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Beliefs About Superstition And Luck In External Believers University Students

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Abstract

Purpose: the relationships between locus of control and beliefs about superstition and luck in 177 students attending the Psychology, Pedagogy, and Engineering Degree Courses at the University of Catania, Sicily (Italy). Method: Locus of Control of Behavior Scale, the Personal Beliefs in Superstition Scale, the Personal Beliefs in Good Luck Scale, and Semantic Differentials about “luck” and “superstition”. Results: psychology and pedagogy students were externally LoC-believers more than engineering ones; additionally, psychology and pedagogy students expressed a greater personal belief in good luck than engineering ones. External LoC had positive effects on beliefs about superstition and good luck, and representation of luck. Internal LoC had negative effects on the representation of superstition. It will be interesting to analyze the influence of personality factors on beliefs about superstition and luck.

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1. Introduction

Locus of control is considered as the degree to which people feel a sense of personal control in daily life experiences (Rotter, 1966) and can be articulated in two aspects: internal or external locus of control. Specifically, on the hand, individuals with an internal locus of control believe that events are the product of their own behaviors and under their direct control and, on the other hand, those with an external locus of control think that the life events derive from chance, luck, or influence of other people. A considerable amount of researchers have investigated the internal vs. external locus of control in relation to the beliefs in luck (Darke & Freedman, 1997; André, 2006; Maltby et al., 2008) and superstition (Wiseman & Watt, 2004; Sagone & De Caroli, in press), considering that the

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more the individuals are externally believers, that is, they believe the life course as being out of their own control, the more they are superstitious and believe in the power of luck as a deterministic factor. Concerning the beliefs about superstition, some studies verified that superstitious individuals are external believers (Tobacyk, Nagot, & Miller, 1988; Wolfradt, 1997), report high neuroticism and anxiety (Wiseman & Watt, 2004), high levels of pessimism (Rudski, 2004), and are poorly self-efficient (Tobacyk & Shrader, 1991). In reference to the beliefs in luck, Darke and Freedman (1997) affirmed that some individuals believe in a deterministic effect of luck, while other individuals view luck as a simply random and unpredictable trait; the authors found that the belief in good luck is positively related to chance and powerful others considered as dimensions of external locus of control (see Levenson, 1981). Additionally, Wiseman and Watt (2004) found that individuals who consider themselves to be lucky unintentionally create opportunities for themselves, whereas those who believe themselves to be unlucky tend to overlook opportunities for themselves. Furthermore, Maltby and his colleagues (2008) revealed that internal locus of control is correlated both positively with rejection of belief in luck and negatively with general belief in luck. Specifically, these authors explained that believing to be an unlucky person is associated positively with neuroticism, irrational beliefs, and negative affect, and negatively with extraversion, openness to experience, optimistic life orientation, hope, psychological well-being, life satisfaction, and positive affect. On the contrary, believing to be a lucky person is correlated positively with openness to experience, optimistic orientation, hope, external locus of control, psychological well-being, satisfaction with life, and positive affect, and negatively with irrational beliefs and negative affect. Additionally, the rejection of belief in luck is positively linked to internal locus of control. Lastly, the general belief in luck shows a significant correlation both positive with irrational beliefs and negative with internal locus of control. Similarly, Prendergast and Thompson (2008) distinguished a general belief in the existence of a deterministic luck from a specific belief in being a personally lucky individual as uncorrelated and different aspects. More recently, in a study carried out with a sample of university students, Thompson and Prendergast (2013) found that believing in luck as a general and typical attitude of low personal agency is correlated positively with neuroticism, powerful others and chance, and negative affect, and negatively with life satisfaction and optimistic life orientation, independently by personal luckiness. In a study carried out by Sagone and De Caroli (2014) with Italian university students, it emerged that the more the university students are likely to personally control the circumstances in their everyday life, the more they express a positive self-concept both in the present and the future. In addition, the more they perceive themselves as academically efficient, the more they judge themselves more positively both in the present and the future; furthermore, the more the university students are likely to take under their control the everyday life circumstances, the more they perceive themselves as efficient in academic context. Consistently, as reported by Young, Chen, and Morris (2009), if people consider luck as a somewhat stable force that tends to influence events in their own favor (as noted by Darke & Freedman, 1997), then luck will be managed as an usable force in order to improve the perception of personal agency (Wohl & Enzle, 2002), motivating achievement behaviors. On the contrary, if luck will be perceived as fleeting and difficult to be capitalized on, personal agency wouldn't be enhanced and could not be counted on when individuals are striving for their own success. The authors found that the belief in stable rather than fleeting luck is positively associated with achievement motivation in terms of desire for accomplishment, mastery of skills, and personal agency beliefs. In line with the idea to explore the relationship between locus of control and beliefs in superstition and luck also in university students, as already analyzed in a sample of middle and late Italian adolescents (Sagone & De Caroli, in press), we realized the present study involving three groups of students differently characterized for type of training course (Psychology, Pedagogy, and Engineering Degree Courses) in order to examine the possible differences for this variable.

1.1. Purpose of study

This research was focused on the exploration of the effects of locus of control on personal beliefs about superstition and luck and the representation of these two concepts expressed by university students attending the Psychology, Pedagogy, and Engineering Degree Courses at the University of Catania (East Sicily, Italy). We expected that the externally LoC-believers university students will believe more in superstition (H_1) and good luck (H_2) and will judge more positively the concepts of superstition and luck (H_3) than the internally LoC-believers. In addition, we expected the existence of a significant relationship between beliefs about superstition and good luck and the positive representation of these two concepts (H_4). Differences for type of degree courses and sex will be

analyzed.

1.2. Participants

The sample of this study was constituted by 177 university students, 82 boys and 95 girls, from 19 to 32 years-old ($M_{age}=23,4$, $sd=3,5$), divided in three groups for type of degree course: n.59 students (33 boys and 26 girls) attending the degree courses in Psychology, n.54 students (21 boys and 33 girls) attending the degree courses in Pedagogy, and n.64 students (28 boys and 36 girls) attending the degree courses in Engineering. The participants were enrolled from two Departments (Educational Sciences and Engineering) located at the University of Catania, Sicily (Italy).

1.3. Measures and procedure

We used the Locus of Control of Behavior Scale (LoC: Craig, Franklin, & Andrews, 1984), the Personal Beliefs in Superstition Scale, the Personal Beliefs in Good Luck Scale (Darke & Freedman, 1997), and two Semantic Differentials (Osgood, Tannenbaum, & Suci, 1957) about the representation of the concepts of “superstition” and “luck”. These scales were administered to participants in group setting by an expert researcher who explained the instructions to fill in each measure. The Locus of Control of Behaviour Scale (LoC: Craig et al., 1984) was used to measure the internal and external locus of control and previously applied in relation to academic self-efficacy in university students (Sagone & De Caroli, 2014). This scale was formed by 17 items valuable on a 6-point Likert scale (e.g., “I can anticipate difficulties and take action to avoid them”, “My mistakes and problems are my responsibility to deal with”), ranging from zero (anchored with “strongly disagree”) to 5 intervals (anchored with “strongly agree”). The internal consistency resulted to be satisfactory both for internal ($\alpha=.71$) and external LoC ($\alpha=.79$). The Personal Beliefs in Superstition Scale (Sagone & De Caroli, 2014) was useful to analyze the belief in the most common and diffused superstitions in Sicilian socio-cultural context and consisted of 16 statements, half of them referred to the positive superstitious beliefs (e.g., “crossing fingers”, “carrying lucky charms”, and “to be born under a lucky star”) and other half concerning the negative superstitious beliefs (e.g., “breaking a mirror”, “number 17”, and “opening the umbrella inside the house”). Participants were asked to indicate their degree of agreement with each statement using a 7-point Likert scale, ranging from 1 (equal to “strongly disagree”) to 7 intervals (equal to “strongly agree”). The internal consistency resulted to be satisfactory for total scale ($\alpha=.92$). The total score relating to positive and negative beliefs about superstition corresponded to a single measure of the degree to which participants endorsed these attitudes and was computed by summing all responses to each statements. This scale was previously used with a sample of Sicilian middle and late adolescents (Sagone & De Caroli, in press). The Personal Beliefs in Good Luck Scale (Darke & Freedman, 1997) measured the personal beliefs in good luck in everyday life and consisted of 15 items, with a good internal consistency ($\alpha=.79$), each valuable on a 6-point Likert scale (e.g., “I consider myself to be a lucky person”, “I believe in luck”, “Luck is nothing more than random chance”, and “I consistently have good luck”), ranging from 1 (anchored with “strongly disagree”) to 6 intervals (anchored with “strongly agree”). Low scores on this scale designated that luck was viewed as a random and unreliable trait, whereas high scores revealed that luck was considered as a personal and stable characteristic.

The Semantic Differential Technique (Osgood et al., 1957) was applied to analyze the representation of “superstition” ($\alpha=.87$) and “luck” ($\alpha=.82$). These two measures contained within 28 pairs of opposite adjectives for each concept (e.g., stable-unstable, desirable-undesirable) and each opposite adjective was judged on a 7-point Likert scale. High scores showed a positive evaluation of the meaning of these concepts.

1.4. Data analysis

The statistical analysis of data was carried out by means of the SPSS 15, using t-tests, ANOVA, linear correlations, and linear regressions with stepwise method. Type of degree course and sex were used as independent variables, while mean scores obtained on locus of control, beliefs in superstition and good luck, and semantic differentials were used as dependent variables.

2. Results

2.1. Locus of control

Statistical analysis showed that university students obtained mean scores of internal locus of control greater than those of external locus of control ($M=24,8$, $sd=4,8$ vs. $M=16$, $sd=7,8$; $t_{(177)}=10.46$, $p<.001$) without significant differences for sex. This datum meant that university students believed that life events were under their control rather than under the positive effect of luck, as found in our previous investigation (Sagone & De Caroli, 2014). In relation to differences for type of degree courses, as in Table 1, results showed that university students attending the engineering courses were internally LoC-believers more than pedagogy and psychology ones (for $p<.001$); on the contrary, university students attending the psychology and pedagogy degree courses were externally LoC-believers more than engineering ones (for $p<.001$).

Table 1. I-E Locus of control: differences for type of degree course

Locus of control	Type of degree course	N	Means	Stand. Dev.	$F_{(2,174)}$
Internal LoC	Pedagogy	54	24,46	3,7	9,33*
	Psychology	59	23,08	4,8	
	Engineering	64	26,66	5,1	
	Total	177	24,80	4,8	
External LoC	Pedagogy	54	18,18	5,0	19,95*
	Psychology	59	18,88	6,8	
	Engineering	64	11,59	8,6	
	Total	177	16,03	7,8	

Note. Level of significance for * $p<.001$

2.2. Beliefs in superstition and luck

As reported in Table 2, results showed that university students attending the psychology and pedagogy degree courses expressed a greater personal belief in good luck than engineering ones (for $p<.001$). No significant differences for type of degree courses and sex in relation to personal beliefs in superstition were found.

Table 2. Personal beliefs in good luck: differences for type of degree course

Personal beliefs	Type of degree course	N	Means	Stand. Dev.	$F_{(2,174)}$
Good luck	Pedagogy	54	41,72	9,4	10,11*
	Psychology	59	44,54	10,8	
	Engineering	64	36,11	11,3	
	Total	177	40,63	11,1	

Note. Level of significance for * $p<.001$

2.3. Representation of superstition and luck

The representation of the concept of superstition was more negative ($M=3,57$, $sd=,79$) than that of luck ($M=4,19$, $sd=,65$; t for paired sample= $-12,32$, $p<.001$). In detail, as noted in Table 3, university students attending the psychology and pedagogy degree courses showed a more positive representation of the concept of luck than engineering ones (for $p=.020$), even if mean values were near to intermediate point. No significant differences for type of degree courses and sex in relation to the representation of superstition were noted.

Table 3. Semantic differential about luck: differences for type of degree course

Semantic differential	Type of degree course	N	Means	Stand. Dev.	$F_{(2,174)}$
Concept of luck	Pedagogy	54	4,29	,63	3,98**
	Psychology	59	4,28	,52	
	Engineering	64	4,00	,73	
	Total	177	4,19	,65	

Note. Level of significance for ** $p<.05$

2.4. Effects of LoC on beliefs in superstition and luck

Statistical analysis carried out by linear regressions with stepwise method demonstrated that external LoC had positive effects on personal beliefs about superstition ($\beta=.473$, $t=7.09$, $p<.001$), good luck ($\beta=.387$, $t=4.97$, $p<.001$), and on the representation of luck ($\beta=.360$, $t=5.11$, $p<.001$). On the contrary, internal LoC had negative effects only on the representation of superstition ($\beta=-.321$, $t=-3.90$, $p<.001$). These findings indicated that university students, who believed that the events are the product of chance, luck, or the influence of the others expressed high levels of beliefs in superstition and good luck and had a positive representation of luck. Vice versa, university students who believed that the events are the product of their own actions and direct involvement in the management of their own life tended to express a negative representation of superstition. With reference to the differences among the three groups, external LoC had positive effects on personal beliefs about superstition both for psychology ($\beta=.486$, $t=4.20$, $p<.001$) and engineering university students ($\beta=.366$, $t=3.07$, $p=.003$) and about good luck only for engineering university students ($\beta=.361$, $t=3.35$, $p=.001$); in addition, internal LoC had negative effects only for engineering university students on personal beliefs about superstition and good luck (respectively, $\beta=-.298$, $t=-2.50$, $p=.015$; $\beta=-.419$, $t=-3.88$, $p<.001$). Furthermore, internal LoC had negative effects on the representation of the concept of superstition both for psychology ($\beta=-.394$, $t=-3.24$, $p=.002$) and engineering university students ($\beta=-.570$, $t=-5.45$, $p<.001$); internal LoC had negative effects on the representation of the concept of luck only for engineering university students ($\beta=-.434$, $t=-3.78$, $p<.001$) and external LoC had positive effects on the representation of the concept of luck only for psychology university students ($\beta=.343$, $t=2.75$, $p=.008$).

Concerning the relationships between beliefs about superstition and good luck and the representation of these two concepts, results showed that the more the university students believed in superstition (total sample: $r=.28$, $p<.001$; engineering: $r=.31$, $p=.012$) and good luck (total sample: $r=.48$, $p<.001$; pedagogy: $r=.35$, $p=.01$; psychology: $r=.46$, $p<.001$; engineering: $r=.51$, $p<.001$) the more they positively valued the representation of these concepts. In relation to sex, no effects of locus of control on the aforementioned beliefs and representations were found.

3. Discussion and conclusion

The main goal of the present study was to explore the effects of I-E locus of control on personal beliefs about the most common and diffused superstitions in Sicilian socio-cultural context and concerning the influence of luck expressed by three groups of university students attending the University of Catania (East Sicily, Italy) and, specifically, the degree courses of Psychology, Pedagogy, and Engineering. This study derived from results of the previous analysis carried out with Italian adolescents by Sagone and De Caroli (in press), according to which the more the adolescents were internally LoC-believers, the less they believed in superstition and, on the contrary, the more the adolescents were externally LoC-believers, the more they've put their faith in superstition and good luck. Extending these assumptions to different groups of university students, according to the first and second hypotheses of the current study (H_1 - H_2), we predicted that the external LoC-believers would greatly believe in superstition and good luck compared with the internally LoC-believers: findings confirmed these hypotheses, in the sense that university students who believed that the events are the product of chance, luck, or the influence of the others expressed high levels of beliefs in superstition and good luck. As reported in H_3 , we hypothesized that the externally LoC-believers would judge more positively the concepts of superstition and luck respect to the internally LoC-believers: results confirmed this hypothesis only about the relationship between I-LoC and superstition, in the sense that university students characterized by the attribution of happenings to their own resources and purposes negatively valued the superstition. Finally, according to the last hypothesis (H_4), we expected the existence of a significant relationship between beliefs about superstition and good luck and the positive representation of these two concepts: so, findings partially confirmed that the more the university students believed in good luck, the more they positively judged the psychological connotation of this concept.

This investigation carried out in Italian context represented a confirmation of the generalized relationship between the dimensions of locus of control and the attitudes toward superstitious beliefs and good luck, even if it will be necessary to extend this analysis to other degree courses and to include other psychological constructs to deepen the nature of this relationship. Future researches could be focused on the influence of personality factors on

beliefs about superstition and luck both in adolescents and young adults.

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