

# The Complexities of Anger's Impact on Sports Performance

## A Review of Research Literature

By: Nadia Rodriguez

### Abstract

This review sources five studies that investigate the relationship between anger and sport performance. All of the referenced studies find that anger, in some capacity, has the ability to be utilized to positively facilitate athletic performance. While the correlation between anger and athletic performance is positive, the relationship is not found to be categorical, and rather dependent on additional emotional variables. This presentation will discuss the correlations between anger, athletic performance, cognitive motivational relational theory, the constructs of extroversion versus introversion, depression compounded with anger, anxiety compounded with anger, and metacognition.

### Introduction

Across multiple sports and athletic venues there seems to be a common belief that associates anger as an emotion that can be utilized to enhance athletic performance. This paper will review multiple articles that support the idea that induction of anger prior to athletic performance increases athletic performance. Neither this presentation, nor the articles reviewed here will discuss how sports participation or exercise enhance mood or decrease anger, rather the purpose of this presentation is to discuss anger as a source of causation for positive athletic performance.

### Cognitive-Motivational-Relational Theory

An article published in the *Journal of Sports & Exercise Psychology* by Rathschlag and Memmert (2013) of the German Sport University reviews a study in which participants were prompted to self-generate an emotion and then perform a physical task. The emotions induced were happiness, anger, anxiety, sadness, and a neutral state. Unique to this study were the methods of analysis which referred to Lazarus's cognitive-motivational-relational theory framework. According to Rathschlag and Memmert, CMR theory relates emotions to core relational themes and action tendencies:

Emotion	Core Relational Theme	Action Tendency
Anger	"Demeaning offence against me and mine."	"Impulse to counter attack."
Happiness	"Making reasonable progress towards the realization of a goal."	"Approach"
Anxiety	"Makes us feel more or less powerless."	"Avoidance/Escape"
Sadness	"having experienced an irrevocable loss"	"Inaction/Withdrawal"

Given this theory's framework, the researchers hypothesized that subjects would excel at the physical tasks in which the induced emotion's action tendency was similar to the physical task at hand.

*Anger and happiness enhance athletic performance.  
Anxiety and sadness diminish athletic performance.*

Future tests should include movements like sprinting or bicycling that represent avoidance and escape (anxiety) and perhaps a stillness or balance based activity for inaction and withdrawal (sadness).

### Works Cited

- Fazackerley, R., Lane, A.M., Mahoney, C. (2004). Mood and Performance Relationships in Wakeboarding. *Journal of Sports Behavior*. 27, 18-30.
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- Ruiz, M.C., Hanin, Y.L. (2011). Perceived impact of anger on performance of skilled karate athletes. *Elsevier: Psychology of Sport and Exercise*. 242-249.
- Woodman, T., Davis, P.A., Hardy, L., Callow, N., Glasscock, I., Yuil-Proctor, J. (2009). Emotions and Sports Performance: An Exploration of Happiness, Hope, and Anger. *Journal of Sports and Exercise Psychology*. 31, 169-188.



### Extroversion Versus Introversion

An earlier study conducted by Woodman et al., (2009) at Bangor University utilized CMR theory to examine the usefulness of anger on sports performance from a slightly different perspective, yielding slightly different results. The study involved three experiments that produced the following findings:

- Anger and happiness produced similar results on cognitive tasks.
- Anger produced greater results than happiness or a neutral state on physical tasks.
- Hope produced greater results than anger or a neutral state on physical tasks.
- Extroverts more effectively directed the emotion of anger to enhance performance of a physical task than introverts.

Future studies should focus more narrowly on the intriguing extrovert/introvert variables and diligent attention should be given to picking physical actions that accurately reflect associated action tendencies.

### Depression and Anger

One study that could be useful in the examination of the extrovert/introvert variable is one done at the University of Wolverhampton that interfaced depression, anger and arousal. The researchers, Fazackerly, Lane, and Mahoney (2004), hypothesized:

*Depression + Anger = Inwardly Directed Anger & Decreased Athletic Performance*  
*Non-depressed state + Anger = Outwardly Directed Anger & Increased Athletic Performance*

It should not be overlooked that the Woodman et al. and Fazackerley et al. studies produced similar results. These studies showed, respectively, that those in the extroverted and non-depressed groups were able to channel their anger in a facilitative way, while those in the introverted and depressed group could not channel their anger in a facilitative way. Both groups were angry, yet the athletes innate sense of self confidence seemed to be the determining factor in end performance.

### Anxiety and Anger

The following study by Robazza and Bortoli (2006) of the Universita di Padova utilized 197 Italian male high and low level rugby players to correlate anxiety and anger as well as self confidence and control of anger. Measurement tools used in assessment of the above objectives were the State-Trait Anger Expression Inventory and the Competitive Trait Anxiety Inventory-2, both scale-based questionnaires..

The results of the study found that the rugby players viewed moderate levels of anger as facilitative to performance, that there was no differentiation between elite and non-elite player perception of anger as debilitating versus facilitative, and that there was a distinct correlation between STAXI and CTAI-2 outcomes, thereby supporting the notion that anxiety is a predictor to anger.

*Additionally, the STAXI and CTAI-2 outcomes suggested that self-confidence appeared closely associated with the control of anger. Indeed, self-confidence direction was a significant predictor of anger control direction (anger in versus anger out). (Robaza & Bortoli, 2006, p.890)*

The association of self-confidence and positive use of directing anger outwardly as to facilitate a positive performance synthesizes quite nicely with the idea presented in the Woodman et al. study that presented an association between extroversion and non-depression and again outwardly expressed anger as to facilitate positive performance.

### Metacognition - Mindfulness

The following study by Ruiz and Hanin (2011) of the University of Jyväskylä is unique in that it examines the relationship between anger, metacognition of anger, and the consequential impacts on the athletic performance of karate athletes. Twenty karate athletes were asked to recall their best and worst performances and for each situation recall two to three significant moments pre, during, and post performance. To address the metacognition of anger, athletes were asked to describe if and how they felt anger facilitated or debilitated athletic performance. The study concluded that anger is beneficial to athletic performance and that sports psychologist should facilitate the meta-experiences of their clients. It should be noted that the data produced in this study showed that while all athletes found anger as both facilitating and debilitating to performance, more specifically it was found that low levels of anger as compared to high levels of anger were found to be more effective at facilitating and debilitating athletic performance.

*The synthesis of these two details could lead one to the conclusion that athletes who have greater emotional awareness are able to more productively direct their anger. Though not the conclusion of this study, it seems that based on this study, one could conclude that it is not anger alone that facilitates performance, rather it is the cohesion of anger and self awareness or mindfulness that facilitates performance.*

Continuing to interface the concepts of metacognition and athletic performance would be very useful to the sports psychology field. Future studies dedicated to this exploration should incorporate sports or athletes that aren't strongly biased towards just one action tendency, as well the sample size should be larger as to produce more reliable data.

### Discussion

Research confirms that anger is a facilitator for positive athletic performance, however the studies that confirm the positive correlation between anger and athletic performance also suggest that the relationship is not categorical. Furthermore, research also shows that emotions that facilitate positive athletic performance are not exclusive to anger, and specifically the emotions of hope and happiness have also been proven to be associated with positive athletic performance. It should also be noted that in order to efficaciously apply anger as to enhance athletic performance the athlete must be able to:

- Have a sense of awareness about and ability to control the intensity level of anger as to not produce an over-aroused and unfocused state.
- Direct the anger outwardly, rather than in an inwardly and self-destructive manner.
- Have a sense of self-confidence. This point is most important as a lack of confidence will likely lead the athlete to apply the anger inwardly and self-destructively.

Future studies should continue to juxtapose the concepts of anger, extroversion, introversion, self-confidence and sports performance and seek to find if extroverts and introverts express the same level of self-confidence, how this self-confidence or lack thereof affects their ability to express emotions that may or may not enhance athletic performance.