



Possible Differences In Personality Traits Based On Skin Color And Gender Interaction

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ABSTRACT

Some previous studies have revealed potential differences in personality traits among individuals with light and dark skin in different cultural societies. However, no such study has been conducted on the Palestinian community. This study aimed to explore potential differences in personality traits based on the interaction between skin color (dark and light) and gender (male and female). The study included 225 participants (110 with light skin, 115 with dark skin), selected through convenience sampling. The results showed no difference in extraversion, neuroticism, and lying based on the interaction between skin color and gender. However, there was a difference in aggressiveness based on the interaction between skin color and gender, favoring females with light skin. The study recommended conducting cross-cultural studies to understand the influence of cultural and social factors on personality traits based on skin color.

Keywords: Personality, Personality Traits, Skin Color.

Introduction

Personality psychology is based on identifying and analyzing the tendencies and attitudes that determine behavioral differences resulting from biological and environmental factors. The term "personality" is derived from the Latin word "persona," meaning masks worn by actors in ancient Greek plays, representing the general image of an individual (Lampropoulos et al., 2022). Personality is a collection of psychological traits related to emotions, thoughts, and behaviors, reflecting individual differences in thinking, feeling, and behavior (Xiong et al., 2022; Louwen et al., 2023), expressing individual differences in thinking, feeling, and behavior (El Othman et al., 2020).

Eysenck is a researcher who explored personality, developing his theory based on organ function and genetics (Alsadi, 2020). Although he emphasized that personality differences evolve genetically, contemporary perspectives suggest that personality changes can be explained by complex interactions of biological and environmental factors (Oh et al., 2023).

Personality traits are defined as noticeable consistency in different behaviors and situations, with Eysenck's theory proposing three dimensions: extraversion, neuroticism, and psychoticism (Sesar et al., 2011). The factor of lying or social attractiveness is considered an integral part of Eysenck's personality questionnaire as a factor of social compatibility. Aggressiveness refers to an individual's tendency to easily feel boredom, emotional instability, reflecting the relationship between personality traits and emotional stability in different situations, and the inclination towards negative feelings. It also reflects people's loss of emotional balance, inability to control emotions, and poor adaptation (Sarsam et al., 2023; Angelini, 2023).

Extraversion refers to emotionally stable individuals with a high level of activity and minimal negative feelings, except in extremely challenging situations. They are capable of working under pressure (Živković et al., 2022). Extraverts prefer companionship, firmness, and excitement-seeking, displaying impulsiveness and seizing opportunities (Vuyk & Kerr, 2019). They exhibit high self-confidence, creativity, imagination, innovativeness, and openness to new experiences (El Othman et al., 2020).

Psychoticism, as indicated by Eysenck (1991), suggests a tendency toward cruelty, distancing from humanity, lack of empathy, aggression, fascination with strange and unusual things, ignoring danger, and a desire to disturb others (Village & Francis, 2021).

Personality traits influence an individual's perspective, positions, and behaviors, impacting how individuals deal with situations or conflicts (Louwen et al., 2023). Therefore, assumptions that personality traits are fixed and unchangeable are erroneous, as these traits undergo continuous changes throughout life (Bleidorn et al., 2021), varying across societies and cultures (Al-Saadi, 2022). Skin color may serve as an indicator of cultural, social, and genetic differences, with profound cognitive connections influencing behaviors and expected reactions (Jablonski, 2020).

Reviewing the literature on this topic, the researcher found very few studies investigating differences in personality traits based on skin color. This scarcity is attributed to the prevalence of normal skin among Arab populations, with a small number of communities having dark skin. Researchers have not extensively explored these differences.

Previous studies on this topic have yielded varied results. A study by Aikens (2018) suggested that individuals with dark skin exhibit higher effectiveness and aggressiveness compared to those with light or dark skin. Perdue et al. (2015) found no correlation between personality traits and skin color. Mwamwenda (1992) reported no differences in aggression between Black and White Canadians in South Africa, but gender differences were observed among Canadian and African men and women, with the latter scoring higher in aggression. This study highlights culturally diverse characteristics.

Lewis (2011) found that individuals with dark skin have higher attractiveness than those with light skin, while Zeigler-Hill (2007) concluded that individuals with dark skin have higher self-respect despite their awareness of racial discrimination. McCoy & Edens (2006) reported slightly higher levels of psychoticism in individuals with dark skin compared to those with light skin. However, caution is needed when interpreting these results. Wade & Bielitz (2005) suggested that individuals with dark skin are more enthusiastic than those with light skin, and African American women with light skin were perceived to be more intelligent and better parents than African American men with light skin. Skeem et al. (2004) found no differences in psychoticism between white and black individuals.

The study by (Hall, 1998) found that skin color represents a significant issue, limiting social relationships and interactions. Additionally, (Perdue et al., 2015) suggested, based on previous studies, that individuals with light skin are perceived to possess more positive qualities than those with dark skin.

A study by (Chu et al., 1985) revealed significant differences between black and white schizophrenic patients. Blacks exhibited greater symptoms in anger attacks, communication impairment, confusion, and antisocial behavior. On the other hand, whites showed more symptoms in irregular delusions. Black females had a higher rate of confusion compared to white female schizophrenic patients.

The results of previous studies indicate variations that can be influenced by several social and cultural factors shaping individuals' personalities, affecting their personality traits and perceptions of situations. It is noteworthy that certain religious and social beliefs may contribute to these differences.

Building on the preceding information, the current study aims to answer the question: Are there potential differences in personality traits (extraversion, psychoticism, aggressiveness, lying) based on skin color, gender, and their interaction?

Methodology and Procedures

Study Approach: This study adopted a descriptive approach, suitable for its nature, as it not only involves collecting information but also linking and analyzing differences between the study variables to draw desired conclusions.

Study Sample

The study sample was selected through convenience sampling, with a total of 225 participants (110 with light skin, 115 with dark skin). Table (1) illustrates the distribution of the study sample based on its independent (categorical) variables.

Table (1): Distribution of the Study Sample Based on Independent (Categorical) Variables

The Variable	The Level	The Number	Percentage (%)
Gender	Male	86	38.2
	Female	139	61.8
	Total	225	100.0
Skin Color	Light	110	48.9
	Dark	115	51.1
	Total	225	100.0

The Scale (Measure): To achieve the study's objectives, the Eysenck Personality Traits Scale was used, which was adapted and standardized for the Palestinian environment by Abu Nahia (1989). Abu Nahia verified the psychometric properties of the scale based on the reliability of raters and criterion-related validity, providing evidence for the scale's validity. Additionally, Abu Nahia's study (1989) confirmed the scale's stability using the Test-Retest method after thirty days, yielding values between 0.78 and 0.90, while internal consistency reliability ranged between 0.76 and 0.84.

In the current study, the researcher verified the scale's stability using the Kuder-Richardson-20 formula (KR-20), as this formula is most suitable for scales with dichotomous responses (Yes/No), as affirmed by Adamson and Prion (2013). Table (2) illustrates this:

Table (2): Stability Coefficients of the Eysenck Personality Traits Scale using the Kuder-Richardson-20 Method

The Worker	Number of Paragraphs	Kuder-Richardson-20 (KR-20)
Extroversion	21	665.
Psychoticism	25	638.
Neuroticism	23	797.
Lying	21	643.

It is evident from Table (2) that the stability coefficients of the Kuder-Richardson-20 for the dimensions of the Eysenck Personality Traits Scale ranged between (0.638 - 0.797).

Study Procedures:

Data were collected from adult individuals with normal and dark skin in their respective residential areas. The study's objectives were clarified, and participants were informed about its content, assuring them of anonymity in scientific research without disclosing their names. They were provided with the scale used for reading, and after obtaining their consent, the questionnaire was filled out.

Statistical Methods

The statistical methods employed included frequencies, percentages, means, standard deviations, Multivariate Analysis of Variance with Interaction (MANOVA), and post hoc LSD test for pairwise comparisons.

Results

Question: Is there a difference in personality traits according to gender (male, female), skin color (light, dark), and the interaction between them?

To test this question, the means and standard deviations of the study sample's responses on the Personality Traits Scale were calculated based on the variables: gender, skin color. Table (3) illustrates this:

Table (3): Means and Standard Deviations of the Study Sample's Responses on the Personality Traits Scale attributed to variables: Gender, Skin Color

The Variable	The Level	Statistics	Extroversion	Psychoticism	Neuroticism	Lying
Gender	Male	M	12.34	10.41	13.55	9.95
		SD	3.089	3.743	4.578	3.140
	Female	M	11.74	8.60	14.75	11.53
		SD	3.110	3.495	4.772	3.061
Skin Color	Light	M	12.06	6.77	14.55	11.72
		SD	3.528	2.587	5.661	3.491
	Dark	M	11.88	11.70	14.04	10.17
		SD	2.659	2.899	3.619	2.650

M = Median **SD** = Standard Deviation

From Table (3), apparent differences in the mean scores of the study sample's responses on the Personality Traits Scale are evident, considering their distribution based on the study variables. To assess the significance of differences in the mean scores of the Personality Traits Scale, a Multivariate Analysis of Variance with Interaction (MANOVA) was conducted, as shown in Table (4):

Table (4): Multivariate Analysis of Variance (without Interaction) on the Dimensions of the Personality Traits Scale attributed to variables: Gender, Skin Color

Source of Variation	Domains	Sum of Squares	Degree of Freedom	Mean Squares	F Value	Statistical Significance	η^2
Gender	Extroversion	31.261	1	31.261	3.277	.072	.015
	Psychoticism	18.432	1	18.432	2.445	.119	.011
	Neuroticism	97.568	1	97.568	4.530	.034	.020
	Lying	79.070	1	79.070	8.534	.004	.037
Skin Color	Extroversion	15.559	1	15.559	1.631	.203	.007
	Psychoticism	1138.722	1	1138.722	151.056	<.001	.406
	Neuroticism	3.351	1	3.351	.156	.694	.001
	Lying	76.938	1	76.938	8.304	.004	.036
Interaction between gender and skin color	Extroversion	31.427	1	31.427	3.294	.071	.015
	Psychoticism	1.320	1	1.320	.175	.676	.001
	Neuroticism	160.871	1	160.871	7.470	.007	.033
	Lying	.009	1	.009	.001	.975	.000

The error	Extroversion	2108.223	221	9.539			
	Psychoticism	1665.986	221	7.538			
	Neuroticism	4759.661	221	21.537			
	Lying	2047.685	221	9.266			

*Statistically significant at the significance level ($p < .05$)

Results:

The study yielded the following results:

Extraversion Trait: The analysis results revealed no significant differences in the extraversion factor based on gender, with respective values of ($F(1, 221) = 3.277, p = .072, \eta^2 = .015$). Similarly, no significant differences were found in the extraversion factor based on skin color, with respective values of ($F(1, 221) = 1.631, p = .203, \eta^2 = .007$). The analysis also showed no significant differences in the extraversion factor based on the interaction between gender and skin color, with respective values of ($F(1, 221) = 3.294, p = .071, \eta^2 = .015$).

Paranoid Trait: The analysis results revealed no statistically significant differences in the paranoid factor based on gender, with respective values of ($F(1, 221) = 2.445, p = .119, \eta^2 = .011$). However, there were significant differences based on skin color in the paranoid factor, where the dark color ($M = 11.70, SD = 2.899$) was higher than the light color ($M = 6.77, SD = 2.587$), with respective values of ($F(1, 221) = 151.056, p < .001, \eta^2 = .406$). It also showed no significant differences in the paranoid factor based on the interaction between gender and skin color, with respective values of ($F(1, 221) = 175, p = .676, \eta^2 = .001$).

Aggressive Trait: Significant differences were found between genders in the aggressive factor, where females ($M = 14.75, SD = 4.772$) scored higher than males ($M = 13.55, SD = 4.578$), with respective values of ($F(1, 221) = 4.530, p = .034, \eta^2 = .020$). The analysis revealed no significant differences in the aggressive factor based on skin color, with respective values of ($F(1, 221) = 156, p = .694, \eta^2 = .001$). The analysis also revealed significant differences in the aggressive factor based on the interaction between gender and skin color, with respective values of ($F(1, 221) = 7.470, p = .007, \eta^2 = .033$).

Lying Trait: Significant differences were found between genders in the deceit factor, where females ($M = 11.53, SD = 3.061$) scored higher than males ($M = 9.95, SD = 3.140$), with respective values of ($F(1, 221) = 8.534, p = .004, \eta^2 = .037$). Significant differences were also found based on skin color in the deceit factor, where the light color ($M = 11.72, SD = 3.491$) was higher than the dark color ($M = 10.17, SD = 2.650$), with respective values of ($F(1, 221) = 8.304, p = .004, \eta^2 = .036$). The analysis revealed no significant differences in the deceit factor based on the interaction between gender and skin color, with respective values of ($F(1, 221) = 0.001, p = .975, \eta^2 = .000$).

To uncover the nature of the interaction in the aggressiveness factor based on the interaction between gender and skin color, the means were calculated according to the variables of gender and skin color. Then, the results of the LSD test for post hoc comparisons were conducted as follows:

Table (5): LSD Test Results for Post Hoc Comparisons Between Means on the Aggressiveness Factor Based on the Interaction Between Gender and Skin Color.

The Variable	Gender	Skin Color	Average	Average Difference	Statistical Significance
Neuroticism	Male	Light	10.793	1.267	.069
		Dark	9.526		
	Female	Light	12.049	1.239	.019
		Dark	10.810		

From Table (5), the following is evident:

There are statistically significant differences at the significance level ($.05 \geq \alpha$) in the aggressiveness factor between the skin color levels (Light) and (Dark), based on the gender variable at the female level. The differences favored the (Light) category.

Comparison in (Dark), in other words, aggressiveness in females with light skin color is higher compared to females with dark skin color.

Discussion:

The current study aimed to determine if there are any differences in personality traits based on skin color, gender, and their interaction, considering that the Palestinian society is predominantly of light or brown skin color, with few communities of dark-skinned individuals. Therefore, there have been no previous studies discussing the differences in personality traits based on skin color in the Palestinian society.

The results of research on the differences in personality traits between genders have been widely debated and discussed (Yazdanpanah & Hosseini, 2017). Some consider social and cultural factors as influences on individual personality, stating that personality traits are relatively stable patterns of thoughts, feelings, and behaviors that manifest in different situations (Rahmani & Lavasani, 2012). However, environmental factors

can affect inherited individual traits, as the growth process, largely dependent on human biological nature, can be influenced by environmental and cultural events (Oh et al., 2023).

The study results differed from some previous studies, showing no differences in the extroversion trait between individuals with light and dark skin colors and the interaction between skin color and gender. This may be due to the fact that the sample individuals live in similar environmental conditions, sharing habits, traditions, and prevalent societal culture, as well as a traditional lifestyle. Social upbringing, family upbringing, and religious upbringing play a crucial role in shaping an individual's personality, and this upbringing does not differ among components of the Palestinian society. The small society, with similar cultural and religious beliefs, reflects on their thinking and outlook on life. Religious beliefs, in particular, play a significant role in shaping an individual's personality in terms of acceptance, satisfaction, certainty, patience, and respect for themselves and others. This may have helped individuals overcome many difficulties, fostering satisfaction, openness to life, and an optimistic outlook on the future (Yazdanpanah & Hosseinlou, 2017).

Cultural traditions may contribute to behavioral differences, as stated by Adams et al. (2020), noting that discrimination based on skin color exists everywhere, which may impact the respect and self-esteem of dark-skinned individuals due to dissatisfaction with their skin color.

Perdue et al. (2015) mentioned that there is no relationship between personality traits and skin color, while Mathews (2015) stated that skin color does not affect the self-esteem of individuals with dark skin. However, fair-skinned women felt greater appreciation in their social relationships compared to dark-skinned women. Although environmental and social variables play a crucial role in determining personality traits, biological factors that may contribute to certain traits cannot be ignored. Oh et al. (2023) pointed out that contemporary perspectives emphasize that personality changes can be explained through complex associations of biological and environmental factors.

Therefore, the results of these studies have varied. Some studies have found that women are more inclined towards extroversion than men (Vianello et al., 2013; Lippa, 2010), while others, such as Katkar (2020), indicated that men are more inclined towards extroversion. Additionally, Sesar et al. (2011) found that psychoticism is more prevalent in men than in women.

Considering the impact of societal culture on people's beliefs and perceptions in Arab societies, Bunker et al. (2021) noted that social and demographic groups have different behavioral standards and expectations. Daily life experiences can lead to specific paths that result in personality changes (Schwaba et al., 2018).

However, the challenges of difficult life and various forms of violence in Palestinian society, traditional upbringing of females with limited roles in household and small-scale professions, child-rearing, and low health awareness negatively affect mental health, educational levels, and economic status. All of these factors may contribute to the development of aggressive and emotionless behaviors, as suggested by Aikens (2018), stating that individuals with light or brown skin color are more effective and aggressive compared to fair-skinned individuals. Villarreal (2010) emphasized a strong relationship between skin color, academic achievement, and occupational status.

The current study found that aggressiveness was higher in females with light skin color. This emphasizes the importance of biological factors in addition to social factors that may affect women regardless of their skin color, as mentioned by Costa et al. (2001). Sesar et al. (2011) suggested that extroversion and psychoticism may develop patterns of aggressive and anti-social behavior. Stainton et al. (2021) found that both males and females develop similar positive symptoms of psychosis, with women being more susceptible to clinical hallucinations and persecutory thoughts.

Accumulated experiences for women lead them to form cognitive perceptions and thoughts that lead to aggression, depression, and sadness. This result is expected due to the difficult life conditions that women in society face, limited opportunities and roles assigned to them, and the societal inclination towards masculinity to some extent. Therefore, family relationships may play a role in shaping behavior. Dark-skinned women in Palestinian society have very limited opportunities for marriage outside the dark-skinned community, unlike men who have greater opportunities for engagement outside this community. This may lead to low self-esteem and a pessimistic outlook on life. Bleidorn et al. (2021) mentioned that differences in personality traits may be related to life domains, as an increase or decrease in aggression may be associated with an increase in mental health services in society.

In this context, Campos-Vazquez & Medina-Cortina (2019) pointed out that individuals with dark skin have much lower educational attainment and work in less skilled professions, such as domestic work, manual labor, driver positions, and security guards. However, this needs further research and study.

Gender socialization criteria in Palestinian society are formed through social and cultural influences on women and men, imposing different social roles that determine their behaviors. Wruzs & Roberts (2017) affirmed that personality traits accumulate through short-term situational processes, defining individuals' behaviors and expectations based on these situations, leading to cognitive, behavioral, and emotional conditions. Increasing awareness among people may help reduce racial discrimination based on skin color (Policarpio et al., 2022).

Conclusion

The current study aimed to reveal differences in personality traits based on skin color, gender, and their interaction. The results showed no differences in extroversion and psychoticism based on skin color and

gender. However, there was a difference in the aggression factor based on the interaction between gender and skin color, with females with light skin color exhibiting higher aggression than females with dark skin color. The study recommends conducting further research on skin color in various countries to understand the relationship between skin color, personality traits, and other variables that may contribute to understanding human behavior in different societies and cultural environments.

Limitations

The current study's topic is of great interest, especially as it has not been researched in Palestinian society. However, there were difficulties in accessing a study sample of individuals with dark skin color as they live in different areas, and their numbers are low. There was also difficulty in clarifying the study's purpose to individuals with dark skin color, fearing negative discrimination. Despite the local societal and cultural environment treating them with the same rights and duties, after clarifying the study's purpose, individuals participated in filling out the questionnaire. Therefore, the sample was limited, and it is preferable to be larger in other similar studies on individuals with dark skin color.

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Ethical Approval

All procedures performed in this study involving human participants were in accordance with the ethical standards of University's Research Ethics Board and with the 1975 Helsinki Declaration

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