

*Implications of the Level of Dogmatism
and Selected Psychosocial Conditions
for a Propensity for Risky Behaviour among
the Soldiers of the Polish Army Land Forces*

ABSTRACT

The article presents the results of a study concerning a propensity for risky behaviour, conducted on regular soldiers of the Polish Army Land Forces. Its aim was to verify whether a level of dogmatism and selected psychosocial (socio-professional) conditions were related to a propensity for risky behaviour among the soldiers. The research partially confirmed the hypothesis of psychosocial determinants of a propensity for such behaviour. Young and short-serving soldiers appeared to be more inclined to undertake risky behaviour than older and long-serving ones. A tendency to avoid risky behaviour was displayed by soldiers from small towns (up to 20 000 inhabitants) as compared to groups of respondents from larger towns. The results of the research did not indicate a significant relationship between the propensity for risky behaviour and the level of dogmatism, education, personal corps, professional position.

KEYWORDS: European military psychology, Polish Army Land Forces, propensity for risky behaviour, risk-taking, dogmatism

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INTRODUCTION

Psychological aspects of military service and the way in which regular soldiers function is becoming an object of increasing interest for psychologists. An indication of this might be the establishment of the role of coordinator and psychologist – consultant for psychological prophylaxis within military units of the Polish Armed Forces (MON, 2009; DWiPO MON, 2009). A need to take advantage of the developments of occupational psychology in the field of selection and assessment of military service candidates is also beginning to be noticed. Yet, relatively little attention is paid to the psychological determinants of soldiers' decision-making processes. Decision making belongs to one of the key areas of the functioning of a regular soldier, when one takes into account a need to make snap and accurate decisions in both combat and peace conditions.

It is difficult to imagine any army operations, whether in times of peace or during combat, without a presence of risk factors. Individual behaviour in the face of risk depends on both external conditions and subjective factors. Kogan and Wallach (1964) indicate a constant nature of undertaking risky decisions – decision-makers are risk averse or risk seeking in all situations (personal, professional, social). Individuals avoiding risk are cautious, sometimes even fearful, and conservative in their actions. Numerous studies indicate that a decision-maker's behaviour in a risky situation depends on one's personality traits. Strelau's study (1985) indicated how temperamental traits affect risky decision-making. Highly sensitive individuals, or those who respond to very weak stimuli, choose a protective decision strategy, whereas non sensitive people (those who need strong stimuli to keep an optimum level of activation) prefer a risky strategy. Anxiety levels were reported to have a similar effect on decision-making (Wrześniewski & Sosnowski, 1996). Dziedzic (1988) indicated that people with a high level of fear

assessed risk as higher than those with a low level of fear and they preferred to engage in protective activities characterized by a low probability of failure. Cameron and Myers (1966, as cited in Koziellecki, 1975, p. 375) indicated that people with a strong need to dominate and to be aggressive preferred to engage in risky tasks.

Studenski (2004) defines risk-taking propensity as a need to undertake risky behaviour or to experience satisfaction related to the outcome of the risky behaviour.

Rokeach defines dogmatism as a *“relatively closed cognitive organization of beliefs and disbeliefs about reality, organized around a central set of beliefs about absolute authority which, in turn, provides a framework for patterns of intolerance and qualified tolerance toward others”* (Rokeach, 1954, p. 195). Rokeach pointed out three structural elements of a belief system:

1. Content of the system and relations between accepted and rejected systems;
2. Relations between three layers of the system:
 - central – individual’s basic, core beliefs about the world, the other people and oneself ;
 - intermediate – beliefs about positive and negative authorities that confirm individual’s approach and beliefs about people who agree or disagree with them;
 - peripheral – the remaining beliefs;
3. Time perspective – a main individual’s time frame:
 - narrow – when individual interests focus solely on present, past or future;
 - wide – when an individual reflects at the same time on present, past, and future (Malewski, 1975).

According to Koralewicz (1987) the two functions of the belief system are 1) to understand the world and 2) to select information and to defend against pieces of information perceived as dangerous. Dogmatic beliefs system relies on the isolation of the

particular groups of the beliefs; a dogmatic individual is able to accept two conflicting beliefs at the same time.

The causes of a dogmatic mind's development can be explained by a narrow cognitive perspective. Studies demonstrate that people from lower social status and those poorly-educated tend to be more dogmatic (Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950; Lipset, 1960; Koralewicz, 1987). Other explanations of dogmatism are fear, as a deeply-rooted trait of personality, which is caused by a socialization process, in particular by parents' strictness (Malewski, 1975; Rokeach, 1956; Rokeach & Fruchter, 1956); conflict based on an individual's social situation; limited possibilities of action related to living in socially and economically disadvantaged communities (Stewart & Hoult, 1958, as cited in Koralewicz, 1987, pp. 130-131).

Long and Ziller (1965) looked for relations between dogmatism and decision-making. They claimed that dogmatists tend to take decisions quickly, with limited search for information and have an inclination to firmly stick to results of their decisions. These results were confirmed by Taylor and Dunnette (1974) who reported a negative correlation between the level of dogmatism and time needed to take a decision and a positive correlation between dogmatism and one's trust in the decision taken. Schilhavy & Schilhavy (2003) reported a moderate relationship between dogmatism and risk avoidance concluding that those holding on to their beliefs had a tendency to avoid risk.

One of the aspects of conceptual thinking is categorization style. People may use wide (general, open, imprecise or equivocal) versus narrow (concrete, detailed or isolated) categories. Dogmatic individuals tend to prefer the narrow categorization (Koralewicz, 1987; Malewski, 1975; Rokeach, 1956). As reported by Zaleśkiewicz (1998) individuals who used the wide categorization style tended to take more risk than these who used narrow style. Here, an assumption might be that dogmatic indi-

viduals tend to be less prone to undertake risky behaviour than those who are more open-minded.

Research shows that propensity for risky behaviour has situational, occupational, developmental and biological determinants. Over the age of 30, there appears to be a complete reorientation in the hierarchy of values. New interests, aims and aspirations appear, which are more socio-culturally rather than biologically related. Individuals tend to become more introverted and less impulsive. Physical and mental energy tends to be used in a more prudent way, which is why the propensity for risk-taking decreases. This could be understood to be a consequence of a natural developmental process (Jung, 1981; Hall & Lindzey, 1994). Some authors demonstrated that risk taking and risky decision making decreased with age (e.g. Vroom & Path, 1971; Gardner & Steinberg, 2007).

Interpreting risk in the context of the Value-at-Risk Model (Coombs, 1970; Lopes, 1987; March & Sapira, 1992) one may assume that with age a safety need prevails over the need to take an opportunity when it comes to the decision-making conflict; a need to survive takes over one's aspirations, and a fear of losing takes over a desire to profit. Analyzing propensity for risky behaviour from the perspective of developmental psychology one might assume that the cause of such behaviour lies in emotional regulation skills (that improve through adolescence), and individual's cognitive, neurological, and biochemical bases and their development (Boyer, 2006). Some psychological and social research looked at the influence of the quality of parent-child relationship quality, peers and social group (op. cit.)

According to Zuckerman (1994) risk-taking propensity has much in common with a need to experience strong emotions. In his study, Zuckerman created a theoretical construct called sensation seeking which correlated positively with risky behaviour. The author explained his findings in terms of biological deter-

minants (the higher the dopamine level the greater the need for sensation seeking).

Some authors presented evidence for a relationship between military professions (Studenski, 2004), combat exposure (Killgore et al., 2008) and increased propensity for risky behaviour.

Based on the relationships described above it is allowed to assume that the level of dogmatism of regular soldiers and some psychosocial conditions (such as age, education, place of residence and the specifics of the profession: personal corps, seniority of the military service and rank – professional position), may affect one's propensity for risky behaviour.

Aim of the study and the hypothesis

The above reflections resulted in two research questions around the impact of social determinants and level of dogmatism on soldier's propensity for risky behaviour:

1. Is the level of dogmatism related to a propensity for risky behaviour among the soldiers of the Polish Army Land Forces?
2. Are selected psychosocial variables related to a propensity for risky behaviour among the soldiers of the Polish Army Land Forces?

The following hypothesis were put:

Hypothesis 1: Highly dogmatic soldiers have significantly less propensity for risky behaviour than the low dogmatic ones;

Hypothesis 2: There is a negative correlation between soldiers' age and propensity for risky behaviour;

Hypothesis 3: There is a negative correlation between soldiers' seniority of the military service and their propensity for risky behaviour;

Hypothesis 4: There is a positive correlation between the level of soldiers education and their propensity for risky behaviour;

Hypothesis 5: Soldiers belonging to different personal corps differ in their propensity for risky behaviour;

Hypothesis 6: Soldiers in different army professional position differ in the level of their propensity for risky behaviour;

Hypothesis 7: Soldiers from different places of residence differ in their propensity for risky behaviour.

The independent variables included: age, education (secondary or higher), place of residence (provincial – voivodship cities, district towns, towns over 20.000 residents and villages), seniority of the military service (short-serving soldiers – 2-10 years and long-serving soldiers – 11-32 years in service), personal corps (officers, warrant officers and non-commissioned officers¹), professional position (commanders, staff, and logistic-administrative) and the level of dogmatism.

A dependent variable was the propensity for risky behaviour.

Subjects

The research was done among regular soldiers in four military units belonging to the Land Forces. It was conducted in groups with the use of the questionnaire method, on the area of military units that is in the surroundings most similar to the natural conditions of military service.

The study involved 256 regular soldiers (N=256) aged 23-50 (M=31,49; SD=4,74). The soldiers represented four military units of the Land Forces. Among them: 117 soldiers age 23-30, and 132 soldiers age 31-50; 121 soldiers with a short period of military service (2-10 years in the service) and 128 long-serving soldiers (11-32 years in the service). The distribution of the membership of the army corpses was as follows: 92 officers, 84 warrant officers and 77 non-commissioned officers. Soldiers' rank (professional position) mix included: 125 commanders, 49 staff, and 48

¹ At the moment the research was done the regular soldiers were divided into the corpses: officers, warrant officers and non-commissioned officers. At present the corps of non-commissioned officers also includes the corps of warrant officers. However, the presented studies contain the division which functioned at the time they were conducted.

logistic-administration. 134 of subjects achieved secondary education, and 106 had a higher education diploma. 124 subjects lived in provincial (voivodship) cities, 55 in district towns, 44 in towns under 20.000 inhabitants and 27 in villages.

Method

The following questionnaires were applied in the study:

1. *Rokeach's Scale of Dogmatism (1960)*

The scale (adapted by Kossowska) measures the degree of dogmatism called here– generalized authoritarianism (Rokeach, 1985, p. 153). It consists statements describing subject's relations with themselves, others and the world. The statements refer to the three aspects of dogmatism: its structure, content and function. Individual is asked to rate the strength of their agreement with each statement using a 7-point Likert scale: 1– completely disagree, 4 – neither agree nor disagree and 7 – completely agree. A sum of all ratings is then generated with possible range of results falling between 21 – 147 points. The Scale takes approximately 10 minutes to complete.

2. *Studenski's Test of Risky Behaviour (TZR) (2004)*

The instrument measures the need to undertake risky behaviour. It consists of a series of statements describing risky activities and involvement in risky behaviour. An individual is asked to indicate the frequency with which they typically participate in situations similar to the presented ones and rate the frequency with which they experience motivation for risk-taking. Five-point scale is used: 4 – very often, 0 – rarely or never. Possible range of results falls between 0 – 100 points. All ratings are summarized to generate the result. The test takes approximately 10 minutes to complete. The author recommends that the test might be an effective, additional tool used in the selection process for professions involving risk-taking (including regular soldiers).

Results

Hypothesis 1. Highly dogmatic soldiers have significantly less propensity for risky behaviour than the low dogmatic one;

On the basis of quartiles, groups of a high, medium and low level of dogmatism were isolated. Differences in propensity for risk were checked using ANOVA variation analysis. A normal distribution of outcomes of dogmatism made it possible to distinguish numerous enough groups of subjects. The distinguished group constitutes 98.83% of the sample.

The results of variation analysis indicated no significant differences in the level of propensity for risky behavior between the dogmatism sub-groups (low, medium, high) ($F=2,18$; $p=0,115$). Therefore, hypothesis 1 was not confirmed.

Hypothesis 2. There is a negative correlation between soldiers' age and propensity for risky behaviour

The value of Kendall's τ indicated a significant negative correlation between the propensity for risky behaviour and the age of the subjects ($\tau=-0,13$; $p=0,002$). Hypothesis 2 was confirmed.

Hypothesis 3. There is a negative correlation between soldiers' seniority of the military service and their propensity for risky behaviour

The value of The Kendall's τ indicated ($\tau=-0,12$; $p=0,006$) a significant negative correlation between the propensity for risky behaviour and the seniority. Hypothesis 3 was confirmed.

Hypothesis 4. There is a positive correlation between the level of soldiers education and their propensity for risky behaviour

The value of The Kendall's τ ($\tau=-0,01$; $p=0,72$) indicated no correlation between the level of soldier education and their propensity for risky behaviour. Hypothesis 4 was therefore rejected.

Hypothesis 5. Soldiers belonging to different personal corps differ in their propensity for risky behaviour

Analysis of variance ($F=0,40$; $p=0,673$) indicated no differences in propensity for risky behaviour between different personal corps (officers, warrant officers, non-commissioned officers). Hypothesis 5 was rejected.

Hypothesis 6. Soldiers in different army professional position differ in the level of propensity for risky behaviour

Analysis of variance indicated no significant differences in the level of propensity for risky behaviour between different army professional position (command, staff, logistic) – $F=0,52$, $p=0,593$. Hypothesis 6 was, therefore, rejected.

Hypothesis 7. Soldiers from different places of residence differ in their propensity for risky behaviour.

Analysis of variance indicated no significant differences in the level of propensity for risky behaviour between subjects from different places of residence ($F=2,49$; $p=0,06$). Thus Hypothesis 7 was rejected, however, there was a tendency to avoid risky behaviour for those living in small towns (up to 20.000 inhabitants) as compared with the remaining groups (Table 1).

Table 1. Place of residence and propensity for risky behaviour.

Propen- sity for risk- taking	Place of Residence				ANOVA	
	Village	Town under 20.000	District town	Provincial (voivodship) city	F	p
M	33,88	27,48	36,98	35,64	2,49	0,061
SD	21,12	16,81	19,56	18,79		

Results of this study indicate that age of soldiers and seniority of the military service are negatively correlated with propensity for risky behaviour. Similarly risk avoidance tendency was indicated for those living in small towns (up to 20,000 inhabitants). No differences in propensity to engage in risky behaviour were indicated in relation to the level of dogmatism and education, membership of different personal corps and different professional positions.

Discussion

Results of this study demonstrate no relationship between the level of dogmatism and soldiers' propensity for risky behaviours.

Dogmatism forms part of personality related to the belief system and cognitive rigidity. A lack of relationships between dogmatism and propensity to take risk, as demonstrated in this study, may indicate that there is no relationship between risky behaviour and a belief system, its rigidity or flexibility. Perhaps risk-taking is more biologically than cognitively motivated or the risk-taking propensity is conditioned by other personality structures. Further studies in this direction might bring an answer here.

Another possible explanation of the results might be in terms of dogmatic individual's dependence on authority. If an authority approves of risk-taking, then a dogmatist may have a positive attitude towards risky behaviour. In case, an authority condemns risking a dogmatist avoids risk. Thus, in such situation it is difficult to talk of any constant propensity for risk-taking.

The results seem to confirm previous studies related to risk-taking which invalidate Kogan's and Wallach's (1964) differentiation between risk averse and risk seeking decision makers. A contrary view is that risk-taking and decision-making are more affected by situational determinants than personality (or internal determinants). As demonstrated by Sokołowska (1987)

perception of the level of risk influenced individual decision of whether to engage in situations. This might suggest that personality had a lesser role to play in the decision-making process than perception and assessment of the risks involved.

The results presented in the following paper concern the impact of dogmatism on the risk-taking propensity. Perhaps this impact would be revealed if the dependence between dogmatism and risk perception (instead of risk-taking) was examined.

The study confirmed that the younger and shorter-serving soldiers the greater propensity for risky behaviour. This may be related to acquired life experience and general developmental processes. In adolescence and young adulthood an individual is dominated by impulses and vital processes. At that time one could be described as energetic, full of strength and impulsive. At that time one chooses a profession, starts a family, establishes own professional and social position (Hall & Lindzey, 1994). Therefore, at that time one demonstrates a greater propensity to undertake risky behaviour and is more prone to risk-taking.

The propensity to risky behaviour has much in common with a need to experience strong emotions. Zuckerman's (1994) sensation seeking construct correlated positively with risky behaviour, which might be an argument in the debate over biological determinants of risk taking. Young people's greater propensity to take risk might add to this discussion.

The relationship between seniority of the military service and the propensity for risky behaviour may be explained in a similar way. Specific character of the military environment may obstructs individual's free activity, including risky behaviour. The army demands from soldiers absolute obedience and subjection to orders (Zielińska, 2002). Young regular soldiers tend to be more prone to taking their own initiative. However, with time they increasingly adjust to the existing rules. Possible explanation for this might be the fact that with experience they realize that taking risk does not bring expected results, therefore, they

give it up. Further studies (possibly also involving civilians) might wish to examine this hypothesis.

The significant negative correlation between soldiers' seniority of the military service and their propensity for risky behaviour may possibly be related to the social situation in the army. The studies conducted by the Military Office for Sociological Studies demonstrated that young military cadres (up to 10 years in service) looked at the changes in the army with a greater hope, which might be a factor motivating them to take risks. Whereas the oldest cadres (over 20 years in service) expressed uncertainty, fear and concern about further changes in the army structure, which motivated them to avoid risk and to preserve the actual status quo by not seeking changes and not taking risks (Jarmoszko, 1998).

Despite no significant differences between the risk-taking propensity and a place of residence, there was a tendency to avoid risk by soldiers from smaller towns (up to 20.000 inhabitants). It was surprising that this tendency was not displayed by any other groups (residents of larger cities or villages). Perhaps realities of living in smaller towns increase their inhabitants' desire to avoid risk. Factory closures and decreasing number of work places which provide employment for most local residents, as well as lack of prospects may cause a sense of helplessness and stagnation (Biela & Łoboda, 1987; Klonowicz, 2001; Terelak, 1997). Therefore, small town residents may prefer to preserve the actual state of possession rather than risk losing it.

Such a tendency may be displayed even clearer in soldiers serving in small town military units or in garrisons placed far away from larger cities. A military unit is frequently the biggest or the only work place in these towns. In larger towns garrison restructuring typically means re-deploying the cadres to other positions. In small towns it usually means transfer to the reserve which results in unemployment. This might be one of the causes of reducing the propensity for risk.

It would seem that village residents should have a similar, if not a more negative attitude towards risk-taking. The results of this study demonstrate that it is not so. Perhaps those living in the country, even when unemployed, feel that possessing a farm allows them to make a living and gives them a feeling of sense, filling some existential emptiness, keeping them busy. Those running even the smallest farms need to work in order to keep it going and to provide for the family. That is why, perhaps, villagers' level of propensity for risky behavior is comparable to those from larger cities.

The results may lead to the conclusion that examined soldiers' propensity for risky behaviour depends on age, seniority of the military service and place of residence. Thus, it is dependent both on a decision-maker's individual qualities and on external factors. Risky behaviour is related to age and is determined by general developmental processes. Young people are more prone to take risks than the older ones (Jung, 1981; Hall & Lindzey, 1994; Vroom & Path, 1971; Gardner & Steinberg, 2007). Biological factors which cause individual to seek sensations are also significant. According to Zuckermann (1994) the need is greater in young people.

Another factor determining the level of propensity for risk taking, as noted in this study, is individual experience related to risk taking. The longer the service in the military the more professional experiences connected with risk-taking and the safer solutions chosen.

Finally, the third factor influencing propensity for risk-taking relates to the social and situational background. A place of residence plays a certain role in risk-taking. Inhabitants of larger cities and villages demonstrate a greater tendency to take risk than those from smaller towns. Therefore, it seems that not only the features of a decision task, but also social and institutional context play a role in forming attitudes towards risk. It would support Kozielcki's (1975) idea that what is important in deci-

sion-making process is the institutional system and the external environment rather than decision-maker's internal traits.

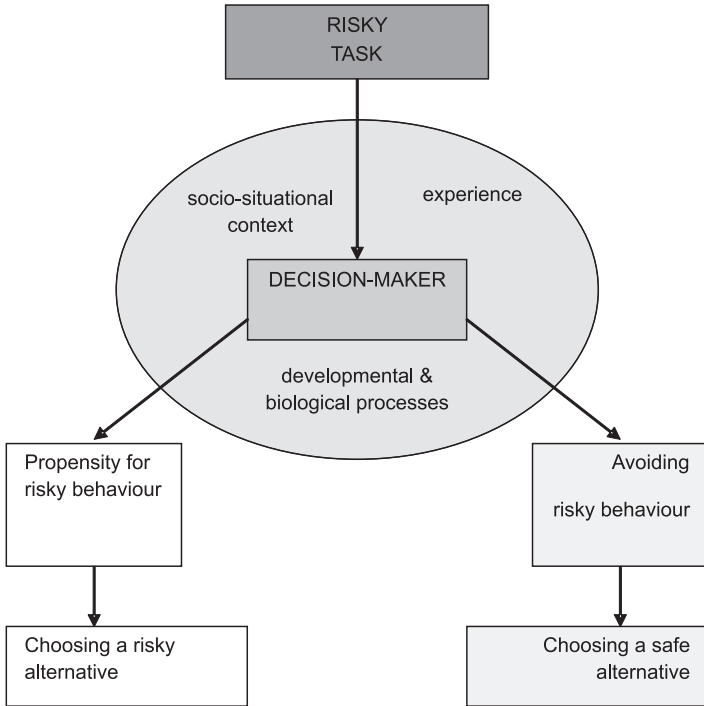


Fig. 1. Model of determinants of propensity for risky behaviour of the examined Polish Army Land Forces soldiers.

The above reflections form a basis for creating a model of determinants of the propensity for risky behaviour of the regular soldiers, which is presented in Figure 1. The study results lead to a conclusion that propensity for risky behavior of the examined military cadres of Polish Army Land Forces might be based on three fundamental elements: developmental and biological processes, experience and the socio-situational context.

The results make it hard to generalize, however, whether the same factors influence attitudes towards risk in civilians or soldiers from other types of armed forces. A direction for future research might be to compare military and civilian decision-makers and further investigate aspects of personality related to propensity for risky behavior.

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