
Implicit Beliefs on Sports Engagement: Examining the Mediating Role of Sports Emotion among Athletes

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ABSTRACT

The role of implicit beliefs on sports engagement has been well studied. However, the mediating mechanism between implicit beliefs and sports engagement needs further investigation. This study seeks to examine the mediating role of sports emotions in the relationship between implicit beliefs and sports engagement (i.e. vigor, dedication, and absorption). A sample of 1138 athletes answered implicit theory of ability questionnaire, sports engagement scale, and sports emotions questionnaire. The results showed that the athletes with higher entity implicit beliefs are likely to have lower sports engagement due to feelings of dejection. Additionally, athletes with higher incremental beliefs are likely to increase sports engagement due to increasing enjoyment and dejection but lower feelings of anger. The results showed the importance of how implicit beliefs affect athletes' sports engagement through the differential effects emotions.

KEYWORDS: *sports engagement, sports emotion, implicit belief, entity, incremental, Athletes*

INTRODUCTION

There is no doubt that sport generates powerful emotional responses among participants (Terry & Lane) [1]. Engagement is the opposite of burnout and is characterized by a feeling of being immersed in an activity such as the practice of sport. Sports Engagement on the other hand, is a positive mental state of actualization which is characterized by vigor, dedication and absorption (Schaufeli, Salanova, González-Romá, & Bakker) [2] it is an optimum state in sport and a type of good interest (Guillén & Martínez-Alvarado) [3]. However, to the researchers' knowledge, none have investigated the link between implicit beliefs and sports engagement. This is important in the context that implicit beliefs have been found to affect a lot of areas in athletes' lives. Moreover, this study examines a possible mediating role of sports emotions in the relationship between implicit beliefs and sports engagement. This is relevant as emotions have been found to be significantly associated with implicit beliefs (Tajrishi et al.) [4]; (Gardner et al.) [5] and sports engagement (Laborde & Anislag) [6]; (Kerrm et al.) [7]; (Neil et al.) [8]; (Tamminen et al.) [9]; (Mowlaie) [10].

The beliefs athletes hold regarding sports ability undoubtedly conform several areas of athletes' cognition and emotions. In the social-cognitive perspective, individual's fundamental implicit beliefs affect their interpretation and explanation of events which in turn influences their emotional response (Dweck & Leggett) [11]. Implicit beliefs are defined by

Dweck and colleagues [11] which are also referred to as implicit theories. Individuals endorsing entity beliefs view ability as a fixed, uncontrollable, and stable trait, whereas those endorsing incremental beliefs view ability as malleable, controllable, and increasable through learning. Entity beliefs have been linked with maladaptive cognitive, behavioral, and affective outcomes, such as decreased motivation and withdrawal from tasks due to feelings of dejection. Conversely, incremental beliefs are associated with more positive outcomes, such as increasing enjoyment, task persistence, and lower anxiety (Dweck) [12]; (Tamir, John, Srivastava, & Gross) [13]. Studies have shown that implicit beliefs influence anxiety (Gardner et al.) [5], higher hope (Cohen-chen et al.) [14], and higher enjoyment (Seligman) [15]; (Jayawickreme et al.) [16]. The way athletes perceive their capabilities—either absolute or increasing, could greatly affect their emotions of which this research contends, will highly influence to buildup sports engagement.

During the past decades, sporting contests have been considered a reliable domain to study emotional states (Pesce et al.) [17]. Evidence indicates that before and during competition, athletes experience different emotions that may influence performance. These emotions elicit emotional response of an athlete which may become functional or dysfunctional during competition. For example, in terms of being functional, the emotions of anger and fear could motivate individuals to deal with the causes of those emotions (the “fight or flight response”). The same way the emotions of dejection could be dysfunctional (Campo et al.) [18], if for example, an athlete experience loss of someone due to losing of motivation. This positive and negative emotional state of an athlete is vital as the competition progresses because it indicates their ability to respond to these emotions and their attitudes towards the competition. Thus, emotions have been considered to be important for an athlete to successfully overcome a competition. Various studies have shown that the influence of emotions in sports greatly affects the performance of athletes (Laborde, Brull, Weber, & Anders) [19]. Exposure towards a sports environment can elicit emotions when athletes try to reach high performance (Chan & Mallet) [20]; (Boroujeni, Mirheydari, Kaviri & Shahhosseini) [21]. It is during these moments that athletes are liable to the increase in coping, resilience, and confidence. Consequently, the development of such emotions—positive or negative, could greatly affect athletes’ implicit beliefs and in turn, make them more engage in sports.

RESULTS AND DISCUSSIONS

The purpose of this journal is to determine if sports emotion (anxiety, dejection, excitement, anger, and happiness) mediate the relationship between implicit beliefs (incremental beliefs and entity belief) and sports engagement among high school athletes.

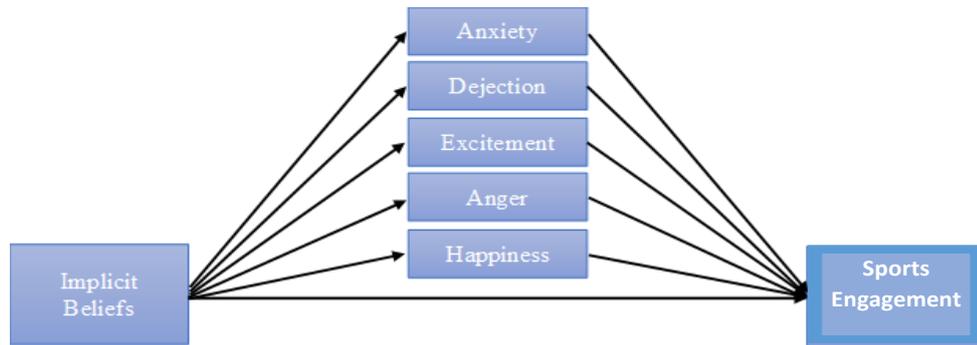


Figure1: Model of Implicit Beliefs on Sports Engagement: Examining the Mediating Sports Emotion among Athletes

In this study, several emotions could affect an athlete's sports engagement having either incremental or entity form of implicit beliefs. This means that an athlete who experiences a particular situation will eventually influence sports engagement. In particular, the results show that athletes believing that certain abilities can be improved and have benefited from them in terms of performance will most likely be able to cope easily with the stress in playing and be able to play consistently when they elicit a low level of dejection. When athletes believe that certain abilities can still be improved and led to promising results because they have improved in it, this will most likely lead to increase sports engagement. Being able to successfully improve in terms of performance will make athletes more motivated to play at a higher level every game (Biddle et al.) [22]. As Mellalieu, Neil, Hanton, & Fletcher [23] stated that, athletes will experience negative emotions when they try to reach a high level of performance and therefore increase sports engagement. Generally, sports engagement of an athlete will be based on their belief that they would perform better through the emotions they would feel.

However, findings of the study show athletes believing that their abilities that contribute to high sports engagement are constant would result to low feeling of anger and heightened feeling of dejection, happiness, and excitement has not been explored that much within a competitive sports competition. This may be due to the fact that some athletes believe that their abilities would remain constant despite other factors affecting them. Furthermore, when athletes believe that certain ability can no longer or will be improved because the ability is God-given would not feel dejected because this has benefited him, this will make the athlete still engage in sports.

Independent Variable (IV)	Mediating Variable (M)	Dependent Variable (DV)	Effect of IV on M (a)	Effect of M on DV (b)	Direct Effect (c')	Total Indirect Effect	Total Effect (c)	Indirect Effects	Std. Error	BC 95% CI	
										LL	UL
INC	Anxiety	Sports Engagement	.8537	.2555	.2221**	-.0145**	1.406	.0011	.0084	-.0113	.0269
	Dejection		.0001**	.0091				.0747	.0351**	.0202**	.1612**
	Excitement		.0000	.0020				.0898	.0339	.0353	.1714
	Anger		.0000**	.0490				-.0611	.0341**	-.1397	-.0049**
	Happiness		.0000	.0003				.1175	.0399	.0515	.2077

Note: All coefficients are unstandardized; *p<.05, **p<.01; significant indirect effects are indicated in boldface. SPSS; Controlling variables = age and gender

Table 1 show that controlling for age and gender, dejection, excitement and anger mediates the relationship between incremental beliefs and sports engagement. The result suggests that high incremental belief increases sports engagement due to high feelings of dejection and low feelings of anger.

Table 2. Results of Multiple Mediation Analyses of Sports Emotion.

Independent Variable (IV)	Mediating Variable (M)	Dependent Variable (DV)	Effect of IV on M (a)	Effect of M on DV (b)	Direct Effect (c')	Total Indirect Effect	Total Effect (c)	Indirect Effects	Std. Error	BC 95% CI	
										LL	UL
ENTITY	Anxiety	Sports Engagement	.4393	.1184	.4147	-.0287**	.3860	.0062	.0100	-.0066	.0361
	Dejection		.0004**	.0023**				-.0683	.0304**	-.1406**	-.0215**
	Excitement		.8073	.0001				-.0049	.0195	-.0471	.0324
	Anger		.0250	.2242				.0148	.0154	-.0056	.0591
	Happiness		.2284	.0002				.0235	.0205	-.0097	.0731

Note: All coefficients are unstandardized; *p<.05, **p<.01; significant indirect effects are indicated in boldface. SPSS; Controlling variables = age and gender

Table 2 shows that controlling for age and gender, and dejection mediates the relationship between entity beliefs and sports engagement. The result suggests that high entity belief increases sports engagement due to lower feelings of dejection.

CONCLUSIONS AND RECOMMENDATIONS

The result of this study shows that incremental belief and entity beliefs, in their distinct definitions and concepts, can both contribute to an athlete's sports engagement through various emotions. In summary, athletes with higher entity beliefs would result to low level of dejection and increases sports engagement. When they experience low level of dejection, it increases the level of sports engagement due to the belief that the ability is God-given. Conversely, athletes with high level of incremental belief would result to low level of anger and high level of excitement, happiness and dejection increases sports engagement. When they experience high level of dejection the more they likely engage in sports and feel more competitive to excel in the game. Although different emotions have been notably observed among athletes, analysis at the implicit beliefs of athletes revealed that athletes' belief on their capability, whether entity or incremental, could elicit different emotions. Surprisingly, athletes who believe that their abilities can be improve are susceptible to dejection and exposed are positively engage in sports. On the other hand, athletes who least likely believe that their capabilities could or not improve will most likely elicit low feelings of dejection and is still capable to engage in sports.

The result of this study must be interpreted in the context of limitations. First, the study made use of self-report measures, which makes the responses susceptible to bias and social desirability. Second, the population of the study was identified through purposive sampling of the athletes who are actively engage involve in sports competition from different high schools, which makes the results non-representative.

REFERENCES

- i. Terry, P. C.; Lane, A. M., Devonport, T. J., Friesen, A. P., & Totterdell, P. A.. (2017). A test and extension of Lane and Terry's conceptual model of mood-performance relationships using a large Internet sample. *Frontiers in Psychology*, 8, Article 470.

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- ii. Schaufeli, Wilmar; Salanova, Marisa; González-Romá, Vicente; & Bakker, Arnold B. 2002. The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies* volume 3, pages71–92.
<https://link.springer.com/article/10.1023/A:1015630930326>
 - iii. Guillén, F., & Martínez-Alvarado, J. R. (2014). The sport engagement scale: An adaptation of the Utrecht Work Engagement Scale (UWES) for the sports environment. *Universitas Psychologica*, 13(3), 975–984. <https://doi.org/10.11144/Javeriana.UPSY13-3.sesa>
 - iv. Tajrishi, Komeil Zahedi; Mohammadkhani, Shahram; and Jadidi, Fatemeh et al., 2011; Metacognitive Beliefs And Negative Emotions. *Procedia - Social and Behavioral Sciences* 30(2):530-533. DOI: 10.1016/j.sbspro.2011.10.103
 - v. Gardner, L. A., Vella, S. A., & Magee, C. A. (2015). The Relationship Between Implicit Beliefs, Anxiety, and Attributional Style in High-Level Soccer Players. *Journal of Applied Sport Psychology*, 27(4), 398-411. doi:10.1080/10413200.2015.1019681
 - vi. Laborde, Sylvain; Campo, Mickeal; Weckemann, Sophie. 2011. Emotional intelligence training: Implications for performance and health. *Advances in Psychology Research*. Retrieved: https://www.researchgate.net/publication/274636498_Emotional_intelligence_training_Implications_for_performance_and_health
 - vii. Kerm Robert; Garvin, John; Heaton, Norma; Boyle, Emily. 2006. Emotional Intelligence and Leadership Effectiveness. *Leadership & Organization Development Journal* 27(4):265-279. DOI: 10.1108/01437730610666028
 - viii. Neil, Rich; Hanton, Sheldon; Mellalieu, Stephen; Fletcher, David. 2011. Competition stress and emotions in sport performers: The role of further appraisals. *Psychology of Sport and Exercise* 12(4):460-470. DOI: 10.1016/j.psychsport.2011.02.001
 - ix. Tamminen, Katherine; and Bennett, Erica V. 2016. No emotion is an island: an overview of theoretical perspectives and narrative research on emotions in sport and physical activity. <https://doi.org/10.1080/2159676X.2016.1254109>
 - x. Mowlaie, Mehri; Besharat, Mohammad Ali; Pourbohloul, Samaneh. 2011. The Mediation Effects of Self-Confidence and Sport Self-Efficacy on the Relationship Between Dimensions of Anger and Anger Control with Sport Performance. *Procedia - Social and Behavioral Sciences* 30:138–142. DOI: 10.1016/j.sbspro.2011.10.027
 - xi. Dweck, C. S., & Leggett, E. L. (1988). A social^cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273. doi:10.1037//0033-295x.95.2.256
 - xii. Dweck, C. S. (2006). *Mindset: the new psychology of success*. New York: Random House.

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- xiii. Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of Personality and Social Psychology*, 92(4), 731-744. doi:10.1037/0022-3514.92.4.731
- xiv. Cohen-Chen, S., Halperin, E., Porat, R., & Bar-Tal, D. (2014). The Differential Effects of Hope and Fear on Information Processing in Intractable Conflict. *Journal of Social and Political Psychology*, 2(1), 11-30. doi:10.5964/jspp.v2i1.230
- xv. Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press. <https://psycnet.apa.org/record/2010-25554-000>.
- xvi. Jayawickreme, E., Forgeard, M. J., & Seligman, M. E. (2012). The Engine of Well-Being. *Review of General Psychology*, 16, 327-342. <http://dx.doi.org/10.1037/a0027990>
- xvii. Pesce, Ceterina Tomporowski, Phillip; McCullick, Bryan A. 2015. Enhancing children's cognition with physical activity games. https://books.google.com.ph/books/about/Enhancing_Children_s_Cognition_With_Phys.html?id=_vB6DwAAQBAJ&redir_esc=y
- xviii. Campo, Elias; Swedlow, Steven H; Pileri, Stefano A.; Harries, Nancy Lee; Stein, Harald; Siebert, Reiner; Ranjana Advani, Michele Ghielmini, Gilles A Salles, Andrew D Zelenetz, Elaine S Jaffe. 2016. The 2016 revision of the World Health Organization classification of lymphoid neoplasms. DOI: 10.1182/blood-2016-01-643569
- xix. Laborde, S; Brull, A; Weber, & Anders, Lena Sophie. 2011. Trait emotional intelligence in sports: a protective role against stress through heart rate variability? DOI:10.1016/J.PAID.2011.03.003
- xx, Chan, Jonathan T; & Mallet, Clifford J. 2011. The Value of Emotional Intelligence for High Performance Coaching. <https://doi.org/10.1260/1747-9541.6.3.315>
- xxi. Boroujeni, S.T.; Mirheydari, S.B.G.; Kaviri & Shahhosseini, Sara. 2012. The survey of relationship and comparison: emotional intelligence, competitive anxiety and mental toughness female super league basketball players. DOI:10.1016/J.SBSPRO.2012.05.317
- xxii. Biddle, S. J. (1999). Motivation and Perceptions of Control: Tracing Its Development and Plotting Its Future in Exercise and Sport Psychology. *Journal of Sport and Exercise Psychology*, 21(1), 1-23. doi:10.1123/jsep.21.1.1
- xxiii. Mellalieu, S. D., Neil, R., Hanton, S., & Fletcher, D. (2009). Competition stress in sport performers: Stressors experienced in the competition environment. *Journal of Sports Sciences*, 27(7), 729-744. doi:10.1080/02640410902889834