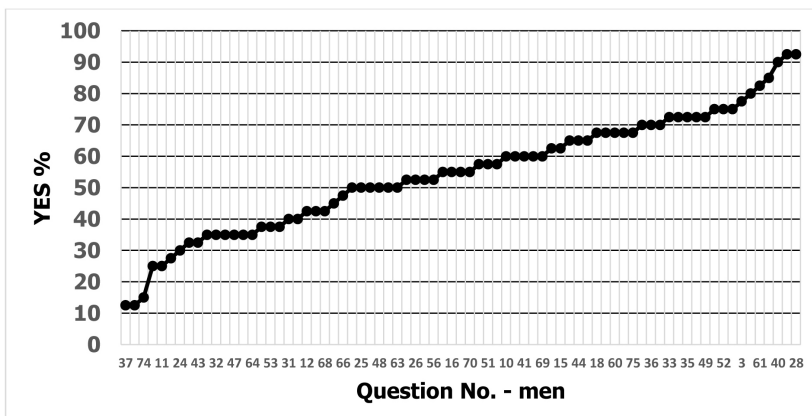

Fig. 2. Percentage of responses to YES for male respondents

Fig. 3 shows a summary of the percentage YES responses of male respondents against the percentage YES responses of female respondents. It illustrates the differences between the responses of men and women.

Male respondents in questions 8, 24, 37, 43, 46, 48 and 74 showed fewer YES responses relative to female responses (Fig. 3). In the remaining questions, men gave more YES responses relative to women. Men gave the least number of YES responses for question 37 (*You make decisions after long and deep consideration*). So it can be concluded that men's decision-making is more spontaneous than women's. In the work Bayram and Aydemir it was found that extraversion personality had a positive effect on spontaneous decision-making style (Bayram and Aydemir 2017, 2020). In contrast, Erjavec et al. found that decision-makers with lower levels of extraversion and agreeableness and higher levels of conscientiousness and openness make better decisions (Erjavec, Popovic and Trkman 2019). Neuroticism increases risky decision-making (Freeman and Matyas 2022).

The highest prevalence of YES responses from male respondents occurred in questions No. 5, 6 and 7. Questions No. 5,6 and 7 are related to personality factors – neuroticism, extraversion.

Table 2. Questions with a prevalence of YES responses from male respondents

No.	Question
5	Do you interact easily with others?
6	Do you respond to emails as quickly as possible?
7	Stress does not affect your wellbeing.

As can be seen from the graph in Fig. 3 in all cases, male respondents gave more YES answers to these questions compared to women. Based on this, it can be concluded that men are more extroverted and have the ability to make friends more easily.

The largest percentage difference in YES responses between men and women occurred for the questions shown in Table 3.

Men are more confident and less worried about the consequences of their decisions compared to female respondents. Men also believe that the decisions they have made have mostly benefited them. They take a positive view of their conduct. At the same time, they strive for the truth, even at the expense of good interpersonal relations. They make contacts more easily, and are interested in unconventional things and issues. Interestingly, however, they find it difficult to understand other people.
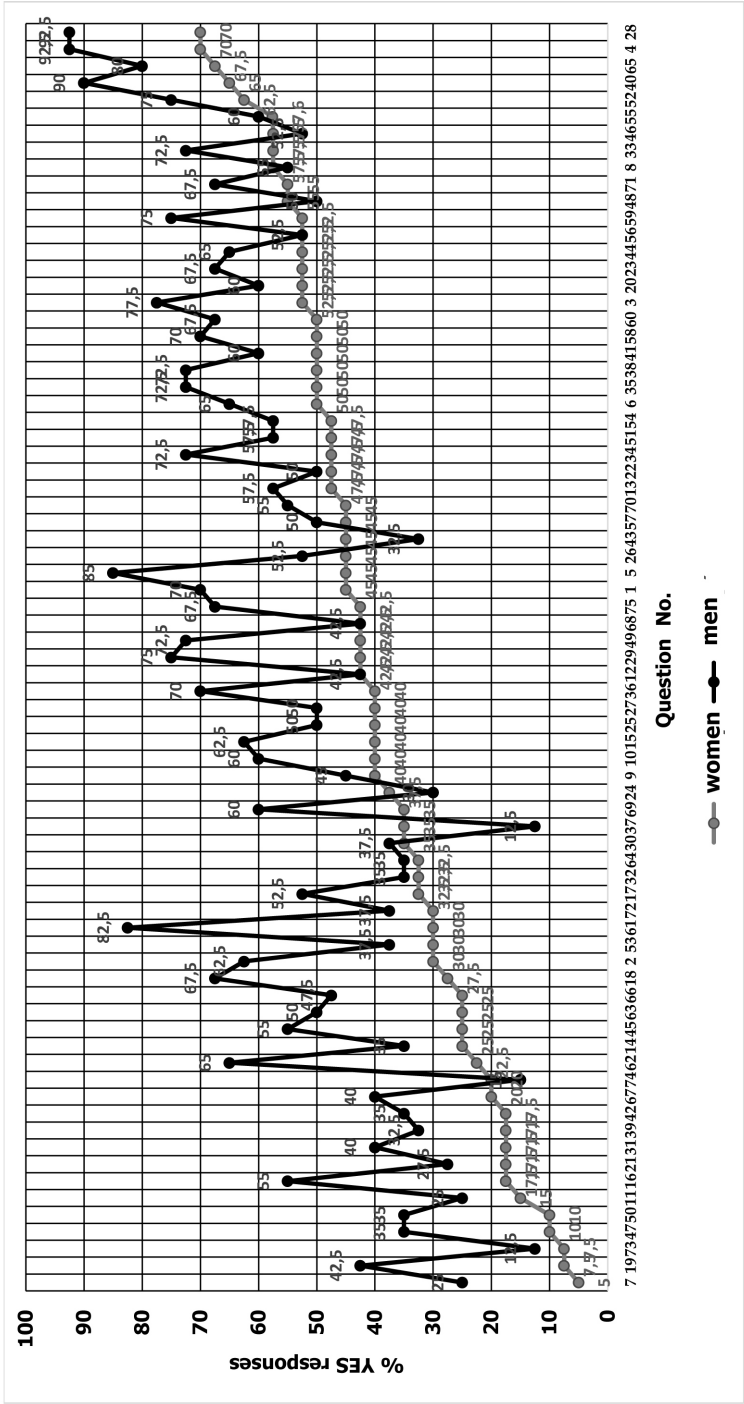
Fig. 3. Summary of percentage YES responses of male respondents versus percentage YES responses of female respondents

Table 3. Questions with the largest difference in YES statements between men and women

		% of YES responses		
No.	Content of the question	Female	Male	Difference
19	You seldom worry about the consequences of your decisions.	7,5	42,5	35
1	Do you feel that you are a confident person?	45	70	35
40	You feel that the decisions you have taken have mostly benefited you.	65	90	35
16	You often have trouble understanding other people.	17,5	55	38
18	You believe that getting to the truth is more important than the wellbeing of others.	27,5	67,5	40
5	Do you interact easily with others?	45	85	40
62	In social situations you often take the initiative.	22,5	65	43
61	You have always been interested in unconventional and ambiguous things, e.g. in books, art, films.	30	82,5	53

These responses can be evaluated in the context of such personality traits as extraversion and openness to experience, which are more in line with the personality of male respondents.

Discussion of results

What is the most common Big 5 type? The big 5 personality model is not a typology system, so there are no specific "types" identified. Instead, these dimensions represent qualities that all people possess in varying amounts. One study found that most people do tend to fall into one of four main types based on the Big 5 traits (Gerlach et al. 2018):

- Average (the most common type, characterized by high levels of extroversion and neuroticism and low levels of openness)
- Self-centered (high in extroversion and low in conscientiousness, openness, and agreeableness)
- Reserved (low on extroversion, neuroticism, and openness, and high on conscientiousness and agreeableness)
- Role models (high on every Big 5 trait other than neuroticism)

Personality plays an important role in coping with stress. In particular, DeLongis and Holtzman (DeLongis and Holtzman 2005) and Scheier and Carver (Scheier and Carver 1987) showed that different personality traits are related to how people cope with stress. People with higher levels of neuroticism tend to report more stressful experiences and exaggerate the threat posed by stressful events, which exacerbates their psychological distress, such as depressive symptoms and anxiety. Individuals with high levels of neuroticism, overwhelmed by negative thoughts, negative emotions and avoidance-motivated behavior, may not be able to engage

in any proactive or approach-motivated responses to cope with stress (Chen, Qu and Hong 2022).

Task coping style in stressful situations correlates positively with extraversion (r-00.3236) and conscientiousness (r-0.3088), and negatively with neuroticism (r-0.3368) in the NEO-FFI. A study by Szrajda et al. correlated the style of coping with stressful situations with neuroticism (NEO-FFI) (Szrajda et al 2017). The firefighters surveyed scored relatively high in extroversion, conscientiousness and low in neuroticism. Lower levels of perseverance and high levels of liveliness and endurance were associated with a style of dealing with emotions in stressful situations. In contrast, a tendency to focus on emotions experienced in stressful situations was associated with high levels of neuroticism in the study group.

The study conducted in the paper showed greater independence, higher self-esteem and greater resistance to stress of male respondents compared to women. In most areas, however, the differences were insignificant. In contrast, men were more independent in their decisions.

In a review paper, Del Giudice (Del Giudice 2015) states that on average, males are more dominant. Females are generally more expressive than males. A study by Marčič and Grum (Marčič and Grum, 2011) finds that gender differences are mostly about how people perceive themselves.

This is consistent with the survey results obtained. Men and women do not show very significant differences in certain areas of action. However, there are areas of action and personality in which they differ significantly. Men are significantly more likely than women to show greater self-confidence and extraversion, which refers to easier networking and greater satisfaction with the goals achieved. Men's greater self-confidence also manifests itself in taking the initiative in social interactions.

Interestingly, the biggest differences in the percentage of YES responses between men and women were found in the case of interest in unconventional and ambiguous things, e.g. in books, art, movies. Thinking of this type is characteristic of creative people. People with heightened cognitive curiosity are more likely to take on problems, work on them longer and more intensively, and are not content with superficial or apparent answers (Nęcka 1999, Connolly, Goossen and Hjerm 2020).

The question of where the differences between men and women come from remains open (Ortiz-Ospina, Hasell and Rosel 2024, Szadvari, Ostatnikova and Babkova 2023). Is it the result of gender difference or the result of upbringing and environmental expectations of men and women. Such questions require further research and study on the issue.

Summary

The study showed that decision-making among men and women differs. Men describe themselves as confident and stress-free. To a much greater extent than women, they do not worry about the consequences of their decisions. They have lots of ideas and plans. They believe that logic is more important than feelings when making important decisions. They also see no problem in changing a decision under the influence of new circumstances or persuasion from third parties. They believe that it is more profitable to be liked than to have power.

Women, on the other hand, when making decisions, believe that they are right and in line with their character. They prefer to have an orderly workplace and plan their activities. They worry more than men about other people's opinions. They tend to procrastinate until there is not enough time left. They are more likely than men to analyze in detail the possible consequences of their decisions, which is associated with stability and responsibility.

When analyzing the attitudes of women and men, it is necessary to take into account not only gender but also the conditions and stereotypes of raising girls and boys, the peer environment and its impact on personality development.

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