

Research Article

Do Ego-resiliency, Self-efficacy and Life Orientation Predict Self-esteem of Top World Magicians? An International Study

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Abstract

Performing as an illusionist requires having adequate internal and personality resources. These determine the success of stage performance and have an impact on how an individual perceives self, and influence the self-esteem. The aim of the article is to determine how ego-resiliency, self-efficacy, and optimism influence the self-esteem of top-world magicians. A group of 50 top world magicians – world champions of magic – took part in the research. The participants were surveyed using the Self-Esteem Scale (SES), the General Self-Efficacy Scale (GSES), the Ego-Resiliency Scale (ER11), and the Life Orientation Test (LOT-R). Results showed positive, statistically significant correlations between self-esteem and: self-efficacy, ego-resiliency dimensions, and positive life orientation amongst the surveyed sample. Moreover, stepwise regression analysis allowed determining predictors of self-esteem, where the strongest one was optimism.

Keywords: Ego-resiliency; self-efficacy; life orientation; self-esteem; art of magic.

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Professional magicians have received significant attention from researches on the field of psychology. The analysis of literature shows a new trend in psychology, focusing on the possibilities arising from research on artists of the art of illusion, cognitive analysis of the art of magic, and the perception of magic tricks by the audience. Current studies show the distraction mechanisms used in the art of illusion (Kuhn & Martinez, 2012), neurocognitive explanation of tricks (Macknik & Martinez-Conde, 2010), social relations of magicians (Rissanen et al., 2010) or relations between health, well-being and learning magic tricks (Bagiński & Kuhn, 2019; Wiseman & Watt, 2018). The psychology of magic focuses not only on knowledge about how magic tricks are done, but also on pattern completion (Barnhart, 2010; Ekroll et al., 2013), experiencing magic by children with autism (Kuhn et al., 2010), approach to problem solving (Danek et al., 2014), cognitive usage of magic in research including measure of eye-movements (Tachibana & Kawabata, 2014), perception of object permanence with usage of magic tricks (Beth & Ekroll, 2014), gestalt principles used in art of illusion (Barnhart, 2010) or belief formation process (Subbotsky, 2010). Being a professional artist requires from performer some personality resources which will let him to proper functioning as an artist who is exposed to being assessment by audience and facing different difficulties. There are still few researches done on conjurors which focus on personality traits and personal resources. Current studies show that illusionists have higher emotional intelligence and social competences than non-magicians (Napora & Sękowski, 2020). It allows them to perform with success and feel well as performer and magician. They also experience less emotional reactivity than theater actors and have higher self-esteem than non-performers (Napora, 2019). In addition, the subject matter is to point to a role of personal resources in functioning as a professional stage performer and the identification of variables that are related to stage performance and how they are related to self-esteem.

The concept of ego-resiliency was firstly introduced by Block and Block (1980). This construct affects the interaction which occurs between environment and individual and determines behavior strategies. At the same time, authors introduced a concept of ego-control which is related to regulation of internal world, ability of controlling desires, emotions and impulses. Ego-control is responsible for impulse control in various situations, while ego-resiliency is the dynamic ability to constantly modify the level of control, the ability to dynamically change control as a result of the interaction between the individual and the environment. As Block and Kremen (1996) referred, ego-resiliency is a psychological construct related to a set of personality features conditioning the ability to flexibly adjust the level of self-control to situational conditions. This personality trait also means the ability to overcoming difficulties and problem solving. Ego-resiliency allows the individual an elastic control according to the current situation. It is also related to creative reacting (Block &



Kremen, 1996). Current researches showed that there is a positive correlation between ego-resiliency and self-esteem (Karatas & Cakar, 2011). Tugade and Fredrickson (2004) have shown that ego-resiliency is a key to arousing positive emotions in difficult situations and effectively detaching from negative experiences. High level of ego-resiliency is associated with life energy, enthusiasm, curiosity and self-confidence, which may impact self-esteem (Kózka & Przybyła-Basista, 2017). In the research conducted by Sęk et.al. (2012) ego-resiliency was factor significantly related to well-being and a more positive approach to life. Similar results were obtained by Skalski (2019) – ego-resiliency was predictor of positive orientation – construct in which self-esteem is one of the components. This psychological variable is associated with being an illusionist - learning and performing magic increase resources related to resiliency (Johnston, 2016). As Wiseman and Watt (2018) refer:

Unlike many performances, the presentation of magic often involves considerable flexibility, as the magician adapts the trick to a particular situation or has to deal with an unexpected event. In addition, tricks do occasionally go wrong, or onlookers may correctly guess the secret of the trick. Therefore, any good performer has to be able to cope with failure. These experiences may help build both adaptability and resilience. (p. 6)

Self-efficacy was introduced to psychology in 1977 by Alfred Bandura and is embedded in social-cognitive approach. According to the assumptions of the socio-cognitive theory, human behavior is driven by expectations regarding: the situation, the result of action and self-efficacy. The first two concern the perceived consequences of an action, while the sense of self-efficacy relates to the action itself and falls within the control of personal action. Self-efficacy is one of the elements which are components of self-concept and it is related to goals which people construct about own abilities in situational context or when facing some tasks. Self-efficacy is the conviction that the individual is able to achieve results which s/he wants. The perception of self-efficacy is a psychological mechanism which is a cause of behavior changes and effectiveness of actions taken; it is between knowledge and behavior (Bandura, 1986). Alfred Bandura (1994) defined self-efficacy as:

People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. (p. 72)

Researches based on self-efficacy showed a positive correlation with job satisfaction and a negative correlation with burnout (Skaalvik & Skaalvik, 2010). Lent and Hackett (1987)

pointed to the role of self-efficacy in choosing a profession in which individual feels comfortable. [Stajkovic and Luthans \(1998\)](#) reported that self-efficacy is related to performance and its positive correlation. [Gangloff and Mazilescu \(2017\)](#) showed that executives value the employees with high perceived self-efficacy. Self-efficacy is positively linked with self-esteem ([Juczyński, 2001](#)) and in certain domains can support self-esteem in proportion to what is important for an individual ([Zimmerman, 2000](#)). Similar results were obtained by [Lane et al. \(2004\)](#). It is worth to mention that a meta-analysis conducted by [Hysong and Quiñones \(1997\)](#) proved that self-efficacy is related to task performance and it is its predictor. Satisfaction with the performances and the profession of the artist increase self-confidence and positive perception from the audience is uplifting and valuable for the performer. The sense of agency and competence are important factors in stage performing ([Napora, 2019; Sękowski, 1989](#)). It is worth to point that self-efficacy is a predictor of performance across tasks of differing complexities ([Wood et al., 2000](#)). As [Carney \(2013\)](#) pointed to, if a magician performs more, then naturally his/her self-confidence increases.

[Leary \(1995\)](#) stated that self-esteem is the level of self value concept that concerns every person. It refers to responding to the physical and mental properties of an individual. It is a component of consciousness responsible for the ability to define one's own self and to distinguish oneself in the environment. Self-esteem determines the behavior of an individual, guides it, allows planning and implementation of life goals. The concept of self-esteem is associated with an individual view of self, a subjective assessment of self-worth, self-confidence and whether an individual assesses himself positively or negatively ([Sedikides & Gress, 2003](#)). [Branden \(1969\)](#) reported that critical of components of self-esteem are the sense of self-agency, taking up challenges, trusting oneself, one's thoughts, choices, the feeling that the decisions made are appropriate for the individual. Self-esteem plays an important role in performing visual arts. It makes artists sure of their abilities and allows to perceive situation of stage performance as a positive experience ([Sękowski, 1989](#)). [Gocmen's](#) research results ([2012](#)) showed that self-esteem is negatively correlated with shyness – which is a factor making a stage performing very difficult for artists. Self-esteem makes artists possible to perform in situation of social exposure, when the individual is being associated by audience and is in center of their attention ([Hys & Nieznańska, 2007](#)). According to magicians, the positive perception of the audience and creating the image of a person with exceptional abilities have an impact on the self-esteem of the performer. That is because the magician looks like having special abilities and features that other people do not have ([Frith & Walker, 1983](#)). It motivates performers to further work and development, allows them to set goals and successively implement them. Research on the self-esteem of



illusionists has shown that they have a higher self-esteem than non-performers (Napora, 2019).

Performing magic tricks also promotes self-esteem as the performer can do something the audience cannot, and provides a sense of pleasure and mastery from creating an unusual and enjoyable experience for others. (Wiseman & Watt, 2018, p. 6).

Optimism is a personality trait that positively influences the physical condition, well-being, success in life and resistance to stressful life events. Optimism is self-regulating because it influences the choice of goals and determines the individual's effort to achieve them. Scheier, Carver and Bridges (1994) believed that the tendency to expect success / failure is a personality trait. Consequently, the development of this trait depends on biological factors. People who have optimistic approach to life tend to have positive expectancies for future, they experience helplessness less often, have external locus of control – the optimist believes that his/her behavior influences his/her life situation (Potempa, 2013). Moreover, optimism as personal resource is related to dealing with stress and positive approach to find a solution in difficult situations (Poprawa, 2001). Being optimistic has a positive impact on people's health, work performance and education (Scheier & Carver, 1993). Current researches showed a positive link between self-esteem and optimism (Scheier et al., 1994; Wani, 2017). Self-esteem is also positively correlated with dimensions like life satisfaction or well-being (Zimmerman, 1999). The positive orientation is related to belief in success in the field of being a professional magician. Optimism seems to be a necessary factor in striving for perfection in the art of illusion (Ascanio, 2005).

Achieving top level in magic and winning World Championships of Magic requires having proper level of personality resources. Ego-resiliency, self-efficacy and optimism allows the individual to a better emotional control and adaptation in environment (Block & Kremen, 1996), to believe in his/her own competences or abilities (Bandura, 1986) and to look into future with a positive approach to achieve success in life (Scheier et al., 1994). Those dimensions are related to being a professional magician and higher level of them may lead to achieving success in the field of magic. Those variables may have impact on self-esteem, which develops through the whole life and depends on many factors (Alrabai, 2017). The aim of research is to estimate the relationships between these variables and to show how ego-resiliency, life-orientation – optimism – and self-efficacy influence self-esteem in an unique group of world champions of magic, which has never been before in the interest of psychologists. As mentioned earlier, in psychology there is little researches on personality

traits and internal resources that may be relevant in the context of being an illusionist. This article will provide new insights into this relationship.

Method

The aim of the study was to explore relations between self-efficacy, life orientation, ego-resiliency and self-esteem. In addition, we explored the predictors of self-esteem of the world champions of magic. Those 4 variables are related to performing magic in different areas – overcoming difficulties, trust in own competences and achieving success. Having considered the theoretical relationships between self-efficacy, ego-resiliency, life orientation and self-esteem, the following questions were posed:

1. What is the relationship between self-efficacy, ego-resiliency, self-esteem, life orientation and the self-esteem in the group of world champions of magic?
2. How do self-efficacy, ego-resiliency and life orientation predict self-esteem in a group of world champions of magic?

Sample and procedure

The study was conducted on a sample of 50 professional magicians (4% females and 96% males). The average age was 43,7 ($SD = 12.3$). The responders were world champions of magic - a FISM winners. FISM is the Fédération Internationale des Sociétés Magiques - the international body bringing together the world's leading magic societies. The Federation was created in 1948 and today it consists of more than 97 magic societies, both national and international, as well as national Federations which represent over 70,000 magicians from 49 countries. Every 3 years, FISM organizes the World Championships of Magic. The countries of origin of responders are shown in Table 1.

Table 1.

Countries of origin of responders.

Country	<i>N</i>	%	Country	<i>N</i>	%
Australia	1	2	Nederland	3	6
Austria	1	2	Poland	1	2
Canada	1	2	Romania	1	2
China	1	2	South Korea	1	2
Finland	2	4	Spain	7	14
France	4	8	Sweden	3	6
Germany	10	20	Switzerland	2	4
Hong Kong	1	2	Taiwan	3	6
Italy	1	2	UK	1	2
Japan	2	4	USA	4	8
			Total	50	100

The research has an international character, the responders came from 20 countries, and most of the responders came from Germany ($n = 10$). Due to this fact, data was collected through internet, during the COVID-19 pandemic time. Author contacted with the responders

via e-mail or social media. The illusionists who expressed their willingness to participate in the research were qualified into. The condition to participate in this research was being a winner (1st, 2nd or 3rd place) at FISM World Championships of Magic. Among the surveyed participants, there were illusionists who have won FISM multiple times. FISM Champions who agreed to being mentioned – by name – in the acknowledge section, are mentioned there.

Instruments

Rosenberg Self-Esteem Scale (SES) is a 10-items scale which measures global self-esteem. It includes both positive and negative feelings about self. Answering is based on 4-point Likert's scale format, from strongly agree to strongly disagree. Scale has high reliability - Cronbach's alpha for various samples are in the range of .77 to .88 (Rosenberg, 1986).

The General Self-Efficacy Scale (GSES) is a 10-items research tool designed to test an individual's general belief that it is effective in coping with emerging difficulties and obstacles. The test is intended for testing adults. The task of the responders is to respond to the given statements on a four-point Likert's. The scale has satisfactory psychometric properties, with reliability (Cronbach's alphas) ranging from .76 to .90 (Schwarzer & Jerusalem, 1995).

The Ego-Resiliency Scale (ER11) in its original form is a 14-items scale which allows the measurement of ego-resiliency, where answers are provided on a 4-point scale. In Farkas and Orosz (2015) studies, alternative factors of the scale were introduced, and allowed to measure 3 factors: Active Engagement with the World, Repertoire of Problem-Solving Strategies, and Integrated Performance under Stress. Cronbach's alpha indicators were satisfying for scales (ranging from .60 to .86).

The Life Orientation Test (LOT-R) is a 10-items scale, where responders answer on a 5-point scale. The higher the result, the higher optimism is characteristic for the responder. Cronbach's alpha for all 6 items of the scale was .78, which suggests that the scale has an acceptable level of internal consistency. Authors of the test obtained satisfactory results in the correlations between the test and retest: .68, .60, .56, and .79, suggesting that the scale is stable over time (Scheier et al., 1994).

Results

Descriptive statistics for the whole sample of responders are provided in Table 2 and include the scores of FISM winners achieved in self-esteem scale, self-efficacy scale, life orientation test and ego-resiliency scale.

Table 2.

Descriptive statistics for self-esteem (SES), self-efficacy (GSE), ego-resiliency (ER), life orientation (LOT-R).

FISM winners (N = 50)				
	Min	Max	M	SD
Self-esteem (SES)	20.0	40.0	32.00	4.91
Self-efficacy (GSE)	22.0	40.0	32.34	4.13
Ego-resiliency (ER) AEW*	10.0	20.0	15.58	2.55
Ego-resiliency (ER) RPSS**	7.0	18.0	12.58	2.22
Ego-resiliency (ER) IPS***	2.0	8.0	6.14	1.59
Life orientation (LOT-R)	8.0	24.0	16.86	4.17

Note: *Active Engagement with the World; ** Repertoire of Problem-Solving Strategies; *** Integrated Performance under Stress

The results of the Pearson correlation analysis shows correlations between most of variables of interest (Table 3).

Table 3.

Correlations between self-esteem (SES), self-efficacy (GSE), ego-resiliency (ER) and life orientation (LOT-R).

	Self-esteem (SES)	p
Self-efficacy (GSE)	.535**	.01
Ego-resiliency (ER) AEW***	.198	.168
Ego-resiliency (ER) RPSS****	.567**	.01
Ego-resiliency (ER) IPS*****	.347**	.01
Life orientation (LOT-R)	.685**	.01

Note: *** Active Engagement with the World; **** Repertoire of Problem-Solving Strategies; ***** Integrated Performance under Stress

Self-esteem correlates positively with self-efficacy, and the strength of the correlation is high. The same strength of correlation is observed between self-esteem and Repertoire of Problem-Solving Strategies. The strength of the positive correlation between self-esteem and Integrated Performance under Stress is medium. Life orientation correlates positively with self-esteem and the strength of the correlation is high. The higher the level of self-esteem is, the higher the level of self-efficacy, ego-resiliency (related to problem solving and functioning under stress), and positive life orientation are.

In order to explore the predictors of self-esteem in this research, a regression analysis was conducted (the stepwise method), where the criterion variable was self-esteem (SES), and the predictors were self-efficacy (GSE) and life orientation (LOT-R). Finally, the ego-resiliency dimensions were not included in regression model - the variable was removed at

the step of introducing independent variables to the stepwise regression model. Results are provided in Table 4.

Table 4.

Results of multiple regression analysis (N = 50).

Model		Beta	t	R ²	ΔR ²	F
1	(Const.)		8.565**	.469	.458	42.388**
	Life orientation	.685	6.511**			
2	(Const.)		2.743**	.523	.503	5.380*
	Life orientation	.556	4.835**			
	Self-efficacy	.267	2.319*			

Note: * $p < .05$; ** $p < .001$

For self-esteem as a dependent variable, there were 2 models established by the stepwise method regression, and each of them was statistically significant. Model 1 explained 47% of variability of the results ($R^2 = .47$). Model 2 increased the variability of the results to 50%: $F(1,47) = 5.38$; $p < .05$, where significant predictors were life-orientation and general self-efficacy.

The strongest predictor was life-orientation ($\beta = .556$; $p < .001$). It allowed concluding that life orientation has the strongest influence to self-esteem. If individuals are more positively set according to future, then self-esteem gets higher.

Discussion

The main aim of research was to identify the relation between variables and to explore the predictive values of life-orientation, self-efficacy and ego-resiliency of self-esteem. It was expected that dimensions of ego-resiliency, self-efficacy and life-orientation will be predictors; in fact, ego-resiliency was not involved in the regression model. The results showed that those variables explained 50% of the variance of self-esteem. For magicians, creating new magic effects, performing in front of audience, or mastering their skills will give them level of confidence to execute certain courses of action or achieve specific outcomes (Bandura, 1977). Moreover, there is a positive correlation between self-efficacy and performance (Wolters & Pintrich, 1998). As Jerusalem and Schwarzer (1992) refer, self-efficacy is strongly linked with self-esteem. Being successful increases self-efficacy and finally increases self-esteem (Pervin & John, 2002). For magicians, achieving mastery at performing magic or winning the Championships of Magic may strengthen the self-efficacy, build conviction about his/her abilities and create perception of self as a valuable and successful person and artist. Moreover, self-esteem is related with motivation to desire for success, belief in his/her abilities and in being successful in a certain field (Tice, 1993).

Winning FISM can be considered such a success. Taking into consideration the relation between ego-resiliency and self-esteem, similar results of ego-resiliency (in general) as correlating factor and predictor were obtained by Vecchio et al. (2019), and a positive correlation between those two dimensions was also obtained by Caprara et al. (2003). In the cited studies, the ego-resiliency dimensions were not predictors of self-esteem - despite the fact that the dimensions of the ego-resiliency correlate with self-esteem in the studied group. Optimistic approach to life is related with high self-esteem. The results showed higher optimism associated with higher self-esteem for top world magicians. Similar results between self-esteem and life orientation were obtained by Brown (2011) and Bastianello et al. (2014). Optimism allows individual to perceive life events as positive happenings and those experiences are building self-esteem. Achieving successes in the field of competitions like World Championships of Magic is related to perceive those events as positive experiences and may build higher self-esteem. Looking positively to the future and knowing that it is possible to be a FISM winner requires a correspondingly high sense of optimism.

Being an illusionist can be associated with such difficulties as inappropriate behavior of viewers during a performance, the need to find oneself in unusual situations, or a tedious and sometimes difficult process of creating new magical effects. Moreover, it requires the ability to deal with (pre) performance stage fright and the ability to quickly adapt to performance conditions. The ability to use personality resources such as a positive attitude, the ability to face difficulties and an appropriate level of performance during stress has a significant impact on self-esteem. Being successful at the highest world level in the art of illusion builds a sense of agency and self-efficacy. The sense of effectiveness is achieved by building a professional background, through past experiences where the individual has managed to overcome various challenges. An optimistic approach to life may be the result of positive experiences related to successful performing, choosing a way of life in which the artist may feel that his/her job is this what s/he loves. Optimism – in context of art of magic - may be also framed as knowing which methods are to be used (as secrets) in magic tricks and often are very simple and they may involve forms of lateral thinking. Moreover, learning magic and knowing mechanism of how tricks are done, may encourage creative problem solving and can help in finding novel solutions to challenges in life. Metaphorically, magic tricks sometimes may be compared to optimism, because they show how seemingly difficult events in life or problem can have simple and at hand solutions (Wiseman & Watt, 2018). As shown in conducted research, this kind of approach to life and everyday situations may increase self-esteem.

Limitations and further implications. The number of participants may be considered a limitation of the research - on the other hand, the group is unique in the world and the

majority of FISM winners from recent years participated in the study. The study established the determinants of self-esteem - thanks to this, it indicated areas that, if they improve (a more optimistic view of the future, work on resources related to the sense of agency and self-efficacy), then will have a positive impact on self-esteem, resulting in a more positive self-perception. This can be an indication not only for illusionists achieving world championship, but also for illusionists and performing artists for whom it is important to work on building personal resources. The obtained regression model explained 50% of the variance of the results - it is worth undertaking research that will indicate the remaining predictors that explain the self-esteem.

Conclusions

The art of illusion is a unique artistic field that combines theater, acting and manipulation skills, psychological knowledge concerning, inter alia perception, attention and misdirection processes. Self-esteem is one of the factors that makes an individual take up such a performing activity and allow achieving successes. The conducted research provides new knowledge in the field of this variable and its determinants in the context of the art of illusion, which is more and more often studied by psychologists. Moreover, it is worth emphasizing the uniqueness of the group that took part in the study - winners of the World Championships of Magic - FISM Champions.

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Competing Interests

The author has declared that no competing interests exist.

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Wojciech Napora is a PhD in psychology. His interests concern the psychology of stage performance and he is focused on research on artists. In his PhD dissertation, he concluded research on theater actors and illusionists in terms of predictors of the sense of quality of life. Wojciech Napora is the author of several researches done on groups of stage artists, including, theater actors, singers, illusionists.

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