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## **Role of psychology in human resource management**

### **Abstract**

Where human resource management is present, psychological problems arise. This is why increasing focus is put on the use of psychological sciences and tools in management. The goal of this article is to present preliminary conclusions on the role of psychology in human resource management in organisations.

### **Keywords**

management, management psychology, psychological tests, human resource management

## **Rola psychologii w zarządzaniu ludźmi**

### **Streszczenie**

Tam, gdzie mamy do czynienia z zarządzaniem ludźmi, pojawiają się problemy o podłożu psychologicznym. Dlatego coraz większe znaczenie zyskuje wykorzystanie nauk i narzędzi psychologicznych w zarządzaniu. Celem niniejszego artykułu jest przedstawienie wstępnych rozważań na temat roli psychologii w zarządzaniu zasobami ludzkimi w organizacji.

### **Słowa kluczowe**

zarządzanie, psychologia zarządzania, testy psychologiczne, zarządzanie ludźmi

## **1. The concept of management psychology**

An unambiguous definition of management psychology meets certain problems because of the interdisciplinary character of the notion. On one side management is defined as e.g. “a set of activities directed at the resources of an organisation and utilised with the goal of achieving the organisation’s goals in an effective and efficient manner”<sup>1</sup>. On the other side of the spectrum exists psychology, or study of human behaviours. Management psychology will be a subdiscipline of the two.

One of the definitions of management psychology was coined by G. Bartkowiak, who claimed that it is one of the new applied disciplines, arising from social psychology, work psychology and other social sciences, especially from organisation sociology and organisation and management theory<sup>2</sup>. G. Bartkowiak draws the attention to

<sup>1</sup> R.W. Griffin, *Podstawy zarządzania organizacjami*, PWN, Warszawa 2004, p. 6.

<sup>2</sup> G. Bartkowiak, *Psychologia zarządzania*, Akademia Ekonomiczna w Poznaniu, Poznań 1997, p. 8–9.

lack of unanimousness in the scope of comprehending the subject and terminology found in subject literature. This is why varying terms can be found: “organisation psychology” (F. Shein), “organisation and management psychology” (Z. Ratajczak), “social psychology of organisation” (W. Katz and W.L. Kahn), and “management psychology” (A.J. DuBrin)<sup>3</sup>.

According to A. DuBrin, management psychology is the use of psychological concepts, approaches, techniques and methods in order to increase the work efficiency of the managing personnel and to boost the functioning of an organisation<sup>4</sup>. By broadening the definition, one may say — quoting J.F. Terelak — that management psychology refers to psychological and organisational mechanisms of human resource management that, besides financial aspect management, are of interest of management theory at large<sup>5</sup>.

In each of the areas of human resource management in an organisation, three aspects of psychology are being put into practice<sup>6</sup>:

- a) institutional aspect — taking into account entities and institutions that facilitate the delivery of personal functions with the use of psychological expertise;
- b) functional aspect — entailing a holistic approach towards supporting the delivery of job-related tasks with psychological assistance;
- c) instrumental aspect — using a variety of tools and methods supporting the improvement of delivering personal functions in an organisation.

Because management psychology forms part of organisation and management sciences, it is of great interest to students of economics, management and similar areas. The figure below presents the location of management psychology in the area of social sciences.



Fig. 1. Place of management psychology in social sciences

Source: G. Bartkowiak, *Psychologia zarządzania*, Akademia Ekonomiczna w Poznaniu, Poznań 1997, p. 10.

<sup>3</sup> *Ibidem*, p. 9.

<sup>4</sup> A.J. DuBrin, *Praktyczna psychologia zarządzania*, PWN, Warszawa 1979, p. 15.

<sup>5</sup> M.J. Hatch za: J. Terelak, *Psychologia organizacji i zarządzania*, Difin, Warszawa 2005, p. 315.

<sup>6</sup> S. Przytuła, *Psychologia zarządzania. Wybrane zagadnienia*, Wyd. UE we Wrocławiu, Wrocław 2008, p. 17–18.

All the disciplines presented in the above figure combine to make the system of social sciences describing behaviour. Work psychology concerns the study of and solving of practical problems related to human work and professional activity<sup>7</sup>. It is based on the theory of individual differences and provides valuable data required to manage any type of organisation. Social psychology is based on experimental methods and through theoretical concepts provides model forming the basis of management psychology. As a both theoretical and applied discipline, management psychology draws from organisational sociology and organisation and management theory<sup>8</sup>.

## 2. Development of management psychology

Beginnings of management psychology may be perceived in the beginnings of work psychology whose area of interest was primarily to adjust the worker to the workstation and the workstation to the worker<sup>9</sup>. The assumptions of classical work psychology models are presented in Table 1.

Table 1.

Classical models of work psychology

Model	Main assumptions
Adjusting the worker to the work	<ul style="list-style-type: none"> <li>– Individual human as the subject for analysis</li> <li>– Motivation of a statistical worker is of mainly economic character</li> <li>– A person is a mere “addition” to the machine and their imperfections may be compensated through careful design of work tools and methods</li> <li>– A human being is a “manipulable” factor in production growth</li> </ul>
Psychology of interpersonal relationships	<ul style="list-style-type: none"> <li>– Salary is not a simple determinant of work efficiency and employee satisfaction</li> <li>– Large emphasis is put on interpersonal relationships within an organisation</li> <li>– In order to achieve harmony between an individual and their work it is necessary to adjust the person to their social surroundings</li> <li>– Important determinants of motivation for work are: work atmosphere, management methods, mutual connections within the organisation</li> </ul>
Adjusting the work to the worker	<ul style="list-style-type: none"> <li>– An individual is not capable of efficiently deliver the predefined tasks of the tools and the material side of the workplace do not take into account the requirements and limitations of human organism</li> <li>– When designing processes, procedures, organisational structures, environment, tools, and devices used during work, physiological and psychological laws need to be observed</li> <li>– It is not only basis for efficiency, effectiveness, and safety of work, but also of work satisfaction</li> </ul>

Source: author’s own work based on: A. Bańka, *Psychologia pracy* [in:] *Psychologia. Podręcznik akademicki*, vol. III, J. Strelau (ed.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000, p. 285–286.

<sup>7</sup> A. Bańka, *Psychologia pracy* [in:] *Psychologia. Podręcznik akademicki*, vol. III, J. Strelau (ed.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000, p. 283.

<sup>8</sup> G. Bartkowiak, *Psychologia...*, p. 11.

<sup>9</sup> *Ibidem*, p. 11.

Further development of management psychology was shaped by modern organisation and social psychology theories which also influenced organisational models and the model of a human actor in these models. Humans acting in organisations mainly drive at understanding their surroundings and the options of influencing them. They want to be able to choose, make independent decisions and feel personal influence on their own work results. In their behaviour, individuals follow features of different value, perform tasks of varying difficulty and make choices according to their own preferences<sup>10</sup>.

Despite numerous connections with classical concepts, contemporary perception of organisations (from the institutional viewpoint) and the members thereof is different and subject literature refers to it as “systematic approach”. In the era of Taylorism, much attention was paid to the technical elements of an organisation, in the era of interpersonal relationships — to the participation of a human in organisations, and currently focus is put on the need of treating organisations in a complex way, taking into account subsystems like social and information systems, decision centres, and other. For these reasons, management issues are to be perceived from the technical, economic, organisational, sociological, and psychological viewpoints<sup>11</sup>.

New perception of an individual in organisations stresses their subjective character. An individual, in order to develop as a human being, ought to perceive<sup>12</sup>:

- themselves as the source of their behaviour;
- their own goals as the subject of their intentions;
- the organisation as the Chance of their professional activity;
- the surrounding world as the chance to fulfil their possibilities.

A human being is an individual who wishes to fulfil their own goals in an organisation (in both professional and personal aspects) which at the same time need to arise from the individual’s willingness to fulfil the organisation’s goals. This way, the individual becomes the co-creator of the organisation and sharing and realising the goals of the organisation is the condition of fulfilling them. For this reason, there is large emphasis on the degree to which an individual identifies with the organisation and the manager who becomes a true leader<sup>13</sup>.

G. Bartkowiak notes that management psychology as a scientific subdiscipline requires certain modifications in order to fit it better to contemporary conditions, such as<sup>14</sup>:

- a) broadening the area of research by the issue of an individual’s identity within an organisation, which can play a major role in identifying and shaping the individual’s behaviour;
- b) the need to take into account the ethical problems within the area of interest and research of management psychology;

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<sup>10</sup> G. Bartkowiak, *Psychologia...*, p. 13.

<sup>11</sup> *Ibidem*, p. 14.

<sup>12</sup> K. Obuchowski, *Człowiek intencjonalny*, PWN, Warszawa 1993, p. 9–10.

<sup>13</sup> G. Bartkowiak, *Psychologia w zarządzaniu. Nowe spojrzenie*, Wyd. Uniwersytetu Ekonomicznego, Poznań 2010, p. 17–18.

<sup>14</sup> G. Bartkowiak, *Psychologia w zarządzaniu...*, p. 24–25.

- c) disposition towards searching for new concepts and theories which would serve to clarify broadly-understood human behaviour, the mechanisms thereof and conditioning and not to “fit” them to existing concepts;
- d) putting more emphasis on qualitative research which work equally to quantitative ones;
- e) avoiding generalisations in formulating research conclusions.

Management psychology is an interdisciplinary science, because it draws from economic and social sciences, allows a complex view on an individual in an organisation. This lets psychological research be used in management practice in a more informed and efficient manner.

### **3. The use of psychology in human resource management**

Everywhere that human resource management is present, psychological problems arise. Organisation and management psychology encompasses a lot of problems, containing — to a smaller or larger degree — psychological elements, such as<sup>15</sup>:

- decision making;
- personnel selection;
- introduction at the workplace, development and training;
- employee evaluation;
- employee motivation;
- employee dismissal;
- employee efficiency;
- change management;
- creativity and innovation management;
- individual and group behaviour;
- group leadership and teamwork;
- leadership;
- crisis management;
- communication and interpersonal skills;
- conflict resolution and negotiations;
- stress, lobbying, burnout;
- organisational culture and multi-cultural character;
- organisation’s image and brand.

Management uses psychology and either ready-made theories or the theories are adjusted to knowledge in management practice in human cooperation. Of special importance is the knowledge of stress, conditioning, personality, groups, motivation, emotion, communication, or employee involvement. Psychological tests, different techniques of influencing others, methods of instilling behaviour in others, and other methods are employed.

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<sup>15</sup>K. Gurmińska, *Koncepcje psychologiczne w zarządzaniu*, „Nowoczesne Systemy Zarządzania”, vol. 7, Wojskowa Akademia Techniczna, Warszawa 2012, p. 203–204.

The most widespread psychological tool, used in management, are psychological tests, with the use of which such characteristics as intelligence, temperament, behaviours, preferences and interests may be analysed<sup>16</sup>. Not all tests, however, meet the standards of tests used in management. Carefully prepared and controlled tests possess certain characteristics. Above all, a good psychological test is standardised, objective, based on norms, reliable and precise<sup>17</sup>.

The basic characteristics of a psychological test therefore are<sup>18</sup>:

- standardisation — similarity or uniform character of conditions and procedures of employing the test (a standardised test has instructions and an answer key);
- objectivity — the results are calculated independently of individual judgements or prejudice;
- normalisation — the test results are interpreted based on norms (distribution of results within a large group of individuals similar to the tested person);
- reliability — the answers are coherent or stable within the test (too wide a discrepancy of results when re-testing a group signifies the test to be unreliable);
- accuracy — the conclusions drawn from test results or other research are proper;
- cultural adaptation — the tests “imported” from other countries of different traditions, language or religion are adjusted to the target country where they are to be reused.

Psychological tests vary based on the way they are structured, used, and the type of measured behaviour. Therefore, the following types can be identified:

- a) individual tests — designed to test individuals;
- b) group tests — designed to be used on large groups of people at the same time;
- c) time-constrained tests — with predefined time for their completion after which test subjects need to interrupt further progress;
- d) tests with no time limits — where no time limit is present;
- e) paper-and-pencil tests — where questions are printed and the answers are written down in special sheets;
- f) performance tests — assess individual abilities, such as typing or mechanical skills;
- g) computer-aided tests — designed to test large numbers of individuals, but creating conditions for testing individual people, where answers of the test subject determine the level of difficulty of individual questions;
- h) cognitive skill (intelligence) tests — commonly used in employee selection;
- i) interest tests — assessing the individual interests and preferences, used mainly in professional advisory institutions;
- j) talent tests — to measure specific talents, such as clergy or mechanical ones;
- k) motoric skill tests — to assess eye-hand coordination, sleight of hand, etc.
- l) personality tests — to assess personality and emotional characteristics;
- m) integrity tests — to predict and detect dishonest behaviour among personnel (paper-and-pencil type).

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<sup>16</sup> S. Przytuła, *Psychologia...*, p. 18.

<sup>17</sup> D.P. Schultz, S.E. Schultz, *Psychologia a wyzwania dzisiejszej pracy*, PWN, Warszawa 2002, p. 127.

<sup>18</sup> D.P. Schultz, S.E. Schultz, *Psychologia...*, p. 127–130; J. Brzeziński, *Co jest testem psychologicznym?*, [in:] *Nowoczesne metody doboru i oceny personelu*, T. Witkowski (ed.), Wyd. Profesjonalnej Szkoły Biznesu, Kraków 2000, p. 284–289.

Management involves a variety of psychological tests — see Table 2.

Table 2.

Selected psychological tests used in management

Name of the test	Use
WAIS-R intelligence test (Wechsler adult intelligence scale-revised)	– test of arithmetic problem solving, acquired knowledge, intellectual potential, emotional intelligence and social intelligence
PTS Strelau-Zawadzki temperament test	– measurement of such temperament characteristics as: liveliness, perseverance, sensoric sensitivity, emotional reactivity, durability, activity – test of stress resistance levels and the ability to adjust to new and changing situations
NEO-FFI personality test	– test of five property groups: neuroticism, extraversion, openness to experience, conscientiousness, and agreeableness (the big five theory)
Myers-Briggs test	– test of four property groups which tell whether a person is: extroverted or introverted, cognitive or intuitive, thinking or feeling, and perceiving or judging
PAPI test (personality and preference inventory)	– test of personality traits which may facilitate success in the workplace
WIS test (work importance study)	– assessing the person's preferred values and needs and the roles taken during their lifespan
Raven matrix test	– assessing the potential for quick learning, adaptation and easiness to cope with change
CISS test	– diagnosis of style of coping with difficult and stressing situations: SSZ — problem solving style SSE — emotion-oriented style SSU — stress situation avoidance style
MBI test (Maslach burnout inventory)	– diagnosis of professional burnout syndrome

Source: author's own work based on: S. Przytuła, *Psychologia zarządzania. Wybrane zagadnienia*, Wyd. UE we Wrocławiu, Wrocław 2008, p. 20–25; J. Strelau, *Temperament*, [in:] *Psychologia. Podręcznik akademicki*, vol. III, J. Strelau (ed.), GWP, Gdańsk 2000, p. 709; R. Kaczyńska-Maciejowska, *Na właściwym miejscu*, "Personel i Zarządzanie" vol. 4/2005, p. 40; D. Molek-Winiarska, *Badanie nie zabawa*, "Personel i Zarządzanie" vol. 4/2005, p. 31.

Tests are a useful tool in management practice. For this reason, they are becoming more widespread, especially in employee selection. When using tests, however, one needs to bear in mind certain dangers, such as improper test selection, unjust candidate rejection even if they possess desirable characteristics, or dishonest answers<sup>19</sup>. Special caution must be exercised if tests are conducted by people without background in psychology. Improper use of the tests and their improper interpretation

<sup>19</sup>D.P. Schultz, S.E. Schultz, *Psychologia...*, p. 162.

may harm test subjects. Additionally, ethical problems connected with the use of tests arise, mostly related to breaches of privacy and intimacy of test subjects. One must not also forget that laws prohibit the use of psychological tests that discriminate against work candidates based on their sex, nationality, religion, or race. Psychological tests on the Polish job market are sponsored by the Polskie Towarzystwo Psychologiczne (Polish Psychological Society)

There are numerous possibilities of applying psychology to the practice of human resource management in organisations. It is most commonly used in the delivery of selected areas of personal functions (see Table 3).

Table 3.

## The use of psychology in selected areas of personal function

Personal function area	Character of the applied psychological tools
Developing a candidate profile	– verification of psychological disposition of an employee with the use of intelligence, temperament, personality, professional potential, fast learning potential, coping with change, and work satisfaction tests
Recruitment	– searching for candidates for defined posts with the use of available sources and using certain forms – the use of psychologists and head-hunters – the use of multi-select tests that measure the overall factor of accordance of the candidate's profile with the workplace profiles
Selection	– a group of activities that lead to the selection of the most proper people with the use of specific techniques and tools – preparing specially designed psychological tests – conducting structured interviews – the use of assessment centres or graphology analysis
Work introduction	– introducing the employee into the work process and environment in order to provide satisfaction and problem-free functioning within the organisation – the use of monitoring and coaching as advisory practices – the use of cultural adaptation tests and the test measuring group roles
Work motivation	– calling upon non-material factors motivating to work, autoeolic motivation, related to the employee's values and needs – the use of positive and negative reinforcement that modify behaviours and attitudes – diagnosing employee needs and the way of satisfying them within their workplaces
Employee assessment	– developing qualification criteria encompassing the assessment of knowledge, skills, and experience needed to perform the work at a given workstation (assessment centre, knowledge tests) – developing behavioural criteria that allow to measure behaviours and attitudes of employees (specially adjusted behavioural scales) – developing personality criteria that verify personality traits which are crucial from the point of view of the requirements of the workstation (personality tests, e.g. Meyers-Mriggeres)

Human resource development	<ul style="list-style-type: none"> <li>– defining the development path of an employee and planning their professional development path</li> <li>– the use of e-learning and blended learning</li> <li>– assessing the efficiency of trainings (e.g. according to Kirkpatrick's model)</li> </ul>
Dismissals	<ul style="list-style-type: none"> <li>– analysis of the phenomenon of career moves and the reasons thereof</li> <li>– analysing coping with stress and coping in difficult situations (e.g. the CISS test)</li> <li>– diagnosis of professional burnout levels (e.g. with the use of the MBI test)</li> <li>– undertaking preventive actions and psychological intervention actions, such as outplacement or psychotherapy</li> </ul>

Source: author's own work based on: G. Bartkowiak, *Psychologia w zarządzaniu. Nowe spojrzenie*, Wyd. UE, Poznań 2010, p. 25–27.

To summarise, psychology finds wide use in management practice. Managers who use psychology in managing human resources have larger chances of success. This does not, naturally means that the employees are to be overburdened with tests. Knowledge of determinants of human behaviour in an organisation, tools to motivate employees in non-material ways (calling upon individual needs of employees), sources of organisational stress, and ways of coping with them will definitely improve the managerial efficiency. Psychological knowledge is useful in making decisions when selecting employees. The use of psychological tools will result in the accepted candidates make better use of their skills and abilities with profits for themselves and the organisation as a whole. Therefore, contemporary human resource management ought to have an interdisciplinary character. Management ought to understand the processes within the organisation as well as those present in the psychics of the employee.

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