

UNDERSTANDING MAGIC: MAGICAL THINKING AND THE GENERATION GAP

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Abstract

The article analyzes the possible connections one can establish between understanding magic (the way individuals view magic), magical thinking, generations and other factors, such as anomia, stress reaction, well-being, existential anxiety, locus of control, risk avoidance. The here presented ideas are based on an extended study on magical thinking, the data supporting the theoretical model having been collected from 102 applied scales. We start by describing the method, the scales used in the study and the variables of interest. Once our method is clear, we show a number of tables and the general results obtained. The aim is to show significant correlations between magical thinking and well-being, locus of control, anomia, existential anxiety, stress reaction, sociability. Moreover, correlations of interest were made in two separate groups: those who believe that magic is an alternative system, a different manner of viewing the world, and those who see magic as old, useless ideas - a hoax. This distinction allows us to go even further: the first group is part of what researchers called generation Y or the Millennials, while the second group is part of generation X. We found an interesting connection between understanding magic and these two distinct generations.

Keywords: *generations, magical thinking, magic*

1. INTRODUCTION

A first hypothesis on which the present study is based (as confirmed in a previous investigation) states that present in the contemporary society are two contrasting representations of magic: the former considers magic a false, illusive creed, promoted by impostors and accepted by simple, naive people, which is not unusual, if considering the conceptions on which a rational and scientific society is built up. The latter representation, however, is wholly different, magic being perceived as a "para-" or pseudo-science", as a different (but not necessarily false) conception upon the world. The contemporary human creature is no longer a preponderantly religious

entity - but a spiritual being (Gavriliuță, 2013), the champion of a blend of spiritual, mystical, occult practices (a form of searching - by various types of experiments - for what had been lost as an exclusively religious practice). According to such a theory, especially interesting appeared to observe the scores of magical ideation, its correlation with other variables (such as anomia, stress reaction, well-being, existential anxiety, locus of control, risk avoidance), and especially the differences between the two groups, which may be defined on the basis of two criteria. A first criterion distinguishes the group of individuals who view magic as a different, yet valid system for understanding the world, and the group of those considering it as a false, old-fashioned system - a hoax. The differentiation between groups will be intensified by the differentiation made between generations: generation X and generation Y.

The obtained results are extremely important and, even if their interpretation made use of a theoretical pattern still to be confirmed by further investigations, nobody can deny the fact that magical thinking is by no means a form of reasoning characteristic to a primitive or traditional mentality. On the contrary, various forms of magical thinking may be observed in the urban society of today.

2. OPERATIONALIZATION OF VARIABLES AND PRESENTATION OF INSTRUMENTS

Existential anxiety has been understood in relation with the theoretical pattern proposed by Tillich (1952) and developed by Weems *et al.*

(2004). The "existential anxiety" variable has three dimensions: the first one refers to the anxiety of death and destiny, the second - to guilt, while the third measures the consciousness of the meaning of life and world. Existential anxiety was measured with the "Scale of Authenticity", developed by Weems *et al.* (Weems, Dehon & Berman, 2004) as a dichotomic lattice, permitting answers of the "yes" or "no" type. 13 items, grouped according to the three factors, measure existential anxiety. Anomia was analyzed following the pattern created by Srole (1956) and adapted by Bachman, Kahn, Mednick, Davidson and Johnston (1969), then taken over by Tshahuridu (2009). The general scale of anomia measurement, with 8 items, was used. Of special interest is individual, and not social anomia. Consequently, anomia is understood as an individual state, a subjective condition, involving an either reduced or absent feeling of attachment and adaptation at society level (organizational media included). Absent at individual level is a type of social order upon which one can depend, the trust in and the transparency of the social norms and requirements. Anomia assumes detachment off the society and the feeling of being powerless (Tshahuridu, 2009). The locus of control is measured with the Nowicki-Strickland Scale for Adults (1974) taken over, in 2011, by Halpert (Halpert, 2011). The locus of control shows where does the individual situate the primary causes of the events produced in his life (inside him = he feels he can control them, or outside = no control from his part). This is a scale with 40 items, adapted for adults, measuring 4 aspects: the ability of an individual to protect himself, his social power or relevance, the level of superstitions and passivity (Halpert, 2011). The instruments measuring magical ideation, mysticism, extended perception, as well as the multidimensional questionnaire of personality have been taken over from the study entitled *The Use of the Magical Ideation Scale to Measure Magical Thinking*, realized by Linda A. Johnston in 1991. The scale measuring magical ideation is an instrument formed of 30 items, adapted by the author (Johnston, 1991) according to the model of Eckbald and Chapman (1983), for the measurement of magical thinking (a correlated category in the studies of some

psychologists affected with psychic disorders). The questionnaire has been applied in clinical researches, leading to the identification of an unusual type of thinking. The concept of magical ideation - in the opinion of Chapman and Eckbald - includes items referring to beliefs and superstitions that may be defined as paranormal, to other forms of "unusual thinking" (Vyse, 2012), along with suspicious ideas and strange perception experiences. The scale measuring what we usually call extended perception is taken over from the model of Chapman (1978), called The Perceptual Aberration Scale. It is an instrument with 35 true-false items, capable of identifying the image one has about one's own body, distortions of perception (typical for certain psychic disorders), the existence of some indefinite borders of one's own body, experimenting some unreal, self-allienating sentiments, or perception of an abnormal modification of one's own body (Johnston, 1991).

The scale of mysticism (Scale M) measures, in 32 items, mystical experiences reported by individuals according to the interpretation given to mysticism by Stace (1960). It measures various atemporal - *i.e.*, produced beyond space and time - spiritual or paranormal experiences, the feeling of integration into the universe and the communion with all forms of life, as well as the general propensity for a more intense living of certain experiences (Johnston, 1991). Similarly with other studies, the present one demonstrates a close correlation between magical ideation, extended perception and mysticism, even if the high scores recorded are not directly related to the manifestation of certain disorders of psychic nature (reversely, however, the persons suffering from some disorders record very high scores in all three categories). The Multidimensional Questionnaire of Personality is an approximately faithful adaptation of the instrument called Differential Personality Questionnaire (Tellgen, 1976), including 300 items with binary choices (Johnston, 1991). In the present study, the reactions to stress - the subscale measures the intensity of individual reactions in stressing situations, starting from mild to exaggerated reactions and the well-being, satisfaction in life, optimism and enjoying of daily experiences (involving emotions such as enthusiasm or

interest) - have been recorded. The scoring manner assumes codification of "yes" or "true" by 1 and of "no" or "false", by 0, followed by the elaboration of either the mean values of the questionnaire or of each item in part.

3. PRETESTING AND ADAPTATION OF INSTRUMENTS

Neither of the instruments employed has been translated or validated in Romania. Therefore, their application assumes translation and pretesting on a group of 15 persons representative for the sample group considered, which was not introduced in the final sample. The first page included a brief presentation of the study and of the conditions of data filling in, their confidentiality included. Then, prior to the items of each questionnaire, a sequence of specific instructions was introduced. The subjects were required to fill in and notice any aspect they did not understand or created difficulties. To avoid contamination of answers, the questionnaires were administered weekly, with at least 5 days of pause between filling in of two consecutively administered questionnaires. The reversed indices were recoded after introduction of the results in the database. Following the indications, a few modifications were made. For example, item number 161 ("I feel that life handed me a raw deal") from the Multidimensional Questionnaire of Personality (Tellegen, 1982) has been reinterpreted as "Viața mi-a dat mere acre".

4. METHOD

110 questionnaires adapted according to the Multidimensional Questionnaire of Personality were distributed in the network of known persons, a group with ages ranging between 25 and 50 years. In the end of the questionnaire, the respondents were asked to mark the notion with which they usually associate magic, namely: A - with a specific vision upon the world and an alternative type of thinking and understanding, or B - with a form of imposture and with a system of false ideas, followed by explanation of their option. Five-ten days later, when the filled-in questionnaire was received once again, the same persons were asked to fill in, at distances of 5–7 days, the Scale of magical ideation, the Scale for measuring extended perception, the Scale for measuring mysticism, the Scale of anomia, the Scale of existential anxiety and, finally, the Scale of locus of control. Collection of the filled-in questionnaires lasted for 8 weeks.

3 of the questionnaires measuring multiple treats of personality have not been accepted, so that the subjects have been excluded from the initial data base. 12 questionnaires have been accepted in incomplete form, the subjects giving no answers to certain aspects. Among them, only 5 questionnaires have been re-filled in and sent again, to be considered for the study. A total number of 102 complete questionnaires has been filled in for all measured variables.

5. INTERPRETATION OF RESULTS

Table 1. Significant correlations for magical ideation in the group that understands magic as a alternative way of viewing the world in a different but valid way of thinking

	Magical ideation	Well being	Stress reaction	Risk avoidance	Extended conciousness	Perceptual aberration	Mysticism	Anomia	Locus of control
Magical ideation									
Well being	r= -.38* p=.01								
Stress reaction	r=.49** p=.00	r=-.96** p=.00							
Risk avoidance	r= -.46** p=.00	r=.40* p=.01							
Extended conciousness	r=.78** p=.00		r=.38* p=.01	r=.69** p=.00					
Perceptual aberration	r=.46** p=.00	r=-.72** p=.00	r=.55** p=.00	r=.45** p=.00					
Mysticism	r=.54** p=.00					r=.61** p=.00			
Anomia	r=.34* p=.04	r=-.73** p=.00	r=.86** p=.00			r=.51** p=.00			
Locus of control	r=.87** p=.00	r=-.58** p=.00	r=.62** p=.00		r=.87** p=.00	r=.61** p=.00	r=.42** p=.00	r=.65** p=.00	

*Significant correlation at a significance level of $p = .05$

** Significant correlation at a significance level of $p = .01$

Table 2. Significant correlations for magical ideation in the group that considers magic a false system and a hoax

	Magical ideation	Well being	Socia-bility	Risk avoidance	Traditio-nalism	Extended conciousness	Mysticism	Anomia	Exis-tential anxiety	Locus of control
Magical ideation										
Well being	r= .29* p=.01									
Sociability	r=.35** p=.00	r=.26* p=.03								
Risk avoidance	r= -.32** p=.00	r=.33** p=.00								
Traditio-nalism	r=.28* p=.02		r=.41** p=.00							
Extended concious-ness	r=.49** p=.00	r=.26* p=.03	r=.40** p=.00							
Mysticism	r=.718** p=.00			r=-.39** p=.00	r=.39** p=.00					
Anomia	r=-.57** p=.00	r=.57** p=.00	r=-.64** p=.00		r=-.45** p=.00					
Existential anxiety	r= -.45** p=.00	r=-.54** p=.00		r=-.27* p=.02	r=.43** p=.00	r=.49** p=.00	r=.57** p=.00			
Locus of control	r=.56** p=.00	r=.37** p=.00	r=.29* p=.01			r=.49** p=.00	r=.59** p=.00			

* Significant correlation at a significance level of $p = .05$

** Significant correlation at a significance level of $p = .01$

Table 3. General significant correlations for magical ideation

	Magical ideation	Well being	Stress reaction	Alienation	Risk avoidance	Extended consciousness	Perceptual aberration	Mysticism	Existential anxiety	Loc Control
Magical ideation										
Well being	r=-.22* p=.00									
Stress reaction	r=.37** p=.00	r=-.72** p=.00								
Alienation	r=.30** p=.00	r=-.23* p=.01	r=.49** p=.00							
Risk avoidance	r=-.33** p=.00	r=.47** p=.00	r=-.26** p=.00							
Extended consciousness	r=.70** p=.00		r=.58** p=.00	r=.40** p=.00	r=-.32** p=.00					
Perceptual aberration	r=.62** p=.00	r=-.59** p=.00	r=.56** p=.00		r=-.60** p=.00	r=.48** p=.00				
Mysticism	r=.71** p=.00	r=-.25** p=.00	r=.33** p=.00		r=-.43** p=.00	r=.51** p=.00	r=.65** p=.00			
Existential anxiety	r=.55** p=.00	r=-.67** p=.00	r=.68** p=.00	r=.21* p=.02	r=-.52** p=.00	r=.58** p=.00	r=.77** p=.00	r=.66** p=.00		
Locus of control	r=.75** p=.00		r=.31** p=.00	r=.49* p=.00		r=.61** p=.00	r=.51** p=.00	r=.61** p=.00	r=.41** p=.00	

* Significant correlation at a significance level of $p = .05$

** Significant correlation at a significance level of $p = .01$

6. RESULTS

To investigate the relations between magical ideation and the other variables, correlative analyses have been made and the Spearman correlation coefficient was interpreted. In the global sample group, magical ideation is significantly correlated with the reaction to stress ($r=.37, p=.00$), alienation ($r=.30, p=.01$), extended consciousness ($r=.70, p=.00$), mysticism ($r=.71, p=.00$), extended perception ($r=.62, p=.00$), existential anxiety ($r=.55, p=.00$) and locus of control ($r=.75, p=.00$). It was observed that magical ideation is negatively and significantly correlated with risk avoidance ($r=-.33, p=.00$). More than that, magical ideation is significantly and negatively correlated with well-being ($r=-.22, p=.00$).

To identify the possible differences between the group of subjects who associate magic with a specific vision upon the world and the group associating it with imposture, correlative analyses were performed for each group in part.

The observation made was that, in subjects who associate magic with a certain vision upon the world and with a specific type of thinking, magical ideation is positively and significantly correlated with the reaction to stress ($r=.49, p=.00$), extended consciousness ($r=.78, p=.00$), extended perception ($r=.46, p=.00$), mysticism ($r=.54, p=.00$), anomia ($r=.34, p=.00$) and locus of control ($r=.87, p=.00$). In the same group, magical ideation is also significantly, yet negatively correlated with both well-being ($r=-.38, p=.01$) and risk avoidance ($r=-.46, p=.00$). The complete results obtained are listed in Table 1. In the subjects who associate magic with a form of imposture, magical ideation was seen as positively and significantly correlated with well-being ($r=.29, p=.01$), sociability ($r=.35, p=.00$), traditionalism ($r=.28, p=.02$), extended consciousness ($r=.49, p=.00$), mysticism ($r=.71, p=.00$) and locus of control ($r=.56, p=.00$). More than that, in this group, magical ideation is significantly and negatively correlated with risk avoidance ($r=-.32$), anomia ($r=-.57, p=.00$) and

existential anxiety ($r=-.45$, $p=.00$). As one may observe, in subjects who associate magic with a specific type of thinking and understanding of the world, magical ideation is the stronger the lower is well-being while, in the individuals perceiving magic as imposture, magical ideation is the more intense the higher is well-being. The same inverse relation is registered for anomia. The more alienated are the subjects considering that magic belongs to a specific vision upon the world (recording high scores for anomia), the more intense is their tendency to think magically (registering high scores for magical ideation, as well). On the contrary, for the subjects considering magic an imposture, magical ideation is the higher the more connected they feel to the world and society (registering low scores for anomia).

Also to be observed is that, for the subjects viewing magic as contributing to a better understanding of the world, magical ideation is correlated with the reaction to stress and with extended perception, a correlation non-identified by those associating magic with imposture. More than that, the latter ones accept a stronger magical ideation the higher are the levels of sociability and traditionalism. In the first group, these correlations have not been identified. Also, those considering that magic belongs to imposture have the tendency to think magically to a higher extent (recording high scores for magical ideation), the lower is existential anxiety. In the case of subjects from the first group, no significant correlation has been observed between magical ideation and existential anxiety. To investigate the individual and combined effects of the locus of control and of the type of understanding magic upon magical ideation, the Anova Univariate analysis tables have been consulted. Also followed were the individual effects of mysticism, extended consciousness and extended perception upon the level of magical ideation. It was observed that the mean value of magical ideation for the individuals considering magic an imposture differs only slightly as a function of the locus of control (6.8 for the individuals with internal locus of control and 8.6, respectively, for those with external locus of control). A larger difference, depending of the locus of control, was registered in individuals who think that magic is related to a specific understanding of the world

(the average of magical ideation for those with an internal locus of control is of 11.3 while, for those with an external locus of control, it is of 17). The Levene homogeneity test appeared as insignificant ($F(.142)$, $p=.93$), indicating that important differences do exist between the level of magical ideation in various subgroups. It was thus observed that a main, significant effect of mysticism is manifested ($F(1.560)=86.7$, $p=.00$) upon magical ideation, along with a main significant effect of extended consciousness ($F(1.102)$, $p=.00$) upon magical ideation, and a main significant effect of extended perception ($F(1.27)$, $p=.04$). The type of understanding magic has also a significant effect upon magical ideation ($F(1,43)$, $p=.01$), as well as the locus of control ($F(1.307)$, $p=.00$). The combined effect of the locus of control and of the type of understanding magic upon magical ideation is also a significant one ($F(1, 294)$, $p=.00$).

The results of the analysis confirm the correlations mentioned in various psychological studies devoted to such a theme. The direct connection between magical ideation and mysticism, extended consciousness, extended perception could be thus evidenced, along with the already known relation between magical ideation and alienation, existential anxiety, external locus of control, reaction to stress or well-being (at global level, the subjects recording higher scores for magical ideation feel more alienated, anxious, devoid of any control, stressed, experiencing a relatively low well-being). Numerous studies stated that the individuals experiencing stressing, conflicting or difficult situations resort to magical thinking, to coping mechanisms for solving a disequilibrium, an internal or external conflict. Magic has been defined as "a last call" of the person who has no other option. The connection here manifested: the individual facing a difficult situation invokes magical thinking, hoping that this could influence the occurrence of negative states (anxiety, stress, alienation), is not proven. An extremely interesting piece of information is found when the analysis becomes more profound, permitting to differentiate between two groups of individuals: those who declared that magic is an alternative vision upon the universe, *versus* those who declared that magic is imposture, a false

concept. Which were the main interesting correlations to observe? At first sight, a difference quite difficult to interpret appears. Whereas the individuals convinced that magic represents another manner of perceiving and interpreting the surrounding reality develop significant correlations between magical ideation and anomia, reaction to stress and external locus of control equally (a negative correlation with well-being), those from the opposed group develop a wholly different type of correlations. In the latter ones, magical ideation is positively correlated with well-being, sociability, traditionalism, and negatively with anomia and anxiety. In other words, and in a simplified manner, those who do not believe in magic feel they are better adapted and integrated, the higher is their magical ideation. This might be explained by the hypothesis that magical thinking, manifested in frequently unconscious forms (superstitions) has positive effects in the life of the individual, helping him to manage some daily situations. The question still to be asked is: why, in the individuals considering magic a pertinent vision upon the world, a different form of knowledge, this aspect is not observable? Apparently, the more one resorts to magic actions, yet without accepting them or considering them as real, the more adapted, balanced, integrated one feels. Inversely, the more one believes in a force of magic origin or in a magic ordering of the universe, the more one feels alienated, anxious, stressed.

Another differentiation among individuals should be here mentioned. One may consider that magical thinking has different functions in these two groups. In the group of those believing exclusively in science, magical ideas and actions appear as a mechanism for solving a conflict or for reducing some negative states, in most cases without thoroughly analyzing such ideas or actions. Therefore, psychologically, they have a positive function. In the group of those who accept the magical vision upon the world, such a mechanism does not produce the same positive effect. Why? A possible reason might be offered by the attempt at classifying the individuals as a function of the generation to which they belong. All those who view magic as an alternative vision upon the universe, another modality of

understanding and explaining it, belong to the generation known as generation Y or the Millennials, *i.e.* those born between the end of the 80'ies and the end of the 90'ies. The investigations devoted to this generation show that it is the most educated one, capable to use the newest technology and observing values such as tolerance, diversity, autonomy, originality. It is equally the most spiritual generation, interested in unconventional practices: meditation, yoga, techniques for extending one's consciousness. Generation Y is also characterized by impatience and instability (West Midland Family Center, Generational Differences Chart), rejecting authority and leaders, frequently having no stable jobs, and sharing an artistic vision upon the world.

They share a classical vision upon the world, however they remain deeply individualists (Taylor, Doherty, Parker, Krishnamurthy, 2014) and the most sensible, anxious and neuropathic persons, in spite of the comfortable economic condition of their childhood. It is a generation supporting social changes, for the diminution or even elimination of hierarchies (including social injustice), nourishing steadfast principles, eager to change the unjust - in their opinion - existing social order (West Midland Family Center, Generational Differences Chart). Analysis of Millennials' profile helps to better understand their vision on the world, their different ideas on magic. In this way, one may understand both the high scores recorded for magical ideation, mysticism, extended consciousness, as well as the high scores for anomia, existential anxiety, reaction to stress, external locus of control and low scores for well-being. The individual belonging to generation Y, whom we can define as the "type of postmodern revolutionist" struggles for change, rejects old values, does not accept the "obsolete theories explaining the world", criticizes the ones "blocked in old patterns". Nevertheless, the change involves sacrifices and time, which explains why this type of person feels dissatisfied, alienated, anxious. He is a revolutionist who realizes that he lives in a world which did not keep pace with his principles, so that he appears as a postmodernist in a society still preponderantly modern (the contemporary Romanian society).

On the other side, the individuals belonging to the group that views magic as an illusion, false, imposture are – most of them – from generation X (80% of them are born between 1960 and 1981). Unlike the Millennials, this generation is characterized, among others, by values such as safety, feeling of belonging, skepticism (and not spirituality), cynicism, materialism (Bickel, Brown, 2005). Generation X is formed of what one could define as the “modern rationalist type”, dedicated to the rationalistic paradigm imposed by modernism. This makes more easy to view magic as an illusion, a hoax (focus being laid on rational, material aspects), and to explain the high sociability and well-being scores. The modern individual feels neither alienated nor discontented with the world in which he lives, as the society, taken as a whole, still pays tribute to the modern rationalistic paradigm (changing being, as already mentioned, quite difficult to achieve). In the mind of such an integrated, time-server, rational individual, magical ideas or actions do appear, yet they are not submitted to any reflection, acting only as adaptation elements for the elimination of certain tensions. The “post-modern revolutionary” type lives in a society which he perceives as obsolete, whereas the “modern rationalist” does not consider it, at least for now, as retrograde. Indeed, what we have called “modern rationalist” would belong to generation X, however a small part of the group who considers magic as a false concept, are considered – because of their erroneous ideas as being representatives of generation Y. A possible explanation? As known, in time mentalities change, at the same pace with the society, therefore the hypothesis that the Romanian society changes more slowly is not at all absurd. For the moment, all these observations remain mere hypotheses, still to be developed in further studies, capable of offering new and interesting information on such topics.

7. CONCLUSIONS

The present study starts from the hypothesis according to which, at both social and individual level, magical thinking coexists with “scientific”, logical thinking, without affecting the “feebleness” of the latter one (the psychological co-existence of

two forms of thinking in any individual – the analytical and the intuitive one – has been demonstrated, magical thinking being a form of intuitive, associative thinking). Equally, magical thinking and actions are far from being delirium or inadaptation – they have both psychological value and practical efficiency. In a very interesting anthropological study, Dominique Camus discusses magical efficiency: when resorting to the magician, the individual pushes his ill-luck outside him, focuses his wishes on something external and thus calms himself; instead, the personified external entity takes over his frustrations, his fears, his anger: “the one who unbinds the spell brings things back to normal, making disappear the causes of his client’s misfortunes” (Camus, 2003, p. 219). Consequently, magic is efficient in managing crises, as long as it provides an equilibrium and an optimism which frequently solves the critical moments.

A relatively recent (2008), very interesting study on magical thinking is the dissertation thesis of psychologist Lysann Damisch, who demonstrates how a positive superstition – involving a ritualic gesture for attracting luck or success – will have visible effects upon individual performance. Consequently, superstition and the ritualic action are efficient only to the extent to which they increase one’s confidence in himself, which will result in improved performance.

The present study did not aim at demonstrating the presence of magical thinking: the starting point was the previously demonstrated hypothesis that, in the individuals of the contemporary society, such a form of thought is manifested in various forms (mainly as superstitious ideas and actions). Especially interesting was to establish certain correlations (to either confirm or invalidate data of previous studies), and mainly to settle a clear-cut distinction between the group considering magic a different manner of thought and the one viewing it as a false, a distinction which permitted an inter-generation analysis.

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References

- AARNIO, K. (2007) Paranormal, superstitious, magical, and religious beliefs, Department of Psychology, Department of Psychology, Helsinki: University of Helsinki. (Academic dissertation)
- BICKEL, J., BROWN, A. J. (2005) Generation X: Implication for Faculty Recruitment and Development in Academic Health Centers, *Academic Medicine*, 80(3), p. 205-210.
- CAMUS, D. (2003) *Puteri și practici vrăjitoarești. Anchetă asupra practicilor actuale de vrăjitorie*, Iași: Polirom Publishing House.
- DAMISCH, L. (2008) Keep your fingers crossed! The influence of superstition on subsequent task performance and its mediating mechanism, Koln: Koln University (PhD thesis).
- GAVRILUȚĂ, N. (2013) *Sociologia religiilor*, Iași: Polirom Publishing House.
- HALPERT, R. & HILL, R. (2011) *28 Measures of Locus of Control*, Beach Haven, NJ: Will to Power Press.
- JOHNSTON, L. A. (1991) *The Use of the Magical Ideation Scale to Measure Magical Thinking*, Ottawa: National Library of Canada.
- STUART, A. V. (2012) *Psihologia superstiției*, Bucharest: Trei Publishing House.
- TAYLOR, P, DOHERTY, C, PARKER, K, KRISHNAMURTHY, V (2014) *Millenials in Adulthood. Detached from Institutions, Networked with Friends*, Pew Research Center. Available from: http://www.pewsocialtrends.org/files/2014/03/2014-03-07_generations-report-version-for-web.pdf[7 March, 2014]
- TSHAHURIDU, E. E. (2009) *An Exploration of Factors Affecting Anomia at Work*, paper presented to 6th Critical Management Studies Conference, Warwick Business School, University of Warwick, UK, 13th – 15th July 2009, <<http://mngt.waikato.ac.nz/ejrot/cmsconference/2009/Stream17/An%20exploration%20of.pdf>>
- WEEMS, C. F., COSTA, N. M., DEHON, C., & BERMAN, S. L. (2004) Paul Tillich’s theory of existential anxiety: A preliminary conceptual and empirical analysis. *Anxiety, Stress, & Coping*, 17, p. 383-399
- West Midland Family Center, Generational Differences Chart, 2015. Available from: <<http://gkdocs.net/differences/generational-differences-chart-west-midland-family-center.html>>