

# DYNAMICS OF THE DEVELOPMENT OF 'RISK' NOTION IN THE PSYCHOLOGICAL SCIENCE AND ITS INTERDISCIPLINARY DISCOURSE

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## ABSTRACT

After studying the theoretical sources related to the topic the author of research comes to the conclusion that the notion of risk as a systematic phenomenon was not paid sufficient attention in existing scientific literature. Problem: An insufficient state of knowledge of the phenomenon of risk in Latvian psychological science, taking into consideration its multifacetedness, which is confirmed by the researches both in Psychology and in other sciences. The researchers of risk hitherto have not come to agreement of opinion even in the sphere of the definition of the risk notion itself, which requires the theoretical cooperative analysis of existing concepts. The author pays particular attention to the factor of social instability in Latvia and in the world, which is the determinant for risk both in social environment and in behaviour of an individual. Aim: operationalization and systematization of the 'risk' notion, its theories and concepts, as well as of the notions related or interdisciplinary connected to 'risk' notion. Tasks: implementing the comparative theoretical study of the existing concepts of risk, tracing the dynamics of the 'risk' notion formation in Psychology, carrying out the analysis of the risk study results in the fields of scientific knowledge that are related or interdisciplinary connected to Psychology. Method: theoretical comparative analysis. Output: Both classical and modern researches on risk and correlating phenomena under the situation of social instability were analysed and systematized. Summary: Risk has a multifaceted and multi-determinant nature, which stipulates its study by many sciences and makes it possible to talk of its interdisciplinary discourse. In Psychology it has rather rich research tradition, which is represented both by classical and modern researches. The researchers of risk have not come to agreement on the definition of risk, and there are divergences in its interpretation. Scientists agree, that risk has a number of features (uncertainty, alternativity, situation of evaluation, etc.), as well as is determined by many factors (age, gender, social status, personal attitude etc.). It was that discovered that insufficient attention has been paid to the study of this phenomenon in Latvia. Risk has been studied in Social psychology, but the existing view on risk in that sphere seems to author to be not complete, pixelated, taking into consideration the systematization law within the interaction of the elements of social medium.

## JEL CLASSIFICATION & KEYWORDS

■ H25 ■ M89 ■ I01 ■ Risk notion ■ Psychology

## INTRODUCTION

Having studied the theoretical sources related to the topic the author of the research has come to the conclusion that in existing scientific literature no sufficient attention has been paid to the notion of risk as a systematic phenomenon. The author considers it reasonable to trace the dynamics of this notion formation from classical theories to modern researches.

In western Psychology risk was studied by D. McClelland (1971), F. Burkard, (1987), R. Schubert, (1997), T. Ehlers (1967), M. Zuckerman (1994), A. Mehrabian (1969), J. Stoner (1961), J. Atkinson (1964). Works of these scientists became the foundation for later researches of D. Kahneman and A. Tversky (2000), as well as G. Breakwell, (2007). In Russian psychological tradition originators of risk study were V. Pertovsky and V. Lefevr (1968) whose works alongside with studies of western colleagues became a base for scientific research of T. Kornilova (2003).

Nevertheless, in the author's opinion, the notion of risk, with its multifacetedness confirmed by researches both in Psychology and other sciences, was neglected in Latvian psychological science. Taking into consideration a global economical crisis and its pernicious influence on the Baltic region on the whole and Latvia in particular, the author considers especially perturbing the lack of interest to the researches in this field. World economical processes along with political and economical processes in Latvia determine the social instability in the country. This instability influences the social environment in Latvia and the life of ethnos living in the country. Problems of social stratification, ethnic segregation, unemployment, absence of demand of many professions increase significantly. All the above mentioned provokes worsening of demographic indices and criminal situation, which, in turn, causes risky behaviour of an individual, choice of their coping strategy and readiness for risk. The author sees the reason for lack of scientific interest towards so topical problem in economic and political tendencies, which determine insufficient financing of the scientific researches and support for science on the part of the state.

Representatives of different scientific disciplines study specific character of risk in various spheres of a society. Taking into consideration the fact that a social medium is determined by the law of systematization, when the development of some spheres depends on the influence of the others, the conclusion can be drawn that the cumulative result of numerous researches, performed by different sciences do not give the comprehensive view of social risk. It seems to the author to be scattered, not giving the opportunity of reconstructing social mechanism of risk, but exposes only its separate sides, details and elements.

From the point of view of theoretical importance this research can promote orderliness of comprehension of the existing concepts of risk, deepen understanding of the risk phenomenon in the interdisciplinary discourse and give a foundation both for further practical researches and for scientific discussion on the problem.

Nowadays the urgency of issue of risk and its significance in certain spheres of human activity are of paramount importance. The environment that is constantly surrounding a person, its complex and contradictory structure, dynamism and variance generate the phenomenon of risk. The growth of the volume of knowledge and information, growth of special, natural and technical schooling of people and, as

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the result, post-industrialization of a society are closely related to growth of risky situations, appearance of risk of different forms and kinds. Social production is always connected to production of risks. Social problems and conflicts, resulting from this production, arise and worsen, creating situations where risk is inevitable. Objectivation and socialization of risk mark the situation, where choice of risk becomes necessary and sometimes inevitable.

### Interdisciplinary researches on risk

For the present moment there is a variety of applied, specialized studies of the notion of risk in different aspects, among which economical and sociological (Gavrilov, 2010; Yanickiy, 2003; S. Kravchenko, S. Krasikov, 2004), political (Algin, 2000; Vasilik, 2000), and psychological aspects of current phenomenon can be marked out.

In Economics the classification and models of risk are emphasized according to different signs (internal risk – external risk, risk in the microeconomic environment – risk in the macroeconomic environment, etc.), as well as managing these risks in the process of taking production decisions. Technical sciences scrutinize models of risk in engineering systems and nuclear power engineering with subsequent forecasting of risks and managing these risks. Medicine examines the models of risk, methods of assessment of clinical risk, risks of the mistakes of health personnel, as well as the systems of managing risks. World Health Organization studies the phenomenon of risk in terms of lifestyle and behaviour at the working places of people in unfavourable social and economic, ecological, climatic and professional conditions. Political science analyses assessment methods for levels of political stability through the Business Environment Risk Index (Algin, 2000; Vasilik, 2000). Medical Psychology analyses problems of mental maladjustment, including factors of risk, especially for the representatives of force structures, who work in conditions that are difficult, tense, and often harmful to health and life. The aforementioned conditions can determine in one or another way the coping strategy of an individual that will be later on reflected in the mental health of this individual against the background of frustrating factors (Sinyavskaya, 1999).

The notion of risk, as it was mentioned above, is studied by various sciences such as Sociology, Psychology of Risk, Medical Psychology, Economics, etc. Each of them has its own subject and its own direction in study of risk and uses its own methods. It allows marking out a considerable number of aspects for analysing risk and gives an opportunity of analysis of the interdisciplinary nature of this phenomenon.

It should be also mentioned that urgency of risk studies has caused an appearance of new interdisciplinary branch of study – Riskology, which studies risk in technical and natural sciences (Feofanov, 2005).

### Researches on risk in psychology

In Psychology risk has rather rich research traditions, which are represented both by classical and modern studies.

In the group provisionally entitled "The Foundation" the author has gathered the initial studies of risk, which later served as a theoretical foundation for the rise of classical theories of risk. The Foundation: D. McClelland (1971), F. Burkard, (1987), R. Schubert, (1997), T. Ehlers (1967), M. Zuckerman (1994), A. Mehrabian (1969), J. Stoner (1961), J. Atkinson (1964). Classical and modern researches on risk were developed both in the West and in Russia. Classical researches on risk in Russian school

are presented by works of V. Petrovskiy and V. Lefevr (1968). The works of T. Kornilova represent modern researches (2003). From the classical western works on this issue it is reasonable to mention such scientists as M. Zuckerman (1994), D. Kahneman and A. Tversky (2000). Later on their ideas have been developed by: Sitkin & Pablo (1992); Krueger & Dickson (1994); Sitkin & Weingart (1995); Mischel & Shoda (1995); McNamara & Bromiley (1997); Mittal & Ross (1998); Bazerman (2001); Gilovich & Griffin (2002); Zuckerman (2002); Bandura & Locke (2003); Das & Teng (2004); Wong (2005). The newest researches are represented mainly by western psychological school, and are connected with the name G. Breakwell (2007), though the contribution of Russian scientists, who work mainly within the framework of interdisciplinary school of Riskology, should be also mentioned.

The notion risk is related to such notions as 'risk awareness', 'risk perception', 'risk assessment', 'readiness for risk', 'risk taking' and takes the shape of the social behaviour of an individual, carried out under the conditions of uncertainty. The process of taking the risky decisions often diverges from the prescript rational model, because the uncertainty deforms the perception and exerts strong influence on the acknowledgement of given situation by an individual. Before coming to examination of the concept of risk we should expose the meaning of the notion.

At present there is no generally accepted definition for this notion and there are numerous divergences in its interpretation. The method of estimation of composite index risk for theoretical and practical researches has not been formed. It is described by the multidimensionality of this phenomenon, which has distinct or sometimes even contrary solid grounds (Kornilova, 2003).

The author's observations give her the opportunity to conclude that in everyday consciousness an opinion on risk as possible danger of failure is wide spread. In some cases risk is considered as activity, performed amid hopes for successful outcome or as situational characteristic of activity. Scientific approach interprets the notion of risk more completely, studying risk and its nature from different points of view.

A number of authors consider that risk is an objective category that allows regulating relationships between people, work collectives, organizations and other subjects of social life, that arise as a result of transformation of possible danger into reality (Algin, 1989). In this case risk is considered as the notion, representing the possible danger of accidental ensuing of negative consequences.

The subjective concept of risk analyses the subjective nature of this phenomenon: since it appears as the assessment by a person of an action, as conscious choice taking into consideration the alternatives... The subjective conception is orientated to the object of action, considering the awareness of consequences and choice of the behaviour variation (Algin, 1989). Risk is related to such personality traits as will and consciousness, as risk is a choice of the behaviour variant considering dangers and possible consequences (Kornilova, 1997).

The notion 'readiness for risk' is studied and examined primarily as an individually-psychological category. In Social Psychology repeated efforts were made for the study of the phenomenon, which had been discovered in General Psychology at the group or interpersonal level. Thus if a group of people serves as a subject, taking a decision in the situation of risk, the question is, is it to be spoken of the group preparedness for risk (Kornilova, 2003). Besides

in General Psychology readiness for risk is considered as a prerequisite for creative activity of an individual (P. Weinzwieg, 1990).

There is a number of qualities peculiar to risk, such as contradictoriness, alternativeness, uncertainty, specific historical nature. At the same time the analysis of the risk studies allows the author to draw the conclusion that perception of risk and reaction to risk in risky situations is stipulated by the subjective perception of people, who are involved in these situations.

According to the data received during the current research, people are either inherent the aspiration for risk, or the tendency for risk aversion, when the risk appraisal is based on the subjective criterion, but decisions are taken on the grounds of subjective evaluation of the balance between the risk and benefit. Four primary factors, which influence the risk perception, can be distinguished: 1) how a person comprehends risk; 2) how a person takes success and fails; 3) inaccuracy (incompleteness) of person's perception; 4) personal (subjective) qualities, (Bazerman, 2001).

Working in this direction scholars have marked out extra factors that precede taking a risky decision, the factors, which influence it. Thus the following factors can be marked out: influence of people who are trusted (Das & Teng, 2004), strong devotion (Wong, 2005), psychological factors, that influence heuristic predilections (Gilovich & Griffin, 2002), as well as the affective perception of risk and aspiration for risk in the situations of strategic complex decision taking (Mittal & Ross, 1998).

Nowadays each person has to take risky decisions, suffering from such questions as: "Should I drive into the traffic current or should I wait till that car will pass by?", "Will excess weight harm my health?", or "Should I buy this lottery ticket?" In some rather few situations possible outcomes are clear, but losses and gains can be calculated. But in most cases possibility is unclear, set of possible outcomes are fuzzy, but our perception is influenced by a number of subjective factors. In the example with the car our perception can be influenced by recent car accident or situation, when it almost happened; presence of a child in a car; our mood; confidence in our driving skills (reasonable in the varying degree); how well we are acquainted with exactly this car. Perception of risk is complex and subjective process. One more important factor of risk perception is inner inclination of a person. Personality includes the set of inborn inclinations, feelings, prejudices and features, which usually find their reflection in preferences, sensitivity, habits and reactions. These preferences can determine the ways of perception of risk that are typical for one or another environment and influence the way we perceive the situation if it is promising or threatening (Zuckerman, 2002).

The important socio-psychological peculiarity of a personality, concerned with risk, is sensation seeking. This personal aspect includes 4 elements: thrill and adventure seeking; experience seeking; excessive activity (disinhibition); boredom susceptibility. The relationship was detected between the sensation seeking and some types of risky behaviour, such as taking risky financial decisions, high stakes gambling, taking risky sports, socially dangerous behaviour and risky driving behaviour (Zuckerman, 2002).

One of the explanations of the relationship between sensation seeking and risky behaviour is tendency to underestimate risk. Any risk fades beside the gain, it is related to; watching the grandstand, neck to neck, finish will give rise to higher emotions, if you have made high stakes and hope for winning. Also the opposite is right. People

lacking the sensation seeking, and people who are more inclined for rueful feelings, often are more aware of possible losses. They think that no gain is worth trying their luck, because the possible losses will anyway outweigh them. This problem in Psychology was studied by Marvin Zuckerman (2002).

Russian scientist T. Kornilova was one of the first to make a successful attempt of carrying out a methodological revision of notions, related to risk, and to systematizing them. In the West similar work was performed by G.M. Breakwell, who has recently published a book, which has been highly appreciated by the author of the current work. Little consideration was given to this notion in Latvia, which stipulated the scope of scientific interest of the author.

A.P. Algin, the first scientist in the former USSR, who carried out the analysis of risks, offered such modifications of risky situations:

- a. An individual making choice of several alternatives, has objective possibilities of getting the supposed result, which is based, for example, on the statistics;
- b. probabilities of getting the expected result can be achieved only using an subjective assessments, that is the individual deals with subjective probabilities;
- c. in the process of taking decision and implementing the alternative an individual disposes both objective and subjective probabilities.

An important contribution to the research of risk has been made by such foreign scientists as Daniel Kahneman and Amos Tversky. Their theory, as the prospect theory is based on observation that choice of different people in different situations differs. When people are in the situation of gain they lose risk appetite and inclination to risky deals, since they want to retain the acquisition. In the situation of loss and when these losses increase, risk appetite of people grows because, generally speaking, they have nothing to lose. Such asymmetry operates in respect of financial losses and gains, but can be applied to more abstract matters, such as reputation or wish to save positive mood. Concerning the perception of risk Kahneman and Tversky (1979) defined the meaning of presenting a problem as a situation-based variable. In a number of constructive researches they showed that the way definite risk is presented has a great influence on the perception of this risk (Kahneman & Tversky, 2000; Kahneman & Tversky, 1986). Kahneman and Tversky's findings about dependence of choice on the wording of the matter were criticized by G. Gigerenzer, who checked empirically that probabilistic format of presenting information for taking decisions is not usual for people and causes "the decrease of rationality" when taking decisions (Gigerenzer, 1996). The authors of 'prospect theory' and founders of ecological approach agree on the idea that when taking decisions person lowers the level of uncertainty in a situation, though the former connect it with functioning of cognitive heuristics, but G. Gigerenzer links it with the mechanism of switching the modules, which work on the same level.

#### **Relation: risk and creativity**

At the present situation of crisis risk is stereotypically considered as something negative and hazardous. However for the sake of scientific objectiveness the positive nature of risk-taking should be mentioned, which is related to creativity. G. Yun and P. Weinzwieg were the first to note this relation.

Readiness for risk as the characterological component of courage was postulated by P. Weinzwieg (1990). On the

examples of analysis of definite situations of life, which should be called critical, he demonstrates the positive role of this quality in case when an individual is willing to act in accordance with their convictions.

In D. Bogoyavlenskaya's approach the creativity is regarded as readiness to cognition of the information outside the requirements of given situation. Also this approach implies interrelation of risk and creativity. As a unit of analysis of creative abilities she introduces the notion of 'intellectual activity', which operationally is determined by activity indices of respondents in the situations that are unusual to them. Readiness of a person to overcome the set limits is considered to be a prerequisite for creation of something new and realisation of the creative potential. Though an issue stays unsolved about the interrelation of risk and creativity on the group level (Bogoyavlenskaya, 2002).

### Modern researches on risk

The author of the current work points out the importance of defining the positivity or negativity of risk. In this respect Sitkin and Weingart (1995) assert that lowering risk becomes more sufficient in the situations that are presented positively (prompting to avoid the risk), when the increasing risk becomes more sufficient in the situations that are presented negatively (prompting to seek the risk). On the ground of these conjectures Mittal and Ross (1998) show that positive affect is connected with positive presentation of risk, when negative affect is connected with negative presentation of risk.

Earlier researches pay special attention to orientation of individual risk as the individual variable, or the objective assessment of risk, and, in general, ignore the role of previous experience of the results of risk and situational context (e.g., Kahneman & Tversky, 1979). Sitkin and Weingart (1995) dispute the approach, that does not consider the previous experience, their researches confirm that past success in taking risk within definite area can increase the risk appetite in the same area in future (comparison Krueger & Dickson, 1994). Therefore they assert that the empiric factors should be included in each analysis of risk appetite (comparison Sitkin & Weingart, 1995). All this data contradict the opinion, that risk appetite is constant personality trait and assume that person's readiness for risk, to a considerable extent, depends on previous experience of risk taking. This data also contradicts the stable delusion contained in many researches, which describe the decision taking and risk in terms of idealized standards of rationality and excessively simplified hypothetical problem scenarios (Bazerman, 2001; Kuhberger et al., 2002; McNamara & Bromiley, 1997). They assert that the determinant factors of social perception, such as historical, situational and organizational, may be very important in the process of informing and correlating the risk appetite and risky behaviour within the context (Bandura & Locke, 2003; Mischel & Shoda, 1995). Self-regulation is one of such factors.

From the behavioural point of view risk is defined as the limit to which there is some uncertainty in the fact if a potentially significant and/or disappointing decision result will come into fruition (Sitkin & Pablo, 1992). Such mentioning of uncertainty and disappointment emphasizes social psychological factors, involved in behavioural conception of risk. In this conception the risk is specially constructed of possibility, rather than objective reality of the world (Slovic, 2000b). Decisions may be more risky if the expected result appears less likely and the desired goals seems difficult of accomplishment, or if a possible result includes extreme consequences (Sitkin & Pablo, 1992). Such approach

agrees with supposed interrelation of social cognitive factors, such as regulative direction at risky behaviour.

Similar risk concept supports the identification of an individual and social prerequisites that influence taking risky decisions. In special situational context of a person who is taking decision and their previous experience or knowledge of the category of problem situation, are the determinant factors in taking the risky decisions. If a person, who is taking a decision has broad experience, starts concentrating their attention selectively on the evidences of their previous ability of overcoming the obstacles and, possibly, easier agree, to take risk which less experienced people would avoid (e.g., March, 1997). Increase for readiness to risk is also related to the idea that individual experience in due course contributes to more and more risky behaviour (Geiger, Robertson, & Irwin, 1998; Wong, 2005). Also situational factors concerning different aspects of taking risky decisions on the organizational level were observed (Krueger & Dickson, 1994; Pablo, Sitkin, & Jemison, 1996). Thus person's situation and their previous experience have considerable influence on taking risky decisions.

These factors are related to perception of risk and risk appetite as social psychological signs of taking risky decisions. Risk appetite is defined as readiness to take risk, but the perception of risk is defined as assessment of risk inherent in a situation (Sitkin & Pablo, 1992). These factors are of importance in behavioural theories of risk, which accept the influence of the organizational context, problem situation, as well as individual psychological and social traits. Sitkin и Pablo (1992) suggest the indirect model of risk taking, discussing that an influence of numerous variables, which were studied in the past, do not have the direct influence on the risk taking but uses the risk appetite and risk perception as an intermediate. They contend that under the influence of perception of a problem and previous experience of the risk taking, risk appetite and risk perception play the roles of an intermediate. In earlier researches this connection was not noticed and scrutinized. A further empiric research has presented evidences in favour of these assertions (Sitkin & Weingart, 1995).

### Description of the planned empiric research

For more in-depth study of the phenomenon of risk the author is planning further empiric research on readiness for risk under the situation of social instability.

In the framework of the planned research risks are provisionally subdivided by the author into two categories 'conditionally negative risk' and 'conditionally positive risk'. 'Conditionally negative risk' in the meaning of 'risk taking'; a related notion is 'risky behaviour' (German - Risikoverhalten). The hypothesis has been made that there is statistically significant correlation between certain individuality profile and risk taking. For testing this hypothesis it is planned to use questionnaire by M. Zuckerman and Deutsche Personality Research Form for defining the profile of the respondent.

Readiness for risk in the contest of the current research is understood by the author as 'conditionally positive, creative risk'; for displaying the presence of the latter, it is planned to use Ehlers / Shubert test. The hypothesis has been made that statistically significant correlation exists between type of locus of control (internal/external) and emotional welfare (presence / absence), creativity (presence / absence) and readiness for risk. For verification of this hypothesis it is supposed to use a number of tests: questionnaire on the creativity PAI – 30, IPC – locus of control, EWL (for analysing the emotional welfare).

It is planned to carry out the research based on 3 groups of population:

The group 'indigent': in accordance with LR Legislation to this group belong members of the families or individuals, whose income for the last 3 months had not exceeded 180 LVL per month. The members of this group are the clients of the social care agencies. The social workers delimit their declared income: 180, -, 150, -, 120, LVL and below (GSM welfare recipient)

The group 'medium' is comprised of the workers of public sector, receiving the state-financed salary (in case if they are not the only supporter of the family or do not have the family).

The group 'high achievers' is presented by individuals, having monthly income above 500 LVL for the last three months. They can be both workers of public sector and representatives of private industry.

**Conclusion**

Risk has a multifaceted nature, which stipulates its study by many sciences and makes it possible to talk of its interdisciplinary discourse. Riskology is an interdisciplinary branch of the study of risk in technical and natural sciences. In Psychology risk has reasonably rich research traditions, which are represented both by classical (McClelland, 1971, Burkard, 1987, Schubert, 1997, Ehlers, 1967, Zuckerman, 1994, Mehrabian, 1969, Stoner, 1961, Atkinson, 1964; Petrovskiy, Lefevr, 1968), and modern researches (Kahneman & Tversky, 2000; G.M.Breakwell, 2007; Kornilova 2003). It should be noted that insufficient attention has been paid to the study of this phenomenon in Latvia. The researchers of risk have not come to agreement on the definition of risk, and there are divergences in its interpretation. Still, scientists agree, that risk has a number of features (uncertainty, alternativity, situation of evaluation, etc.), as well as is determined by many factors (age, gender, social status, personal attitude etc.). Risk has been studied in Social Psychology, but the existing view on risk in this sphere seems to the author to be not complete, pixelated, taking into consideration the systematization law within the interaction of the elements of social medium. Despite the fact that as early as in 1982 the issue of inadmissible ignoring of social opinions by Social Psychology was raised (H. Tajfel, 1982), till present moment there are no researches of the phenomenon of risk under social instability. In perspective the author is planning to carry out both theoretical and empirical research within the framework of the dissertation being elaborated.

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