Personality and Individual Differences 94 (2016) 342–347

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Review

Change in goal orientation of Korean high school athletes: A cross-temporal meta-analysis, 1999–2014

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ARTICLE INFO

Article history:
Received 1 November 2015
Received in revised form 1 February 2016
Accepted 2 February 2016
Available online 11 February 2016

Keywords:
Achievement motivation
Goal perspective theory
Social change
Ego orientation
Task orientation

ABSTRACT

This study examined changes in ego and task orientation scores on the Task and Ego Orientation in Sport Questionnaire (Duda, 1989, 1992) among Korean high school athletes. Ego-oriented individuals focus on achieving superiority while those who are task-oriented place importance on personal mastery. A cross-temporal meta-analysis of 34 studies (total $N = 6{,}503$) was conducted, and a significant rise was found in young Koreans' ego orientation between 1999 and 2014. The mean ego orientation scores were significantly correlated with year of data collection when weighted by sample size ($\beta = .49$). Since 1999, ego orientation scores have increased by 0.64 standard deviations. Task orientation scores were unrelated to ego orientation scores and showed no apparent pattern of change over time.

1. Introduction

Often touted for its extraordinarily rapid development, Korea has indeed undergone a great transformation over the past few decades. With globalization established as a national drive, the country started to open itself to the world economically, politically, and culturally in the 1990s. Particularly, the financial crisis that hit Korea hard in 1997 accelerated this process and allowed globalization to permeate the country. The economic reform guided by the International Monetary Fund helped Korea to recover from the crisis but brought with it a massive influx of Western ideologies, such as neoliberalism and competitive individualism (Jung, 2012). Consequently, Koreans today live in a different culture and have different value systems and personality traits from their counterparts in the 1990s. Analysis of the World Value Survey indicates shifts in values among Koreans from 1990 to 2005, one of which was a clear rise in individualism (K. Lee, 2014). Another study found that narcissism among Korean college students has consistently increased between 1999 and 2014 (Lee, Benavides, Heo, & Park, 2014). Predictably, such differences could also lead to changes in the motivation that drives the youth to do what they do.

People are moved by different motivations, and delving into the underlying psychological mechanisms has been of great use in understanding people's behaviors. One approach to studying motivations is based on individual differences in goal perspectives (Ames, 1984; Elliott & Dweck, 1988; Nicholls, 1984). Nicholls (1989) proposes that an individual's motivation in achievement settings depends on two major goal orientations, ego and task orientation, which entail differences in the definition of success and judgment of one's competence. The aim of the present study was to address how the goal orientation of the Korean youth has changed over the past two decades. Specifically, we used cross-temporal meta-analysis to explore changes in ego and task orientation among Korean high school athletes. Although there have been a few longitudinal studies that examined changes in goal orientations among sportsmen using a small sample (e.g., Gano-Overway & Ewing, 2004; Boyce, Gano-Overway, & Campbell, 2009), none to our knowledge systematically examined the generational change.

2. Ego and task orientation

According to Nicholls (1989), ego-oriented individuals evaluate their level of ability and success on the basis of performance norms or social comparisons. That is, achieving superiority over others is essential to demonstrate competence and experience success. In contrast, when task orientation predominates, the perception of ability or success is based on a self-referenced standard, such that improvement on a task implies high competence and achievement. Across academic and physical domains, it has been observed that ego and task orientations are two distinct concepts that are independent (Chi & Duda, 1995; Duda & Nicholls, 1992).

Previous research has investigated how the two goal orientations are manifested in different behaviors. Ryska, Yin, and Boyd (1999) reported that the ego orientation of an athlete was positively related to self-handicapping behaviors, such as excuse making and sparing efforts. Self-handicapping serves to minimize the extent to which failure indicates incompetence and helps to protect the ego-oriented individual's

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http://dx.doi.org/10.1016/j.paid.2016.02.003
0191-8869/

self-worth in socially evaluative situations (but see Park & Brown, 2014). Ego orientation has also been related to unsportsmanlike play and cheating (Duda, Olson, & Templin, 1991) as well as aggressive behaviors, such as intimidation and injurious acts (Dunn & Dunn, 1999). In fact, ego-involved athletes go as far as to demonstrate anti-social behaviors, such as criticism and verbal abuse, to their own teammates to establish superiority over them (Boardley & Kavussanu, 2010).

In contrast, task orientation is usually related to behaviors that are more positive. Kavussanu (2006) reported that task orientation was a positive predictor of prosocial behaviors and a negative predictor of aggressive behaviors. As task-oriented individuals derive feelings of competence from learning rather than outperforming others, they are more likely to play by the rules, and desire cooperation and a fair competition (Duda et al., 1991). Furthermore, task orientation promotes adaptive achievement patterns, such as embracing challenges, showing greater persistence, and exerting more efforts towards a task (Nicholls, 1989). Solmon and Boone (1993) found that task-involved students selected tasks that were more challenging and actively engaged in a class, which in turn predicted high achievement at the end of the semester.

3. Prediction about ego orientation

When it comes to predicting changes in the goal orientations of the Korean youth, at least two lines of reasoning would lead one to predict that the level of ego orientation should have increased over the past years. First, the financial crisis in 1997, and its socio-economic consequences following the post-crisis restructuring and market liberalization resulted in a "society characterized by the survival of the fittest" (Yee, 2004, p. 261) and made competition, rather than cooperation, social norm in Korea. Accordingly, Korean corporates had to face merciless global competition and their emphasis on harmony and loyalty were not compatible with the new demands for productivity. Workers were no longer assured of a lifetime job and had to fit into a competitive system that focused on individual achievement and performance (Shin, Koo, & Jung, 2011). The goal of beating others became more critical than the goal of improving oneself.

Similarly, students experienced changes in norms at school. In 2005, Korean government required high schools to change their grading systems from absolute to relative evaluation in which students were ranked from Class 1 to Class 9 based on their relative standing in class (Ha, 2007). Students' high school transcripts that show this rank for every student along with the total number of the students carried great weight in college admission. In other words, students were thrust into the competitive atmosphere where they had to keep their eyes on others' performance in order to get into college.

Koreans' value systems and personality traits have also changed. Koreans in 2005 were more individualistic than their counterparts in 1990 (K. Lee, 2014), and college students showed a consistent rise in narcissism between 1999 and 2014 (Lee et al., 2014). It seems plausible that there is an overlap between narcissism characterized by grandiose self-perception and display of superiority, and ego-orientation which underscores the demonstration of competence through social comparison. Narcissistic individuals are known to make more frequent social comparisons (Krizan & Bushman, 2011) and show greater reactivity to social comparison information (Bogart, Benotsch, & Pavlovic, 2004). Similarly, ego-involved individuals are preoccupied with construing success and perceive their ability with reference to others' performance. Furthermore, Morf, Weir, and Davidov (2000) found that narcissistic students preferred feedback that emphasized ego goals in which evaluation was other-referenced.

We also predict an increase in ego orientation of the Korean youth in light of the parental influence. Many researchers have suggested the need to consider the influence of the socialization process when studying children's motivation (Brustad, 1992; Nicholls, 1984). Specifically, significant others, such as parents, create a motivational climate that influences how children define success and judge their ability (Nicholls, 1989; Waldron & Krane, 2005). Korean parents are notorious for their peculiar education fervor, and it has presumably heightened as the country itself has become more educated (OECD, 2011). Children of more educated parents tend to report high achievement pressure and follow a career path given by their parents (Lee, 2010; Won, 2006). This applies similarly, if not more strongly, to young athletes whose future careers highly depend on high school performance. Korean parents' expectations, along with emotional and financial commitment, are important factors in making their children professional athletes (Chae, 2008; Park, 2003). Against this backdrop, an intensified ego-oriented motivational climate would result in an increase in the ego involvement of young Korean athletes.

4. Prediction about task orientation

As the two orientations are found to be theoretically and empirically orthogonal, it is reasonable to have a separate prediction regarding task orientation. Nevertheless, the motivational climate that potentially raises the ego orientation of Korean youths may, at the same time, contribute to a decline in task orientation. Under outcome-focused motivational climate, it is hard to seek enjoyment, improvement, or self-satisfaction (Krane, Greenleaf, & Snow, 1997). Instead, the youth may model their parents' behaviors and attitudes, and evaluate themselves on external rewards and normative performance. Especially with sports being competitive in nature, students shouldering heavier achievement burden may find it hard to focus solely on personal improvement or be intrinsically motivated.

Alternatively, we also recognize a possibility of an increase in task orientation in light of the societal changes following the financial crisis. The adoption of neoliberal values led to an emphasis on freedom of choice in many aspects of life (Jung, 2012). In the realm of education, the university screening policy changed to an "individual-quality driven" system that provided more opportunities to students with different specialties and talents (Nam, 2004). Instead of pursuing one and only way to success—scoring high in the standardized college entrance exam—students were granted relatively more options in deciding their curriculum and finding alternate aptitudes. In addition, the economic modernization significantly undermined the authoritarianism that was deeply rooted in the traditional Confucian values. Greater emphasis was placed on autonomy over hierarchy and power, and independent decision making was encouraged (Rowley & Bae, 2002; Shin et al., 2011). These societal changes could contribute to fostering of intrinsic motivation and increased desire for self-improvement. To sum up, the different forces may work in opposite directions, and it is difficult to affirm a unidirectional trend in the change of task orientation.

5. Overview

This article presents a cross-temporal meta-analysis that examined changes in the ego and task orientation of Korean high school athletes. This method analyzes samples of the same age group, collected at different times, and correlates their mean scores on the same measure with the corresponding data collection years. Previous studies have used this technique to study birth cohort differences in such traits as anxiety, extraversion, and narcissism (Twenge, 2000, 2001; Twenge, Konrath, Foster, Campbell, & Bushman, 2008). The present analysis used scores on the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989, 1992), an instrument developed to assess individual differences in the proneness for ego and task orientation in the athletic context. Specifically, we recorded participants' responses to the 13-item TEOSQ as this is the most commonly used version that has consistently demonstrated validity and reliability across different fields of physical activities (e.g., Duda & Nicholls, 1992; White & Duda, 1994). This holds the same in studies with the Korean population (e.g., E. J. Kim, 2007).

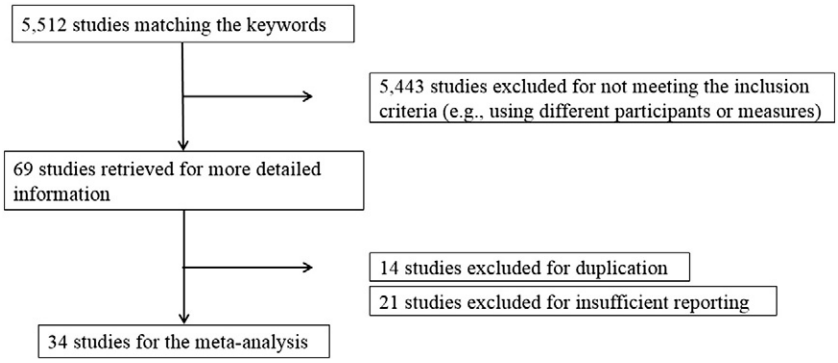

Fig. 1. Selection and exclusion of studies for the meta-analysis of the goal orientation of the Korean high school athletes.

More importantly, Li, Harmer, Chi, and Vongjaturapat (1996) established its cross-cultural validity in a study with samples from the U.S., Thailand, and Taiwan.

In this study, we restricted our sample to high school athletes for three reasons. First, as Twenge (2001) suggests, time-lag analysis must sample one age group in order to avoid influence from confounding variables. Second, high school students are commonly recruited participants for psychological studies. Third, Korean high school athletes in particular have less variance in the extent to which sports count as a valid achievement context compared to non-athletes; they all aim to be professional players or at least to be in related professions in the future.

Table 1
Data included in the analysis.

Source	Year	*n*	Ego *M*	Ego *SD*	Task *M*.	Task *SD*
Kwon and Lim (1999)	1999	118	3.01	–	3.46	–
Won, Lim, and Kim (1999)	1999	135	2.86	–	3.66	–
Lee (2000)	1999	144	3.15	0.63	3.72	0.55
Baek (2001)	2001	20	3.63	–	4.01	–
Hong, Kim, and Lee (2001)	2001	196	3.52	0.62	4.06	0.73
Ahn, Pyo, and Park (2001)	2001	236	3.19	0.66	3.76	0.73
An (2002)	2001	80	3.48	–	3.07	–
Kim (2002)	2001	123	3.15	–	3.69	–
Jung (2003)	2002	159	3.56	–	3.91	–
Chun and Jun (2003)	2003	69	3.17	0.60	3.89	0.60
Kim (2004)	2004	50	3.35	0.70	3.83	0.80
Jang (2005)	2005	39	3.51	0.54	3.39	0.72
Bae (2006)	2005	62	3.53	0.65	3.59	0.68
Kim (2006)	2006	132	3.42	0.63	3.90	0.65
Shim (2006)	2006	324	3.72	–	4.30	–
Kim (2007)	2007	133	3.36	0.81	3.60	0.84
Han (2008)	2007	194	3.52	0.67	3.60	0.69
Kim, D. J. (2009)	2008	63	3.20	0.60	3.94	0.55
Park, Kim, and Sung (2009)	2009	63	3.56	0.69	3.72	0.61
Kim, J. S. (2009)	2009	162	2.90	–	2.96	–
Park (2010)	2009	324	3.73	0.55	3.78	0.57
Lee (2011)	2010	112	3.33	0.51	3.67	0.55
Kim, A. R. (2011)	2010	121	3.58	0.62	3.98	0.64
Kim, J. H. (2011)	2010	310	3.67	0.60	3.65	0.76
Park (2012)	2011	290	3.70	–	3.90	–
Jeong (2012)	2012	186	3.35	0.79	3.90	0.64
Kim, E. J. (2013)	2012	303	3.33	–	3.93	–
Kim, S. H. (2013)	2012	68	4.00	0.44	3.56	0.53
Kang (2013)	2012	271	4.06	–	3.33	–
Kim and Yang (2013)	2012	142	2.88	0.72	3.76	0.67
Park (2014)	2013	155	3.44	0.95	2.64	0.85
Choi (2014)	2014	205	3.65	–	3.62	–
Lee (2014)	2014	1375	3.67	0.60	3.65	0.76
Baek (2015)	2014	139	3.41	0.69	3.71	0.57

6. Method

6.1. Literature search

Studies were located by searching Korean journal databases (RISS and DBpia) using the following keywords: *Task and Ego Orientation in Sport Questionnaire*, *TEOSQ*, and *goal orientation*. These databases together cover nearly all Korean journals, doctoral dissertations, and master's theses in the social sciences. Some of the articles were also accessed through the Digital National Assembly Library.

6.2. Inclusion rules

To be included in our analysis, a study had to meet the following criteria (Fig. 1): (a) participants were attending high school in Korea, (b) participants were athletes who were actively participating in sports (e.g., school team players or participants in sport tournaments), (c) participants were not selected for any criteria (e.g., not chosen for scoring high or low on the TEOSQ), and (d) participants responded to the 13-item TEOSQ. When a study reported several means for different groups (e.g., divided by gender or types of sport), we calculated overall means for the total sample. If a study involved a repeated measures design, we recorded pretest means. When several articles used the same dataset, we only considered the article that was first published. Every study included in the analysis used a 5-point Likert scale.

When email addresses could be obtained, we emailed the authors of articles that met all of the criteria but did not report means. Of the 34 final samples, one was collected this way (Kim & Yang, 2013). To estimate the year of data collection, we used the original date that the article or thesis was submitted unless another date was mentioned by the author. Three articles did not include either information. In this case, the year of data collection was coded as 1 year prior to publication if the article was published in the first half of a year, and as the publication year if published in the second half.[1] The final database of samples consisted of 34 studies between 1999 and 2014 (Table 1), including 6,503 participants involved in 15 different types of sports. Participants were athletes of individual sports in 26 studies and athletes of team sports in three studies. Five studies recruited athletes of more than one type of sports.

[1] Although the year of data collection was coded as 2 years prior to publication in previous meta-analyses, the authors considered this estimation to be inapplicable to articles in Korean journals that are usually published within six months of submission. In fact, of the 31 articles in our study that either mentioned the year of data collection or reported the submission date, 17 were published in the same year and 14 were published in the next year.

6.3. Analytic strategy

We examined changes in the ego and task orientation scores of the TEOSQ over time by correlating means with the year of data collection. As in previous cross-temporal meta-analyses (Twenge, 2000, 2001), means were weighted by the sample size of each study to provide better estimates of the population mean. Then, to calculate the magnitude of the changes, we used the weighted regression equations and the standard deviation (*SD*) of the samples. The regression equation follows the algebraic formula $y = Bx + C$, with B = unstandardized regression coefficient and C = the constant. We computed the mean score (y) for a specific year (x) using this formula. In addition, we used the *SD*s reported in individual studies, weighted by sample size, to compute an average *SD*. This reflects the average variance of the measure in a sample and can be used to calculate the effect size. Note that only *SD*s reported in articles were used for the calculation as in previous studies (e.g., Twenge et al., 2008).

7. Results

7.1. Ego orientation

Overall, Korean high school athletes have become more ego-oriented between 1999 and 2014 (Fig. 2). There was a significant positive correlation between ego orientation and year of data collection when weighted by sample size, $\beta = .49$, $p = .004$ (Table 2). The rising pattern was also significant without weighting, $r = .39$, $p = .02$.

The regression equation (Ego orientation = 0.027 × Year − 51.051) obtained from the weighted regression reveals that an average high school athlete scored 2.92 on the ego orientation scale of the TEOSQ in 1999 and 3.33 in 2014. To examine the magnitude of the change, we took this difference between the average scores and divided it by the weighted average *SD* of 0.64. According to these calculations, the ego orientation scores increased by 0.64 *SD*s from 1999 to 2014. This is a medium-to-large effect size by Cohen's (1977) guidelines.

Converting the *SD* change to percentile scores is also informative. Assuming a normal curve, if the average high school athlete in 1999 scored at the 50th percentile of the distribution, the average high school athlete in 2014 would score at the 74th percentile. Put differently, 48% more student athletes in 2014 would score above the average in the 1999 distribution of ego orientation.

7.2. Task orientation

In line with previous findings (e.g., Chi & Duda, 1995), task orientation was not related to ego orientation, $r = .10$, $p = .59$. In a regression analysis, no apparent pattern was found in change in the task orientation scores over time. That is, year of data collection did not significantly predict task orientation, regardless of being weighted by sample size ($\beta = -.19$) or not ($r = -.15$).

8. Discussion

A meta-analysis of 34 samples of Korean high school athletes found a significant increase in ego orientation but no consistent pattern of change in task orientation. The inconsistent fluctuation of task orientation was not surprising as we speculated that different factors might work in different directions. On the other hand, the shift in ego orientation, with an increase of 0.64 *SD*s in less than two decades, reflects a substantial change. Compared to their counterparts in 1999, high school athletes in 2014 were more likely to endorse such statements as "I feel really successful in sport when others mess up and I don't."

This finding is largely consistent with our prediction based on social changes that have taken place in Korea over the last few decades. Following the financial crisis was the emergence of the competitive society (Jeon, 1998). Koreans constantly had to compare themselves with others and make sure that they are not falling behind in order to survive the cutthroat competition and secure their workplace. Accordingly, their values and personality traits have changed; they have become more individualistic, competitive, and narcissistic than before (K. Lee, 2014; Lee et al., 2014). The present study, which is concerned with high school students, indicates that the influence of social environment extends to the younger generation. We also noted the possibility of sociocultural changes indirectly influencing the young athletes through their parents. Specifically, we expected a change in parent-initiated motivational climate corresponding to the increased parental educational level and more involvement in their children's career. Indeed, our results imply that they may have contributed to the creation of an ego-oriented motivational climate that influenced the achievement motivation of the young.

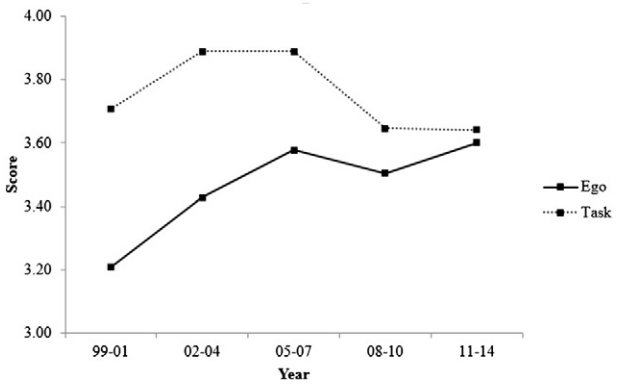

Fig. 2. Changes in Korean high school athletes' ego and task orientation, 1999–2014.

One of the limitations of our study concerns the dichotomous distinction of goal orientation. When conceptualizing the two distinct orientations, early achievement goal theorists (e.g., Dweck, 1986; Nicholls, 1984) noted that the goal orientation might manifest itself in a different fashion depending on the person's perceived ability. According to Nicholls (1984), whereas ego-oriented individuals with high perceived ability try to demonstrate competence and superiority over others, those with low perceived ability focus on avoiding situations that would reveal one's incompetence. Elliot (1999) further proposed incorporation of approach–avoidance motivation into the dichotomous framework. Here, a goal may be directed towards the demonstration of competence (approach) or avoiding the demonstration of incompetence (avoidance). From this perspective, it may be helpful to take into account the differentiation of the goal orientations in future research.

Another limitation inherent in the nature of the analysis is that we only studied a specific group: Korean high school athletes. We recommend more work on examining goal orientations of other age groups in Korea or the youth in other countries. Although we expect that other parts of the world may have undergone similar changes and would show a similar rising trend of ego orientation, different results could be obtained for task orientation in other countries. Cross-cultural comparison could help to elucidate whether the results of the present study reflect the influence of the unique sociocultural environment of Korea.

Table 2
Korean high school athletes' goal orientations related to year, 1999–2014.

Variable	*r* with year	β with year, weighted by sample size
Ego orientation	.39*	.49**
Task orientation	−.15	−.19

Note. $k = 34$.
* $p \le .05$.
** $p \le .01$.

Finally, if the rise of ego orientation among young athletes is a pervasive trend, it may be a warning sign that we should pay more attention to their psychological and physical development. Past research has demonstrated that an ego-involved athlete who is preoccupied with others' performance and competition has a maladaptive style of perfectionism (Dunn, Dunn, & Syrotuik, 2002), endorses more cheating and aggression (Duda et al., 1991), and is more likely to get hurt (Stephens & Kavanagh, 2003). On account of a variety of negative aspects related to ego orientation, it is time to reflect on the motivational climate that we have created for the young generation and to consider possible measures to balance it with task orientation.

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