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Research article

Perceived Age and Attitudes Towards Individual External Appearance in Adults with Various Severity of the Big Five and Dark Triad Components

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Abstract
Introduction. This study represents the first attempt to examine the severity of the Big Five and Dark Triad components of a perceived person as factors of his/her perceived age and attitude towards his/her appearance. **Methods**. These were (a) the Procedure of Photo-video Presentation of Outward Appearance by T. A. Vorontsova (Shkurko, 2018); (b) the questionnaire for Individuals' Evaluative and Meaningful Interpretation of Their Own External Appearance and Its Compliance with Gender and Age Constructs by V. A. Labunskaya; (c) the Five-factor Personality Questionnaire by H. Tsuji modified by A. B. Khromov; and (d) the Short Dark Triad inventory modified by M. Egorova, M. Sitnikova, and O. Parshikova. The study sample comprised 103 participants (65 women, 38 men) aged 18 to 77 years (M = 34.14) as objects of perception; 36 participants (29 women, 7 men) aged 21 to 65 years (M = 39.11) were subjects of perception ('evaluators'). **Results**. Attitudes towards individual external appearance and 'years saved' (chronological age minus perceived age) have certain associations with the severity of the Big Five and Dark Triad components of the objects of perception, which are mediated by their belonging to the 'young' / 'mature' age subgroups. Age dynamics of attitudes towards individual external appearance was also discovered. The findings from this study suggest that there is a significant contribution of the severity of the Dark Triad components (narcissism, psychopathy) on a positive attitude towards external appearance at the age of maturity. **Discussion**. The research expands existing scientific ideas of psychological factors of perceived age and of complex relationships between attitudes towards individual external appearance and the severity of the Big Five and Dark Triad components in adults.

Keywords
age, age perception, perceived age, social perception, external appearance, attitude towards external appearance, years saved, aging, Big Five, Dark Triad

Highlights
➤ The parameters of individuals' attitudes towards their own external appearance are associated with the severity of the Big Five and Dark Triad components of the object of perception. These associations are mediated by their belonging to different age groups.

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➢ The value of the 'years saved' index is associated with the Big Five components, including trustfulness, artistry, and control (in the 'mature' subgroup); activity, emotionality, and playfulness (in the 'young' subgroup). This value is not related to negative personality traits.
➢ The findings suggest the presence of age-related dynamics to individuals' attitudes towards their own external appearance.
➢ Adults who scored highly on the scales of 'narcissism', 'psychopathy', 'control', and 'playfulness' demonstrated a positive attitude towards their own external appearance.

Introduction

Currently, there is an increasing interest in the study of perceived age (PA) in medicine, genetics, gerontology, psychology, and other sciences. In psychological literature, the term 'perceived age' was first used in a 2015 publication (Shkurko & Nikolaeva, 2015). It was first interpreted as "the result of one individual's social perception by another" (p. 79). In subsequent studies, scholars (Shkurko & Labunskaya, 2018) specify that PA is "the age attributed to a person (object of perception) by another person (object of perception, evaluator) as a result of the perception of his/her external appearance" (p. 450).

Our analysis (Shkurko & Nikolaeva, 2015; Shkurko & Serikov, 2017; Shkurko & Labunskaya, 2018) of studies in international databases starting from the first publication in 1974 (Lawrence, 1974), when the term 'perceived age' (PA) first appeared, enabled us to distinguish two main factor groups for PA of a person: (a) the selection of factors related to the object of perception that influence the construction of their age in other people's opinion; (b) the selection of factors related to the subject of perception that influence the processes of constructing the age of the perceived person. The selection of factors related to both the object of perception and the subject of perception when constructing a person's age corresponds to the methodology of modern psychology of social cognition (Andreeva, 2000; Bodalev, 2015) and the communicative approach to the study of cognitive processes in communication (Barabanshchikov, 2009).

In the first PA factor group studies ('factors of the object of perception'), recent discoveries (Uotinen, Rantanen, & Suutama, 2005; Christensen et al., 2009) made a real breakthrough, which led to an important conclusion. Thus, PA of a person is a marker of aging and risk of premature death, and to a greater extent than his/her chronological age. Therefore, the result of social cognition of one person by another, and the PA in this study and many others, is nothing more than the result of social cognition ('evaluators' of subjects' age were ordinary people, non-experts), turns out to be associated with the most complex biopsychic and psychophysiological processes.

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Today, scientists consider the following PA factors: (a) genetic factors (Christensen et al., 2009); (b) social and environmental factors (Rexbye et al., 2006; Flament, Pierre, Delhommeau, & Adam, 2017); (c) medical and aesthetic factors (Zimm, Modabber, Fernandes, Karimi, & Adamson, 2013; Chang et al., 2016); and (d) psychological factors. Scholars examined the following psychological factors: (a) subjective age (Sergienko, 2013); (b) facial expression of the object of perception (Demidov, Diveev, & Kutenev, 2012); (c) the attitude of the object of perception to his/her own external appearance (Shkurko & Labunskaya, 2018); (d) the general well-being of a person and his/her faith in the future (Uotinen et al., 2005); and (e) affective experiences of the object of perception during lifetime (Adams, Garrido, Albohn, Hess, & Kleck, 2016).

The analysis of various components of the external appearance (EA) of a person as trigger mechanisms for the perception, evaluation, interpretation of their PA represents a separate research block within the framework of the investigation of the characteristics of the object of perception. The 'EA factor' represents a separate block due to its dominant position among other factors, huge research interest, and a considerable amount of empirical data in this field. In a number of our works (Shkurko & Nikolaeva, 2015; Shkurko & Serikov, 2017; Shkurko & Labunskaya, 2018; Vorontsova, 2020a; Vorontsova, 2020b), we analyzed the differentiated effect of EA components on PA of a person.

In the second PA factor group studies ('factors of the subject of perception'), the following characteristics of the subject of perception that influence the processes of constructing the age of a perceived person were investigated: (a) gender and age factors (Nkengne et al., 2008; Voelkle, Ebner, Lindenberger, & Riediger, 2012); (b) the experience of interaction between the subject of perception and the age group to which the object of perception belongs (Rhodes, 2009); (c) special training of the subject of perception in the accuracy of recognizing the age of other people (Sörqvist & Eriksson, 2007); and (d) characteristics of the attitude of the subject of perception to his/her own EA (Vorontsova, 2020a).

Why do we study PA together with the attitude of the object of perception towards his/her EA in this study? A number of the above studies show that individuals' attitudes towards their own EA represent the most important factor in PA. A person's attitude towards his/her own EA and EA of another person in the context of a multifactorial approach to the study of attitudes towards EA in social psychology, developed by V. A. Labunskaya and her colleagues (Labunskaya et al., 2019), is interpreted as "an integral socio-psychological phenomenon, a significant, emotionally rich component of the value-meaning sphere" (p. 65), which regulates individuals' experiences, their relationships with others, affects satisfaction with themselves and their lives. Within the framework of the social psychology of EA, a "multifactorial model for studying attitudes towards EA" has been developed (p. 82). In the context of this model, the PA of the object of perception can serve as an indirect indicator for the assessment of an individual's EA by others, since it is a kind of resultant of the impression that a person makes, his/her EA in the process of social perception.

In our study, we examined the severity of the Big Five and Dark Triad components of the object of perception as psychological factors of PA and attitudes towards EA. The choice of these factors is due to their high prognostic value, the considerable interest of world scientists, and the lack of sufficient research into the Big Five and the Dark Triad components in relation to PA and attitudes towards EA. In the most general sense, we were interested in what affects individuals' PA to a greater extent (whether they look younger or older than their age) and their attitudes

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to their own EA – the severity of positive or negative traits of their personality. Without focusing on analyzing the characteristics themselves, which is presented in sufficient detail in a number of works (Sitnikova, 2020; Khromov, 2000), let us consider works that examine their correlations with PA and attitudes towards EA.

We have not found any studies establishing PA associations with the Big Five and Dark Triad components. As modern studies have shown, among the Big Five traits, the factors of extraversion and neuroticism have the largest number of associations with EA and attitudes towards EA. A study by Pfund, Harriger, & Hill (2021) on video chat use during the pandemic found that higher extraversion was associated with more frequent use of video chats both before and after the pandemic, with neuroticism predicting more frequent comparison of participants' appearance. Von Soest, Kvalem, Skolleborg, & Roald (2009) works showed that cosmetic surgery patients have higher rates of extraversion than women in a representative sample not resorting to surgery; at the same time, 6 months after the operation, the scores of extraversion even increased. Benford & Swami (2014) examined the correlation between the Big Five factors and male body image. They found that neuroticism predicted men's desire for muscularity; neuroticism combined with extraversion predicted male body evaluation. Leikas, Verkasalo, & Lönnqvist (2013) conducted an interesting study showing that extraversion can be successfully modeled by study participants by means of their EA. Unlike the other Big Five factors, extraversion may also be successfully perceived by others from their photographs.

Analysis of works on the components of the Dark Triad shows that most researchers associate EA characteristics with attitudes towards EA and narcissism (Dmitrieva, 2010). A study by Boursier & Gioia (2020) showed an association between pathological female narcissism and appearance anxiety. A study by Vazire, Naumann, Rentfrow, & Gosling (2008) showed that EA reflects the personality of narcissists, their preoccupation with the beauty of EA and desire to be in the spotlight; it is a means of promoting their status. Giacomin & Rule (2019) show the contribution of various facial features, especially brows, to the identification of the narcissism of the object of perception. In a study on the identification of the Dark Triad components in facial perception Shiramizu, Kozma, DeBruine & Jones (2019) showed that the perceiving subject statistically reliably identifies male and female narcissism and male psychopathy and is not able to identify high Machiavellianism, regardless of the gender of the object of perception. A study by Semenyna, Vasey, & Honey (2019) showed that all components of the Dark Triad are associated with women's sexual competitiveness, which includes the desire to improve their appearance. The authors point out that the "dark side" of female personality stimulates greater competition in the marriage market" (p. 77). Holtzman & Strube (2013) demonstrated that individuals with high levels of certain dark personality traits, such as narcissism and psychopathy, can be physically attractive. The authors wondered what exactly makes them attractive. In the study, they compared attractiveness based on physical EA (the authors called it "unadorned attractiveness") and social EA (so-called "effective decoration" using EA design – clothes, accessories, etc.). Based on the fact that "dark" personalities actively create positive first impressions, the authors discovered that the combination of Dark Triad components – Machiavellianism, narcissism, and psychopathy – correlates with "effective decoration". Therefore, the scholars concluded that individuals with strong Dark Triad components "construct their appearances that act as social lures, possibly contributing to their cunning social strategies" (p. 461). When analyzing studies on the influence of personality factors on attitudes towards EA, V. A. Labunskaya (2019) noted

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a study by Lipowska & Lipowski which shows that "the influence of an individual's narcissistic tendencies on satisfaction with his/her own EA may vary depending on the physical organization of the subject of the assessment" (Labunskaya et al., 2019, p. 82). Regarding psychopathy, several studies (Kreidun, 1990) emphasize the role of EA defects in the formation of various psychopathy and deviant behavior.

Several studies demonstrate interrelations between the features of self-presentation in social networks and the severity of the Dark Triad components. A study by Podbutskaya, Knysh, & Bogdan (2019) showed that individuals using professional photos for self-presentation in social media (unlike those who use amateur photos) are characterized by a high level of all components of the Dark Triad – narcissism, Machiavellianism, psychopathy. McCain et al. (2016) report an association of narcissism with the amount and motivation for using selfies on social media. N. V. Vodyanova (2009) emphasized that the tendency to narcissism is a common characteristic of modern individuals in the modern era, where they "appear to be passive consumers, prone to narcissism; they are market personalities looking, among other things, to sell themselves profitably, 'men of Proteus' ready for endless transformations" (p. 10). As shown in the works of V. A. Labunskaya and other scholars (Labunskaya, 2021; Vorontsova & Labunskaya, 2020; Pogontseva & Labunskaya, 2019), EA is a kind of individuals' 'investment' in their well-being. Scientists emphasized that in modern times, the EA has 'investment power', which is the key to a successful career, marriage, etc.

Thus, we can conclude that the components of the Big Five and Dark Triad were not considered as a personality factor of PA and individuals' attitudes towards their own EA in the Russian sample, which enabled us to formulate the objectives and hypotheses of this study.

This study aims to investigate the characteristics of PA and individuals' attitudes towards their own EA in a sample of adults with different severity of the components of the Big Five and Dark Triad.

Subject of the study: PA; parameters of individuals' attitudes towards their own EA (evaluation of EA components, satisfaction, integral assessment); the severity of the Big Five and Dark Triad components among the objects of perception.

Study hypotheses:

1. The severity of the parameters of individuals' attitudes towards their own EA and the difference between chronological age and PA may be associated with the severity of the components of the Big Five and Dark Triad among the objects of perception.

2. The relationship between the parameters of individuals' attitudes towards their own EA, the difference between chronological age and PA, the severity of the Big Five and Dark Triad components among the objects of perception may be mediated by their belonging to the 'young'/'mature' age groups.

3. The difference between chronological age and PA as well as the severity of the components of attitudes towards EA in individuals belonging to the 'young'/'mature' age groups may vary.

Methods

1. The procedure of Photo-video Presentation of EA by T. A. Vorontsova (Shkurko, 2018) was used as an instrument for studying a person's PA. The participants of the study (objects of perception, n = 103) were photographed in full height and waist-length (portrait photo). Then photographs were randomly included in the album (first, a portrait photo of a respondent, then

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his/her own full-height photo, 2 photos per spread). Then, we offered the album to 'evaluators' (subjects of perception, n = 36) to assess the age of the objects of perception. We obtained 36 age estimates for each object of perception (a total of 3708 estimates). The average age estimate obtained by each perception object based on 36 observations was considered by us as the PA of the participants in the study. Next, we calculated the difference between the chronological age (CA) and PA of the objects of perception – the CA–PA index, which is called 'years saved' (Zimm et al., 2013). The higher the level, the larger the difference between CA and PA is, the younger the person is perceived by others.

2. The questionnaire for Individuals' Evaluative and Meaningful Interpretation of Their Own EA and Its Compliance with Gender and Age Constructs by V. A. Labunskaya (2009) was used to study the cognitive and emotional components of the respondents' attitudes towards their own EA. This instrument provides information on the assessment of both individual elements of EA (face, physique, design of EA, expressive behavior), and integral assessments – attractiveness, sexuality, compliance of EA with gender and age constructs, and also contains the parameters of 'EA satisfaction' and 'integral assessment of EA'. The questionnaire contains the following 14 factors: FA – assessment of individual face; BA – assessment of individual physique; EADA – assessment of individual EA design; EBA – expressive behavior assessment; DAREA – degree of acceptance of individual reflected EA; ACA – assessment of correspondence between EA and age; GCA – assessment of correspondence between EA and gender; GRCA – assessment of correspondence between EA and gender roles; PRCA – assessment of correspondence between EA and professional roles; AAAEA – assessment of age attractiveness of EA; AEA – attractiveness of EA for an opposite-sex partner; SA – assessment of the sexuality of individual EA; SEA – satisfaction with individual EA; IAEA – integral assessment of EA.

3. The Five-factor Personality Questionnaire by H. Tsuji modified by A. B. Khromov (2000) was used to diagnose basic personality traits using five dichotomous scales – (a) extraversion vs. introversion (E-I); (b) attachment vs. independence (A-I); (c) control vs. naturalness (C-N); (d) emotionality vs. restraint (E-R); (e) playfulness vs. practicality (P-P). Each scale includes 5 primary scales.

4. The Short Dark Triad inventory modified by M. Egorova, M. Sitnikova, and O. Parshikova (Egorova, Sitnikova, & Parshikova, 2015) was used to diagnose the severity of Machiavellianism, narcissism, and psychopathy.

Empirical object of the study

The study involved 139 subjects, of whom 103 individual participants (65 women, 38 men) aged 18 to 77 years (M = 34.14) were the objects of perception and 36 individual participants (29 women, 7 men) aged 21 to 65 years (M = 39.11) were the subjects ('evaluators') of perception. To test the hypotheses, the sample of research objects was divided into 2 subgroups by age – the first subgroup included respondents aged 19 to 34 (n = 58, 34 females and 24 males); the second subgroup included respondents aged 35 to 77 (n = 45, 31 females and 14 males). When dividing the sample into age stages, we used D. B. Elkonin's periodization (Elkonin, 1971). As a result, we called the first subgroup "young" (it included respondents whose age corresponded to the age period of 'youth') and the second one – 'mature' (it included respondents whose age corresponded to the 'mature' and 'old age' periods).

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Results
Correlations among the parameters of the study participants' attitudes towards their own EA, the CA-PA index, and the severity of the Big Five and Dark Triad components
To prove the first hypothesis, we carried out Spearman's correlation analysis. Tables 1–3 present the results.

Table 1

Significant correlation coefficients of the CA-PA index and the severity of the Big Five components among the objects of perception (Spearman's correlation coefficient / significance level)

Components of the Big Five (upper-case letters indicate the underlying factors, lower-case letters indicate the primary scales)	Spearman's correlation coefficient	Coefficient significance level
"Young" subsample (respondents aged 19–34 years)		
Activeness – passiveness	0.287	0.029
EMOTIONALITY – RESTRAINT	0.474	0.000
Anxiety – carelessness	0.416	0.001
Tension – relaxation	0.405	0.002
Depressiveness – emotional comfort	0.449	0.000
Emotional lability – stability	0.563	0.000
PLAYFULNESS – PRACTICALITY	0.349	0.007
Dreaminess – realism	0.368	0.004
Plasticity – rigidity	0.399	0.002
"Mature" subsample (respondents aged 35–77 years)		
Credulity – suspiciousness	0.292	0.051
CONTROL – NATURALNESS	0.283	0.059
Artistry – non-artistry	0.302	0.044

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The correlation analysis of the relationship between the parameters of attitudes towards EA and the severity of the Big Five components showed numerous associations among both primary and basic factors. Therefore, we should, in this case, limit ourselves to analyzing basic factors (Table 2).

Table 2
Significant correlations between the parameters of the attitudes towards EA and the severity of the Big Five components among the objects of perception (Spearman's correlation coefficient / significance level)

Components	E-I	A-I	C-N	E-R	P-P
"Young" subsample (respondents aged 19–34 years)					
FA				–0.513/0.000	
BA	0.273/0.038			–0.428/0.001	
EADA				–0.373/0.004	
EBA				–0.388/0.003	
DAREA				–0.289/0.028	
GCA				–0.406/0.002	
GRCA				–0.376/0.004	
PRCA	0.316/0.016		0.345/0.008	–0.452/0.000	
AAAEA				–0.473/0.000	
AEA	0.285/0.030			–0.317/0.015	
SA	0.326/0.013			–0.456/0.000	
SEA	0.307/0.013			–0.556/0.000	
IAEA	0.325/0.013			–0.494/0.000	
Number of correlations	**6**	**0**	**1**	**13**	**0**
"Mature" subsample (respondents aged 35–77 years)					
FA	0.422/0.004		0.415/0.005		0.579/0.000
BA			0.520/0.005		
EADA			0.337/0.024		0.343/0.021

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Table 2

Significant correlations between the parameters of the attitudes towards EA and the severity of the Big Five components among the objects of perception (Spearman's correlation coefficient / significance level)

Components	E-I	A-I	C-N	E-R	P-P
EBA	0.319/0.033		0.330/0.027		0.507/0.000
GCA	0.318/0.033	0.432/0.003	0.370/0.012		0.606/0.000
GRCA					0.328/0.028
PRCA					0.363/0.014
AAAEA				−0.370/0.012	
AEA	0.397/0.007		0.374/0.011		0.377/0.011
SA	0.374/0.011	0.286/0.057	0.408/0.005		0.406/0.006
SEA			0.323/0.030	−0.322/0.031	
IAEA			0.406/0.006		0.467/0.001
Number of correlations	5	2	9	2	9

Table 3 shows significant correlations between the parameters of attitudes towards EA and the Dark Triad components. No significant correlations were found between the Dark Triad components and the CA-PA index.

Table 3

Significant correlations between the parameters of attitudes towards EA and the severity of the Dark Triad components among the objects of perception (Spearman's correlation coefficient / significance level)

Parameter of attitude towards EA / the Dark Triad component	Machiavellianism scale	Narcissism scale	Psychopathy scale
"Young" subsample (respondents aged 19–34 years)			
FA	0.262/0.047		
EADA	0.268/0.042		
GRCA		0.240/0.037	
PRCA			0.261/0.048

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"Mature" subsample (respondents aged 35–77 years)		
FA	0.419/0.004	0.286/0.057
BA		0.303/0.057
EADA		0.304/0.042
EBA	0.330/0.027	0.324/0.030
GCA	0.364/0.014	
AEA		0.322/0.031
SA	0.310/0.038	0.354/0.017
IAEA	0.314/0.036	0.364/0.014

Analysis of data presented in tables 1-3 enabled us to draw several conclusions.

In the "young" subsample (respondents aged 19–34 years):

1. The CA-PA index is associated with (a) the primary factor "activeness – passiveness". More active respondents are perceived to be younger than their age; passive ones are perceived to be older. The CA-PA index is also associated with (b) the generalized factor "emotionality – restraint" and with the primary factors "anxiety – carelessness", "tension – relaxation", "depression – emotional comfort", "emotional lability – stability". Respondents under 34 years old who look younger than their age, have increased emotionality, are anxious, tense, depressive, and emotionally labile. As noted by the developers of the questionnaire, these individuals are not able to control emotions and impulsive drives. Moreover, the CA-PA index has associations with (c) the generalized factor "playfulness – practicality" and with the primary factors "dreaminess – realism" and "plasticity – rigidity". Individuals with high scores on these scales have a high CA-PA score, that is, they are perceived to be younger. On the contrary, young respondents who look older than their age had high scores of such Big Five components as "passiveness", "restraint" (carelessness, relaxation, emotional comfort, stability), and "practicality" (realism, rigidity).

2. We found numerous correlations between the parameters of attitudes towards EA and the severity of the Big Five components, including the factor "extraversion – introversion" (6 cor-relations) and the factor "emotionality – restraint" (13 correlations). An increase in emotionality, the inability to control emotions, set a low level of almost all parameters of attitudes towards the EA – from face assessment to satisfaction and integral assessment of EA. On the contrary, extraversion sets a high level of self-assessment of EA elements (e.g., physical assessment) and its integral characteristics – assessment of conformity with a professional role, attractiveness, as-sessment of sexuality, satisfaction with EA, and an integral assessment of EA as a whole.

3. Three components of the Dark Triad are associated with the parameters of attitudes towards EA. Machiavellianism is related to face assessment and EA design assessment. Narcissism is as-sociated with evaluating the conformity of EA with gender roles. Psychopathy is associated with evaluating the conformity of EA with professional roles.

In the "mature" subgroup (respondents aged 35–77 years):

1. Compared to the "young" subsample, the CA-PA index is less related to the severity of the

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Big Five components. We observed correlations with the primary factor "trustfulness – suspiciousness" (more trustful respondents are perceived to be younger than their age), the generalized factor "control – naturalness" (individuals with a high degree of voluntary regulation are perceived as younger than their age), and with the primary factor "artistry – non-artistry" (more artistic respondents are perceived to be younger than their age).

2. Respondents aged 35–77 years have the parameters of attitudes towards their EA set by completely different personal factors than those in the "young" subsample – namely, the factors of "control – naturalness" and "playfulness – practicality". A high degree of voluntary regulation of behavior ("control – naturalness" factor) sets a high level of almost all parameters of attitudes towards EA – assessment of face, physique, EA design, expressive behavior, EA conformity with gender, EA attractiveness, assessment of sexuality, EA satisfaction, and integral assessment of EA. A similar picture is provided with the relationship of the "playfulness – practicality" factor. The high score of this factor is associated with a high level of self-assessment of the EA elements (e.g., assessment of face, design of the EA, expressive behavior) and its integral characteristics – assessment of conformity with gender and professional roles, attractiveness, assessment of sexuality, integral assessment of EA as a whole.

3. We found general tendencies typical for the "young" / "mature" subgroups. Thus, the "extraversion – introversion" factor is associated with EA attractiveness and the assessment of sexuality. The "emotionality – restraint" factor is inversely proportional to satisfaction with EA and the assessment of EA age attractiveness.

4. In contrast to the "young" subgroup, the "mature" subgroup showed more strong associations between attitudes towards EA and the severity of such components of the Dark Triad as narcissism and psychopathy. Narcissism was associated with the assessment of face, expressive behavior, EA conformity to gender, assessment of sexuality, and the integral EA assessment. Psychopathy was also associated with the assessment of face, physique, EA design, expressive behavior, EA attractiveness, assessment of sexuality, and the integral EA assessment.

Comparative analysis of CA-PA ("years saved") and the components of attitudes towards EA among "young" and "mature" study participants

A comparative analysis of the above parameters was conducted using the Mann–Whitney test. The results are shown in Table 4.

Table 4
Comparative analysis of CA-PA and the severity of the components of attitudes towards EA among "young" (19–34 years old) and "mature" (35–77 years old) respondents, the Mann–Whitney test

Comparative analysis parameters	Average rank of group 1	Average rank of group 2	Z	Significance level
CA-PA	39.08	68.66	–4.997	0.000
FA	59.84	41.90	–3.024	0.002
BA	62.66	38.26	–4.114	0.000

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Table 4

Comparative analysis of CA-PA and the severity of the components of attitudes towards EA among "young" (19–34 years old) and "mature" (35–77 years old) respondents, the Mann–Whitney test

Comparative analysis parameters	Average rank of group 1	Average rank of group 2	Z	Significance level
EADA	60.62	40.89	–3.327	0.001
EBA	57.33	45.13	–2.057	0.040
DAREA	61.06	40.32	–3.497	0.000
ACA	59.03	42.94	–2.722	0.006
GCA	61.25	40.08	–3.573	0.000
GRCA	54.03	49.39	–0.784	0.433
PRCA	56.83	45.78	–1.894	0.058
AAAEA	61.01	40.39	–3.487	0.000
AEA	59.83	41.91	–3.026	0.002
SA	60.00	41.69	–3.090	0.002
SEA	61.07	40.31	–3.551	0.000
IAEA	62.10	38.98	–3.897	0.000

We can conclude that almost all components of attitudes towards EA (except for EA compliance with gender roles) have age-related dynamics. This dynamics is negative. Therefore, assessments of both EA components and integral EA assessments significantly decrease with age.

Discussion

Comparing data from different age samples, we can conclude that the first and second hypotheses are confirmed. The severity of the parameters of individuals' attitudes towards their own EA and the difference between CA and PA are associated with the severity of components of the Big Five and Dark Triad among the objects of perception. Furthermore, these relationships are mediated by the study participants' belonging to the "young" / "mature" age groups. However, we found no associations between the CA-PA index and the parameters of the Dark Triad. That is, our assumption that negative personality characteristics may be associated with the "years saved" index was not confirmed. On the contrary, it turned out that the number of "years saved" is not associated with negative personality characteristics, but with the severity of positive personality traits – trustfulness, artistry, and control (in the "mature" subgroup); activeness, emotionality, and playfulness (in the "young" subgroup). The data obtained are consistent

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with studies of the influence of positive emotional experiences throughout life and faith in the future on PA (Uotinen et al., 2005; Adams et al., 2016).

Throughout our study, we found a general pattern – a decrease in the positivity of attitudes towards EA with age. At the same time, at the age of 35–77 years, high parameters of attitudes towards EA are demonstrated by those individuals who have high levels of severity of such Big Five components as "control" and "playfulness" and such Dark Triad components as "narcissism" and "psychopathy". These data are consistent with the data from other studies on the relationship between individuals' narcissism and attitudes towards their own EA. We have proven that this relationship plays an important role in maintaining a positive attitude towards the individual appearance of adults and the elderly. Interestingly, the "young" subgroup shows almost no correlations between the Dark Triad components and the parameters of attitudes towards EA, except for the Machiavellian scale. Consequently, participants in the "young" subgroup, with high Machiavellianism rates, assess their face and EA design as positively as possible. We can assume that respondents with high Machiavellianism understand the functional value of EA, its investment importance, and consciously (or unconsciously) fix this in a positive assessment of their face as a key component of EA.

The CA-PA index was significantly higher in the "mature" subgroup. This means that the "mature" subgroup shows more pronounced "years saved", compared to the "young" subgroup. The older the person, the more his/her PA can differ from the chronological one. In the subgroup of young people, respondents who are percieved as older than their age are more interesting from a practical point of view. The data obtained in this study allow us to identify the personality variables that determine the process of age constraction at different stages of individual development.

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