

## PSYCHOLOGICAL SAFETY OF EMPLOYEES (NECESSITY OR OPTION)

Michalene Eva GREBSKI<sup>1\*</sup>, Bożena GAJDZIK<sup>2</sup>

<sup>1</sup> Colorado Mesa University; mgrebski@coloradomesa.edu, ORCID: 0000-0002-3487-4473

<sup>2</sup> Silesian University of Technology; bozena.gajdzik@polsl.pl, ORCID: 0000-0002-0408-1691

\* Correspondence author

**Purpose:** This article describes these kinds of working conditions which has become known as psychological safety.

**Design/methodology/approach:** The article describes the workforce development from farm forced-labor to the first Industrial Revolution factory workers and finally to the knowledge-based company personnel. As the work was becoming more complicated and technologically advanced, the methods of incentives to increase the productivity of the workforce needed to be revised. To solve the complex problems of the world, one person or either one discipline is not sufficient. It is required that people work together, communicate with each other and exchange knowledge.

**Findings:** This paper is focusing on building psychological safety as an organizational culture. Psychological safety is also being incorporated into education as a method conducive towards learning and the exchange of knowledge. Post-secondary graduates already trained in a psychologically safe environment are a great asset to their future employers. Most proactive knowledge-based companies, especially in Industry 4.0, already have psychologically safe environments or are in the process of creating them.

**Research limitations/implications:** As a direct consequence of the research topic, theoretical activities will be carried out in the next publication. The direct consequence of such activities will be theoretical activities aiming, in the next publication, at building a model and empirical research aiming at verifying the theoretical layer of the described problematic. The issues of security and its threats constitute a constant element present in the actions of individuals and social groups interpreted in a historical perspective. Nowadays, these issues have been treated as important and in need of ordering in accordance with the requirements of science. In accordance with the requirements of science.

**Practical implications:** This article is an introduction to further research in the field of safety psychology and may serve as an inspiration for other researchers or companies in improving work safety procedures, employee training, awareness of safe work, etc.

**Social implications:** The topic of the psychology of occupational safety is part of society's concerns about the health of people working in industry.

**Originality/value:** In the next industrial revolution- Industry 4.0, the topic of safety psychology is a new area of research because factories are building smart environments.

**Keywords:** safety, psychological safety, industrial revolution.

**Category of the paper:** Conceptual paper with case study.

## 1. Introduction

Development of society changes the requirements of the workforce. During the agricultural era, forced labor or slavery were the general adopted model. The productivity of the workforce working under those conditions was achieved by applying physical force. This productivity depends on innovativeness, creativity and psychologic approach to human resources (Grebski and Grebski, 2021; Wolniak and Grebski, 2018). Individuals working too slow were physically abused by the supervisor. Corporal punishment was an accepted norm for supervision. The Industrial Revolution and the need for labor in the manufacturing sector changed that model. Forced labor or slavery did not apply well in the manufacturing settings. The workforce had to be motivated differently to be effective and productive. In the United States this created a conflict between the industrial North and the agricultural South. The northern states wanted to abolish slavery to gain factory workers. Southern states wanted to maintain slavery as the least expensive alternative to produce cotton and other agricultural labor-intensive crops. This conflict led to the Civil War and the abolition of slavery. Forced labor and slavery was replaced by work in manufacturing factories. The workers were being paid for their work. The workers were being intimidated and threatened to be fired for not delivering the expected productivity and quantity. Since there were no or limited social programs, work was essential for their physical survival. People were theoretically free, but practically they had to work long hours at manufacturing companies. Extremely unacceptable practices were replaced by practices which were not much better. Some social programs were developed over time. However, the management techniques did not change. Assembly lines introduced by Henry Ford to produce automobiles was the beginning of the *golden age* of the manufacturing industry. Fear and intimidation were commonly used as proven management methods to increase the speed and accuracy of production workers. The fear and intimidation methods were effective in reducing assembly line production time of one automobile from twelve hours to three hours. The conditions within the manufacturing industry kept changing. Industry is more and more complex and driven by knowledge. The methodology, however, did not follow the changes in industry. Human factors are always the most difficult ones and the last ones to change. Until today the “command and control hierarchy” methodology is often being used. This approach combined with setting undeliverable goals leads to economic failure. Fearful employees to maintain their positions create false images and an illusion of success. The individuals in charge are being kept with the false illusion of success. Everybody except the captain knows that the boat is on a collision course with an iceberg. There are many examples the “command and control” method of management can have catastrophic consequences. Many employees see the problem, but the lack of psychological safety prevents them from voicing their opinion. The biggest fear of the great and effective leaders of modern corporations is compromising psychological safety within the corporation. Compromising psychological safety always leads to misinformation, illusion of success, false sense of security and eventual failure.

## 2. Psychological Safety in short literature review

The analysis of psychological determinants of an individual's actions is an important challenge in the broadly understood problem area of social sciences. Psychological safety in coronations is nowadays a rapidly developing stream in the group of social sciences which also includes psychology.

The scope of researchers' research in the topic of safety psychology and organisational culture is very extensive. Since Kahn's (1990) and Edmondson's (1999) initial work on psychological safety at the individual and team levels of analysis, empirical research on its antecedents, outcomes, and moderators has proliferated (Baer & Frese, 2003; Kark & Carmeli, 2009). Autors (Newman et al., 2017) performed a literature review of the scopes of study by individual and team. First, examining individuals' perceptions of psychological safety in dyadic relationships, studies by Tynan (2005) and Detert and Burris (2007). Reserachers constructed their own measures of supervisor or have used adapted versions of Edmondson's (1999). Researchers' examples: Carmeli (2007), Carmeli et al. (2009a-c, 2010), Hetzner et al. (2011). Later researchers were based on the publications and measurements of their predecessors, e.g. Singh et al. (2013) adopted a measure from Chrobot-Mason and Aramovich (2004), De Clercq and Rius (2007) used a measure from Brown and Leigh (1996). There were also hybrid, combined studies, based on individual measurements and ready-made ones. The same situation also occurred in the category: Team-level measures. Many authors of papers have cited Edmondson's publications (1999, 2001-2014). The scopes of research are very broad and include: leadership, mediator, organisational practices, relationship networks, communication, knowledge, etc. (Newman, 2017).

Researchers realise that model building is a complex task that requires multi-track efforts. They aim to take into account all possible conditions and factors affecting the performance of the individual and the team in difficult situations, which, depending on personality, behavioural and temperamental variables, may perceive and interpret these conditions differently.

Research in the field of occupational safety psychology, or rather its results, is a component of building (improving) the culture of an organisation. The concept of workplace culture is also understood broadly, and one of its components is the mental pillar (including psychological and ethical elements such as higher values, moral principles, awareness, subject identity, wisdom and knowledge, and social norms) (Cieślarczyk, 2010).

Every individual has his or her own value system. The analysis of values understood as a continuum making motivational sense in triggering the individual's actions under given conditions can also be a separate research topic (Czajkowski, 2014, 2017).

Each person may perceive the threat of the workplace and the environment differently (Holyst, 1991). It is possible to identify situations in which someone experiences an extremely strong sense of threat in a situation in which others do not. The indicated difficulties of interpretation and definition related to the notion of threat and sense of threat suggest the need to take into account many points of view when organizing the issue of psychological safety.

The concepts of security and threat are the ends of a continuum, between which a wide range of different situations can be identified. Each of these situations can be described from the perspective of fulfilment of criteria relating to the state of security and the state of threat. At the same time, in each of them many levels of functioning of an entity can be distinguished, on which it is possible to analyse and interpret the fulfilment of security and threat criteria. It is also clear that in a given moment of an entity's activity it can experience both a state of security and a state of threat. It is therefore possible to draw a conclusion about the complexity of the situation concerning the subject's sense of security and sense of threat, which have the character of subjective states intensively experienced by the subject (Czajkowski, 2017, p. 145).

Research confirms that knowledge of readiness of an individual to respond in a specific way to relevant objects, which can be both objects (things, people, etc.), as well as and ideas, is one of the most important factors making it possible to predict human behavior (Ajzen, 2001; Fishbein & Ajzen, 1997).

Therefore, it is worthwhile to study the psychology of safety in order to build up knowledge about people's attitudes.

### **3. Psychological Safety Within Corporations**

Psychological safety is a culture within a company to comfortably discuss issues, directions and potential problem. Psychological safety allows to recognize a potential problem early and prevent a catastrophic failure. Company failures never occur overnight. The problems leading to failures are visible to many very early. Senior management, however, is not aware of them because there is discomfort and risk in communicating the problems. Often it is easier and safer for the employee to cover-up the problem and make up false evidence of success (Giolito et al., 2017; Lynch et al., 2016; Schuetz 2016).

The business plan cannot become a rigid policy enforced from the top down. Business plans need to be viewed as a hypothesis and need to be constantly verified. Very often the frontline workers of the company are in a better position to see the weaknesses of the business plan and they need to be able to communicate these weaknesses to the top management of the company. This is the only way to avoid very painful and costly mistakes. The lack of psychological safety creates a situation where people remain silent. Many tragedies could be avoided if people were not afraid to speak up and share their concerns. The fastest growing companies in the United

States have one common value. This is psychological safety. In many companies everybody is required to have an idea journal to write down their opinions, suggestions and/or perspectives which can be shared with colleagues and management. No criticism is to be taken personally. The ideas are being criticized and evaluated, but the employees are not (Chapman and Sisodia, 2015; Minor and Rivkin, 2016). The discussions and debates within companies are being done for the purpose of exploring lateral solutions to a problem. There are no winners and losers in the debate. (Losing the debate is a more valuable experience than winning the debate.) Management of the company, however, makes the final decision. Many companies are taking transparency to the extreme. Most of the meeting in those companies especially those at the higher managerial level are being videotaped and available to any employee to view at any time. To ensure full transparency employee evaluations related to work performance are always available to the employee who is being evaluated (Cable, 2018; Hirak et al., 2012).

Leaders who are demonstrating vulnerability and often say, "I don't know." are successful in engaging the hearts and minds of the employees. Understanding and supporting a company's purpose combined with caring leadership motivates employees to go the extra mile contributing to the company's success. In companies with psychological safety, the role of managers and employees are reframed as follows (Brown and Leigh, 1996; Edmondson, Amy, 1999):

**Table 1.**

*Traditional and reframed roles of managers and employees*

	<b>Traditional Role</b>	<b>Reframed Role</b>
Managers	Has answers. Gives orders. Assesses performance.	Sets the direction. Invites input to clarify and improve directions. Creates conditions for the employees to be successful.
Employees	Employees are doing what they are asked to do.	Provide feedback with first-hand knowledge.

1. Security: We need predictability, consistency, certainability. Lack of these signs of security is being viewed by the brain as a threat to our safety and releases unconscious defense mechanisms. Psychological threats are being treated on the same level as physical threats.
2. Autonomy: Having choices increases safety. Lack of control is viewed by the brain as a threat to our safety.
3. Fairness: Fairness is rewarding to the brain. Lack of fairness is viewed as a threat to our safety.
4. Esteem: Feeling that we are regarded highly is rewarding to the brain. Lack of regard by others is viewed as a threat to our safety.
5. Trust: Lack of trust is viewed as a threat to our safety.

## 4. Individual Psychological Safety

Even while working in a psychologically safe environment, *our old brain* is periodically being triggered on an unconscious level sending us signals of potentially dangerous situations. This part of the brain is wired for safety. Those signals are strong even though they may be false alarms most of the time. It is necessary to be aware of those false alarms and manage the triggers. The technique for managing triggers is called T.R.A.I.N. (trigger, reflect, appraise, include, neutralize). A trigger occurs when the *old brain* senses a threat to our safety. Most of those threats are false alarms on the unconscious level. We need to dampen those false alarms by getting our PFC part of the brain to override the unconscious reactions. It takes practice to do that quickly enough to avoid offensive responses. The next step is to *reflect* on unconscious safety concerns and *appraise* our negative perspectives and consider positive perspectives. This is being followed by *include* another perspective into our safety zone and broaden our exposure to diverse ideas. The last stage is to *neutralize* the negative signal from the *old brain* and continue the dialogue at the PFC brain level.

## 5. Team Psychological Safety

The principles of building psychologically safe teams include the following (Kahn, 1990):

- Value and nurture psychological safety of yourself as well as the members of your team.
- Promote and practice transparency and openness.
- Feel safe to offer your opinion and take a risk.

Communication in the workplace must respect and comply with the psychological safety needs by addressing and avoiding potential triggers. In any tasks the communication must include:

- Clearly explain the purpose of every assignment to avoid rumors and speculations (Radecki, Dan and Leonie Hull, 2021)
- Clearly explain the structure and expectations.
- Provide employees with choices within the framework of the assignment.
- Reassure all the employees that nobody will be put in a risky situation.
- Create an atmosphere of inclusion (We are all in this together and everyone is welcome).
- Reassure equality and fairness.
- Demonstrate how individual safety will be protected.

Psychological safety can be achieved by building a psychologically safe culture. The relationship between management and employees needs to be built on partnership, mutual respect and collaboration. Discussions must be always a two-way discussion during a timeframe

convenient to both sides. The goal is to create an environment where everyone in the organization feels (De Smet et. al., 2021):

- Appreciated, valued and respected.
- Safe to be open and transparent.
- Safe to admit failures and weaknesses.
- Safe to speak out and take a risk.
- Obligated to protect everyone's safety needs on an ongoing basis.

There are training programs available and offered by human resource professionals. The training normally includes the theoretical background as well as team coaching sessions. Experts model psychologically safety behavior. These experts can be assigned to the company for a period of a few months to observe and provide feedback related to building a psychologically safe culture (Herway, Jake, 2017). Psychological safety coaches create some structure during the brainstorming session and also help to optimize the communication style. Psychological safety is often defined as good feelings of safety, freedom and confidence without anxiety and fear. These feelings are described by Maslow's hierarchy of needs to be on the top of the pyramid. Psychological safety can be viewed as either an individual approach or group approach. Edmondson (1999) introduced psychological safety from the team perspective to be applicable to the organizational setting. All employees need to work together as a team within the organization. For this to happen there is a need for support from management to create an atmosphere of self-expression and clearly define everybody's role within the organization. Research indicates that the level of psychological safety directly affects the employees' motivation, attitudes and performance. At the present time there are at least four scales to assess psychological safety (Edmondson, 2019). Cronbach alpha coefficient for those scales varies from :73-.94.

## **6. Factors Influencing and Influenced by Psychological Safety**

The factors influencing and influenced by psychological safety can be divided into the following (Edmondson, and Per Hugander, 2021):

- Individual factors (Based on individual characteristics).
- Interpersonal factors (The relationship between the employees affects psychological safety).
- Leadership factors (Leadership plays the most important role in promoting psychological safety).
- Organizational factors (Changes within the organization creates uncertainty and lowers psychological safety).

- Knowledge sharing factors (These factors have a very positive influence on psychological safety and vice versa).
- Innovation factors (These factors have a very positive influence on psychological safety and vice versa).
- Employee engagement factors (Those factors are affected by psychological safety).
- Job performance factors (Psychological safety improves job performance) (Li et al., 2017; Chen et al., 2015; Li and Yan, 2009).

Research has shown that psychological safety is positively affecting the desired outcomes of an individual, team and organizational levels.

## 7. Conclusions

Research has shown that psychological safety is beneficial to the company as well as their employees. Most proactive modern companies either have already implemented or are in the process of implementing psychological safety. Research also has shown that psychological safety is conducive to innovation, creativity and knowledge-sharing. Psychological safety in the workforce is beneficial and without question. The implementation, however, requires the development of a new culture within a company which is a time-consuming process. Presently psychological safety is also being implemented in higher education. Engineering and business graduates will soon understand what it means to be in a psychologically safe environment. These graduates will be able to lead their future place of employment toward psychological safety. Further research will be conducted among university students to find out their knowledge on building a safe work environment, at the level of the impact of the knowledge obtained at university on building safe work awareness. The pilot study will look at the components of safe work awareness.

## References

1. Ajzen, I. (2001). Nature and operation of attitude. *Annual Review Psychology*, 52, 27-58.
2. Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior*, 24, 45-68.
3. Brown, S.P., & Leigh, T.W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology*, 81, 358-368.



4. Cable, D. (2018). How Humble Leadership Really Works. *Harvard Business Review*. <https://hbr.org/2018/04/how-humble-leadership-really-works>.
5. Carmeli, A. (2007). Social capital, psychological safety and learning behaviours from failure in organisations. *Long Range Planning*, 40, 30-44.
6. Carmeli, A., & Gittell, J.H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behavior*, 30, 709-729.
7. Carmeli, A., & Zisu, M. (2009). The relational underpinnings of quality internal auditing in medical clinics in Israel. *Social Science and Medicine*, 68, 894-902.
8. Carmeli, A., Brueller, D., & Dutton, J.E. (2009). Learning behaviours in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, 26, 81-98.
9. Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive leadership and employee involvement in creative tasks in the workplace: The mediating role of psychological safety. *Creativity Research Journal*, 22, 250-260.
10. Chapman, B. and Sisodia, R. (2015). *Everybody Matters: The Extraordinary Power of Caring for Your People like Family*. United States: Penguin-Random House.
11. Chen, Ming, Xiaoying Gao, Huizhen Zheng and Bin Ran (2015). *A Review on Psychological Safety: Concepts, Measurements, Antecedents and Consequences Variables*. International Conference on Social Science and Technology Education (ICSSTE 2015). [www.atlantis-press.com/article/18784.pdf](http://www.atlantis-press.com/article/18784.pdf).
12. Chrobot-Mason, D., & Aramovich, N. (2004). *Employee perceptions of an affirming climate for diversity and its link to attitudinal outcomes: A comparison of racial and gender groups*. Paper presented at Annual Meeting of the Academy of Management, New Orleans, LA.
13. Cieślarczyk, M. (2010). *Kultura bezpieczeństwa i obronności*. Siedlce: Wyd. AP, p. 210.
14. Czajkowski, W. (2014). *Psychologiczne mechanizmy działania w sytuacji zagrożenia bezpieczeństwa*. Katowice: Wyższa Szkoła Bezpieczeństwa Publicznego i Indywidualnego APEIRON.
15. Czajkowski, W. (2017). *Psychologia bezpieczeństwa. Wyzwania i zagrożenia*. Kraków: Wyższa Szkoła Bezpieczeństwa Publicznego i Indywidualnego APEIRON.
16. De Clercq, D., & Rius, I.B. (2007). Organizational commitment in Mexican small and medium-sized firms: The role of work status, organizational climate, and entrepreneurial orientation. *Journal of Small Business Management*, 45, 467-490.
17. De Smet, A., Rubenstein, K., Schrah, G., Edmondson, A. (2021). *Psychological Safety and the Critical Role of Leadership Development (Survey)*. McKinsey & Company. <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/psychological-safety-and-the-critical-role-of-leadership-development>.

18. Detert, J.R., & Burris, E.R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, 50, 869-884.
19. Edmondson, A.C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350-383.
20. Edmondson, A.C. (2019). *The Fearless Organization*. Hoboken, New Jersey: John Wiley & Sons, Inc. ISBN: 9781119477242.
21. Edmondson, A.C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. *The Annual Review of Organizational Psychology and Organizational Behavior*, 1, 23-43.
22. Edmondson, A.C., & Mogelof, J.P. (2005). Explaining psychological safety in innovation teams. In: L. Thompson, & H. Choi (Eds.), *Creativity and innovation in organizations* (pp. 109-136). Mahwah, NJ: Lawrence Erlbaum Associates Press.
23. Edmondson, A.C., & Woolley, A. (2003). Understanding outcomes of organizational learning interventions. In: M. Easterby-Smith, & M. Lyles (Eds.), *International handbook on organizational learning and knowledge management*. London: Blackwell.
24. Edmondson, A.C., Bohmer, R.M., & Pisano, G.P. (2001). Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly*, 46, 685-716.
25. Edmondson, A.C., Dillon, J.R., & Roloff, K.S. (2007). Three perspectives on team learning: Outcome improvement, task mastery, and group process. *Academy of Management Annals*, 1, 269-314.
26. Edmondson, A.C., Hugander, P. (2021). 4 Steps to Boost Psychological Safety at Your Workplace. *Harvard Business Review*. <https://nbr.org/2021/06/4-steps-to-boost-psychological-safety-at-your-workplace>.
27. Fishbein, M. Ajzen, I. (1997). *Relief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. MA: Addison-Wesley.
28. Giolito, V., Verdin, P., Hamwi, M., and Ouladu, Y. (2017). *Volkswagen: A Global Champion in the Making? Case Study*. Solvay Brussels School of Economics and Management.
29. Grebski, M.E., Grebski, W. (2021). *Psychology of Creativity and Innovation in Engineering and Business Curriculum*. Multidisciplinary Aspect of Production Engineering, Part 2. P. Habek (Ed.), pp. 387-394, DOI: 10.2478/mape-2021-0035. ISBN: 978-83-66675-67-4, ISBN: (e-book): 978-83-66675-68-1.
30. Herway, J. (2017). *How to Create a Culture of Psychological Safety*. <https://www.gallup.com/workplace/236198/create-culture-psychological-safety.aspx>.
31. Hetzner, S., Gartmeier, M., Heid, H., & Gruber, H. (2011). Error orientation and reflection at work. *Vocations and Learning*, 4, 25-39.
32. Hirak, R., Peng, A.C., Carneli, A., and Schaubroeck, J.M. (2012). Linking Leader Inclusiveness to Work Unit Performance: The Importance of Psychological Safety and Learning from Failures. *The Leadership Quarterly*, 23(1), 107-117.

33. Hołyst, B. (1991). *Człowiek w sytuacji trudnej*. Warszawa: Polskie Towarzystwo Higieny Psychiczej.
34. Kahn, W.A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *Academy of Management Journal*, 33, 692-724.
35. Kark, R., & Carmeli, A. (2009). Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30, 785-804.
36. Li, A.N., Liao, H., Tangirala, S., & Firth, B.M. (2017). The Content of the Message Matters: The Differential Effects of Promotive and Prohibitive Team Voice on Team Productivity and Safety Performance Gains. *Journal of Applied Psychology*, 102(8), 1259-1270. <https://psycnet.apa.org/doiLanding?doi=10.1037%2Fap10000215>.
37. Li, Ning and Jin Yan (2009). The Effects of Trust Climate on Individual Performance. *Frontiers of Business Research*, 3(1), 27-49. [https://www.researchgate.net/publication/225406781\\_The\\_effects\\_of\\_trust\\_climate\\_on\\_individual\\_performance](https://www.researchgate.net/publication/225406781_The_effects_of_trust_climate_on_individual_performance).
38. Lynch, L.J., Cutro, C., and Bird, E. (2016). *The Volkswagen Emissions Scandal: Case Study*. UVA, No. 7245. Charlottesville, VA: University of Virginia. Darden Business Publishing.
39. Minor, D., and Rivkin, J. (2016). *Truly Human Leadership at Barry-Wehmiller: Case Study*. HBS, No. 717-420. Boston, MA: Harvard Business School Publishing.
40. Newman, A. et al. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, <http://dx.doi.org/10.1016/j.hrmr.2017.01.001>.
41. Radecki, D., Leonie, H. (2021). *Psychological Safety: The Key to Happy, High-Performing People and Teams*. The Academy of Brain-Based Leadership. ISBN: 978-1-7321595-0-1.
42. Schuetz, M. (2016). *Dieselgate-Heavy Fumes Exhausting the Volkswagen Group: Case Study*. HK, No. 1089. Hong Kong: The University of Hong Kong Asia Case Research Center.
43. Singh, B., Winkel, D.E., & Selvarajan, T.T. (2013). Managing diversity at work: Does psychological safety hold the key to racial differences in employee performance? *Journal of Occupational and Organizational Psychology*, 86, 242-263.
44. Tynan, R. (2005). The effects of threat sensitivity and face giving on dyadic psychological safety and upward communication. *Journal of Applied Social Psychology*, 35, 223-247.
45. Wolniak, R., Grebski, M.E. (2018a). Innovativeness and Creativity as Factors in Workforce Development – Perspective of Psychology. *Zeszyty Naukowe Politechniki Śląskiej (Scientific Journal of the Silesian University of Technology. Seria Organizacja i Zarządzanie (Series of Organization and Management), nr 116*, pp. 203-214.
46. Wolniak, R., Grebski, M.E. (2018b). Innovativeness and Creativity of the Workforce as Factors Stimulating Economic Growth in Modern Economies. *Zeszyty Naukowe Politechniki Śląskiej (Scientific Journal of the Silesian University of Technology. Seria Organizacja i Zarządzanie (Series of Organization and Management), nr 116*, pp. 227-240.