

INFLUENCE OF THE SEX AND AGE ON PEOPLE'S ATTITUDE TOWARD HAZARDS

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Abstract: *The article is devoted to the problem of the influence of sex and age on the attitude of people towards dangers. Its relevance is due to the importance of identifying individual-typical features of people's response in threat situations. The goal of the empirical study was to identify the psychological characteristics of people's attitudes toward dangers, depending on age and sex. As methods of research, author's questionnaires were presented: a questionnaire of sensitivity to threats and a questionnaire on the identification of types of response in situations of danger. As a result, it was found that with age sensitivity to threats decreases for men and increases for women, the percentage of people capable of either responding adequately or exaggerating the significance of hazards increases, and the percentage of people prone to ignoring threats decreases.*

Keywords: Attitude towards danger, sensitivity to threats, youth, adults, men, women.

By now, science is exploring a variety of specific security problems. It is the problem of the influence of various factors on a person identified as dangerous; the problem of man as a source of danger for other people and for himself; the problem of the environment as a source of danger for people; the problem of protection, which people use to ensure their security; the actual problem of ensuring the safety of people in various spheres of life and activity. None of these problems can be successfully solved without taking into account the fact of the person's attitude to hazards, how he identifies a certain potential threat as a danger, how adequately he is able to react to it.

In psychological science, there are various ways of solving it. Thus, within the framework of humanistic psychoanalysis, the contradiction

between the need for security and other human aspirations¹ or between the need for security and the human desire for freedom² is presented as the leading contradiction. Researcher K. Horney³ has shown that emotions are the specific mechanism that signals a person about a threat. In her opinion, fear is a reaction proportional to the present danger, and anxiety is a reaction to a possible danger. M. A. Kotik⁴ made an attempt to reveal the relationship between the consideration of an event as threatening, its significance for the individual and the probability of occurrence. It was established that there are two tendencies of reaction when encountering danger that are common to people: the desire to avoid dangers and move towards dangers.⁵ The reaction of avoidance is conditioned by innate protective, individually acquired and value-driven mechanisms. The reaction of movement toward danger can also be determined by innate orienting reactions, "thirst for thrills" and value-driven desire for danger. In the other direction, the emphasis is being made on describing the strategies of self-security, using which a person reacts to the danger. Thus, M. T. Krasnyanskaya⁶ identifies and describes six such strategies: avoidance strategy, conservative strategy, copying strategy, absorbing strategy, communicative resonance strategy and development strategy. In the third direction, an attempt is made to describe the typical ways people respond to a threat. The initial impulse to this direction within the framework of clinical psychology was posed by A. R. Luriya.⁷ He introduced the concept of "internal picture of the disease" to the scientific usage. In subsequent studies, various types of people's attitudes toward diseases were singled out and described.⁸ So, based on the analysis of the available literature, one can conclude that the person's attitude to danger consists of two components: sensitivity to threats and the choice of certain ways of responding to it. Thus, under the attitude to danger we will understand the ability of the individual to

¹ K. Horney, *Our internal conflicts. Constructive theory of neuroses*, Moscow, Academic Project, 2007.

² E. Fromm, *The Escape from freedom*, Moscow, Progress, 1990.

³ K. Horney, *The neurotic person of our time. Introspection*, Moscow, Progress, 1993.

⁴ M. A. Kotik, "A new method for the experimental evaluation of the attitude of people to the events that worry them", in *Questions of Psychology*, 1, (1994), pp. 97-104.

⁵ V. A. Petrovsky, *Personality in psychology*, Rostov-on-Don, Fenix, 1996.

⁶ T. M. Krasnyanskaya, "Strategies for organizing psychological self-sufficiency of the subject's safety in an extreme situation", in *News of South Federal University. Engineering science*, 5 (49), (2005), pp. 207-213.

⁷ A. R. Luriya, *Internal picture of the disease and iatrogenic diseases*, Moscow, Medicine, 1977.

⁸ V. V. Nikolaeva, *The effect of chronic illness on the psyche*, Moscow, Moscow State University, 1987.

detect danger signals in a timely manner (sensitivity to threats) and to choose adequate or inadequate ways of responding to it (behavioral component). The combination of the level of severity of sensitivity to the dangers and the choice of the preferential way of responding to them determines the type of attitude of a person to dangers. In total, theoretically, eight types of attitudes to dangers can be distinguished:

- Adequate-sensitive type;
- Adequate with reduced sensitivity type;
- Worrying-sensitive type;
- Worrying with reduced sensitivity type;
- Ignoring-sensitive type;
- Ignoring with reduced sensitivity type;
- Uncertain-sensitive type;
- Undefined with reduced sensitivity type.

Materials and methods

In order to identify the types of people's attitudes toward hazards, we developed special questionnaires: a questionnaire of sensitivity to threats and a questionnaire on identifying types of response in situations of danger. Variants for high school students, students and adults were prepared.⁹

Sensitivity to threats Questionnaire. It consists of 12 questions-tasks that simulate real typical situations. Each task of the questionnaire includes the formulation of some statement and four variants of answer. The respondent should choose only one of them, which is the most consistent with his opinion. The tasks are focused on identifying the abilities to detect possible threats, as well as the abilities to control the situation. Some of them are aimed at diagnosing the level of sensitivity to health and life threats, others – to threats to psychological well-being. For example: "My strength is the ability to keep any situation under control." Variants of answer: a) "Yes, this is so"; b) "I can present this ability only in some cases"; c) "I believe that being constantly on the lookout is inconsistent with me and there's no need for it"; d) "Haven't

⁹ V. G. Maralov, E. Yu. Malysheva, O. V. Nifontova, E. L. Perchenko, I. A. Tabunov, "Development of a test-questionnaire of sensitivity to threats in adolescence", in *Perspectives of Science*, 8, (2012), pp. 32-37; V. G. Maralov, E. Yu. Malysheva, O. V. Smirnova, E. L. Perchenko, I. A. Tabunov, "Development of a questionnaire test to identify ways of responding in situations of danger in adolescence", in *Almanac of modern science and education*, 12-1 (67), (2012), pp. 92-96.

thought about it." In this case, for the choice of option "a" two points are given. Option "b" is estimated at one point. For variants of answers "c" and "d" 0 points is given. The received points for all questions are summarized. As a result, we get the final score, which characterizes the level of individual sensitivity to the dangers.

Questionnaire on the identification of types of response in situations of danger. It consists of 17 question-statements modeling human behavior in real standard situations, which can be a threat. For each question, four variants of answers are proposed, corresponding to the four types of personality behavior: an adequate, exaggerating danger, ignoring them, uncertain. For example, the situation is set: "Getting down to some unfamiliar and potentially dangerous business, I: a) I dare to undertake it without any special precautions; b) I will think through the whole work process and get acquainted with the safety precautions beforehand; c) I will renounce it, referring to the fact that I do not know how to do it; d) Haven't thought about it. In this example, an adequate response is represented by option "b", exaggerating danger-option "c", ignoring danger-"a", uncertain-"d".

A total of 438 people took part in the study, of them men-206, women-232. High school students aged 15 to 16 (average age-15.4) were 210 people, of them boys-95, girls-115. Adults aged 30 to 50 (average age-38 years) were 228 people, of them 111-men, and 117-women. Sample was randomly selected. The survey was conducted either in group form (where possible), or in individual form. Each respondent was given texts of questionnaires and individual forms for filling. For each type of response a total score was calculated, after which the "raw" points, as in the previous case, were converted to then scaled points. For a high level, scaled points from 7 to 10 were taken. Data processing was carried out using the φ^* criterion-Fisher's angular transformation.

Results and Discussion

We were interested in the question of how certain indicators of the attitude of people toward dangers are related to sex and age: sensitivity to threats, the choice of adequate or inadequate ways of responding in threats situations (exaggeration or ignoring the danger) (Table 1).

Table 1: Peculiarities of individual indicators of people's attitudes toward dangers, depending on age and sex

Indicators of attitude toward the dangers	Contingent of respondents	High school students (15-16 years)	Adults (30-50 years)
Sensitivity to dangers	In total	72/34*	77/34

	Men	38/41	30/27
	Women	34/30	47/41
Choice of adequate ways of response	In total	50/24	101/44
	Men	20/21	66/58
	Women	30/26	35/30
Exaggeration of dangers	In total	28/13	54/23
	Men	11/11	10/9
	Women	17/15	44/38
Ignoring of the danger	In total	64/31	26/12
	Men	40/42	14/13
	Women	24/21	12/10
Lack of expressed ways of response to the dangers	In total	68/32	47/21
	Men	24/26	21/19
	Women	44/38	26/22
	Total of respondents:	210	228
	Men:	95	111
	Women:	115	117

*** Note: the first digit indicates the number of respondents, the second-the percentage.**

As can be clearly seen from Table 1, sensitivity to threats as a whole does not undergo significant changes from age and sex, and is approximately 34% of the respondents in each sample. However, when we begin to analyze the level of its expression depending on sex, we get two different tendencies. For men, it significantly decreases from 41% for schoolchildren to 27% for adults ($\varphi^* = 2.12$, $p = 0.034$), while for women it increases from 30% among high school students to 41% among adult women ($\varphi^* = 1.76$, $p = 0.079$). Thus, our hypothesis was confirmed only partially. Sensitivity to dangers increases only for women and decreases for men. Regarding the choice of adequate methods of response in situations of danger, the hypothesis is in the main confirmed. For adults, it increases about twice, compared with schoolchildren (from 24% to 44%). However, this trend is most evident for men. If for young men the choice of adequate response methods is common for 21% of respondents, for adult men this percentage increases to 58% ($\varphi^* = 5.84$, $p = 0.001$). For girls and adult women, the differences are not so significant (26% and 30%).

As can be seen from the Table 1, with age, there is also a tendency to exaggerate the dangers, which also does not fully agree with the original assumption, but this mainly applies to women. If at the senior school age only 15% of girls tend to exaggerate threats, then for adult women it is already 38% ($\varphi^* = 4.05$, $p = 0.001$). Among men, this percentage is unchanged and averages 10%. A significant tendency to decrease the number of respondents prone to ignoring dangers (from 31% to 12%) was identified. And it is typical for both men and women. If at the senior school age, 42% of young men are inclined to ignore

dangers, then for men it is only 13% ($\varphi^* = 5.04$, $p = 0.001$). Women are initially less inclined to ignore. For girls its 21%, for adult women - 10% ($\varphi^* = 2.34$, $p = 0.019$). Here, in all categories of respondents, there is a tendency of decrease of uncertain ways of response (from 32% to 21%), depending on the age. It is the most evident among women. If 38% of girls do not know how to respond in particular situations, then among adult women 22% of such remains ($\varphi^* = 2.68$, $p = 0.007$).

Having briefly analyzed the features of individual indices of the attitude of people to dangers, depending on sex and age, let us turn to a characterization of the types of attitude to hazards (Table 2).

Table 2: Types of people's attitudes to dangers

Types of attitudes to dangers	Contingent of respondents	High school students (15-16 years)	Adults (30-50 years)
Adequate – sensitive	In total	28/13*	41/18
	Men	13/14	26/23
	Women	15/13	15/13
Adequate with reduced sensitivity	In total	22/11	60/26
	Men	7/7	40/35
	Women	15/13	20/17
Worrying - sensitive	In total	7/3	17/7
	Men	4/4	0/0
	Women	3/3	17/15
Worrying with reduced sensitivity	In total	21/10	37/16
	Men	7/7	10/9
	Women	14/12	27/23
Ignoring – sensitive type	In total	12/6	6/3
	Men	11/12	0/0
	Women	1/1	6/5
Ignoring with reduced sensitivity	Data in total	52/25	20/9
	Men	29/30	14/13
	Women	23/20	6/5
Uncertain – sensitive	Data in total	25/12	13/6
	Men	10/11	4/4
	Women	15/13	9/8
Uncertain with reduced sensitivity	Data in total	43/20	34/15
	Men	14/15	17/15
	Women	29/25	17/14
	Total of respondents:	210	228
	Men:	95	111
	Women:	115	117

*** Note: the first digit indicates the number of respondents, the second-the percentage.**

As we can see, an adequate - sensitive type, which we consider optimal from the position of ensuring security, in spite of expectations,

increases insignificantly, from 13% among high school students to 18% among adults. Moreover, this dynamics is manifested only in the male sample, from 14% to 23% ($\varphi^* = 1.75$, $p = 0.081$). A somewhat larger dynamic is found in the adequate type with a reduced sensitivity (from 11% to 26%). It is noteworthy that such dynamics are again found more in the male sample. For young men it is 7%, for adult men - 35% ($\varphi^* = 5.38$, $p = 0.001$).

Worrying - sensitive type is insignificantly represented both in the sample of high school students and in the sample of adults (3% and 7%). At the same time, it discovers significant changes among women. If girls only in 3% of cases show a worrying-sensitive reaction, then adult women - in 15% ($\varphi^* = 3.40$, $p = 0.001$). Analogous conclusions can also be made about the worrying with a reduced sensitivity type. It increases from 10% among schoolchildren to 16% among adults. Moreover, among both young men and adult men it is represented insignificantly (7% and 9%). As for women, they have a significant increase of this type from 12% among girls to 23% among women ($\varphi^* = 2.23$, $p = 0.026$).

Ignoring - sensitive type is much less common than other types (6% and 3%). It is most vividly represented in the sample of young male students (12%), and does not occur among adult men at all (0%), in 5% of cases it appears among adult women. As for the ignoring with reduced sensitivity type, it is widely represented in adolescence and significantly reduced among adults, from 25% to 9% ($\varphi^* = 4.6$, $p = 0.001$). First of all, it is necessary here to pay attention to a sample of young male high school students. A third (30%) of them belongs to this type. Among girls, this percentage is also quite high (20%). With age, this type among adult men is reduced to 13% ($\varphi^* = 3.16$, $p = 0.002$), and among women - to 5% ($\varphi^* = 2.93$, $p = 0.003$).

Thus, the hypotheses we initially proposed were confirmed only partially. The real picture turned out to be somewhat more complicated than we had expected, when we began to organize the research. Sensitivity to threats has revealed a reverse trend among men and women. If for men it decreases with age, then for women it increases. The ability to respond adequately also increases, but contrary to expectations, the desire for exaggeration of dangers also increases among women. The assumption concerning decrease with age of the percent of the people ignoring threats has completely been confirmed.

In general, we should note a decrease in the uncertainty of reactions to the threat, especially among women, towards the formation of certain types of response in situations of danger. Among adults, uncertainty becomes a peculiar style of responding to danger, and

manifests itself in the selective response: in some situations, the person reacts adequately, in others-exaggerates the significance of the danger, in the third situations-understates the level of danger. In the age aspect, there is a general tendency to increase the level of adequacy of the response, as well as to exaggerate them, and to reduce the desire to ignore the dangers that can be combined with the level of sensitivity in different ways. This trend has its own specifics among men and women.

Among young men the desire to ignore threats dominates (12%-ignoring-sensitive type, 30%-ignoring with a reduced sensitivity type). Gradually, with age, the attitude toward dangers undergoes a change in the direction of increasing adequacy. As was shown, 58% of men are able to adequately respond to threats. And an adequate type with a reduced sensitivity (35%) begins to occupy the dominant position. The general tendency to reduce sensitivity among men, we explain by the fact that men faster than women, adapt to the dangers that are not of an emergency nature. At the same time, 13% of adult males maintain the desire to ignore the threats that are common for adolescence.

A somewhat different picture is found in the analysis of the female sample. 26% of girls form the ability to respond adequately (sensitive and not sensitive). 38% have an uncertain reaction. 20%, as well as young men, ignore dangers, and 12% are inclined to exaggerate them. With age, the situation is changing. The accent begins to shift toward exaggeration of dangers. If adequate-sensitive and adequate with reduced sensitivity types make up 13% and 17% respectively, then the worrying type is found in 38% of respondents (15% - worrying sensitive type, 23% - worrying with reduced sensitivity type). This can be explained by the peculiarities of the psychology of women, who, as known, are more sensitive and emotional, susceptible to changes in the situation. Therefore, it is not surprising that they are often inclined to exaggerate the dangers.

On the basis of all that has been said, it can be concluded that a person develops his own individual type of attitude towards dangers during his life on the basis of sensitivity to dangers and the choice of adequate or inadequate (exaggeration or understatement of the significance of hazards) of ways of responding in threat situations. Our study showed that there are different types of attitude of a person to dangers. We consider to be optimal, the type where sensitivity to hazards is combined with the choice of adequate, that is, socially developed and approved ways of responding in situations of real or potential threat. Non-optimal are types where exaggeration or the ignoring of dangers prevails.

It has been established that with age sensitivity to threats is decreased among men, and increased among women, the percentage of people capable of either responding adequately or exaggerating the significance of dangers increases, and the percentage of people prone to ignoring threats decreases.

It was found that in adolescence, the types associated either with uncertain responses to the threat, or with ignoring the dangers are more common. The phenomenon of ignoring is more typical for young men. Among adults, the types associated with increase of the adequacy of response to dangers begin to dominate, and women tend to become more likely to exaggerate.