



School of Sport and Exercise Science

Motivation in Parkour: A self-determination theory approach
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Barnaby Matthews

08265201

ABSTRACT

The aim of this study was to investigate the motivations behind why people practice the non-competitive physical discipline of Parkour, using Self-Determination Theory as a theoretical framework. The Sport Motivation Scale was administered via several English-speaking Parkour-dedicated Internet forums to 121 practitioners who had been training for greater than two years (mean = 40.4 ± 16.4 months). The results conformed to the self-determination continuum, and mean levels of Intrinsic Motivation were significantly greater than mean levels of Extrinsic Motivation ($p = 0.03$). Within Extrinsic Motivation, Identified Regulation was the only subscale to have a mean value in the top half of the scale system (mean > 3.5). Mean Amotivation values were the least significant. In conclusion, practitioners of Parkour train primarily due to intrinsic motivational factors. These results indicate that Parkour may be a viable physical activity for those who are unmotivated by traditional sports shaped largely by extrinsic reward systems. This may have positive implications on the health and fitness of these individuals.

KEYWORDS: Parkour, motivation, self-determination

INTRODUCTION

There has been much research surrounding motivation in sport and physical activity. Understanding what drives an athlete to participate in a sport or physical activity provides opportunities to manipulate extrinsic and intrinsic factors affecting motivation. Such manipulations can be made to bring about changes in an athlete's performance and/or adherence (Pelletier, Fortier, Vallerand, Tuson, Briere, & Blais, 1995).

Parkour is a comparatively recent form of physical activity. It has been defined as a philosophy and method of movement through any environment with speed and efficiency. The concept is to overcome all physical and mental obstacles in your path by using your body and mind to run, climb, jump and vault (*What is Parkour?*, n.d.). What separates Parkour from conventional sport is that the spirit of training is not to impress, make money, or compete – but simply to better oneself and help others to progress (*What is Parkour?*, n.d.). Because the philosophy of training in Parkour differs greatly from any established and institutionalised sport – it makes a great candidate for a motivational study. Why do people practice Parkour when there are no competitions, prize money, or trophies?

Self Determination Theory (SDT) is a universal theory of human motivation and personality that has been frequently applied to the sporting world. SDT holds that three innate psychological needs must be satisfied to facilitate natural growth tendencies, self-motivation, social development and personal well-being. These needs are: Competence (being effective in dealing with a given situation), relatedness (to be socially connected and interacting with others), and autonomy (to be in control of our own life and decisions) (Ryan & Deci, 2000). A major focus of SDT has been to expand on the concept of motivation, taking a more

differentiated approach when considering what forces influence a person at a given time rather than viewing motivation as a unitary concept (Ryan & Deci, 2000). Through this focus, research utilising SDT as a theoretical framework has identified the following distinct types of motivation (Pelletier et al., 1995):

Intrinsic Motivation (IM): Stemming from the innate psychological needs of competence and autonomy proposed in SDT, IM refers to engaging in an activity purely for the pleasure or satisfaction of doing that activity, and represents human's inherent nature to seek challenge, learn, and explore (Ryan & Deci, 2000). The three types of Intrinsic Motivation are: a) To know: Performing an activity for the pleasure and the satisfaction that one experiences while learning, exploring, or trying to understand something new, b) Towards accomplishments: Engaging in an activity for the pleasure and satisfaction experienced when one attempts to accomplish or create something, and c) To experience stimulation: Engaging in an activity in order to experience stimulating sensations.

Extrinsic Motivation (EM): Though it was originally thought that EM referred to non-self-determined behaviour, it has been proposed that there are different types of EM that can be placed on a continuum of self-determination (Ryan & Deci, 2000). EM generally refers to engaging in an activity as a means to an end, rather than for its own sake. The three types of Extrinsic Motivation are: a) External regulation: Behaviour that is controlled by external sources, such as material rewards or constraints imposed by others. It is the least self-determined type of EM, b) Introjection: What was formerly an external source of motivation has been internalised such that the actual presence of that motivation is no longer needed to initiate behaviour, and c) Identified regulation: When a behaviour is judged to be of value and is therefore performed out of choice. Performed for extrinsic reasons, but is internally regulated and self-determined. It is the most self-determined type of EM.

And finally, Amotivation: No perceived relationship between the behaviour and desired outcomes exist. There is no desire to engage in an activity.

These motivational factors become of relevance in the sporting context when considering that different types of motivation have been associated with varying levels of sport enjoyment, commitment, sportsmanship, and exercise adherence (Krivanthi, Konstantinos, & Andreas, 2010). Krivanthi et al. (2010) explored the role of SDT in terms of sporting commitment among university students using the Sport Motivational Scale (SMS) (Pelletier et al., 1995) as well as the Sport Commitment Questionnaire (Scanlan, Carpender, Simons, Schmidt, & Keeler, 1993a). The study found that high levels of self-determination supports sporting commitment, and although both IM and EM both positively influenced sport participation, only IM strongly influenced sport commitment. Similarly, Hodge, Lonsdale, & Ng (2008) found that higher rates of fulfilment of SDT's basic needs resulted in lower rates of athlete burnout

among junior rugby players. This was attributed primarily to competence and autonomy, with relatedness playing only a minor role in influencing athlete burnout. These results were replicated in a study examining burnout among elite level athletes (Lonsdale, Hodge, & Rose, 2009).

These findings are in line with similar, longitudinal research focussing on motivational predictors of effort towards education, exercise intentions, and leisure-time physical activity. Taylor, Ntoumanis, Standage, & Spray (2010) found that student's perceived competence and self-determined regulations were the most consistent predictors of education, exercise intentions, and leisure-time physical activity. The study held that future efforts to encourage students to be more involved with physical education and leisure-time physical activity should focus on the need for competence in particular, though all SDT's psychological needs must still be satisfied.

Within Parkour, there is an absence of many external rewards that come with institutionalisation, such as salaries, scholarships, and trophies. Medic, Mack, Wilson, & Starkes (2007) examined the effects of sports scholarships on motivation explores the possible negative effects of such external reward systems on college athlete's motivation. The study showed decreases in IM to experience stimulation and IM to accomplish things, as well as increased EM for external regulation amongst athletes when scholarships became available. Feelings of guilt and anxiety were also associated with receiving a full sports scholarship. Overall, the study supported the theory that performance-contingent rewards have a negative effect on an athlete's IM.

The effect of competition on intrinsic motivation of athletes has not been widely researched. Early research has shown that when the focus of a task is to beat an opponent, IM decreases amongst participants (Deci, Betley, Kahle, Abrams, & Porac, 1981). However, this conclusion was not supported in a more recent study examining the effects of competition, cooperation, and inter-group competition on exercise enjoyment amongst children (Tauer & Harackiewicz, 2004). It showed that inter-group competition consistently lead to the highest levels of exercise enjoyment, although losers or those who felt they did not perform well had decreased IM compared to their winning peers. Due to both the lack of literature surrounding this topic and the conflicting nature of existing research, the effects of competition on IM aren't yet conclusive. However, due to Parkour's absence of official competition and lack of extrinsic rewards, it is expected that higher levels of IM will be reported by it's practitioners.

The purpose of this study is to investigate the motivations behind why people practice Parkour. It is hypothesised that levels of intrinsic motivation will be significantly greater than the levels of extrinsic motivation and amotivation, indicating high levels of self-determination.

METHOD

Participants:

121 Parkour practitioners were recruited through a range of English-speaking Parkour forums on the Internet, and participated in this study. All participants claimed to have had greater than two years experience in Parkour training (mean = 40.4 ± 16.4 months), and had a mean training frequency of four times per week.

Equipment:

An adapted version of the Sports Motivation Scale (SMS; Pelletier et al., 1995) (see Appendix A) was used to quantify the influence of seven motivational subscales over each practitioner's training. There have been many scales and questionnaires designed to measure or assess motivation (Tenenbaum & Eklund, 2007), but in terms of assessing motivation within the sporting context, the Sports Motivation Scale (SMS; Pelletier et al., 1995) appears to be an accepted standard (Krinanthi et al., 2010; Lonsdale, Hodge, & Rose, 2009; Medic et al., 2007; Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008).

The wording was altered slightly to make the questions specific to Parkour, rather than 'your sport'. The SMS assesses the seven motivational subscales that quantify three types of IM (IM to know, IM towards accomplishments, and IM to experience stimulation), three types of EM (external regulation, introjection, and identified regulation), and amotivation towards sport participation. Participants answered questions within each subscale using a scale of 1 – 7, where 1=totally disagree, and 7=totally agree.

This survey was distributed using the Qualtrics survey medium to a total of 6 international, English-speaking, Parkour-dedicated forums (see Appendix B), and left active for 2 months.

Statistical Analysis:

Means of each subscale were calculated for comparison using Microsoft Excel (2004).

RESULTS

Descriptive statistics showed that the most prevalent motivations of participants were the three subscales of IM, with overall IM being significantly greater than the three subscales of EM ($p = 0.03$). Within EM, "Identified Regulation" was the only subscale to have a mean value in the top half of the scale system (mean > 3.5). Mean Amotivation values were the least significant.

Table 1: Descriptive Motivational Subscale Statistics for Parkour Practitioners

Motivational Scale	Total	Mean	SD
Amotivation	835	1.73	1.26
EM External Regulation	1066	2.20	1.51
EM Introjected Regulation	1499	3.10	1.93
EM Identified Regulation	2086	4.31	2.07
IM to Know	2323	4.80	1.82
IM to Experience	2474	5.11	1.79
IM to Accomplish	2729	5.64	1.46

Total: The total sum of every score within each subscale; Mean: The mean response within each subscale; SD: Standard deviation of the mean responses within each subscale.

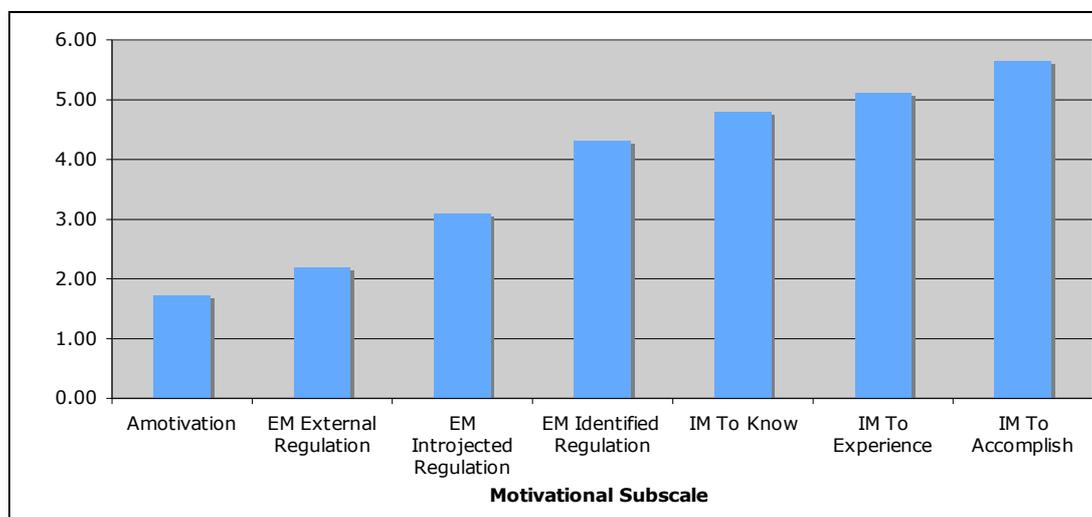


Figure 1: Descriptive Motivational Subscale Statistics for Parkour Practitioners

DISCUSSION

The aim of this study was to investigate the motivations behind why people train Parkour. The results support the original hypothesis; with descriptive statistics illustrating that levels of IM affecting Parkour practitioners are significantly greater than levels of EM and Amotivation (see Table 1). The results of this study conform to the SDT continuum, ranking motivational factors from most self-determined, to least self-determined: IM, Identified Regulation, Introjected Regulation, External Regulation, and finally Amotivation (Ryan & Deci 1985; Pelletier et al., 1995) (see Figure 1). These results are encouraging, as high levels of IM (and therefore self-determination) have been associated with greater sporting commitment and enjoyment (Krinanthi et al., 2010), and reduced athlete burnout (Lonsdale et al., 2009; Hodge et al., 2008).

IM in Parkour was anticipated to be significantly greater than EM for several reasons. Firstly, the core principles at the heart of Parkour are highly in tune with SDT. These principles are: Seeking to improve ourselves through the practice of Parkour, using what you have gained from Parkour to help others (through teaching others, or using your skills to actually aid someone), and seeking mental and physical progression in ourselves and to promote it in others (*What is Parkour?*, n.d.). It is hypothesised that these core principles help to satisfy the needs outlined by SDT. The emphasis placed on self-progression and improvement will likely have a positive effect on autonomy and competence, as practitioners seek to better only themselves, with minimal comparison to others, by training how they feel would best achieve these improvements. The principle of helping others is likely to help satisfy the need for relatedness, stressing the importance of assisting others in both real world situations and in promoting the safe and effective training of Parkour.

Athlete burnout is commonly observed in institutionalised sports (Hodge et al., 2008), especially in elite athletes, where considerable amounts of time and effort must be invested in order to be considered successful (Lonsdale et al., 2009). These cases of burnout were largely associated with low levels of self-determination, that is, that the needs for competence, autonomy, and relatedness were not being satisfied as they once were. One possible mechanism for the high levels of self-determination within Parkour is that; as training continues, many experienced practitioners begin to help less experienced ones to learn – potentially increasing feelings of both competence and relatedness for those who have been training for a long time.

Additionally, unlike traditional sports, there are few opportunities for EM to become a largely contributing factor in Parkour. The lack of institutionalisation means that extrinsic rewards such as scholarships, sponsorships, or prize money are for the most part unheard of. The

results observed in the present study reflected this, with participants reporting levels of External Regulation EM being the least significant motivational subscale excluding Amotivation (see Table 1). Attempts to bring Parkour into the realm of institutionalised sports have been made, and met with much criticism by the Parkour community, as paying to practice, official competitions, and the forming of teams do not fall in line with the core ideals of Parkour. When considering that the introduction of factors such as scholarships into traditional sporting experiences can have negative effects on participant's levels of IM and self-determination (Medic et al. 2007), the assumption can be made that the institutionalisation of Parkour may result in even greater decreases in IM and self-determination due to the nature of its core principles, which may not be as prominent in traditional sports.

While the principles of Parkour may be present to an extent in other sports, it is unlikely that they serve such a vital role as in Parkour. Traditional sport is built around competition, with the ideals of self-progression and helping team-mates acting, at least partly, as a means to an end. That is, athletes seek to improve so that they can win. In contrast, Parkour is built around the principles from the start, and the results of the present study show that athletes seek to improve primarily for the satisfactions that come with self-progression (see Figure 1). Furthermore, Parkour takes an active stance against institutionalisation, believing Parkour competitions or shows to be impossible without corrupting the core values that make Parkour what it is (*What is Parkour?*, n.d.). Additional research investigating the effects of the institutionalisation of sport on the self-determination of athletes is warranted, particularly the introduction of official competitions, which may have negative effects on athlete's IM (Deci et al., 1981).

Although this study was approached from a SDT perspective, the results also fall in line with Achievement Goal Theory (AGT). AGT stipulates that within the achievement setting of sport, two goal orientations are evident: Task and ego (Ntoumanis, 2001). A task goal orientation emphasises the mastery of a task, self-improvement, and effort, while ego-type goal orientations stress the importance of winning, demonstrating high normative ability, even with low levels of effort (Sray, Wang, Biddle, & Chatzisarantis, 2006). There is evidence to suggest that these goal orientations are linked to different types of motivation, thereby creating links between the AGT and SDT. As discussed earlier, factors that help to satisfy the needs for competence, autonomy, and relatedness will promote self-determined types of motivation. It has been argued that high task orientation fulfils one or more of these needs, therefore increasing self-determined motivation, and that high ego orientation is not associated with the satisfaction of SDT's needs, resulting in less self-determined forms of motivation (Ntoumanis, 2001). The results from the present study indicate high levels of IM relative to EM (see Figure 1), and therefore high levels of self-determined behaviour. These results suggest that practitioners of Parkour primarily use task-type goal orientations. Again, this would be

unsurprising, as emphasis on mastery, self-progression, and effort fall in line with the founding principles of Parkour (*What is Parkour?*, n.d.). However, these suggestions are unconfirmed, and further research investigating the links between AGT and SDT in the context of motivation in Parkour should be conducted.

Limitations:

The present study had a sample size of 121 participants, representing only a small proportion of the Parkour community. Moreover, access to the survey was limited to those who were members of a number of specific Parkour-dedicated internet forums, thus eliminating the opportunity for a potentially large demographic of practitioners to participate, due to a lack of either resources or desire to access these sites. The survey was restricted to those who claimed to have been practicing Parkour for at least two years, however there was no way to verify this claim.

CONCLUSION

Parkour is practiced chiefly due to intrinsic motivational factors, with the results from this study conforming to the self-determination continuum. Self-determined behaviour is likely to be promoted due to the lack of extrinsic motivators in Parkour (eg. prizes), and the prominence of the founding principles of Parkour (self-progression and understanding, and helping others). It is hypothesised that these levels of intrinsic motivation and self-determination will be reduced should Parkour become competitive, and it is suggested that further research be done in this area. It is recommended that the results from this study be used to compare the motivational influences of Parkour to other, traditional sports. The potential exists for Parkour to be a viable physical activity for those who are unmotivated by traditional sports which are shaped largely by extrinsic reward systems. This could have beneficial implications on the health and fitness of individuals who were previously uninterested in such pursuits.

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APPENDIX A

Why Do You Practice Parkour?

The study will assess people's different motivations for training. If you want to participate in the study, all you have to do is answer this online questionnaire; it takes about 5 minutes, and consists of 28 questions.

By answering the questionnaire, you are consenting to the information given being used for research purposes. All the data will remain anonymous, and final results will be posted back up here, and possibly published. Incomplete surveys will not be used, so you can withdraw at anytime before submitting your answers. You can only complete the survey once.

The only criterion to be a participant is that you must have been training Parkour for at least 2 years.

Pre-Screen Question:

On average, how often do you train for Parkour per week? _____

Please indicate to what extent each of the following items corresponds to one of the reasons for which you are presently practicing Parkour. Please do so **by inputting a number into the right column** using a **1-7 scale** where:

1= Does not correspond at all

7= Corresponds exactly

Question:	Answer:
1. For the pleasure I feel in living exciting experiences.	
2. For the pleasure it gives me to know more about Parkour.	
3. I used to have good reasons for doing Parkour, but now I am asking myself if I should continue doing it.	
4. For the pleasure of discovering new training techniques.	
5. I don't know anymore; I have the impression that I am incapable of succeeding in Parkour.	
6. Because it allows me to be well regarded by people that I know.	
7. Because, in my opinion, it is one of the best ways to meet people.	
8. Because I feel a lot of personal satisfaction while mastering certain difficult training techniques.	
9. Because it is absolutely necessary to do sports if one wants to be in shape.	
10. For the prestige of being an athlete.	
11. Because it is one of the best ways I have chosen to develop other aspects of myself.	
12. For the pleasure I feel while improving some of my weak points.	
13. For the excitement I feel when am really involved in the activity.	
14. Because I must do sports to feel good about myself.	
15. For the satisfaction I experience while I am perfecting my abilities.	
16. Because people around me think it is important to be in shape.	
17. Because it is a good way to learn lots of things which could be useful to me in other areas of my life.	
18. For the intense emotions that I feel while I am practicing Parkour.	
19. It is not clear to me anymore; I don't really think my place is in Parkour.	
20. For the pleasure that I feel while executing certain difficult movements.	

21. Because I would feel bad if I was not taking time to do it.	
22. To show others how good I am at my sport.	
23. For the pleasure that I feel while learning training techniques that I have never tried before.	
24. Because it is one of the best ways to maintain good relationships with my friends.	
25. Because I like the feeling of being totally immersed in the activity.	
26. Because I must do sports regularly.	
27. For the pleasure of discovering new performance strategies.	
28. I often ask myself; I can't seem to achieve the goals that I set for myself	

APPENDIX B

Parkour-dedicated Internet forums that were targeted for surveying:

New Zealand Parkour Association Forums: <http://www.nzparkour.co.nz/forums/index.php>

Australian Parkour Association Forums: <http://australian.parkour.asn.au/>

Sydney Parkour Forums: <http://www.sydneyparkour.com/forums/>

Toronto Parkour Forums: <http://www.pkto.ca/webboard/index.php>

Parkour Generations, UK Forums: <http://www.parkourgenerations.com/forum/>

American Parkour Forums: <http://www.americanparkour.com/smf/index.php>