

DO SELF-ESTIMATES & ESTIMATES BY OTHERS OF INTELLIGENCE AND PHYSICAL ATTRACTIVENESS RELATE TO SELF-ESTEEM?

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Abstract

An empirical study examining possible link between self-estimates & estimates by others of both intelligence and physical beauty (attractiveness), and self-esteem, was conducted on Macedonian sample of university students. The sample itself consisted of 203 respondents in total, all students of II or III year of either preschool or primary teacher education. Individual differences were measured employing two measuring tools: (1) SEI i.e. Self-Esteem Inventory (Coopersmith), and (2) anonymous survey sheet with names of all respondents in attendance listed, seeking a three-point estimation (above-average, average, below-average) of (a) intelligence of each individual from the list, including oneself, as well as (b) physical beauty of each individual from the list, also including oneself. Results (correlation-based data processing, separately for females & males) only partially support previous findings in the field. The general self-esteem, regardless of gender, strongly relies on both intelligence and physical beauty as seen by others, as well as on self-assessed beauty, but not on self-assessed intelligence. Both intelligence and beauty as self-assessed significantly influenced the social self-esteem in female students. From the other hand, only self-assessed intelligence (but no beauty) showed very strong positive relation to the academic self-esteem in males. Overall, a fairly strong social component of self-esteem as related to intelligence was indicated in females, while a significant achievement component was indicated in males.

Keywords: *self-esteem, intelligence, physical attractiveness, gender*

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Introduction

It is often said that there is no more important measure of individuals' own worth but the one of how high they assess it. An inherent human need, as determined by Canadian psychotherapist Branden (2001), to experience and to estimate oneself as competent enough to cope with basic life challenges and sufficiently worthy to reach and experience happiness, underlies the concept of self-esteem. The literature (Baumeister et al., 2003; Cameron & Granger, 2019; Ellis, 2005; Erol & Orth, 2011; Erol & Orth, 2016; Harris et al., 2015; Harris et al., 2017; Harris & Orth, 2019; Hepper, 2016; Judge & Bono, 2001; Miller & Moran, 2006; Mone, 1995; Orth, 2018; Orth & Luciano, 2015; Shrauger & Rosenberg, 1970) abounds with many other provisions of self-esteem the meanings of which are focused on several basic attributes, such as personal opinion and experience of their own, value, competence, and relevance, as a person in their entirety. Emphasizing that the failure to satisfy this need can lead to anxiety, chronic general insecurity and hypersensitivity to any comment or criticism, bordering depression or aggression, Branden (2001) emphasizes six pillars of self-esteem: mindfulness, self-acceptance, self-responsibility, self-assertiveness, purposefulness, and personal integrity. Yet, even amidst evident scant selection of literature in this area, the apparent absence of an attempt by authors to make a comprehensive list of agents of self-esteem may be relatively surprising. Here, relying on the usual experiential framework, a number of factors could be referred to, ranging from personal ones such as perception and assessment of one's own exterior i.e. physical attractiveness (with a full spectrum of subcomponents), through general mental (intellectual) competence, social skills, efficiency and similar psychological parameters in the roots of self-perceived success, concluding the list with perception and assessment of socio-economic, class, national, racial and other wider attributes originating from family, environment and society.

Needless to say, such taxonomy of the agents of self-esteem is not the goal of this study. The researchers' attention is focused on two of them which, according to the wider logic and experiential platform, could have a substantial position in the anatomy of self-esteem. The first one is *intelligence*, i.e. general intellectual ability, as one of the confirmed attributes of value of the inner self. The second one is *physical attractiveness (beauty)*, as a possible conceptual substrate of value of the external and apparent as attributes of the self-concept.

A possible explanation of the link between intellectual ability and self-esteem may be traced following the higher general "functional competence" (Gottfredson, 1997; Hepper, 2016) in people with higher IQ, which usually supports achievement of commonly valued social ends – an obvious self-esteem booster, indeed. On the other hand, according to Naillon (2004), a sort of self-fulfilling

prophecy related to poor performance (caused by lower IQ), usually socially disfavored, may eventually result in poor self-esteem in people with lower IQ. In one of the pioneering studies in the field, Simon & Simon (1975, as cited in Naillon, 2004, p. 1) reported a significant correlation between self-esteem and intelligence in a sample of fifth-graders, specifying verbal intelligence as more strongly associated to self-esteem. Findings from a more recent study suggest a low positive correlation, as $r=.18$, between general mental ability and core self-evaluations (Judge, Hurst & Simon, 2009), or even lower, as $r=.12$, between non-verbal intelligence and self-esteem (Kaya & Oğurlu, 2015). There are studies, however, that failed to establish a direct relationship between IQ and self-esteem, possibly due to usage of different measuring tools (Leonardson, 1986; Naillon, 2004).

Beside plenty of articles with a traditional literary or philosophical discourse, in the last two or three decades, the psychological dimensions of physical attractiveness (attractiveness, beauty - terms used interchangeably in this text) also have gradually become a prolific field of empirical research, leaving the outskirts of the science of psychology. This field contains several inspirational thematic nuclei, dealing with the distinctive personality profile of physically attractive people, with special emphasis on extremely intriguing stereotypes about their (higher?) intelligence, (privileged?) social treatment and (higher?) social success and status, to the (distinctive?) strategies in their social relations (Bates, 2007; Brierley et al., 2016; Denny, 2008; Deryugina & Shurchkov, 2015; Feingold, 1992; Gottfredson & Deary, 2004; Hamermesh & Biddle, 1994; Mobius & Rosenblat, 2006; Swami et al., 2007). Attractiveness may affect self-esteem in several ways, with warmth of reception and approval by others possibly being among the most explicit ones (Anýžová & Matějů, 2018; Dipboye & Dhahani, 2017; Harter, 2006; Judge et al., 2009; Sadr & Krowicki, 2019). Such feedback is usually given to attractive individuals quite early, sometimes literally during early childhood (Deryugina & Shurchkov, 2015; Dipboye & Dhahani, 2017; Langlois et al., 1995). In terms of position of school as a core agent of socialization, it should be noted that academic and intellectual competences of attractive pupils have been consistently proven to be evaluated more positively by others (Deryugina & Shurchkov, 2015; Jackson, Hunter, & Hodge, 1995; Langlois et al., 2000). Moreover, even familiar individuals (parents, siblings, partners, co-workers etc.) who know them very well, show proneness to judge them via positive bias (Bates, 2007; Brierley et al., 2016; Crocker & Luhtanen, 2003; Langlois et al., 2000). Attractive individuals, generally, receive more attention being subject of more positive interactions from other people and fewer negative ones as well. This is obviously a convenient social platform to boost the self-esteem (Bauldry et al., 2016; Baumeister et al., 2003; Deryugina & Shurchkov, 2015, Swami et al., 2007). In spite of plenty of

models of self-esteem and its position into the self-concept (all of them assuming some link to the appearance/attractiveness), a considerably minor quantity of published studies addresses the accurately measured correlations between the two entities (Mruk, 2006). A comprehensive meta-analysis of 38 samples, a bit shy of 5000 respondents overall (Feingold, 1992), suggests a significant positive correlation of $r = .32$ in females and $r = .27$ in males between self-rated attractiveness and self-esteem, but only a minor one ($r = .09$ in females and $r = .02$ in males) in case of other-rated attractiveness. Subsequent research findings suggest a rather mixed picture (Diener et al.; Harter, 1993; Judge et al., 2009; Langlois et al., 2000).

Finally, the (possible) relation between intelligence and physical beauty emerges as an undoubtedly attractive stereotype, extensively discussed not among psychologists only, but also catching the attention of philosophers, anthropologists, evolutionary biologists, historians, theorists of culture etc. There is a traditional thesis in literature and media, existing for many years (without doubt attractive per se, and with many supporters), that more intelligent people may be physically more attractive, while individuals with a lower scale of intellectual capacities may be less gifted in terms of physical attractiveness. A possible biological support to this thesis comes from the concept of inherently positively inter-correlated sexually desirable traits, as intelligence and attractive appearance certainly are, that gradually increase their own presence into the human gene pool, simply due to production of a statistical associations between alleles affecting the two traits (Buss & Barnes, 1986; Kenrick et al., 1990). Social psychologists, from the other hand, argue the possibility that visible characteristics may affect the individual's social status.

Method

Research question, hypotheses and variables

The primary research question of this paper is to identify the assumed connections of several aspects of self-esteem with general intellectual ability (self-estimated and estimated by others) and physical attractiveness (self-estimated and estimated by others, too). As previously stated, psychology considers one's self-esteem as one of the core criteria of one's own perceived worth, in terms of affective basis on which individuals judge their own competency to cope with basic life challenges and reach a realization of their own potentials. In this context, both practical and academic contribution of this research may lay in further clarification of the position of the two notable human attributes, such as intel-

lectual ability and physical attractiveness, as relevant agents of self-evaluation i.e. self-esteem.

Given the results of previous findings, two research hypotheses will be tested: *(X1) measures of self-esteem and intelligence (both estimated subjectively) are positively correlated; (X2) measures of self-esteem and physical attractiveness (both estimated subjectively) are positively correlated, too.*

Respecting the supposed relevance in context of self-esteem, the respondent's gender will be treated as a moderator variable, hence, the projected statistical calculations will be computed for each of the two sexes separately.

Measuring tools

In this study, the measurement of individual differences was performed using two measuring tools.

As measures of self-esteem, scores on the S. Coopersmith's SEI i.e. Self-Esteem Inventory (Coopersmith, 1981; 1989) were used, aiming to the subscale scores only. This inventory consists of four subscales, 46 items in total (revision form from 1984), which represent four domains of self-esteem: general self (22 items), social self (peers, 8 items), family self (parents, 8 items) and academic self (school, 8 items).

An anonymous survey sheet with listed names of all respondents in attendance was given to respondents, seeking a three-point estimation (above-average, average, below-average) of the level of (a) physical attractiveness of each individual from the list, including oneself, and (b) intelligence of each individual from the list, including oneself, too.

The SEI inventory underwent routine check of reliability, which signalized a satisfactory level of internal consistency: SEI (Cronbach α , 203 respondents) in the range from .73 to .82, depending on the subscale.

Sample

The sample consisted of a total of 203 subjects, all students of the "St. Kliment Ohridski" Faculty of Teacher Education in Skopje. Respondents were taken from both Primary education (n=155) and Preschool education (n=48) departments. Given the strongly biased gender structure of the recruited students enrolling this sort of studies in Macedonia, with a traditional abundance of female students and a considerable minor proportion of males, the sample itself largely mirrors this bias, consisting of 171 females and 32 males. In terms of age, the whole sample emerges relatively homogenous (19-22).

All respondents were students of II or III year, so researcher assumes they know each other well enough for qualified estimation of both intelligence and physical attractiveness in each individual in attendance. In order to preserve the necessary level of familiarity among the respondents, the estimations of others' intelligence and attractiveness were organized to be performed into four separate subsamples: (a) primary education, II year; (b) preschool education, II year; (c) primary education, III year; (d) preschool education, III year.

Data analysis

The data matrix is dominated by variables of scale type, represented by scorings on the self-esteem inventory, as well as by the *received* estimations from others (of both intelligence and physical beauty) that are in fact arithmetic means. The ordinal level of measurement is represented in form of three-point self-estimates of both intelligence and physical beauty.

Taking into account the nature of the variables and the levels of measurement mentioned above, both linear (Pearson) and range (Spearman) correlation, as well as regular parametric differential tests (ANOVA and t-test for independent samples) were employed. The usual set of descriptive parameters (frequencies, arithmetic means, standard deviations etc.) was used occasionally, as supporting indicators throughout the data analysis.

Data processing was carried out in the statistical package IBM SPSS 25.0 (Statistical Package for the Social Sciences).

Results

A brief review of the descriptive data may be insightful, so prior to testing the hypotheses we would offer a glimpse into this matter (Table 1). Scoring on the SEI inventory fits the general range of norms for the European and American population (Blascovich & Tomaka, 1991; Coopersmith, 1981; 2002; Guillon, Crocq, & Bailey, 2003; Hills, Francis, & Thomas, 2007). Subtle differences in scoring between female and male respondents were not confirmed as statistically significant (t-test for independent samples), which is in accordance with previous findings (Coopersmith, 1981; 2002; Mann et al., 2004, Myhill & Lorr, 1978). Slightly higher general and family-based self-esteem is noticeable in females, while male respondents score somewhat higher on the social and the academic self-esteem. There is no statistically confirmed difference between females and males in estimations of both intelligence and physical attractiveness (Table 1), although it is noticeable that male respondents are prone to somewhat higher self-evaluations on both variables, which is also consistent with previous research data (Furn-

ham, 1999; 2001; Furnham & Fong, 2000; Kanazawa, 2004; Oppenheimer, 2003). Males also received slightly higher estimates by their colleagues, again with respect to both variables.

Table 1.

Descriptive data and gender

	<i>Females (N=171)</i>		<i>Males (N=32)</i>							
	<i>M</i>	<i>SD</i>	<i>Skew.</i>	<i>Kurt.</i>	<i>range</i>	<i>M</i>	<i>SD</i>	<i>Skew.</i>	<i>Kurt.</i>	<i>range</i>
<i>SEI general</i>	15.82	2.38	-0.06	-0.27	12	15.72	2.74	-0.28	-0.63	11
<i>SEI peers</i>	5.96	1.00	0.04	-0.48	4	6.28	0.96	0.32	-0.71	3
<i>SEI family</i>	5.58	1.11	0.29	-0.65	4	5.19	1.18	0.25	-1.06	4
<i>SEI academic</i>	5.54	1.15	0.20	-0.79	4	5.78	1.04	0.10	0.05	4
<i>IQ by others</i>	2.00	0.28	0.38	0.88	1.61	2.10	0.37	0.41	-0.13	1.44
<i>IQ by oneself</i>	2.45	0.56	-0.32	-0.93	2	2.53	0.57	-0.70	-0.51	2
<i>PA by others</i>	1.98	0.27	0.36	1.88	1.65	2.05	0.31	0.20	0.23	1.27
<i>PA by oneself</i>	2.25	0.71	-0.41	-0.96	2	2.38	0.61	-0.40	-0.58	2

Data presented in Table 1 indicate some other noteworthy relations. It is evident that self-ratings of both intelligence and physical beauty are noticeably higher than the other-ratings, a tendency statistically significant in both genders. The statistical check confirmed that self-rated intelligence in both genders is significantly higher than other-rated (females: $t(340) = 9.38$, $p < .01$; males: $t(62) = 3.57$, $p < .01$). Obviously, both female and male respondents show clear tendency to overestimate their own intelligence in comparison to estimations given by their peers in the group. In addition, the low (in the female group virtually non-existent) rank-correlation between self-rated and other-rated intelligence (females: $r = -.001$, $p > .05$; males $r = .16$, $p > .05$) further suggests absence of a real, tangible connection. In other words, the estimation of one's own intelligence in this sample barely corresponds to the estimation given by others.

Very similar are the relationships among estimates of physical attractiveness. Self-rated beauty is consistently higher than other-rated, in both females ($t(340) = 4.60$, $p < .01$) and males ($t(62) = 2.65$, $p < .01$), which again reveals a visible tendency to overestimate one's own attribute over estimations given by peers in the

group. Again, very low correlations are calculated between self-rated and other-rated beauty (females: $r = -.044, p > .05$; males: $r = .099, p > .05$), suggesting that the one's own rating of physical attractiveness does not correspond to estimations made by others.

Testing the hypothesis 1 is graphically summarized in Table 2, showing the correlations between (a) measures of self-esteem, as scores on the four subscales of inventory SEI, and (b) two measures of perceived general intellectual ability, as other-rated and self-rated intelligence. Given the position of gender as a moderator variable, the calculations were computed separately for the females and the males.

Table 2.
*Spearman*** & Pearson correlations: self-esteem and intelligence*

	Females (N=171)	Males (N=32)		
	Intelligence by others	Intelligence by oneself***	Intelligence by others	Intelligence by oneself***
SEI general	.343**	.053	.536**	.159
SEI peers	.129	.286**	.131	.183
SEI family	.108	-.067	.048	-.299
SEI academic	-.003	-.009	.455**	.319

* sig. < .05; ** sig. < .01

As can be seen, in both genders the general self-esteem is significantly positively associated with the other-rated intelligence (females: $r = .34, p < .01$; males: $r = .54, p < .01$), but not with self-rated intelligence (females: $r = .05, p > .05$; males: $r = .16, p > .05$). However, remarkable divergence along the gender line can be seen in two other aspects of self-esteem. Social self-esteem (me and peers) is positively associated with self-estimated intelligence ($r = .29, p < .01$) in girls only, while quite the opposite situation occurs in the academic self-esteem (based on grades and success in school), which proved positively correlated with the other-rated intelligence ($r = .46, p < .01$) only in males. It might be noteworthy to point towards the considerably high correlation between academic self-esteem and self-rated intelligence in males, despite failed significance test ($r = .32, p > .05$), presumably due to the small number of male respondents. In similar fashion, fairly prominent negative correlation between the family self-esteem and the self-estimated intelligence ($r = -.30, p > .05$) stand out, too.

Overall, based on this section of the analysis (Table 2), it may be concluded that *perceived intelligence in females proved associated primarily with the social*

(*me and peers*) component of self-esteem, while in males this connection is established with the academic (*me and school*) self-esteem. These results fairly support the research hypothesis X1, which postulates a positive correlation between self-esteem and intelligence.

Moving a bit sideways from the hypothesis itself, we consider it as possibly insightful to see whether the self-esteem may be related to the degree of accordance between self-rated and other-rated intelligence, a parameter on which respondents were statistically divided into three categories: overestimated ($X > M + 0.5SD$), optimal ($M - 0.5SD \leq X \leq M + 0.5SD$), and underestimated ($X < M - 0.5SD$) self-rated intelligence. Statistical check (one-way ANOVA) revealed a tangible difference ($F(2) = 4.10, p < .05$) only in females, on the subscale of social self-esteem (*me and peers*). The subsequent post-hoc test (Scheffe) locates the difference between the groups prone to overestimate ($M = 6.13$) and underestimate ($M = 5.36$) the self-rated intelligence. In other words, *the tendency among female respondents to overestimate their own intelligence (in comparison to the other-rated one) may be associated to higher social self-esteem (me and peers)*. Such a tendency was not confirmed in males.

Turning now to the next section, i.e. self-esteem as a function of physical attractiveness (Table 3), it is obvious that the general self-esteem is positively associated to the other-rated attractiveness, regardless of gender (*females*: $r = .22, p < .01$; *males*: $r = .49, p < .01$). There is connection with the self-rated attractiveness too (*females*: $r = .26, p < .01$, while in *males* the correlation emerges noticeably high, but not statistically significant (presumably due to aforementioned limited number of respondents: $r = .33, p > .05$).

Table 3.

*Spearman*** & Pearson correlations: self-esteem and physical beauty*

	Females (N=171)	Males (N=32)		
	Physical beauty by others	Physical beauty by oneself***	Physical beauty by others	Physical beauty by oneself***
SEI general	.215**	.257**	.485**	.331
SEI peers	-.010	.305**	-.008	.016
SEI family	.159*	.086	-.050	.029
SEI academic	.081	-.012	.010	.220

* sig. < .05; ** sig. < .01

It can be further observed (Table 3) that among girls, similarly to the already discussed self-rated intelligence, the self-rated attractiveness may be connected

to the social self-esteem ($r = .31, p < .01$), while such a relation is non-existing in males. In girls, a significant positive correlation ($r = .22, p < .01$) between family self-esteem and other-rated physical beauty is noticeable as well, again a relation non-existing in male students. As for the males, a respectable high positive correlation between academic self-esteem and self-rated attractiveness appears, but again with no statistical verification of significance ($r = .22, p > .05$), likely due to the same reason (limited sample of males).

The primary impression from this segment of statistical analysis (Table 3) is that *the relationships between self-esteem and estimated attractiveness may be considerably similar to the ones between the self-esteem and estimations of intelligence, previously discussed. It may suggest a deeper conceptual congruence between subjective estimations of intelligence and of physical attractiveness. Nevertheless, results presented in this section give a good deal of support to the hypothesis X2, confirming postulated relations between measures of self-esteem and physical attractiveness.*

We performed another sideways check here, investigating now whether self-esteem is somehow linked to the degree of accordance between the self-rated and other-rated attractiveness. Respondents were again statistically divided in three categories: overestimated ($X > M + 0.5SD$), optimal ($M - 0.5SD \leq X \leq M + 0.5SD$), and underestimated ($X < M - 0.5SD$) self-rated attractiveness. The results (one-way ANOVA) proved virtually identical to those of the previous calculation (performed around discrepancies between the estimates of intelligence). Again, a significant association was ascertained at the social self-esteem ($F(2) = 9.59, p < .01$) only in girls, with a difference located (Scheffe post-hoc test) again between the groups with overestimated ($M = 6.19$) and underestimated ($M = 5.33$) self-rated physical beauty. No significant relationships were recorded in males, again. *Taking account the similarity to the previous finding (relating self-rated and other-rated intelligence), this one may suggest existence of some form of possible conceptual congruence between the subjective estimations of intelligence and of physical attractiveness.*

Discussion

In the context of a wider body of previous findings (Coopersmith, 1981; 2002; Kling, Hyde, Showers, & Buswell, 1999; Myhill & Lorr, 1978; Orth, Maes, & Schmitt, 2015; Tetzner, Becker, & Baumert, 2016), results on the SEI inventory in our sample lay in low synergy to the previous data, primarily because of the negligibly higher level of the general self-esteem in girls. Females also scored somewhat higher on the family self-esteem, while their male colleagues showed a bit higher

self-esteem based on the social and on the academic self. In general, this part of our data is moderately consistent with previous findings (Coopersmith, 1981; Erol & Orth, 2011; Potard et al., 2015; Trzesniewski, Donnellan, & Robins, 2003; Wagner et al., 2018).

Notably more prominent accordance with previous findings is indicated in the case of relationship between self-esteem and estimated intelligence. Our results suggest a pretty clear link between estimated level of other-rated intelligence and general self-esteem, which might be relatively consistent to the previous findings in the field we are aware of, bearing in mind that other studies (Judge et al., 2009; Kaya & Oğurlu, 2015; Leonardson, 1986, Orth, Erol, & Luciano, 2018; Naillon, 2004) may have a different, quite heterogeneous choice of measuring tools, research drafts or data processing approach. Given the high saturation with non-cognitive factors in the implicit perceptions of intelligence (Hong et al., 1999; Nicholls, Patashnick, & Mettetal, 1986; Orth et al., 2018; Robins & Pals, 2002), it seems that certain non-cognitive behavioral elements of the higher self-esteem, present in everyday behavior, could be a factor of the higher evaluation of intelligence made by others (peers, in this case). In somewhat wider perspective, this relation may be just the tip of the iceberg of some presumably deeper relationship, given the findings of higher correlations between the scored (IQ test) and other-rated intelligence, available in literature (Denny, 2008; Ganey, 1981; Freund & Kasten, 2012; Furnham & Fong, 2000; Furnham, 2001, Furnham, Moutafi, & Chammoro-Premuzic, 2005; Furnham, 2017; Furnham & Grover, 2020; Gignac, 2018; Herreen & Zajac, 2018, Ivcevic & Kaufman, 2013; Kaufman, 2012; Kleisner, Chvátalová, & Flegr, 2014; 2014, Kornilova & Novikova, 2012; Neto et al., 2017; Neto, 2019; Paulhus, Lysy, & Yik, 1998; Syzmanowicz & Furnham, 2011; von Stumm, 2014).

Unlike general self-esteem, its partial aspects measured with the SEI inventory may be gender-sensitive in terms of its relation with intelligence. Positive correlation between social self-esteem (me and peers) and self-rated intelligence may suggests a prominent position of the social self-esteem behind the intelligence self-estimates in girls, but it is not clearly confirmed in males. In the male sample, on the other hand, intelligence appears highly positively correlated with academic self-esteem (me and school), something completely non-existing (practically, there is no correlation whatsoever) in females. Obviously, *higher self-estimates of intelligence in females may be in synergy with experiencing the peer group as a reference social framework, while in males it seems to be pointed elsewhere i.e. towards the academic performance as a basic platform for assessment of one's own worth*. Altogether, this could be interpreted as further confirmation of strength of the non-cognitive component into the self-estimation of intelligence. Another

reason in favor of this interpretation may be the confirmed association of the girls' proneness to overestimate their own intelligence compared to the other-ratings, on one hand, with the higher evaluation of the social self-esteem, on the other hand. Conversely, girls who underestimate their own intelligence (compared to estimation given by the peers) emerged prone to significantly lower levels of social self-esteem. In this segment, another noteworthy detail may be the fairly higher negative correlation, though not confirmed as statistically significant, between family self-esteem and self-estimation of intelligence in males. We have no explanation of this relationship (the same is absent in females), except that it is probably a possible artifact of the relatively small sample (32 male respondents).

The next section of the results indicates a strong relation between attractiveness and self-esteem, which is largely consistent to the previous findings. Our correlations in the female sample emerge slightly less prominent than the average reported by Feingold (1992), but still statistically significant. Relatively surprising could be the higher correlations in our male sample, result in contradiction to the previous findings, which mainly suggest a stronger connection in females (Feingold, 1992). A possible rationale for this gender-sensitive bias might be traced taking a look towards the dominant traditional socio-cultural matrix and the resulting values, which assign higher significance to the beauty of the woman as an asset of her worth, compared to the one assigned to men (Bale & Archer, 2013; Leary, Haupt, Strausser, & Chokel, 1998). In our case, a promising direction in interpretation might be the gradual shift of once prominently women-targeting impact of the proliferated media-originated influences of everyday life, which tends to impose the paradigm that only (external) beauty is real, worthy and as such deserves to be valued. This social phenomenon has been showing additional signs of evolution towards some broader pattern of experiencing, of evaluating, and even of conceptualizing the other and the otherness in general manner according to which not only human relationships/affairs and transactions, but also the attitude towards matters in general. Furthermore, a noticeable tendency to the paradigm relying entirely on the external appearance, embodied through the categories of form, style, color, "artistic impression", "image" and so on, have been established throughout latest decades. In our opinion, the described cultural model may possess potential to mitigate the traditional gender boundaries, taking an unexpected role in gradually stronger position of physical beauty as a factor of self-esteem in males.

In terms of relations between attractiveness and partial aspects of self-esteem, a noteworthy moment may be the positive (moderate) correlation between social self-esteem (me and peers) and self-rated attractiveness in females. This is

a virtually identical link to the previously discussed one between social self-esteem and intelligence. Moreover, such one is again not confirmed in males. Obviously, experiencing and rating one's own appearance may have to some extent a strong position in the background of social self-esteem, a constant known from the literature (Bale, 2010; Crocker & Luhtanen, 2003; Eagly et al., 1991; Harris et al., 2017; Leary et al., 1998; Patrick, Neighbours, & Knee, 2004). Another interesting point might be the relatively low but statistically significant correlation of family self-esteem with other-rated attractiveness, possibly indicating a role of personal appearance as a factor of some aspects of family dynamics (Eagly et al., 1991; Franzoi, 2001; Harris et al., 2015). We also want to point to the relationship between females' overestimation of their own attractiveness compared to other-rated one and the higher evaluation of social self-esteem. Conversely, females prone to underestimate their own attractiveness showed significantly lower levels of social self-esteem. Being virtually identical to the previously-discussed link between estimations of intelligence and self-esteem, this is surely another trace towards assumed conceptual congruence between subjective estimations of intelligence and of physical attractiveness.

A significant body of studies quite firmly suggest that non-physical factors may take a significant position as important determinants of the reception and the evaluation of physical attractiveness. Researchers (Bauldry et al., 2016; Ehlebracht et al., 2018; Thornhill, 1998; Volland & Grammer, 2003; Zebrowitz & Lee, 1999, as cited in Kniffin & Wilson, 2004, Voges et al., 2019, Williams & Currie, 2000) highlight the wide range of factors which, in situations of assessment of individuals who know each other, may have even a dominant position over the physical ones (height, build, proportions of the limbs, torso and body parts, facial proportions ratios, etc). In domains of personality, the available literature mostly emphasize the extraversion, honesty, altruism (Bates, 2007; Feingold, 1992; Gangestad & Simpson, 2000; Hamermesh & Biddle, 1994), dominance and sociability (Bauldry et al., 2016; Jensen-Campbell, Graziano, & West, 1995; Williams & Currie, 2000), narcissism (Ehlebracht et al., 2018; Holtzman & Strube, 2010), self-realization (Itai & Hee, 2008), and other mainly character traits. It is all a reason plus for, at least according to our results, evident mismatch among the estimations, both in terms of the grade itself (self-ratings went significantly higher than other-ratings) and accuracy (mutual "synchronicity"). In other words, the self-ratings of attractiveness are higher (as expected) than the other-ratings, which indicate proneness to evaluate one's own physical attractiveness significantly higher than colleagues do. This is not unknown in the literature (Anderson et al., 2000; Eagly, et al., 1991; Eastwick & Hunt, 2014), being commonly interpreted as expected reflection of the natural bias towards personal psychological

benefits (Eagly et al., 1991; Shinnars, 2009). What is relatively surprising in our results may be the rather poor accuracy, in terms of low synchronization (very low correlation between) of the estimates originating from the two “sources”: other-ratings and self-rating of the same individual emerged quite divergent from each other, which means that if the opinion of the “majority” (classmates, others etc.) is being accepted as authoritative, the respondents from this sample clearly misjudged (overestimated) their own physical attractiveness, by a significant margin. We are aware of somewhat different findings in the available literature (Lemay, Clark, & Greenberg, 2010; Marcus & Miller, 2003), in which the relative consistency between the self-estimation and estimations given by others is interpreted as a result of awareness of the existing conventional attributes of beauty (Lemay et al., 2010).

Finally, what remains to be commented is the apparent mutual compatibility of the other-ratings of the two attributes i.e. physical beauty and intelligence, as well as the considerably high congruence between the self-estimations of these two attributes. Our results suggest that a higher estimate of attractiveness on average means a higher estimate of intelligence as well, and vice versa. Also, a higher self-estimation of one's own physical beauty, on average, means a higher self-estimation of one's own intelligence as well, and vice versa. These indicators should be expected, being consistent with previous data (Cunningham et al., 1995; Denny, 2008; Herrnstein & Murray, 1994; Jensen, 1998; Kanazawa & Kovar, 2004), with an abundance of similar ideas about beauty, success, status, wealth, and even intelligence that are systematically nurtured in modern pop culture, through popular literature, media and internet. Authors from this field often emphasize the strong “social” component (Jensen, 1998) into the implicit perceptions of the nature of intelligence, in which the intelligence itself is being spontaneously blended with plenty of other characteristics or achievements of the individual (Todoric & Zarevski, 2000), stressing the physical attraction itself as an apparent “barometer” of one's level of intelligence (Bates, 2007; Laland & Brown, 2002; Mobius & Rosenblat, 2006).

Conclusion

The findings presented in this paper, dealing with relationships among self-esteem and subjectively estimated intelligence & physical beauty, showed a complex matrix of relations of mutual conditionality and determination. The relevance of the position of intelligence and of physical attractiveness as agents and determinants of self-esteem is generally confirmed. Estimates of intelligence provided by peers are associated to the general self-esteem, while self-estimations are not.

On the other hand, the general self-esteem is associated with the estimations of physical attractiveness, wherein among female respondents self-estimations are again related to the social aspect of self-esteem. Close relationships are established between the estimates of physical beauty and intelligence, in both estimates provided by others and self-estimates.

We would like to anticipate a possible practical contribution of these findings, mainly in terms of some new knowledge about the background of the self-esteem, particularly in future teachers. As previously stated, self-esteem itself reflects the outline of the personal opinion and experience of one's own value, competence, and relevance altogether. We emphasized the position of the self-esteem's personal agents, as the perceived mental ability and the perceived appearance, pointing to their immediacy and straight-forwardness as personal attributes, usually assessed by others "at first sight". In terms of academic contribution, we believe these results may shed some additional light on the anatomy of self-esteem, undoubtedly a complex psychological construct itself which takes a core position into the basis of the wider self-concept. Confirming the hypothesized connections between self-esteem and estimated intelligence & physical attractiveness, we hope we strengthen the scientific knowledge about one of the possibly most influential well-being constructs in the modern psychology.

We are certainly aware of several potential weaknesses of the study. At first, the selection of measuring tools may be relevant, imposing the question to what extent identical research procedure conducted with different ones would offer comparable results. A potential problem, in this context, could be the form designed by author himself, supposed to collect the subjective estimations of both intelligence and physical attractiveness: estimation in three categories is still only one in range of possible options. Furthermore, the estimation of the physical attractiveness employed here assigns a single mark for a much wider entity, omitting possibility to evaluate partial aspects of the appearance on different levels. Certainly, a limitation of this paper is the uniform age, plus the homogeneous educational background, as well as the socio-cultural environment in which the results were derived, which altogether may significantly compromise the findings' potential of a broader generalization. In view of the above mentioned, the outcomes of this study can objectively have a potential for detection of possible tendencies, with no pretences to provide solid, definitive conclusions.

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ДАЛИ САМОПРОЦЕНКИТЕ И ПРОЦЕНКИТЕ НА ДРУГИТЕ ЗА ИНТЕЛИГЕНЦИЈА И ФИЗИЧКА АТРАКТИВНОСТ СЕ ПОВРЗАНИ СО САМОПОЧИТУВАЊЕТО?

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Кратка содржина

Во емпириско истражување врз примерок на студенти од Македонија испитани се можните релации на себепочитувањето и проценките (од други и самопроценка) на интелигенцијата и на физичката привлечност. Примерокот опфаќа 203 испитаници, студенти од 2. и 3. година на студии на насоките одделенска настава и предучилишно воспитание. Индивидуалните разлики се мерени со употреба на два мерни инструменти: (1) инвентарот СЕИ (Куперсмит) за мерење на себепочитувањето, и (2) анонимен анкетен лист со список на имињата на сите присутни испитаници, со задача на испитаникот да даде тростепенa проценка (натпросечна, просечна, потпросечна) на (а) интелигенцијата и на (б) физичката привлечност (убавина) за секогo од списокот, вклучително и за себе. Резултатите (главно корелации, изведени сепаратно за двата пола) делумно ги потврдуваат претходните сознанија. Генералното себепочитување, кај двата пола, е стабилно асоцирано (позитивна корелација) со проценките дадени од другите, како на интелигенцијата така и на физичката привлечност. Ваквата релација е потврдена кај себепроценките на физичката привлечност, но не и кај себепроценките на интелигенцијата. Себепроценките, пак, на двата параметри, се позитивно поврзани со социјалното себепочитување кај женскиот дел од примерокот, додека кај машките таква релација е потврдена меѓу академското себепочитување и себепроценетата интелигенција (не и себепроценетата физичка убавина). Наодите, во целина, сугерираат потенцирана релација на проценетата интелигенција со социјалната компонента на себепочитувањето кај женскиот и со академската компонента кај машкиот пол.

Клучни зборови: *себепочитување, интелигенција, физичка привлечност (убавина), пол*

