

MANAGING ORGANIZATIONAL CHANGE THROUGH TRAININGS WITHIN ROMANIAN COMPANIES

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ABSTRACT

This paper aims to research among Romanian companies on how theories of evolutionary psychology, new discoveries in the field of cognitive sciences together with pre-change or during change training can predict and influence the behaviour of human beings but also the behaviour of organizations when they meet change management projects to lead them to a successful implementation. It is well known that most organizations that opt for change management face various challenges during this very expensive process but also the fact that mechanisms of human brain have developed over thousands of years and the speed with which they have evolved is lower than how fast current technologies are developing to create a competitive business environment across the planet. This paper examines how organizations can be focused through theories of evolutionary psychology to support organizational change, whether training employees before or during organizational change is favorable in reducing resistance to change, and whether effective communication aims to improve employee confidence in perceived justice through neuroscience will lead to the successful implementation of change. A quantitative research approach was carried out by using a descriptive and exploratory questionnaire including 44 questions, collecting data from 212 participants, who activate in companies from Romania that have gone through organizational change projects, distributed to subjects through an online platform. In conclusion, this paper offers a new perspective from which to approach organizational change projects, bringing to the fore various key points.

KEYWORDS: *change management, neuroscience, evolutionary psychology theories, training courses.*

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1. INTRODUCTION

The need to adapt to market demands, evolution and innovation are mandatory for organizations to survive the fierce competition in this contemporary era where disruptive economics and technology have reached heights unimaginable before. To remain competitive, companies must engage in continuous implementation of change management projects, which are very long and expensive. Most change management projects have failed to face many challenges and problems during their implementation, such as decreased employee job satisfaction or decreased productivity, in addition to much higher costs than anticipated.

It is the employees of organizations who implement such change management projects, and understanding and anticipating their reactions is of major importance to successfully complete these

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organizational transformations. Because of this, it is extremely important to introduce theories of evolutionary psychology, new theories, and discoveries in the field of neuroscience and their relationships with different learning programs in order to increase the success rate of change management projects.

The purpose of this paper is to identify areas in change management projects where theories of evolutionary psychology and cognitive science together with training programs can intervene and bring improvements in understanding the degree of sensitivity and how these can be modified to don't be a barrier to achieving the expected success.

2. LITERATURE REVIEW

2.1 Change Management

Change management implementation projects within organizations do not have a good track record at all due to poor planning and execution, succeeding in the last decade in only 34% of cases, while 19% failed, and those that did reached semi-success they accumulated 43% (Dowling, 2014). According to Zwaan (2019), during the implementation of change management projects, there is a decrease in the performance of each employee, but also in his commitment to the company's objectives due to the appearance of uncertainty in everything that means the work environment. Lawrence (2015) added that in these disruptive times, corporate leadership should focus more on sustainable development for future generations, social values, or mitigating environmental destabilizing damage, but instead in reality, leadership focused on gains of money and power.

Based on the research of Nicholson (2008), the most valued companies in the world have in common the practice of stewardship, management systems consider employees as members of a community, subconsciously giving them a sense of belonging to the group but also of participation in the performance growth. On the same page are the findings of Singh (2008) who states that large companies that have strategic goals in becoming global market leaders must first develop ways to attract and retain the best employees by providing them with opportunities for development by understanding that the company's cultural values and internal goals are placed by employees at a much higher level than remuneration or other benefits. The companies that can be considered winners are those that have managed to develop the ability to attract, retain and motivate very good professional managers and convince them to work with other members of the organization as if they were all part of the same community (Nicholson, 2008).

Many authors and the founder of this concept believe that organizational development cannot be managed and happens by itself, but there are other authors who contradict this, because organizational development can be managed primarily through the human factor that always wants to find new ways of improvement in different situations. There is a close interdependence between organizational development and organizational change that is based on both employee behavioral changes and the introduction of new management technologies (Doroshuk, 2019). Autzen (2018) mentioned also how ideas of change within organizational cultures struggle for survival in an evolutionary Darwinian process similar to biological evolution. Top-down strategies are not enough to bring about change, but must be combined with bottom-up knowledge, shared as explicit knowledge, vital in developing a learning and continuous development organization that is responsible for those changes so necessary for survival, improving the efficiency and performance of the company (Morgan, 2016).

Airolti (2013) defined the crucial points that must be included in any plan to implement organizational change strategies in order to generate cooperation among the organization's stakeholders and ideas that lead to efficiency and performance within the organization, these are encouraging the distribution of the sense of ownership of the parties in the implementation of the strategies, the analysis as a whole and not on the parties to determine the spending opportunities and alternatives in the allocation of budgets and last but not least the realization of a working model based

on a clear theoretical framework. Rochford et al (2017) discuss the key points within organizations that non-scientific researchers have examined over the past decade and recall emotions, intuition, team composition, training, and ethical decision-making, which they use to improve the understanding of leadership issues through neuroscience methods.

Successfully completed transitions have always centered on leaders introducing new ways to add value to organizations, it is also important to note that certain decision-making behaviors that have brought success in the past may not be necessary in the present or future (Wright et al, 2018). In most underperforming situations, managers tend to implement very strong internal cost control processes and procedures in return for allocating a development investment budget to a high level of quality human capital to improve productivity and results, which is not an action followed by long and medium-term results (Sung et al., 2018). A specific characteristic of leaders is to acquire and possess moral awareness considering not only the perspectives of some employees, but also the commitment of other employees and their emotional response, because injustices can occur by making quick decisions without consider all aspects (Rochford et al., 2017).

In his research, Doroshuk (2019) proposed that the opinions of the majority of directors and influencers in the organization's board should be considered, leading to collective implementation decisions within the company that lead to growth and reach a new level of self-governance, integrity within the organization and the existence of an evolutionary goal. Recent studies have found that destructive leadership leads to more negative consequences than constructive leadership leads to favorable outcomes because these negative behaviors are much more visible and direct than positive behaviors (Larsson, 2017). On the other hand, various papers have previously investigated the theory that adults' behavior is influenced by the presence of supernatural agents, and they are less open to deception in various tests to which they have been subjected than those who have not been exposed to such stories about supernatural agents (King, 2011).

2.2 Change Management & Neuroscience

According to Pace (2012), in recent years, the theoretical development and implementation of leadership in organizations through new discoveries in the field of cognitive science has gained great popularity and is on a continuous upward trend. Heydenfeldt (2010) is also positive about change management viewed from the perspective of new discoveries of human behavior in the field of neuroscience giving us hope in overcoming resistance to change through inventive and effective resolutions. Lafferty (2010) also agreed that by using recent findings in neuroscience, managers can influence organizational transformations by considering the psychological nature of the human brain and how it has provided the human subconscious with a predisposition to accept or reject different types of leadership. Even though change leaders are trained to ignore emotions and use logic and rational inquiry instead, there are many instances where when interacting with employees, they must be able to recognize the role of emotions in how employees think and process information, making the passion to lead the most important characteristic of a leader (Heydenfeldt, 2010).

Zwaan (2019) considered that organizational knowledge about human beings met an important stage in the evolution of the corporate work environment when the application of theories and new findings in social-cognitive neuroscience, began to lead to a new type of leadership called neuroleadership, focusing on how the brain and neural mechanisms influence employees in aspects of organizations. Change leaders can also use the theories and practices of neuroscience to better understand employee reactions, but also to provide guidance, information, or advice to employees to control their own emotions or to understand the emotions and thinking of others (Grah, 2016). As a result of such interactions, the human brain produces and releases a chemical that makes them feel good and will want to be in a similar position in the future, developing a sense of trust and support for the leader, creating an organization who work together towards the common vision of the company (Coe, 2010).

All life is represented by the brain because it controls all aspects of the human body, such as heartbeat, emotions, learning or memory, and neuroscience through advances in recent years in understanding how human beings think and behave will bring concrete solutions to the difficulties in understanding and managing the contemporary world that is in continuous disruptive change (Valanciene, 2016). On the other hand, Pace (2012) stated that by understanding and using neuroscience theories, leaders can use different techniques in dealing with employees and challenging situations encountered during change management projects, such as understanding certain resistance reactions from employees and how to change their exact approach or can understand why certain situations exist and happen in order to handle them from a different perspective. Coe (2010) clearly concludes that when a leader pushes the negative button of an employee, he will shut down his brain without even directly intending it to become defensive and ready to attack if he senses new threats. Trying to change the behavior of human beings, they will get an uncomfortable feeling because the brain will transmit negative impulses and at the same time it will block the ability to analyze the situation in depth, leading to a high level of stress among employees and the leader in the position they cannot understand these challenges encountered in the implementation of change management projects (Lafferty, 2010).

2.3 Change management & Evolutionary Psychology Theories

Bjorklund (2018) presented in his article, based on evolutionary theory, the main points that will retain their relevance in time for a long time to come: survival, mating, and kinship. On the other hand, Barrett (2019) described Jungian human archetypes as the main defining characteristics of social instincts, dynamic patterns of perception, memory, and action within psychogenetically sculpted channels. According to Jung's evolutionary theory, all human beings inherited from their biological parents by virtue of belonging to the human species, the collective subconscious or instinct, and subsequently developed through the challenges their ancestors faced to live together in groups, to understand and evolve (McAdams et al, 2019). One of the controversies of evolutionary theory is based on the conflict between individuals and the species from which they originate, where discriminating forces between the survival or adaptation of individuals to benefit the species even if these benefits do not favor the individuals (Kalin, 2009).

According to Coelho et al (2004), the environment in which the ancestors were selected influenced how any existing organism adapts and develops today, all physical and behavioral characteristics have been affected by evolution and the most important behavioral characteristics that provide valuable information in the study of management are reciprocal altruism and status seeking. The contemporary environment and the way modern society functions in the form of hunters and gatherers is a very good rough approximation of the evolutionary theory which has at its center the study of the human brain as a sum of adaptations to problems related to survival and reproduction (Sloan et al, 2004). Kock et al (2011) agreed with the above in their article that the brains of modern individuals have evolved to solve the problems they face compared to how they function among their ancestors, leading to better understanding of human behavior in these times when modern technologies are used to find solutions to the world's problems. Going further, Gilbert (2019) concluded that the human brain was not originally designed to be what it is today, it developed and innovated continuously to solve problems of adaptation, survival, and reproduction, but reality has showed that these problems had developed also in the human brain leading to an unexpected and restless mind.

In contrast, Gantt (2018) extended the idea that the human brain is a process that regulates information and energy waves to define the group brain as a group-level process that through psychotherapy can direct the entire group to function as a social brain in expansion and develop the social capacity of the brain of each member of the group. The human brain for some individuals as adapted to function autonomously cognitively and for other individuals as adapted towards interaction with other human brains through socialization by predicting cognitive cooperation, which is positioned at the center of research in psychological evolution (Sloan et al., 2004). Jude (2018) in his article introduced the

systemic reflexivity by which employees will be held accountable so that they put ethics at the hook of the practice itself to activate their vigilance and compassion towards others they work with, leading to a high level of commitment which will challenge old or traditional practices to develop alternative ways of working to improve performance and efficiency. Important information in coalition formation, males were found to be more interested in allying with their opponents with whom they had previously lost a fight or if a witness was present, concluding that males have a greater interest in assisted victories than in unassisted victories, and they are also interested in allying with males who have demonstrated superior fighting skills (Barbaro, 2018).

Sweller (2020) defined through his article that the skills acquired by individuals in solving problems do not come from nothing or are based on strategies in solving problems but are based on an enormous amount of knowledge acquired by individuals over a very long period of time, in a certain specific field, stored in long-term memory, becoming instincts over time. When individuals are in situations that are outside the domain of acquired and stored knowledge, then there are additional cognitive load effects, such as the distributed attention effect. In the same direction, Shechner et al. (2012) described in their article "attention" as a series of cognitive functions that give the brain of each individual the opportunity to divide tasks into priorities, because cognitive resources have a limited capacity, but the biased part of the brain regardless of stimuli, if threats appear, turns all his attention to one priority, survival. On the other hand, the human brain has in its structure the fantasy of pleasure and the fulfillment of hallucinatory wishes, thus creating a relationship between the human psyche and the needs of the human body, which explains how the mind of each individual was formed. Also, the human brain relies on a neurological reflex that is triggered automatically and uncontrollably when external tension or stress occurs, namely the brain triggers the overstimulation avoidance function (Kalin, 2009). On the other hand, Tybur (2013) concluded that the human brain is not a tool designed to perform a single function but has a modular architectural design with different psychological structures dedicated to solving various evolutionary challenges.

2.4 Change management & Training Courses

In organizations where there are ongoing change management projects, change leaders must create a work environment based on learning and trust to provide employees with positive emotions and security, to encourage employees to think creatively and come up with ideas and new solutions for the problems encountered without fear of possible mistakes (Grah, 2016). On the other hand, Singh (2018) stated that leaders cannot control employees or events that occur within the organization but can control or adapt how they respond to them by continuously learning how to adapt to new situations and techniques, which can lead to an increased ability to adapt and manage to achieve desired goals but also to better understand and motivate other individuals or groups. Grah (2016) argues that by cultivating an organizational culture based on collaboration between employees, so that they feel safe, but at the same time offering them constant challenges, all to support them in adapting to change and to embrace organizational learning.

Grant (2010) stated that in recent years, coaching has become more visible and used as a method of developing individuals for change in organizations, but nevertheless there is a new trend in the use of coaching in promoting change at the level of teams and organization. In his research, Grant (2010) demonstrated that the use of coercion by managers to force individuals to achieve organizational change often brings resistance on their part to the fore, but forcing managers to attend skills coaching programs and then act within the organization as a coach will lead to diminishing or even suppressing resistance among employees but it is true that a certain period of time is required, namely around 6 months, for a manager after completing such a coaching program and the implementation of these skills that will facilitate better communication but also the removal of barriers to change resistance found among some employees. On the other hand, Laumenskaitu (2003), introduced Self-Management-Leadership (SML), which was originally created to teach managers how to deal with

change, but can also be used in organizational change programs or in the development people through change, including strategic personal planning and empowering individuals to develop even greater self-esteem, self-control through a new and positive attitude, a new work style and behavior, all through mental training. Because the external environment is constantly changing and at a very high speed, the way each individual manages himself is more and more important and must be acted in this direction, not trying to control the external environment because that nowadays is not possible and will not lead to the desired organizational change but by focusing control at the level of each individual. The inner environment of each individual is the most important point in achieving change within the organization, which must be processed, supported, and challenged to rediscover, reinvent, and redirect towards future success (Laumenskaitu, 2003).

Natale et al (2005) suggested in their work on executive coaching, which defined it as a professional relationship focused on change and transformation, that this program can help people produce incredible results in their personal, professional, business, and organizational lives in which it operates. Coaching is carried out in five phases in which it is checked whether the alliance between the two collaborators is in agreement, the credibility of the coach, the creation of the link of sympathy, the phase of dialogue and learning new occupations and last but not least the activity plan of the coaching program so that in the end people with high potential have improved leadership skills, correcting managerial behavior by developing communication, developing the ability to win subordinates, improving relations with employees but also the acquisition of managerial and leadership skills by employees with more oriented technical knowledge. As part of the continuous development strategy of the organization and the individuals that are part of it, managers and leaders must have very well-ingrained coaching skills to help their employees learn, but there are still several barriers that stand in the way to an effective learning process, such as lack of time, lack of appropriate attitude or even well-developed coaching skills (Ladyshevsky, 2017). This is where direct coaching takes place between more experienced employees who have more knowledge and skills and those with less experience or at the start of their careers, each choosing an employee to provide training and one-on-one coaching sessions, and it works because there is feeling of equality between colleagues, the transmission of information is done fluently, without inner fears in either of the two. Ismail et al (2009) described in his work that mentoring is a form of education that has been practiced and applied in society since ancient Greece, it is part of and has always been the basis of the development of societies and of each person individually, so at organizational level of each company, where mentors are older or more experienced people who can be trusted to educate younger people with less experience. At the level of each organization, this mentoring program can be applied by transferring knowledge or skills from more experienced people to less experienced people to take on new tasks or acquire the necessary knowledge to use new technologies. Organizational mentoring programs share similar basic points but at the same time differ from one company to another, from one culture to another or from one field to another but combining these differences and commonalities with the unique points of each organization.

According to the research of Ismail et al (2009), the findings show that the relationship between a mentor and the mentoring student who are of the same gender leads to a better relationship than two people of different genders, being a critical aspect in implementing mentoring programs at the organization level leading to a positive impact in the assimilation of knowledge acquired through mentoring programs and supporting strategies in achieving the objectives set by each organization. On the other hand, described how training programs at the level of managers can positively influence management changes, leading to an immediate impact on the implementation of strategies and the achievement of objectives, it must also find the connection between the preparation of employees and managers to bear a certain volume of changes, exceeding this limit can lead to overload or even an additional load that is very difficult to manage due to repetitive changes syndrome (Green, 2004). Levasseur (2013) concluded in his work about the need to train employees in the assimilation of soft

skills because most college graduates have developed hard skills through learning, which is also important, but soft skills develop within an individual through communication with those around and through the groups they belong to. Soft skills compared to hard skills are very important in an organization, hard to quantify which of the two is more important, but soft skills improve one's ability to interact better with members within the organization and with external customers, a better understanding of the business environment, better collaboration within the team, is part of the development towards a proactive attitude in analyzing and solving business problems.

3. RESEARCH METHODOLOGY

A quantitative research approach was carried out, to examine the interactions between variables through their causes and effects, which at the same time tests and describes the relationships in the form of a systematic, objective, and formal procedure. A descriptive but also exploratory questionnaire was used to collect data from 212 participants to describe a population too large to be made direct observations which was distributed by the investigator in online format to the subjects. This type of questionnaire was selected for use because it provides objective and very accurate information about the characteristics and overview of the studied population such as the opinions and behavior, knowledge and beliefs of individuals or groups to which they belong. Also, this type of questionnaire was chosen and designed to be in line with the objectives of the study.

The questionnaire was composed of 44 questions, in the first part were integrated 6 questions of a demographic nature in relation with age, sex and information related to the professional role of the participants in their organizations. The most important questions were divided into three subparts of the questionnaire, namely 20 questions about how employees experienced organizational changes, 14 questions about how employees perceive themselves in relation to the organization in which they work and 4 questions about how important trainings are within the companies they belong to.

The questionnaire was created by the author in an online platform dedicated to creating questionnaires and then distributed to people in the circle of acquaintances through messages in online social platforms and then shared by them in turn in various other circles of people known to them.

The author proposed that the respondents work in Romanian companies of different sizes and fields that have gone through the experience of implementing organizational change strategies. For confidentiality, the questionnaire did not ask for the position within the organizations or the name of the companies they belong to. The questionnaire was distributed to the participants and completed in 8 weeks.

The analysis of this questionnaire was performed with the help of SPSS statistical analysis software and different methods were used depending on the needs of the data collected and the objectives of the study. In the first part of the analysis, the "Frequencies" method was applied which presented and described the distribution of values for a single categorical variable having as results table reports, being included percentages, and counted observations for each category of variables. Further in the analysis has been used the "Independent-samples t-test" method to compare the means score between two unrelated groups in relation with one dependent variable. For this method has been tested only independent variables with two categorical, independent groups and has been selected as a valid result the comparisons which had a significance value lower than the assigned level of significance 0.05.

To compare the mean score and to determine whether there are any statistically significant differences between more than two independent groups has been used the analysis method "ANOVA - one-way analysis of variance". On the other hand for this method has been tested also the homogeneity of variances using the Levene's test. Same as the previous method has been used the assigned level of significance 0.05.

The analysis has been ended with the correlation method "Pearson product-moment correlation coefficient" which brought to light valuable results whether there are linear component association between two continuous variables.

Research aims and questions:

The aim of this paper is to identify areas in change management projects where theories of evolutionary psychology and cognitive science together with training programs can intervene and bring improvements in understanding the degree of sensitivity and how it can be modified in order not to be a barrier in achieving the expected success.

Question No.1:

Will pre-change or during change training among employees reduce resistance to change and increase the efficiency of implementing change strategies by its agents?

Question No.2:

Effective communication among change agents, focused on increasing employees' trust in the perception of justice within organizations, using new theories from the field of neuroscience, will lead to a successful change implementation?

From the beginning of this study, it was determined that due to the exploratory nature it is necessary to use quantitative research to understand how participants experienced organizational change projects, how they perceive the relationship with the organization they belong to and how important trainings are in their companies.

There is a limited number of research in this area that put in a single study the relationship between organizational change, neuroscience, theories of evolutionary psychology and trainings even less in the Romanian context.

4. RESULTS

212 participants took part in this questionnaire, each of them answering all the questions without missing any information. Out of all 212 participants, 76 of them were male representing a percentage of 35.8%, while female participants represented the majority with a percentage of 64.2% being 136. In terms of age, the participants were aged ranging from 20 to 69 years old, with a majority of 51.4% of participants ranging from 20 to 29 years old, showing a mean of 2.72 correlated with an age of 32.1 years and a standard deviation value of 0.925 (table 1).

Table 1. Age Range Frequencies

Age Range	Frequency	Percent
Between 20 to 29 years old	109	51.4
Between 30 to 39 years old	69	32.5
Between 40 to 49 years old	21	9.9
Between 50 to 59 years old	10	4.7
Between 60 to 69 years old	3	1.4
Total	212	100.0

From the perspective of the level of training, 72 participants, representing 34%, have not attended any training in the last year and 39 (54.2%) of them usually do not go through any training at all. On the other hand, 140 (66%) participants attended courses in the last year with an interesting frequency, 36.4% (51) of participants attended training courses every 3 months, 26.4% (37) every 6 months and the rest only once in the last year (table 2).

Table 2. Training Level

Training Level			Every 3m	Every 6m	Every 12m	None
Training	Yes 140 (66%)	Count	51	37	37	15
		%	36.4%	26.4%	26.4%	10.7%
	No 72 (34%)	Count	6	3	24	39
		%	8.3%	4.2%	33.3%	54.2%
Total		Count	57	40	61	54
		%	26.9%	18.9%	28.8%	25.5%

By comparing the means of different questions of the questionnaire, between those who made trainings in the last year and those who did not participate in any trainings, selecting only those with a value of significance (.000 to .040) lower than the assigned significance value .05, will not be accepted the NO hypothesis of all the questions and that the mean score between the groups is significantly different. For the questions Q2.05, Q2.06, Q2.07, Q2.08, Q2.10, Q2.15, Q2.19, Q3.02, Q3.03, Q3.05, Q3.06, Q3.10, Q3.11, Q3.12, the participants who took part in training in the past one year score a higher mean than those who did not made any training, while according to the questions Q2.17 & Q3.13 those who went through tanning score a lower mean than those participants who did not took part in any trainings (table 3).

Table 3. Participation in training during last year

	Q53 / Q4.1 – Training	N	Mean	Std. Deviation	Std. Error Mean
Q23 / Q2.05	Yes	140	3.2786	1.00408	.08486
	No	72	2.9444	1.03310	.12175
Q24 / Q2.06	Yes	140	3.6500	1.08571	.09176
	No	72	3.1250	1.12510	.13259
Q25 / Q2.07	Yes	140	3.8214	.93891	.07935
	No	72	3.5139	.91917	.10833
Q26 / Q2.08	Yes	140	3.5929	.98109	.08292
	No	72	3.0278	1.02052	.12027
Q28 / Q2.10	Yes	140	3.2500	1.08704	.09187
	No	72	2.7083	1.06728	.12578
Q33 / Q2.15	Yes	140	3.5000	.91746	.07754
	No	72	3.2083	.99205	.11691
Q35 / Q2.17	Yes	140	2.6857	1.15731	.09781
	No	72	3.1250	1.11251	.13111
Q37 / Q2.19	Yes	140	3.3714	1.08185	.09143
	No	72	2.8611	1.10448	.13016
Q40 / Q3.02	Yes	140	4.0714	.87854	.07425
	No	72	3.6944	.98780	.11641
Q41 / Q3.03	Yes	140	3.8643	.91519	.07735
	No	72	3.3194	1.08545	.12792
Q43 / Q3.05	Yes	140	3.8286	1.05900	.08950
	No	72	3.3194	1.13617	.13390
Q44 / Q3.06	Yes	140	3.3143	1.20601	.10193
	No	72	2.8750	1.19786	.14117
Q48 / Q3.10	Yes	140	3.6000	1.12397	.09499
	No	72	3.0833	1.21898	.14366

	Q53 / Q4.1 – Training	N	Mean	Std. Deviation	Std. Error Mean
Q49 / Q3.11	Yes	140	3.2143	1.01631	.08589
	No	72	2.7917	1.00614	.11858
Q50 / Q3.12	Yes	140	3.7286	1.07852	.09115
	No	72	3.3056	1.22921	.14486
Q51 / Q3.13	Yes	140	2.6143	.94134	.07956
	No	72	2.9583	.98492	.11607

In the table 4 you can see a comparison of the average score on different questions in parts 2 and 3 of the questionnaire in relation to the time intervals during which the participants completed the training to find a possible link with how often or rarely employees attend training. Only comparisons that have a significance value lower than the level assigned to this study and that reveal mean scores between groups that are significantly different are presented. The results provide an image of the fact that beginners do training more often than those with more experience in the same organization and after the threshold of 3 years of experience, the frequency of employee participation in training becomes increasingly rare, most of them are part of the departments of sales, human resources plus IT and men attended courses less often than women.

Table 4. Frequency of participation in training

		N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Q22 / Q2.04	Every 3 months	57	3.1579	.94092	.12463	2.9082	3.4076	1.00	5.00
	Every 6 months	40	3.0750	1.04728	.16559	2.7401	3.4099	1.00	5.00
	Every 1 year	61	3.5410	1.05789	.13545	3.2700	3.8119	2.00	5.00
	None	54	3.5000	.79503	.10819	3.2830	3.7170	2.00	5.00
	Total	212	3.3396	.97734	.06712	3.2073	3.4719	1.00	5.00
Q23 / Q2.05	Every 3 months	57	3.5263	.86819	.11499	3.2960	3.7567	2.00	5.00
	Every 6 months	40	3.4750	1.01242	.16008	3.1512	3.7988	2.00	5.00
	Every 1 year	61	3.0656	1.06253	.13604	2.7934	3.3377	1.00	5.00
	None	54	2.6667	.93162	.12678	2.4124	2.9210	1.00	5.00
	Total	212	3.1651	1.02394	.07032	3.0265	3.3037	1.00	5.00
Q25 / Q2.07	Every 3 months	57	3.9825	.85547	.11331	3.7555	4.2094	1.00	5.00
	Every 6 months	40	3.9250	.88831	.14045	3.6409	4.2091	2.00	5.00
	Every 1 year	61	3.5738	1.00762	.12901	3.3157	3.8318	1.00	5.00
	None	54	3.4444	.90422	.12305	3.1976	3.6912	1.00	5.00
	Total	212	3.7170	.94146	.06466	3.5895	3.8444	1.00	5.00
Q26 / Q2.08	Every 3 months	57	3.7719	.77960	.10326	3.5651	3.9788	2.00	5.00
	Every 6 months	40	3.7750	.83166	.13150	3.5090	4.0410	2.00	5.00
	Every 1 year	61	3.1967	1.19471	.15297	2.8907	3.5027	1.00	5.00
	None	54	2.9630	.97057	.13208	2.6980	3.2279	1.00	4.00
	Total	212	3.4009	1.02786	.07059	3.2618	3.5401	1.00	5.00
Q27 / Q2.09	Every 3 months	57	3.5088	.80451	.10656	3.2953	3.7222	2.00	5.00
	Every 6 months	40	3.3750	1.00480	.15887	3.0537	3.6963	1.00	5.00
	Every 1 year	61	3.0492	1.02349	.13105	2.7871	3.3113	1.00	5.00
	None	54	3.0185	1.01852	.13860	2.7405	3.2965	1.00	5.00
	Total	212	3.2264	.98118	.06739	3.0936	3.3593	1.00	5.00

		N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Q28 / Q2.10	Every 3 months	57	3.5965	.96102	.12729	3.3415	3.8515	2.00	5.00
	Every 6 months	40	3.4500	.98580	.15587	3.1347	3.7653	2.00	5.00
	Every 1 year	61	2.8197	1.10315	.14124	2.5371	3.1022	1.00	5.00
	None	54	2.5000	1.00471	.13672	2.2258	2.7742	1.00	5.00
	Total	212	3.0660	1.10808	.07610	2.9160	3.2161	1.00	5.00
Q37 / Q2.19	Every 3 months	57	3.5789	.92480	.12249	3.3336	3.8243	2.00	5.00
	Every 6 months	40	3.2500	.95407	.15085	2.9449	3.5551	1.00	5.00
	Every 1 year	61	3.1639	1.17161	.15001	2.8639	3.4640	1.00	5.00
	None	54	2.7963	1.21903	.16589	2.4636	3.1290	1.00	5.00
	Total	212	3.1981	1.11364	.07648	3.0473	3.3489	1.00	5.00
Q40 / Q3.02	Every 3 months	57	4.1228	.96492	.12781	3.8668	4.3788	2.00	5.00
	Every 6 months	40	4.1750	.71208	.11259	3.9473	4.4027	2.00	5.00
	Every 1 year	61	3.9180	.89991	.11522	3.6876	4.1485	1.00	5.00
	None	54	3.6111	.99843	.13587	3.3386	3.8836	1.00	5.00
	Total	212	3.9434	.93210	.06402	3.8172	4.0696	1.00	5.00
Q42 / Q3.04	Every 3 months	57	3.5965	1.13168	.14989	3.2962	3.8968	1.00	5.00
	Every 6 months	40	3.8500	.97534	.15421	3.5381	4.1619	1.00	5.00
	Every 1 year	61	3.2787	1.17091	.14992	2.9788	3.5786	1.00	5.00
	None	54	3.0741	1.19515	.16264	2.7479	3.4003	1.00	5.00
	Total	212	3.4198	1.15942	.07963	3.2628	3.5768	1.00	5.00
Q44 / Q3.06	Every 3 months	57	3.4035	1.25157	.16577	3.0714	3.7356	1.00	5.00
	Every 6 months	40	3.6250	1.14774	.18147	3.2579	3.9921	1.00	5.00
	Every 1 year	61	3.0328	1.11006	.14213	2.7485	3.3171	1.00	5.00
	None	54	2.7222	1.20403	.16385	2.3936	3.0509	1.00	5.00
	Total	212	3.1651	1.21839	.08368	3.0001	3.3300	1.00	5.00
Q49 / Q3.11	Every 3 months	57	3.4737	.94690	.12542	3.2224	3.7249	1.00	5.00
	Every 6 months	40	3.4000	.84124	.13301	3.1310	3.6690	2.00	5.00
	Every 1 year	61	2.9016	1.01168	.12953	2.6425	3.1607	1.00	5.00
	None	54	2.5926	1.03739	.14117	2.3094	2.8757	1.00	5.00
	Total	212	3.0708	1.03020	.07075	2.9313	3.2102	1.00	5.00
Q51 / Q3.13	Every 3 months	57	2.5789	.96265	.12751	2.3235	2.8344	1.00	5.00
	Every 6 months	40	2.6250	.83781	.13247	2.3571	2.8929	1.00	4.00
	Every 1 year	61	2.6230	.98597	.12624	2.3704	2.8755	1.00	5.00
	None	54	3.0926	.97649	.13288	2.8261	3.3591	1.00	5.00
	Total	212	2.7311	.96791	.06648	2.6001	2.8622	1.00	5.00
Q52 / Q3.14	Every 3 months	57	3.6140	.72591	.09615	3.4214	3.8066	2.00	5.00
	Every 6 months	40	3.4000	.81019	.12810	3.1409	3.6591	2.00	5.00
	Every 1 year	61	3.2951	.78197	.10012	3.0948	3.4954	2.00	5.00
	None	54	3.1667	.96642	.13151	2.9029	3.4304	1.00	5.00
	Total	212	3.3679	.83553	.05738	3.2548	3.4810	1.00	5.00

Towards the end of the analysis correlations were made between the questions in part 2 and 3 of the questionnaire and below are two areas that were observed to have the highest significant correlations compared to the rest of the whole picture. The first area can be found in the second part of the

questionnaire where participants answered questions about how they experienced organizational change in the companies they work in and it can be seen that there is a very significant correlation between how clear the organizational change plan it is communicated, how clearly it is explained why it needs to be implemented and this clear perception of communication is directly influenced by the fact that employees have received adequate training and senior managers are supportive in implementing the change (table 5).

In the third part of the questionnaire is the second area (table 6), where the participants answered questions about how they see themselves in relation to the organization in which they are currently working, and it can be seen that there is a very significant correlation between these employee who perceived the direct manager to be fair with them and reward him with 100% trust thus increasing the level of communication between employees and their manager leading to the perception that he is like a coach to them.

Table 5. Correlations between all questions and 1st Part of Questionnaire

Correlations	Q2.1	Q2.2	Q2.3	Q2.4	Q2.5	Q2.6	Q2.7	Q2.8	Q2.9	Q2.10	Q2.11
Q19 / Q2.01											
Q20 / Q2.02	.183**	1									
Q21 / Q2.03	.027	-.101	1								
Q22 / Q2.04	.066	-.040	.058	1							
Q23 / Q2.05	.039	.093	.060	-.388**	1						
Q24 / Q2.06	.010	.113	.045	.474**	.632**	1					
Q25 / Q2.07	-.048	.213**	.063	.405**	.531**	.682**	1				
Q26 / Q2.08	.003	.081	.025	.287**	.549**	.570**	.554**	1			
Q27 / Q2.09	.030	-.029	.038	.298**	.463**	.457**	.388**	.412**	1		
Q28 / Q2.10	.085	.007	.037	.358**	.621**	.557**	.490**	.622**	.579**	1	
Q29 / Q2.11	-.044	.010	.076	.175*	.210**	.150*	-.098	.201**	.013	-.065	1
Q30 / Q2.12	-.009	-.098	.053	.229**	.306**	.255**	.291**	.221**	.160*	.216**	.234**
Q31 / Q2.13	-.043	.037	.054	.244**	.357**	.305**	.318**	.274**	.350**	.390**	.063
Q32 / Q2.14	.021	.002	.107	.237**	.236**	.246**	.141*	.225**	.350**	.358**	-.041

Table 6. Correlations between all questions and 2nd Part of Questionnaire

Correlations	Q2.17	Q2.18	Q2.19	Q2.20	Q3.1	Q3.2	Q3.3	Q3.4	Q3.5	Q3.6	Q3.7	Q3.8	Q3.9	Q3.10	Q3.11
Q35 / Q2.17	1														
Q36 / Q2.18	.186**	1													
Q37 / Q2.19	.092	.678**	1												
Q38 / Q2.20	.007	.046	.096	1											
Q39 / Q3.01	.041	.239**	.302**	.134	1										
Q40 / Q3.02	-.250**	.109	.340**	.128	.185**	1									
Q41 / Q3.03	-.224**	.207**	.441**	.056	.147*	.601**	1								
Q42 / Q3.04	-.121	.254**	.405**	-.032	.131	.588**	.635**	1							
Q43 / Q3.05	-.173*	.207**	.339**	.046	.153*	.540**	.626**	.562**	1						
Q44 / Q3.06	-.112	.164*	.297**	.029	.104	.555**	.599**	.746**	.526**	1					

Correlations	Q2.17	Q2.18	Q2.19	Q2.20	Q3.1	Q3.2	Q3.3	Q3.4	Q3.5	Q3.6	Q3.7	Q3.8	Q3.9	Q3.10	Q3.11
Q45 / Q3.07	-.145*	.251**	.386**	.034	.135*	.614**	.620**	.730**	.589**	.769**	1				
Q46 / Q3.08	.116	.154*	.250**	.343**	.369**	.126	.212**	.046	.188**	.104	.132	1			
Q47 / Q3.09	.050	.221**	.332**	.244**	.267**	.220**	.261**	.205**	.189**	.161*	.265**	.553**	1		
Q48 / Q3.10	-.195**	.246**	.437**	-.044	.123	.380**	.581**	.517**	.539**	.462**	.475**	.066	.188**	1	
Q49 / Q3.11	-.169*	.334**	.467**	-.066	.133	.340**	.556**	.527**	.527**	.470**	.458**	.129	.222**	.603**	1
Q50 / Q3.12	-.034	.402**	.432**	.080	.191**	.297**	.417**	.360**	.431**	.382**	.427**	.123	.192**	.499**	.494**
Q51 / Q3.13	.087	-.143*	.210**	-.050	-.062	-.033	-.157*	-.051	.188**	-.087	-.150*	-.068	.222**	.203**	-.157*
Q52 / Q3.14	.234**	.232**	.375**	.071	.129	.112	.293**	.246**	.173*	.210**	.216**	.186**	.191**	.288**	.278**
Q56 / Q4.4	-.100	.043	.037	.147*	.104	.063	.137*	.166*	.207**	.105	.147*	.091	.019	.153*	.156*

5. DISCUSSIONS

Most of the change management projects implemented in the last decade were not completed successfully, and the others encountered difficulties during this process that took a very long time, and their costs far exceeded the initial budget or subsequent expectations. The objectives of this research based on quantitative theory are to identify if theories of evolutionary psychology, new discoveries in the field of neuroscience together with pre-change and during change training programs can positively influence the implementation of a successful change management project within organizations in Romania who want to align with the new global requirements of these disruptive times, in which competitiveness has reached very high levels and which will have an impact on cultural change within organizations and the social environment. This chapter includes discussion of the major findings from the analyzes of the responses received from the questionnaire participants in relation to the existing literature on change management and resistance to change, theories of evolutionary psychology, new findings in the field of neuroscience, what are the implications that can be valuable for use within organizations to reduce or remodeled resistance to change.

The theory behind successfully implementing change management projects by reducing resistance to change within organizations is multidimensional and consists of several themes. Some components are directly related to individuals at different organizational levels and others are related to the organization and its culture, although there are differences in how each employee behaves and reacts to organizational change, the two topics below are the most important in how each employee's perception of organizational change is influenced and what guides them to change implementation or produce resistance. Certain organizational changes can be accepted more easily by some employees compared to others, and those who accept some changes can resist other changes and vice versa, which leads to an interesting dynamic within organizations, being directly influenced by internal and external factors.

Each theme is described in detail in the following paragraphs.

5.1 Pre-change or during change training courses among employees

Employees of organizations that have participated in training courses in the last year better understand the actions of managers, what needs to be done to promote the possibility of implementing change, presenting a positive perception that managers are also in favor of change and that they listen to employees' proposals in relation to changes that to be implemented. As for employees who have not attended training courses in the last year, they develop an increased sense of stress when organizational changes occur that need to be implemented, because they do not understand them, they become defensive, and their perception of the organization is that this has reached a critical point leading to a negative thinking that urges them to change their job. Regarding the age of the employees, it is observed

that the extremes, the youngest and the oldest have very high percentages of participation in training courses in the last year compared to the middle-aged, between 30 and 49 years old, which tends towards a balance perfect, those who attended trainings scored 50% and those who did not attend also scored 50%. Moreover, young, and older employees take courses several times during a year, which leads to the conclusion that they attend courses much more often than the middle-aged, between 30 and 49 years old, and in this age interval it is important to analyze and insist on training proposals.

This study also concluded that a higher percentage of men attended trainings in the past year, with a rather small but significant difference of 10% being the attendance of women. However, regarding the frequency of attending trainings, from a distance it seems to be a constant level between men and women, but at a closer look can be seen small differences in favor of women who attended trainings much more often than men but with all that there is a perfect equality between them regarding the proposals of women and men, to their colleagues to participate in trainings. The percentages of participation in training courses of employees from departments such as Supply Chain, Engineering & Production are very low compared to the percentage of employees from departments such as Sales, Finance, HR & IT who attend courses in a very large number but also very often, with the exception of those in Finance, who participated less often, which leads us to conclude that one of the most important part of an organization on whose shoulders lies the implementation of organizational change is not sufficiently prepared to deal with it, thus becoming a part of the organization that requires to attend training courses with increased frequency.

Looking from the perspective of employees' years of activity within the same organization, a common downward trend can be observed over longer ranges of years of experience, namely 0 to 6 years, 7 to 15 years, 16 to 33 years, where in the first half of each interval the vast majority of employees participated in training courses, and in the second part of each interval the percentages decrease to an almost perfect equality at the end of each interval between those who did not participate in the courses and those who did. Also, the first 3 years of activity of each employee within the same organization represent the period in which they participate in trainings often and regularly, then as their experience increases, their participation in training courses is less and less frequent. Both of the above findings brought to light a rather serious and worrying conclusion that there is a stallment in the career development of employees that can lead to decreased motivation or performance, which could be a reason for resistance to change and a career plan it is necessary to be designed for each employee, in which the intervals discussed above are reduced from 7 years to 3 years by promoting employees to new higher hierarchical positions, can certainly define the decrease in resistance to change.

Employees who participated in the courses during the last year and have in general a frequent attendance, constantly gained a much better understanding of the strategies and changes that need to be implemented but also developed a positive perception of the internal environment of the organization. These employees strongly believe that the organization they belong to, invested in them and are part of a community with equal rights among employees, their ideas and vision regarding the future of the company are valuable and are considered by the organization. They have also developed a high sense of ownership and believe that internal processes plus information systems help implement change.

5.2 Effective communication among change agents, focused on increasing employees' trust in the perception of justice, using new theories from the field of neuroscience.

While some of the findings of this study demonstrate that effective communication of change agents led to the successful implementation of organizational change, it also introduced a new perspective of effective communication focused on increasing the perception of justice among employees by using new theories in the field neuroscience. It is also very important to note that the employees referred to the direct manager and the relationship with him as an important partnership, including some vital points in a successful relationship: (a) my direct manager is fair with me, (b) I share 100% trust to my direct manager, (c) my direct manager is the best leader I worked with.

In organizational change projects, it is necessary to understand the resistance reactions of employees and by using different theories in the field of neuroscience, managers can approach them from a different perspective (Pace, 2012). It is of vital importance that managers know what the sensitive points of their employees are, how to use them because once they are activated, they react very quickly, even unintentionally they can enter a negative and defensive state. (Coe, 2010). When there is an intention to change the behavior of a human being, their brain will transmit negative impulses that will make them feel uncomfortable, but the stress level will increase, and this is one of the challenges that must be known before starting to implement organizational change projects (Lafferty, 2010).

The way senior managers clearly communicated the reasons why it is necessary to implement certain organizational changes, the change plan and strategies but also what advantages they will bring to the company's long-term performance definitely improved the employees' perception of the relationship between the two parties, leading to a high level of confidence among employees about these changes, reducing the perception of employees that the organization has reached a critical point and is no longer thinking about leaving it. Through this clear way of communication, the change agents awakened among the employees the feeling that the line manager is also a coach and received adequate training to understand and enable the implementation of the change, they also improved the understanding that their line manager positively supports the plan of organizational change. Achieving very good communication between managers and employees leads to increased trust among employees that their direct manager is fair to them, so they reward him with full trust and consider him as the best leader they have ever worked with and all these together create the feeling that the direct manager is a coach and they open up as if they are part of a community within the organization where they work with equal rights as others.

On the other hand, the development of this very good relationship between employees and their direct manager, is based on preparatory training courses in relation to the changes to be implemented, those who participated in such training courses believe that the change plan was clearly communicated, they understood better the reasons communicated by the managers, why the changes are necessary and important compared to those who did not participate in such training. When there is a clearly communicated organizational change plan that spread confidence among employees, it will primarily reduce employees' sense of stress when change occurs. resistance to change within the organization.

6. CONCLUSIONS

Organizational culture is like the brain of an individual that was formed based on the legacies of his ancestors and then was polished by the experiences he went through, by individuals who were part of these experiences, turning into an organizational brain. Moreover, the success of implementing an organizational change project depends on this cultural shift.

The study in question concludes in an extremely clear manner that the reduction of resistance to change is directly influenced by the implementation of training courses among employees both before and during the implementation of the desired organizational changes. It can also be seen how companies invest in training courses for entry level employees but also for those over 50 who hold positions in the management of these organizations, so it is extremely important that those in the age range of 30 -49 years to take part in training programs with regular frequency. On the other hand, investing in training programs for employees in the Supply Chain, Engineering & Production departments will be vital for the success of organizational changes, because these three departments carry the implementation of these strategies on their shoulders. Employee motivation and performance have decreased over time, which has led to resistance to change, therefore it is absolutely necessary to implement a career plan for each individual employee, through which they are promoted to higher levels within the organizational hierarchy at every 3 years, instead of 7 years as it currently

happens, according to the actual results of this study, where to use the experience acquired previously and the knowledge that he will accumulate during the training courses and activities in the new position.

This study introduced a new perspective on effective communication focused on increasing the perception of justice among employees, based on new theories from the field of neuroscience. Some of the employees, when there are organizational changes, feel wronged, become defensive and need at that moment to believe in their manager, to have a very good communication with him, which will assure him that things are going according to plan and is heading in the right direction. According to the theories of evolutionary psychology, human beings are in a constant struggle for status, and creating an organizational culture based on the inclusion of all employees in an internal community that gives them a sense of belonging to a group, giving them the chance to express their ideas and vision, taking them into account for the analysis of future strategic decisions in the implementation of organizational change and on the other hand the agents of change in turn present the plan they want implemented with arguments and explanations will reshape the resistance to change, because keeping employees in a familiar zone will not make them defensive. Of major importance is the ability of managers to understand the reactions of their employees, to act at the right time their ON/OFF button, to keep them positive, motivated and productive during organizational changes without even going through it without intention, in defensive mode.

Resistance to change is part of any organization, its internal community, and its ecosystem, which appears as a natural reaction to changes and viewed from another perspective, this can be modeled through training courses and effective communication focused on increasing the perception of justice among employees. A reduced resistance to change, remodeled or in a continuous remodeling process throughout the entire life of an organizational change project, will not negatively affect the desired success of the organizational change plan, but on the contrary, it will lead the implementation of the change to the next level, even better than originally planned.

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REFERENCES

- Airoidi, M. (2013). Disinvestments in Practice: Overcoming Resistance to Change through a Sociotechnical Approach with Local Stakeholders. *Journal of Health Politics, Policy & Law*, 38(6), 1149-1171. doi: 10.1215/03616878-2373175.
- Autzen, B. (2018). The Evolutionary Explanation of What? A Closer Look at Adaptationist Explanations of Risk Preferences. *Erasmus Journal for Philosophy & Economics*, 11(1), 31-49. doi: <https://doi.org/10.23941/ejpe.v11i1.285>
- Barbaro, N. et al. (2018). Men's Interest in Allying with a Previous Combatant for Future Group Combat. *Human Nature*, 29(3), 328-336. doi: 10.1007/s12110-018-9315-5.
- Barrett, H. C. (2019). Forever Jung? *Psychological Inquiry*, 30(2), 79-82. doi: 10.1080/1047840X.2019.1614807.
- Bjorklund, D. F. (2018). A Metatheory for Cognitive Development (or "Piaget is Dead" Revisited). *Child Development*, 89(6), 2288-2302. doi: 10.1111/cdev.13019.
- Coe, R. (2010). Neuroscience: A New Friend to OD and AI. *AI Practitioner*, 12(1), 25-28.
- Coelho, P. R. P., McClure, J. E. & Tung, E. (2004). Managing Homo Sapiens. *Total Quality Management & Business Excellence*, 15(2), 191-204. doi: 10.1080/1478336032000149027.

- Doroshuk, H. (2019). Organizational development as a modern management tool for transformation of the company (case of Ukrainian energy company). *Management*, 23(1), 61-74.
- Dowling, N. (2014). It's all in the mind. *Training Journal*, 47-51.
- Gantt, S. P. (2018). Developing Groups That Change Our Minds and Transform Our Brains: Systems-Centered's Functional Subgrouping, Its Impact on Our Neurobiology, and Its Role in Each Phase of Group Development, *Psychoanalytic Inquiry*, 38(4), 270-284. doi: 10.1080/07351690.2018.1444851.
- Gilbert, P. (2019). Psychotherapy for the 21st century: An integrative, evolutionary, contextual, biopsychosocial approach. *Psychology & Psychotherapy: Theory, Research & Practice*, 92(2), 164-189. doi: 10.1111/papt.12226.
- Grah, B. et al. (2016). Expanding the Model of Organizational Learning: Scope, Contingencies, and Dynamics. *Economic and Business Review*, 18(2), 183-212.
- Grant, A. (2010). It Takes Time: A Stages of Change Perspective on the Adoption of Workplace Coaching Skills. *Journal of Change Management*, 10(1), 61-77.
- Green, R. (2004). Change Management: How to Teach It, How to Control It. *Journal of Organizational Excellence*, 24(1), 84-85.
- Heydenfeldt, J. A. (2010). Leading through crisis: Applied neuroscience and mindset. *Performance Improvement*, 49(7), 33-37.
- Ismail, A., Jui, M. K. K. & Abdullah, M. M. B. (2009). Formal Mentoring, Gender Type in Mentorship and Individuals' Psychosocial: A Moderating Model Approach. *Pakistan Journal of Commerce & Social Sciences*, 3, 10-24.
- Jude, J. (2018). The practice of systemic reflexivity. *Journal of Social Work Practice*, 32(1), 45-57. doi: 10.1080/02650533.2017.1291499.
- Kalin, E. B. (2009). The roles of anatomy and psyche in destiny: an integration of evolutionary psychology, neuroscience, and psychoanalysis. *Modern Psychoanalysis*, 34(2), 16-51.
- King, A. (2011). Development of Inhibition as a Function of the Presence of a Supernatural Agent, *Journal of Genetic Psychology*, 172(4), 414-432. doi: 10.1080/00221325.2011.554921.
- Kock, N. & Chatelain-Jardón, R. (2011). Four Guiding Principles for Research on Evolved Information Processing Traits and Technology-Mediated Task Performance. *Journal of the Association for Information Systems*, 12(10), 684-713.
- Ladyshevsky, R. K. (2017). Peer coaching as a strategy to increase learning and development in organizational life - a perspective. *International Journal of Evidence Based Coaching & Mentoring*, 15(1), 4-10.
- Lafferty, C. L. & Alford, K. L. (2010). Neuroleadership: Sustaining Research Relevance into the 21st Century. *SAM Advanced Management Journal* (07497075), 75(3), 32-40.
- Larsson, G. et al. (2017). Leadership behavior changes following a theory-based leadership development intervention: A longitudinal study of subordinates and leaders' evaluations. *Scandinavian Journal of Psychology*, 58(1), 62-68. doi: 10.1111/sjop.12337.
- Laumenskaitu, E. (2003). Self-Management in Times of Change. *Management of Organizations: Systematic Research*, (27), 71-79.
- Lawrence, P. & Pirson, M. (2015). Economistic and Humanistic Narratives of Leadership in the Age of Globality: Toward a Renewed Darwinian Theory of Leadership. *Journal of Business Ethics*, 128(2), 383-394.
- McAdams, D. P. & Reischer, H. N. (2019). Rehabilitating Jung. *Psychological Inquiry*, 30(2), 83-86. doi: 10.1080/1047840X.2019.1614810.

- Morgan, G. (2016). Organisational change: a solution-focused approach. *Educational Psychology in Practice*, 32(2), 133-144. doi: 10.1080/02667363.2015.1125855.
- Natale, S. M. & Diamante, T. (2005). The Five Stages of Executive Coaching: Better Process Makes Better Practice. *Journal of Business Ethics*, 59(4), 361-374.
- Nicholson, N. (2008). Evolutionary Psychology, Organizational Culture, and the Family Firm. *Academy of Management Perspectives*, 22(2), 73-84.
- Pace, A. (2012). Brain-Based Learning for Leaders. *T+D*, 66(12), p. 20.
- Rochford, K. et al. (2017). Ethical Leadership as a Balance Between Opposing Neural Networks. *Journal of Business Ethics*, 144(4), 755-770. doi: 10.1007/s10551-016-3264-x.
- Shechner, T. et al. (2012). Attention biases, anxiety, and development: toward or away from threats or rewards? *Depression & Anxiety*, 29(4), 282-294. doi: 10.1002/da.20914.
- Singh, A. & Abraham, A. (2008). Neuro linguistic programming: A key to business excellence. *Total Quality Management & Business Excellence*, 19(1/2), p. 141-149.
- Sloan Wilson, D., Timmel, J. J. & Miller, R. R. (2004). Cognitive Cooperation. *Human Nature*, 15(3), 225-250. doi: 10.1007/s12110-004-1007-7.
- Sung, S. Y. & Choi, J. N. (2014). Do organizations spend wisely on employees? Effects of training and development investments on learning and innovation in organizations. *Journal of Organizational Behavior*, 35(3), 393-412. doi: 10.1002/job.1897.
- Sweller, J. (2020). Cognitive load theory and educational technology. *Educational Technology Research & Development*, 68(1), 1-16. doi: 10.1007/s11423-019-09701-3.
- Tybur, J. M. & Griskevicius, V. (2013). Evolutionary Psychology: A Fresh Perspective for Understanding and Changing Problematic Behavior. *Public Administration Review*, 73(1), 12-22.
- Valanciene, D. (2016). Is Dialogue between the Neuroscience and Social Sciences Inevitable: Reflections on the Scientific Articles. *Transformations in Business and Economics*, 15(1), 34-54.
- Wright, C. & Pister, K. (2018). New Thinking Leads to Better Transitions, *Physician Leadership Journal*, 5(1), 38-40.
- Zwaan, L. A., Viljoen, R. & Aiken, D. (2019). The role of neuroleadership in work engagement. *South African Journal of Human Resource Management*, 17(1), 1-9.