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### Beauty and social influence. Adonization and its correlates

**Abstract:** *The article attempts to describe adonization, a specific tactic for exerting influence which employs physical attraction, as well as its determinants. The article presents a proprietary model of determinants and motivational mechanisms which constitute the basis of the attitude toward adonization. A cycle of 3 studies on individual determinants for the attitude toward adonization was described. Results of study 1 (50 women and 50 men) confirmed that male gender, psychological masculinity, narcissism, Machiavellianism and high self-monitoring were correlates of a positive attitude toward adonization. Study 2 (36 women and 36 men) showed that extraversion was the predictor of a positive attitude toward adonization of men and women and that agreeableness was the predictor of a less positive attitude of women. In Study 3 (91 women and 88 men aged 18–63) it was established that there were no differences in the attitude toward adonization in young and middle-aged men. Comparison among young and middle-aged women proved that younger women had a more positive attitude toward adonization in the cognitive and in the affective components than older women.*

**Key words:** *social influence, self-monitoring, Machiavellianism, narcissism, self-esteem, personality*

#### Introduction

In psychology, relatively little attention is devoted to the role of physical attractiveness in exerting social influence. Meanwhile, Beauty is a universal, timeless, highly appreciated value. Ancient philosophical analyses prove that the triad of Beauty, Truth (Justice), and Goodness are the highest values, absolute virtues which together constitute the Best of Soul (Plato, 246, E). Scientific analyses from the perspective of evolutionary and socio-cultural psychology show that physical attractiveness plays an important role in social interactions. Physical attractiveness constitutes an important factor determining perception, distorting the attribution of other qualities in an attractive person in accordance with the rule “what is beautiful is good”. Neat appearance is the basic condition for participating in all social situations. People want to be perceived as physically attractive. For this purpose they make numerous efforts by wearing fashionable clothes, taking up sports, going on

diets, undergoing plastic surgery, etc. Physically attractive people are very much valued and desired in many social relations, e.g. as spouses, sexual partners, employees or politicians. Attractive people, having a resource valued highly in society, i.e. beauty, hold significant personal power. They provide observers with esthetic impressions, while for interaction partners they are a source of many social rewards: they evoke admiration and jealousy in the surrounding group, raise self-esteem and prestige (Etcoff, 2000; Buss, 1996; 2001; Hatfield, Sprecher, 1986; Dion, Berscheid, Walster, 1972).

Not only do people value beauty highly; they are also submissive or sometimes even helpless in the face of beauty. Beautiful views take people’s breath away; the company of a beautiful person overawes, makes them speechless, overpowers them and sometimes even leads to infatuation or madness (e.g. femme fatale, “man-eater”) (Mandal, 2011). Beauty is a highly appreciated resource in society which may be exchanged for other resources

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and may also in itself be used for exerting influence and manipulation. Observations of social life show that people use their own physical attractiveness in a strategic way in many situations. We refer to such behavior as charming, coquetry, flirtation, seduction. In psychology they are scientifically referred to as adonization.

The term “adonization” comes from the mythological Greek Adonis. Adonis was a man of extraordinary looks and the lover of divine Aphrodite. After his tragic death during hunting Aphrodite begged Zeus to bring back her beloved one’s soul from Hades. Zeus agreed and since then Adonis spent spring and summer with Aphrodite, while during fall and winter he was in Hades, thus becoming a symbol of death and rebirth of nature. Mediterranean countries had a cult of Adonis, celebrating 8-day spring Adonic feasts during which his death was mourned and people rejoiced over his return. There is also a plant called Adonis vernalis (Mandal, 2003; 2008).

In psychology, the term adonization appears very rarely. In world psychology adonization is mentioned only by Mark Leary et al. (1994) as one of the several motives of self-presentation behavior. They write about adonization when describing study procedures: „*Participants indicated the degree to which they wanted the others interactants to perceive them as: physically attractive, handsome, or pretty (adonization)*” (Leary et al., p. 666). Adonization is understood by scholars as a motive (goal) of self-presentation aimed at creating one’s own image, being perceived as a physically attractive person. Leary et al. (1994) realized their studies on self-presentation motives in the academic Wake Forest University campus in the USA. Students were asked to keep journals for seven consecutive days describing their direct, “face-to-face” social interactions. On a scale of 1–9 they evaluated the level at which they wanted to be perceived during the interaction as: (a) liked, (b) competent, (c) moral and (d) physically attractive (adonization). The study showed that adonization (motivation to be attractive to others) is frequent in many everyday interactions. It appears in interactions with strangers, people we have barely met, as well as in interactions with people we already know well. Adonization is stronger in interactions with people of the opposite sex than in interactions with same sex. Together with the increase in closeness of the interaction, the motivation to be perceived as attractive by others increases in contacts with people of the opposite sex, while it decreases in interactions with people of the same sex.

In Poland the topic of adonization is rarely taken up. The first studies (Mandal, 2000, 2003) on adonization were carried out in the context of studies on the topic of self-presentation and ingratiation in professional work, in situations of potential gain (e.g. possibility of promotion) or in situations of a threat of loss (e.g. criticism, necessity to take a difficult exam). In these studies adonization was defined as a type of strategic self-presentation involving the exposure of one’s own physical attractiveness: looks, charm, and sex appeal, employed for the purpose of realizing one’s own professional goals. The study was performed on a group of 324 Polish and Macedonian people. It showed that

among both nationalities there is a readiness to adopt the strategy of adonization in professional work. This proneness was higher among the tested Macedonians than in Poles. This probably stemmed from the fact that in “male” cultures (which include Macedonia) there exist traditional scripts of behavior in women and men, and there is more widespread consent for flirting and seduction in various types of social interaction than in “female” cultures (such as Polish) (Boski et al., 1999). Women were more prone to employ adonization in professional situations of a gain nature than in situations with a risk of loss, while men were prone to employ it in all situations with the exception of the threat of loss coming from another man. Men perceived threats coming from another man in categories of rivalry and for this reason were not inclined to employ adonization. Predictors of adonization included, apart from culture and type of situation, psychological masculinity and psychological femininity. The strongest tendency to employ adonization was revealed in masculine men and androgynous women, while the weakest – in undifferentiated individuals.

Adonization may be defined as a technique of exerting influence involving the strategic use of a valued social resource which is physical attractiveness. The image which a person intends to create in social interaction is predominantly the image of a physically attractive person. It may be included among assertive and offensive self-presentation tactics. At the foundation of adonization lie personal and cultural beliefs pertaining to the large role of physical attractiveness in the course of social interactions. Adonization may also be understood as an attitude (Mandal, 2008). The cognitive component is a system of beliefs lying at the foundation of the proneness to employ adonization. These include: being convinced about the large role of physical attractiveness in social interactions (e.g. “looks and sex appeal give power”) and the conviction that physical attractiveness is highly effective in achieving various goals in different aspects of life (e.g. “if you use the advantages of your appearance skillfully, you can achieve anything”). It is also being convinced about your own physical attractiveness (e.g. “I know that men/women are attracted to me”) and about your ability and effectiveness in employing physical attractiveness for achieving various goals, e.g. (“I know how to make men/women attracted to me”). The affective component of adonization is a system of emotional attitudes toward employing behavior related to exerting influence by using physical attractiveness (e.g. “I like to sweet-talk and impress the opposite sex”, “I like to flirt”). The behavioral component of adonization is the readiness or behavior which employs looks, charm and sex appeal undertaken in order to execute one’s own interests (e.g. “I sometimes pretend in front of a woman/man that I am interested in them only to get something done”).

Not everyone is inclined to use adonization to the same degree. In the proprietary model (fig. 1) of adonization determinants, the following were selected: (1) individual traits – related to such features as gender, age, self-esteem, personality, psychological masculinity and femininity, narcissism, Machiavellianism (2) situational context – related to goals and interests present in a given social

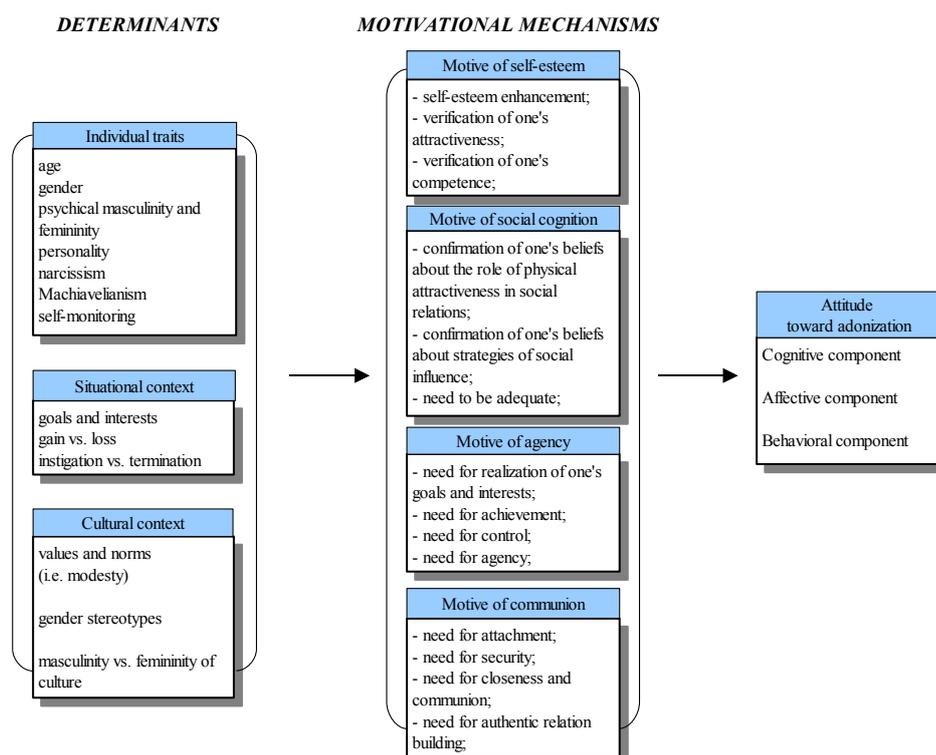
interaction, aiming at instigation-termination (Buss et al., 1987), at achieving gain or avoiding loss (Mandal, 2000, 2003) (3) cultural context: values (e.g. modesty), gender stereotypes, masculinity and femininity of culture.

Motivational mechanisms are important in understanding adonization. A vital role in adonization is played by individual and social motives (Abele, Wojciszke, 2007; Wojciszke, 2010). Among the motives, the realization of one's own interests always comes to the fore. A sexual motive or the desire to gain a partner of a close relationship are not usually considered motives. It may be assumed that the most important social motive present in adonization is agency, which is related to the aspiration to realize one's own goals and to the need for achievement, control, the feeling of agency, confirmation of one's attractiveness and competences. An equally important motive for adonization may also be the one related to maintaining or raising one's self-esteem, e.g. the desire to be admired, in the center of attention. Thanks to effective adonization, the subject may confirm its self-esteem and positive notion of oneself as someone attractive in the eyes of the opposite sex. The motive of cognition related to the feeling of having knowledge about social relations and the desire to be adequate may also prove to be important in employing adonization because the subject wants to confirm his/her beliefs about the significant role of physical attractiveness in social relations and about the significant role of attractiveness in the realization of one's own goals. On the other hand, the motive of communion related to the need for attachment with others, need for security and building authentic close relations based on trust may perhaps weaken the readiness to employ any kind of manipulation, including adonization (Fig. 1).

The purpose of the presented studies was to confirm the correctness of fitting the proprietary model of determinants and motivational mechanisms of the attitude toward adonization. Determinants related to the situational and cultural context were the subject of previous studies (Mandal, 2000, 2003). For this reason, the studies presented here focused on individual determinants of the attitude toward adonization.

Based on earlier studies on strategies of exerting influence at work (Mandal, 2000, 2003) it was assumed that the correlates of the attitude toward adonization include gender and psychological masculinity-femininity. A hypothesis was put forward stating that men have a more positive attitude toward adonization than women and that psychological masculinity is a correlate of the positive attitude toward adonization. It was also assumed that among the individual determinants of adonization the features belonging to the Dark Triad may be of significance – a group of three personality traits: narcissism, Machiavellianism and psychopathy (Paulhus, Williams, 2002). It was believed that especially narcissism and Machiavellianism are correlates of adonization. These features are related to strong tendencies to control, exert influence and manipulate other people. Narcissism is a personality “yearning a mirror” (Kohut, Wolf, 1978, p. 419), admiring itself. Narcissistic people are characterized not only by strong manipulative tendencies, but also high self-confidence, lack of doubts as to one's own actions, unwavering belief in one's own uniqueness. Narcissistic people enjoy significant social popularity; people admire them, remaining under their charm (Paulhus, Williams, 2002). All components of narcissism may turn out to be correlates of adonization: demanding admiration, vanity, self-sufficiency, leadership.

**Fig. 1. Determinants and motivational mechanisms of the attitude toward adonization**



A Machiavellian personality is characterized by the “cool syndrome” (Christie, Geis, 1970), consisting of specific, immoral norms and values, beliefs about other people, as well as tactics on how to deal with people. It is characterized by a resistance to other people’s influence, domination of cognitive orientation over the emotional one, control and adjustment to a situation so that it directly leads to achieving the intended goal.

Adonization may also be linked to the social psychological construct of self-monitoring of expressive behavior and self-presentation. The Self-Monitoring Scale (Snyder, 1974) measures sensitivity to the expressive behavior of others and ability to modify self-presentation. Individuals with high scores on the Self-Monitoring Scale are much more able than those with low scores to intentionally express and communicate a wide variety of emotions in both facial and vocal channels of expressive behavior, and can effectively adopt their self-presentational skills to successfully practice the arts of deception in face-to-face interviews. The high self-monitoring individuals are actively investing cognitive time and effort in attempts to “read” and understand others.

Among the determinants of adonization one may also point to self-esteem. Self-esteem is the evaluative component of the self. Self-esteem is a favorable or unfavorable attitude toward oneself (Rosenberg, 1965, p. 15). Self-esteem is the extent to which one prizes, values, approves, and likes oneself. Self-esteem influences human behavior in interpersonal contacts, in task situations; it influences emotional functioning and the health condition, e.g. low self-esteem is linked to social anxiety, depression, alienation (Blascovich, Tomaka, 1991). During the analysis of adonization determinants it was assumed that self-esteem is a correlate of adonization, i.e. people with high self-esteem have a more positive stance toward adonization than people with low self-esteem.

One may also think that the determinants of adonization may include the Big Five Personality dimensions. The Big Five personality traits: Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism are five broad domains or dimensions of personality that are used to describe human personality. Based on the descriptions of personality dimension properties and based on studies showing the link between extraversion and aspiration as well as the holding of power (Keltner, Gruenfeld & Anderson, 2003), a hypothesis was put forward stating that extraversion is a predictor of a positive attitude toward adonization.

The role of age among the determinants of adonization was also analyzed. It was assumed that younger people would be characterized by a more positive attitude toward adonization than older people because the former are more physically attractive than the latter. Early adulthood is a development period connected with the search for a close relationship partner and for getting married. It involves making new acquaintances and improving the quality of contacts with people of the opposite sex. It is also a time of education, the start of professional activity (Havighurst, 1948; Shanahan, 2000). Because of this, most societies

show high acceptance of adonization employed by young people. On the other hand, adonization employed by older people is met by small acceptance or even disapproval. Older people who use adonization evoke ridiculousness rather than approval and readiness to give in to influence. Social disapproval toward adonization used by older people pertains to a larger degree to women than to men.

The purpose of the presented cycle of three studies was to examine the individual determinants of adonization. Study 1 examined the correlates of the attitude toward adonization with gender, psychological masculinity and femininity, Machiavellianism and narcissism. Study 2 analyzed the relations between the attitude toward adonization and self-esteem as well as personality traits. In study 3 a comparison was made of the attitude toward adonization in two age groups: young adults and middle-aged people.

### **Study 1: Gender, psychological masculinity and femininity, narcissism, Machiavellianism, self-monitoring and the attitude toward adonization**

The purpose of study 1 was to examine the relation between adonization and gender, psychological masculinity and femininity, narcissism, Machiavellianism and self-monitoring. It was hypothesized that men and masculine individuals would have a more positive attitude toward adonization than women and feminine individuals. It was also suggested that attitude toward adonization would be positively correlated with narcissism, Machiavellianism and high self-monitoring.

## **Method**

### **Participants**

The tests were performed on a group of 100 people: 50 women and 50 men. Participants were ascribed to groups randomly, using the snow ball method. The average age of participants equaled  $M = 24.1$  ( $SD = 6.2$ ). Single people constituted 81% of the tested group (women – 78%, men – 84%), while married people constituted 19% (women – 22%, men – 16%). Among the subjects, 23% had secondary education, 56% – incomplete higher, 21% – higher education. The group included 67% of students from different faculties; 37% worked as: a clerk, teacher, engineer, in technical professions and as a service provider. The test was performed during individual meetings with the participants. The tests were carried out by Monika Winkler under my supervision (2006). During the test, participants filled out questionnaires; the order of their filling out was random.

### **Measures**

*Questionnaire for measuring the attitude toward adonization (Scale A* – this is a tool created by Mandal & Winkler (2005). It consists of 20 statements measuring 3 components of the attitude toward adonization: cognitive,

affective and behavioral. The cognitive component measures 7 items pertaining to beliefs about the role of physical attractiveness in various aspects of life, knowledge of the opposite sex, people's expectations (e.g. "sex appeal gives power"). The affective component measures 6 statements about emotional attitude (e.g. "I like to flirt", "I like to impress and sweet-talk the opposite sex"). The behavioral component measures 7 statements regarding readiness for adonization (e.g. "I would not hesitate to use my feminine charm if it could help me get out of trouble"). The tested people take a stance on the statements on a scale from 1 – I completely disagree to 7 – I completely agree. Maximum result: 140 points; minimum result: 20 points. The tool has two versions: for women and for men. The tool has a high Cronbach's reliability factor  $\alpha = 0.906$ .

*Psychological Gender Inventory of Kuczyńska* (1992), tool developed based on *Bem Sex Role Inventory* (1974). This tool is composed of thirty five features. Fifteen of them form the Femininity scale ( $\alpha = 0.78$ ) related to the cultural stereotype of femininity, while another fifteen — the Masculinity scale ( $\alpha = 0.78$ ) which characterizes the cultural stereotype of masculinity. The remaining five features are neutral buffer items placed in randomly selected parts of the inventory. Using a five-point scale, a participant declares the extent to which he is characterized by a given trait. On the basis of the number of points obtained on both scales the intensity of psychological masculinity and femininity is determined; the participant is then categorized within one of the four psychological gender types: the sexually undifferentiated, the feminine, the masculine and

the androgynous.

*Narcissistic Personality Inventory (NPI)* of Raskin & Hall (1979), in Polish adaptation Bazińska & Drat-Ruszczak (2000). The tool is used for measuring individual differences with regard to narcissism in a non-clinical population, treated as a personality variable. The inventory holds 34 items. The subjects comment on the statements from: 1 – "it's not me" to 5 – "it's me". The tool has 4 Scales: the *Vanity* scale – the scale of mythological narcissism – reflects "love for oneself", i.e. the approval of one's own corporality and estheticism; the Demand for admiration scale – examines the desire to be significant, admired, in the center of attention, to be complimented, famous; the *Self-sufficiency* scale – pertains to beliefs about one's own independence, individuality, high competence and success; the *Leadership* scale – refers to the belief about one's own leadership skills and impact on others. The scale has high reliability.

*Machiavellianism Scale (MACH-IV)* by Christie and Geis (1970), in Polish adaptation by Pospiszyl (1985). The scale describes elements of the Machiavellian personality: methods of dealing with people, views on the human nature, moral judgments. It consists of 20 statements categorized in 3 item groups which create 3 scales: Tactics, Views on human nature, Morality. The first two scales include 9 positions each, the third one – 2. The tested person takes a stance on each statement, on a 7-level Likert scale from 1 – I completely disagree to 7 – I completely agree.

*Pragmatism Scale (Skala Pragmatyzmu)* of Wojciszke (1984), a tool developed based on the Self-

**Table 1. The individual correlates of the attitude toward adonization (r-Pearson correlation coefficients). (Study 1)**

Individual variables	Women (n = 50)		Men (n = 50)		Both (n = 100)	
	r	p	r	p	r	p
Masculinity	.32	.02	.41	.01	.38	.01
Femininity	.02	.87	.39	.01	.18	.07
Demanding admiration	.75	.001	.67	.001	.71	.001
Leadership	.54	.001	.54	.001	.51	.001
Vanity	.51	.001	.50	.001	.50	.001
Narcissism (Total)	.43	.01	.38	.01	.44	.001
Machiavellianism	.28	.05	.29	.04	.30	.01
Self-monitoring	.25	.08	.56	.001	.44	.001

Monitoring Scale by Synder (1974). It contains 29 items describing various instances of pragmatic behavior (e.g. "I can be what others want me to be") or contrary to such nature (e.g. "I behave the same way with regard to everybody"). Subjects respond: Yes or No. Cronbach's  $\alpha$  indicators equal 0.70–0.72.

## Results

### Gender. Masculinity and femininity. Gender identity

Results showed that there are gender differences with regard to the behavioral component of the attitude toward adonization. In men the intensity of the behavioral component was higher ( $M=28.38$ ) than in women ( $M=24.12$ ),  $t(98) = -2.32$ ,  $p = .02$ ,  $d = .47$ ) With regard to other components of the attitude toward adonization, no statistically significant differences were observed.

The intensity of psychological masculinity in the group of tested men equaled 52.98, while in the group of women –  $M=45.08$ ,  $t(98) = -4.69$ ,  $p < .01$ ; the intensity of psychological femininity in the tested women equaled  $M=56.20$ , while in the group of tested men –  $M=53.74$ ,  $t(98) = 1.85$ ,  $p = .07$ . This shows that men were psychologically more masculine than women, while women were psychologically more feminine than men. Correlation analyses showed that the attitudes toward adonization correlate positively with psychological masculinity ( $r = .38$ ,  $p < .01$ ). For women it is correlated with masculinity ( $r = .32$ ,  $p = .02$ ) and there is no correlation with femininity. For men: adonization correlates positively with both masculinity ( $r = .41$ ,  $p < .01$ ) and psychological femininity ( $r = .39$ ,  $p < .01$ ) (Table 1 - see page 84).

An analysis of gender identity distribution showed that in the tested group of women feminine women constituted 44%, androgynous women – 36%, undifferentiated women – 14% and masculine women – 6%. In the group of tested men masculine men constituted 20%, androgynous men – 56%, feminine men – 14% and

undifferentiated men – 10%. The highest average values on Scale A measuring attitude toward adonization were obtained by androgynous individuals ( $M=81.93$ ), then masculine individuals ( $M=76.38$ ) and feminine individuals ( $M=76.65$ ), while the lowest values were obtained by undifferentiated individuals ( $M=59.25$ ). An analysis of variance showed that the mean of undifferentiated individuals is significantly lower than the means of androgynous people ( $LSD = -22.68$ ,  $p < .001$ ), feminine people ( $LSD = -17.40$ ,  $p < .01$ ) and masculine people ( $LSD = -17.13$ ,  $p < .05$ ),  $F(3,96) = 3.67$ ,  $p < .01$ . In order to verify the hypothesis pertaining to the co-dependence of attitude toward adonization and types of psychological gender (gender identity), results of Scale A were divided in terms of three percentiles: group 1 – low results – from 1–65 points; group 2 – average results – 66–88 points; group 3 – high results – above 89 points. Results showed that 88.33% of undifferentiated individuals obtained low results on Scale A and that none of them (0%) obtained high results, while androgynous (4.48%), feminine (31.03%) and masculine (30.77%) individuals often obtained high results. The difference in adonization intensity between people of different gender identities was statistically significant  $\chi^2 = 18.09$ ,  $df(6)$ ,  $p < .01$ . (Table 2)

### Narcissism, self-monitoring, Machiavellianism and adonization

In the study it was found that the attitude toward adonization is correlated with narcissism, both for women ( $r = .73$ ,  $p < .001$ ) and for men ( $r = .68$ ,  $p < .001$ ). Correlations of adonization were reported for all scales of narcissism, the strongest was for the demand of admiration scale, then for the leadership scale, the vanity scale, and somewhat less for the self-sufficiency scale. The attitude toward adonization is correlated with self-monitoring ( $r = .44$ ,  $p < .001$ ) and Machiavellianism ( $r = .30$ ,  $p = .01$ ). Machiavellianism correlated with the attitude toward adonization for men ( $r = 0.29$ ,  $p < .04$ ) and for women ( $r = 0.28$ ,  $p < .05$ ). For men, self-monitoring correlated with adonization ( $r = .56$ ,  $p < .001$ ), for women the relationship was only at a statistical trend level ( $r = .25$ ,  $p = .08$ ) (Table 1).

Table 2. Gender identity and the attitude toward adonization (Study 1).

Results in The Scale A (in %)	Gender identity			
	Femininity (n = 29)	Masculinity (n = 13)	Androgynous (n = 46)	Undifferentiated (n = 12)
low	31.03	46.15	21.74	83.33
medium	37.94	23.08	34.78	16.67
high	31.03	43.48	43.48	-

## Discussion

The results obtained in the study showed that women as well as men have declared similar attitudes toward adonization in terms of the cognitive and emotional component. They shared similar knowledge and beliefs about adonization. They declared positive emotions toward adonization; they accepted the use of looks in interpersonal relations to a similar extent. The observed differences pertained only to the behavioral component: men declared proneness to employ adonization more willingly than women. An explanation here is provided by the active masculinity stereotype and the passive femininity stereotype. The traits appreciated in men include confident behavior, activity, assertiveness, while in women – modesty and passivity. Seductive behavior in men is commonly accepted (they are supposed to be responsible for initiating romantic relations), while in women the same behavior is more often met with a lack of social approval.

The study results also confirmed the hypothesis that the attitude toward adonization correlates with psychological masculinity both in men and in women. Such result may also be explained by the fact that the attitude of adonization is related to agency, to the effective realization of one's own goals, and agency is the core of the masculine stereotype (Bacan, 1966; Abele, 2003). The study showed that undifferentiated individuals reveal a significantly less positive attitude toward adonization than masculine and androgynous individuals. This result is very similar to the result of the studies on adonization as a self-presentation strategy in work, where it also turned out that psychological masculinity is a predictor of employing adonization, while undifferentiated identity is the predictor of a low tendency to employ it (Mandal, 2000, 2003). This result is explained by the fact that undifferentiated individuals are characterized by a low intensity of psychological masculinity and femininity as well as by a low readiness to activate gender patterns in social interactions.

The study confirmed the hypothesis that attitude toward adonization correlates with narcissism, with all of its components. This may be explained by the fact that both adonization as well as narcissism are linked through strong beliefs about the important role of attractiveness in social interactions. Narcissism and adonization also contain similar components: narcissism – inclination toward leadership; adonization – behavioral component, connected with the aspiration to control and exert social influence. Components of narcissism: leadership and self-sufficiency are also connected with activity and agency – traits of the masculinity stereotype. The study also confirmed the hypotheses put forward, namely that attitude toward adonization is related to Machiavellianism and high self-monitoring in women as well as in men. Like adonization, these traits are related to the aspiration to control and exert influence. These links are stronger among men than among women, which is a consequence of the stereotypes of masculinity focused around activity, agency, control of behavior, with active masculine roles in relations between women and men.

## Study 2: Personality, self-esteem and attitude toward adonization

The purpose of study 2 was to determine the relation between the attitude toward adonization and personality traits and self-esteem. It was assumed that extraversion and high self-esteem will be predictors of a positive attitude toward adonization.

### Participants

The study included 72 people: 36 women and 36 men aged 20–26. Participants were ascribed to groups randomly, using the snow ball method. In the tested group, the average age in the women's group equaled  $M=22.41$  ( $SD=2.5$ ). The average age in the men's group equaled  $M=22.71$  ( $SD=2.4$ ). The majority of the subjects (95.83%) (69 people) were single, while 4.17% (3 people) were married. The subjects included students of various faculties and people of various professions: economists, lawyers, marketers, clerks. The tests were of an individual nature; the subjects filled out questionnaires in random order.

### Measures

*NEO-Five Factor Inventory* (Costa & McCrae, 1992), in Polish adaptation by Zawadzki, Strelau, Szczepaniak, Śliwińska (1998). This is a broadly applied and well-known questionnaire used for diagnosing personality traits included in the Big Five 5-factor model. The questionnaire items consist of 60 self-descriptive statements. These items create 5 measuring scales: neuroticism, extraversion, openness to experience, agreeableness–antagonism and conscientiousness. The subject's task is to refer to each statement by marking, on a 5-point scale: from 1 – “I strongly disagree” to 5 – “I strongly agree”, the response closest to their beliefs. The reliability of the scale is satisfactory, internal coherence is lower for the Openness and Agreeableness scales than for the remaining ones.

*The Rosenberg Self Esteem Scale* (RSES, Rosenberg, 1965), in Polish adaptation by Dzwonkowska, Lachowicz–Tabaczek & Laguna (2008). The scale is a well-known, broadly applied tool which enables the evaluation of the general self-esteem level understood as conscious attitude (positive or negative) toward I. It consists of 10 statements. The subject's task is to specify, on a 4-level scale from 1 (not very true of me) to 4 (very true of me), the degree to which they agree with each of the statements. The reliability of the tool is high; Cronbach's  $\alpha$  factors for different age groups range between 0.81–0.83.

*Questionnaire for measuring the attitude toward adonization (Scale A)*, a tool created by Mandal & Winkler (2005), described above.

## Results

An analysis of correlations for the entire group showed statistically significant and high correlations of adonization components with the general result of adonization ( $r_s = \{ .85; .88 \}$ ;  $p < .01$ ), as well as inter-

**Table 3. Predictors of the attitude toward adonization. Model of regression for the adonization in groups of women and men. (Study 2)**

	Women (N = 36)				Men (N = 36)				Both (N = 72)			
	<i>sr</i> <sup>2</sup>	$\beta$	<i>t</i>	<i>p</i>	<i>sr</i> <sup>2</sup>	$\beta$	<i>t</i>	<i>p</i>	<i>sr</i> <sup>2</sup>	$\beta$	<i>t</i>	<i>p</i>
Neuroticism	.02	.15	.93	.36	.25	-.20	-1.20	.24	.001	-.01	-.11	.91
Extraversion	.17	.52	2.68	.01	.168	.47	3.10	.01	.22	.54	4.76	.001
Openness to experience	.007	.12	.56	.58	.28	.17	1.27	.21	.008	.09	.89	.37
Agreeableness	.114	-.48	-2.20	.04	.34	-.23	-1.40	.17	.122	-.41	-3.52	.001
Conscientiousness	.014	-.13	-.76	.45	.45	-.22	-1.60	.12	.022	-.16	-1.50	.14
Self-esteem	.009	.11	.63	.54	.15	.14	-.92	.37	.001	-.04	-.35	.73
Gender									.001	-.03	-.35	.73
Model statistics	F (6, 27) = 2,56, <i>p</i> < .04. adjusted R <sup>2</sup> = 22%				F (6, 29) = 4,71, <i>p</i> < .01. adjusted R <sup>2</sup> = 39%				F (7, 61) = 5,79, <i>p</i> < .001, adjusted R <sup>2</sup> = 33%			

correlations between adonization components ( $r_s = \{ .61; .66 \}$ ;  $p < .01$ ). Thus, in the analysis of regression only the general indicator of adonization was included as the explained variable. This decision was made also based on a relatively comparable layout of correlations for specific components of the analyzed attitude with variables proposed as independent. The regressive model for the group of all subjects, in which predictors included variables for indexing specific personality traits, self-esteem and gender, had good affinity indexes  $F(7,64)=4.80$ ;  $p < .01$ ; corrected  $R^2=27\%$ . After eliminating outliers, better affinity was obtained for the model (corrected  $R^2=33\%$ ). Extraversion ( $\beta=0.54$ ;  $p < .01$ ,  $sr^2 = .22$ ) and agreeableness ( $\beta= -0.41$ ;  $p < .01$ ,  $sr^2 = .122$ ) turned out to be the predictors of the attitude toward adonization (Table 4). Analogous models were also tested separately in the group of women and men. In the women's group, after eliminating all outliers, a model was obtained explaining 22% of the variance in the attitude toward adonization  $F(6,27)=2.56$ ;  $p = .04$ . Extraversion ( $\beta=0.52$ ;  $p < .01$ ,  $sr^2 = .17$ ) and agreeableness ( $\beta= -0.48$ ;  $p=0.04$ ,  $sr^2 = .114$ ) turned out to be significant predictors in the female group. In the male group, the postulated model explained 39% of the variance in the attitude toward adonization  $F(6,29)=4.71$ ;  $p < .01$ . Extraversion ( $\beta=0.47$ ;  $p < .01$ ,  $sr^2 = .168$ ) turned out to be a significant predictor for the attitude toward adonization in men (Table 3).

### Discussion

Study results showed that extraversion and agreeableness are two personality traits which enable the prediction of attitude toward adonization. Extraversion enhances the positive attitude toward adonization, while agreeableness weakens it. Among the tested women, extraversion was the predictor of a positive attitude toward adonization, while agreeableness was the predictor of a less

positive attitude. Among the tested men, only extraversion proved to be the predictor of a positive attitude toward adonization. Such results explain that extraversion is a personality trait related to features such as: activity, vigor, sociability, talkativeness, inclination to have fun, searching for stimulation, optimism (Costa & McCrae, 1992), having power (Keltner, Gruenfeld & Anderson, 2003). The study showed that these features constitute very good individual determinants for a positive attitude toward adonization. On the other hand, agreeableness comprises the following features: modesty, gentleness, trust, straightforwardness and inclination to lend a helping hand (Costa & McCrae, 1992). Such set of features is less favorable to a positive attitude toward adonization.

The study did not confirm the hypothesis that self-esteem is a predictor of adonization. This may be explained by the fact that beauty is highly valued in all societies and the strategic role of physical attractiveness in exerting influence is noticed by everyone (regardless of their self-esteem). However, the lack of any link between self-esteem and the attitude toward adonization may also be explained by the fact that the study involved the participation of young people whose attitude toward adonization may be different than the attitude of middle-aged and older people.

### Study 3: Age-related differences in the attitude toward adonization

The study analyzed the problem of age-related determinants for the attitude toward adonization. The purpose of this study was to compare the attitude toward adonization in the group of young adults and middle-aged people. In the study a hypothesis was put forward that young adults are characterized by a more positive attitude toward adonization than older people. It was suspected that the highest positive attitude toward adonization would be

a characteristic of younger men, while the less positive attitude toward adonization would be expressed by middle-aged women due to their lower chances of attracting men physically.

## Method

### Participants

Two groups of people were included in the study: young adults – people aged 18–30, and middle-aged people – over 40 years old. The subjects were selected using the snow ball method. Age was the selection criteria for groups. The study included a total of 179 people: 91 women and 88 men aged 18–63, ( $M=33.85$  years;  $SD=11.97$  years). The group of young adults included 91 people: 45 women and 46 men aged 18–30. The average age of women equaled  $M=22.6$  years ( $SD=2.29$  years); the average age of men equaled  $M=23.1$  years ( $SD=2.76$  years). Subjects included mainly pupils or students of various faculties of the University of Silesia and other higher education institutions of the Silesian province. The group of older people included 88 individuals: 46 women and 42 men aged 40–63. The average age of women equaled  $M=44.8$  years ( $SD=5.32$ ); the average age of men equaled  $M=45.7$  years ( $SD=5.49$  years). The middle-aged people worked in various professions – including teachers, clerks, lawyers, engineers, service providers and blue-collar workers.

### Measures

Tests were performed during individual meetings with the subjects; individuals were asked to provide their age in the personal data part. The study involved filling out a Questionnaire for measuring adonization by Mandal & Winkler (2005).

## Results

Among the participants in the two age groups, a statistically significant difference in the emotional component of the attitude toward adonization was noted. Younger participants aged 18–30 showed a stronger positive

attitude toward adonization in the emotional component ( $M=22.34$ ) than older participants aged over 40 years ( $M=19.85$ ),  $Z(177)=2.16$ ;  $p=.03$ ;  $d=.313$ . There were no statistically significant differences between those two groups in any other components (Table 4).

**Table 4. The attitude toward adonization and its components in two groups of participants – men and women - at the age of 18-30 years old and above the age of 40 years old (Study 3).**

	Younger (n=91)		Older (n=88)		Z (177)	p	d
	M	SD	M	SD			
Cognitive component	29.22	7.05	27.24	9.06	1.51	.13	.244
Affective component	22.34	6.73	19.85	9.01	2.16	.03	.313
Behavioral component	25.20	9.41	24.06	10.40	.86	.39	.115
Adonization – in general	76.74	20.25	71.26	26.35	1.50	.13	.233

In the comparison of young women and middle-aged women, there were statistically significant differences in the cognitive component of the attitude toward adonization: younger women  $M=30.18$  and older women  $M=26.41$ ,  $Z(89)=2.18$ ,  $p=.03$ ;  $d=.456$ ; and in the affective component: younger women  $M=21.09$  and older women  $M=17.80$ ,  $Z(89)=2.36$ ,  $p=.02$ ;  $d=.448$ . At the statistical trend level ( $p=.06$ ) there were also statistically significant differences in the attitude toward adonization in general between younger ( $M=75.27$ ) and older women ( $M=66.00$ ),  $Z(89)=1.90$ ;  $p<.06$ ,  $d=.403$  (see Table 5). In the comparison of young and middle-aged men, there were no statistically significant differences in the attitude toward adonization and its components (see Table 6).

The younger women demonstrated a similar attitude toward adonization as the younger men. The only difference at the statistical trend level was the difference in the affective component of adonization,  $t(89)=-1.77$ ,  $p=.08$ ;  $d=.37$ . The younger men ( $M=23.57$ ) showed a stronger intensification in this component than the younger

**Table 5. The attitude toward adonization and its components in groups of women at the age of 18-30 years old and above the age of 40 years old. (Study 3).**

Adonization	Younger women (N = 45)		Older women (N = 46)		Z (89)	p	d
	M	SD	M	SD			
Cognitive component	30.18	6.59	26.41	9.66	2.18	.03	.456
Affective component	21.09	6.33	17.80	8.23	2.36	.02	.448
Behavioral component	24.00	9.06	21.57	10.16	1.33	.18	.252
Adonization – in general	75.27	19.11	66.00	26.35	1.90	.06	.403

**Table 6. The attitude toward adonization and its components in groups of men at the age of 18-30 years old and above the age of 40 years old. (Study 3)**

Adonization	Younger men (N = 46)		Older men (N = 42)		Z (89)	p	d
	M	SD	M	SD			
Cognitive component	28.28	7.43	28.14	8.37	-.10	.92	.018
Affective component	23.57	6.96	22.10	9.39	.80	.42	.178
Behavioral component	26.37	9.70	26.79	10.08	.13	.89	-.042
Adonization – in general	78.17	21.42	77.02	25.41	.31	.76	.049

**Table 7. Two-way ANOVA for the attitude toward adonization.**

	F (1, 175)	p	$\eta_p^2$
<i>Cognitive component</i>			
Sex	.001	.98	.001
Age group	3.60	.06	.020
Sex* Age group	3.51	.06	.020
<i>Affective component</i>			
Sex	8.44	.004	.046
Age group	6.53	.011	.036
Sex* Age group	.70	.406	.004
<i>Behavioral component</i>			
Sex	6.87	.009	.038
Age group	.91	.343	.005
Sex* Age group	1.18	.280	.007
<i>Adonization – general indicator</i>			
Sex	4.11	.04	.023
Age group	3.53	.06	.020
Sex* Age group	1.85	.17	.010

Note.  $\eta_p^2$  - partial eta<sup>2</sup>

women ( $M=21.09$ ). The older women showed statistically significant lower results for adonization,  $t(89)=-1.99$ ,  $p=.05$ ;  $d=.41$ , and its affective  $t(89)=-2.28$ ,  $p=.02$ ;  $d=.49$ , and behavioral  $t(89)=-2.42$ ,  $p=.02$ ;  $d=.52$  components than the older men.

A two-way analysis of variance was conducted in order to verify the significance of the gender and age factor, and also its interaction term in predicting a level of attitude toward adonization as well as its components. ANOVAs were conducted separately for the general indicator of adonization and its components with a dichotomized age variable (Table 7).

In examining differences in adonization – general indicator – a statistically significant effect was noticed only for the gender factor,  $F(1,175)=4.11$ ,  $p=.04$ ; partial  $\eta^2=.023$ , while only a marginally significant effect was noticed for the age group factor,  $F(1,175)=3.53$ ,  $p=.06$ ; partial  $\eta^2=.02$ . The product term of age group and gender was not significant ( $p=.17$ ). The multiple comparison tests showed statistically significant differences between the groups of younger men ( $M=78.44$ ) and older women ( $M=64.91$ ) in terms of the attitude toward adonization (HSD Tukey's test with unequal sample sizes,  $p=.03$ ).

In the model for the cognitive component of adonization only marginally significant effects of age group,  $F(1,175)=3.60$ ,  $p=.06$ ; partial  $\eta^2=.02$ , and interaction of gender and age group,  $F(1,175)=3.51$ ,  $p=.06$ ; partial  $\eta^2=.02$ , appeared. In post-hoc analysis, significant differences between younger ( $M=30.52$ ) and older ( $M=25.98$ ) women were shown (HSD  $p=.036$ ).

The analysis of the affective component for attitude toward adonization revealed significant effects of gender –  $F(1,175)=8.44$ ,  $p=.005$ ; partial  $\eta^2=.046$  – and age group –  $F(1,175)=6.53$ ,  $p=.01$ ; partial  $\eta^2=.036$ . Significant

differences (HSD  $p<.001$ ) again appeared between younger men ( $M=23.77$ ) and older women ( $M=17.44$ ), as well as between older men ( $M=21.77$ ) and older women (HSD  $p=.05$ ). A marginally significant difference between younger women ( $M=21.37$ ) and older women ( $p=.07$ ) was also noticed.

In the two-way ANOVA for the behavioral component, only the gender effect was significant –  $F(1,175)=6.87$ ,  $p=.009$ ; partial  $\eta^2=.038$ . The post-hoc analysis, using HSD, revealed marginally significant differences between younger men ( $M=26.48$ ) and older women ( $M=21.27$ ;  $p=.05$ ), and between older men ( $M=26.67$ ) and older woman ( $p=.06$ ). (see Table 8 - page 89).

**Table 8. Means and post-hoc analysis of two-way ANOVA for the attitude toward adonization**

	Women		Men	
	Younger	Older	Younger	Older
Cognitive component	30.52c	25.98d	28.23	28.20
Affective component	21.37b	17.44a,c	23.77d	21.76b
Behavioral component	24.24	21.27a	26.48b	26.66b
Adonization – in general	76.13	64.91c	78.44d	76.65

Note. Means that have the different letter in rows differ significantly at level: a-b ( $p<.10$ ); c-d ( $p<.05$ )

## Discussion

The study results showed a more positive attitude toward adonization in terms of the emotional component in young adults than in middle-aged people. Comparisons of women from two different age groups revealed that young women have a more positive attitude toward adonization than middle-aged women, especially with regard to the cognitive and emotional component. Meanwhile, a comparison of men from two age groups did not show any statistically significant differences. Thus, in men the positive attitude toward adonization is more stable than in women – it does not change with age as is the case with women.

The weakening of the positive attitude toward adonization in middle-aged women and the stability of that attitude in middle-aged men may result from the fact that there are differences in perceiving the attractiveness of women and men related to age. Middle-aged women are perceived as less attractive than young women, while middle-aged men are still perceived as attractive; with age, as they enter the middle-age period, their social assessment does not degrade as is the case with female attractiveness.

## General Discussion

The presented cycle of 3 studies pertained to individual determinants of the positive attitude toward adonization as the technique of social influence which uses a resource valued highly in society, i.e. physical attractiveness. The results confirmed the correctness of the proprietary model of determinants and motivational mechanisms of adonization. Study results point to the important role of several basic mechanisms which may explain attitudes toward adonization. One of the more important motivational mechanisms is the motive of agency. Study 1 confirmed the hypothesis that a series of individual traits related to agency serves as correlates of the positive attitude toward adonization in women and men. These traits include psychological masculinity, Machiavellianism, narcissism, high self-monitoring and extraversion. On the other hand, the predictor which weakens the positive attitude toward adonization is agreeableness (this dependency occurred only in the female group). This trait is related to the motive of community which is in opposition to the motive of agency.

The conducted studies also showed that correlations between individual traits and attitudes toward adonization are stronger in men than in women. This is confirmed by the link between the attitude toward adonization and the traits belonging to the stereotype of masculinity. Thus, an explanation might be provided by the mechanism of gender stereotype consequences. The masculinity stereotype revolves around agency, while the stereotype of femininity – around community. Agency and community are two basic dimensions of “human existence” (Bacan, 1966). Agency is the core of the masculine stereotype, linked with the aspiration to realize individual goals, self-confidence, aiming at control, independence and domination, and thus linked with exerting influence and with active roles in female-male

relations. On the other hand, community involves care for others, affiliation and cooperation. Numerous studies show that agency correlates with psychological masculinity, while community – with psychological femininity (comp. Wojciszke, 2011).

The obtained results induce further searches for determinants of the attitude toward adonization; it may be noticed that correlates determined in the tests may turn out to be linked with other individual traits, e.g. self-monitoring and Machiavellianism may be related to self-esteem, aiming at dominance and to moral assessments. Agreeableness may be linked with e.g. social anxiety and timidity, while timidity may turn out to be linked with neuroticism and social skills, etc. Learning about these relations would require conducting further studies.

In the analysis of results it may be puzzling to find that no relation between self-esteem and the attitude toward adonization was presented in the studies. This may stand from the fact that the study employs a questionnaire (SES, Rosenberg, 1965) which is a one-dimensional scale for measuring global self-esteem. It may be assumed that what is significant for the attitude toward adonization is not global self-esteem as such but those aspects of it which pertain to the evaluation of physical attractiveness or the assessment of interpersonal competences pertaining to contacts with the opposite sex. Verification of such assumptions would require conducting further tests.

The presented studies showed that the attitude toward adonization is related to age. A positive attitude toward adonization was demonstrated by young women as well as young and middle-aged men. On the other hand, middle-aged women declared a less positive attitude toward adonization in the aspect of the cognitive and affective component. Earlier studies (Mandal, 2003) showed that young age is a predictor of the tendency to employ adonization as a strategy of self-presentation in professional work. An explanation for the various attitudes toward adonization in young and older women may also be provided by the mechanism related to moral norms, modesty, and even to prudery, according to which it is inappropriate for middle-aged women (but not men) to use adonization. Gender differences related to age may also be explained by the fact that middle-aged women are socially viewed as less attractive than young women, while the attractiveness of middle-aged men is high or higher than the attractiveness of young men (Buss, 1989, 2005).

Age is also linked with the experience of the subject with regard to the effectiveness of employing adonization. The rate of success and failure in previous social interactions which employed adonization for the purpose of realizing one’s own interests may strengthen or weaken the feeling of self-efficacy and consequently the attitude toward adonization. Among the determinants of adonization in the context of the subject’s experience in contacts with the opposite sex one may also point to the prejudice mechanism which is related to a retaliatory manipulation of the other sex. This would involve using someone’s “weak point”, i.e. submission when confronted with female or male beauty. To sum up, the results obtained

in the presented studies induce further exploration of the complexity of adonization as a tactics of social influence.

## References

- Abele, A. E., (2003). The dynamics of masculine-agentic and feminine-communal traits: Findings from a prospective study. *Journal of Personality and Social Psychology*, 85, 768-776.
- Abele, A. E., Wojciszke, (2007). Agency and communion from perspective of self versus others. *Journal of Personality and Social Psychology*, 55, 387-396.
- Bakan, D., (1966): *The duality of human existence*. Chicago
- Bazińska, R. & Drat-Ruszczak, K. (2000). Struktura narcyzmu w polskiej adaptacji kwestionariusza NPI Ruskina i Halla. *Czasopismo Psychologiczne*, 6, 3-4, 171-188. [Structure of Narcissism in the Polish Adaptation of the Narcissistic Personality Inventory. *Psychological Journal*, 6, 3-4, 171-188.]
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 2, 155-162.
- Blascovich, J., & Tomaka, J. (1991). Measure of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes, Vol. 1* (pp. 115–160). San Diego, CA: Academic Press.
- Boski, P., Van de Vijver, F. J. R., Hurme, H., Miluska, J. (1999). Perception and evaluation of Polish cultural femininity in Poland, the United States, Finland, and the Netherlands. *Cross-Cultural Research*, 33 (2), 131-161.
- Buss, D. M. (1994). *The Evolution of Desire. Strategies of Human Mating. Revised Edition*. Washington: Basic Books.
- Buss, D. M. (2005). *The Handbook of Evolutionary Psychology*. New Jersey: John Wiley & Sons.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypothesis tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1-14.
- Buss, D.M., Gomes, M., Higgins, D. S., Lauterbach, K. (1987). Tactics of manipulation. *Journal of Personality and Social Psychology*, 52 (6), 1219-1229.
- Christie, R., & Geis F.L. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Costa, P.T.Jr., McCrae, R.R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI)*. Professional Manual. Odessa, FL: Psychological Assessment Resources.
- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24, 285-290.
- Dzwonkowska, I., Lachowicz-Tabaczek, K., & Łaguna, M. (2008). *Samoocena i jej pomiar. SES. Polska adaptacja skali SES Rosenberga*. [Self-esteem and their measure. SES. Polish adaptation The Rosenberg Self Esteem Scale]. Warsaw: PTP.
- Etcoff, N. (1999). *Survival of the Prettiest. The Science of Beauty*. New York: Anchor Books. A Division of Random House, Inc.
- Hatfield, E. & Sprecher, S. (1986). *Mirror, mirror. The importance of looks in everyday life*. Stated University of New York Press, Albany.
- Havighurst, R.J. (1948). *Developmental tasks and education*. New York: McKay.
- Keltner, Gruenfeld & Anderson, 2003. Power, approach, and inhibition. *Psychological Review*, 110, 2, 265-284.
- Kohut, H., Wolf, S. E. (1978). The disorders of the self and their treatment: An outline. *International Journal of Psychoanalysis*, 59, 413-426.
- Kuczyńska, A. (1992). *Inwentarz do oceny płci psychologicznej*. [Inventory of Psychological Gender]. Warsaw: PTP.
- Leary, M. R., Nezzlek, J. B., Downs D., Radford-Davenport, J., Martin, J., & McMullen, A. (1994). Self-presentation in everyday interactions: Effects of target familiarity and gender composition. *Journal of Personality and Social Psychology*, 64, 664-673.
- Mandal, E. (2000). *Podmiotowe i interpersonalne konsekwencje stereotypów związanych z płcią*. [The Subjective and Interpersonal Consequences of Gender Stereotypes]. Katowice: University of Silesia Press.
- Mandal, E. (2003). Social influence strategies of Polish and Macedonian men and women in the workplace - The effects of profit and loss situations, gender, and culture. *Polish Psychological Bulletin*, 34, 1, 37-45.
- Mandal, E. (2008). *Miłość, władza i manipulacja w bliskich związkach* [Love, Power, and Manipulation in Close Relations]. Warsaw: PWN.
- Mandal, E. (2011). *Bezradni wobec piękna – o manipulacjach wykorzystujących atrakcyjność fizyczną*. Wykład plenarny na konferencji: Wokół wpływu społecznego. [Helpless in the face of beauty – on manipulations employing physical attractiveness. Plenary lecture at the conference: Concerning social influence (Wokół wpływu społecznego). May 7-8, 2011, Kraków.
- Mandal, E. & Winkler, M. (2005). *Kwestionariusz do pomiaru postawy wobec adonizacji. Skala A*. [Questionnaire for measuring the attitude toward adonization - Scale A]. Katowice: Institute of Psychology, University of Silesia.
- McCrae, R. R. & Costa, P. T. (2005). *Osobowość dorosłego człowieka. Perspektywa teorii pięcioczynnikowej*. [Personality in Adulthood. A Five-Factor theory perspective]. Cracow: WAM.
- Paulhus, D., & Williams, K. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563.
- Plato, Phaedrus, section 246 E. *Piękno, Dobro, Prawda* [Beauty, Good, True]
- Pospizyl, K. (1985). *Psychopatia*. [Psychopathy] Warsaw: PWN.
- Raskin, R. & Hall, C. S. (1979). The Narcissistic Personality Inventory. *Psychological Reports*, 45, 159-162.
- Raskin, R., & Novacek, J. R. (1991). Narcissistic self-esteem, and defensive self-enhancement. *Journal of Personality and Social Psychology*, 59, 20–38.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Shanahan, M.J. (2000). Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. *Annual Review of Sociology*, 26(1), 667–692.
- Snyder, M. (1974). The self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30, 526-537.
- Winkler, M. (2006). *Psychologiczna analiza strategicznej kokieterii – uwarunkowania adonizacji*. [Psychological analysis of strategic coquetry - conditions of adonization]. Unpublished master's thesis. Katowice: Institute of Psychology, University of Silesia.
- Wojciszke, B. (1984). Skala Pragmatyzmu – treść i charakterystyka psychometryczna. *Przegląd Psychologiczny*, 27, 3, 725-743. [Pragmatism Scale – the Content and Psychometric Properties. *Review of Psychology*, 27(3), 725-743.]
- Wojciszke, B. (2010). *Sprawczość i wspólnotowość. Podstawowe wymiary spostrzegania społecznego*. [Agency and communinity. Basic dimensions of social perception]. Gdańsk: GWP.
- Wojciszke, B. (2011). *Psychologia społeczna*. [Social psychology]. Warszawa: Wydawnictwo Naukowe SCHOLAR.
- Zawadzki B., Strelau J., Szczepaniak P., & Śliwińska M. (1998). *Inwentarz Osobowości NEO-FFI Costy i McCrae*. [ Polish adaptation of Costa & McCrae NEO-FFI]. Warsaw: PTP.