

# Examining the relationship of growth mindset to positive psychology skills and competitive anxiety in athletes

Sallie A. Scoggin & Dominic G. McNeil  
University of New England, Armidale, NSW Australia

## Background & Objective:

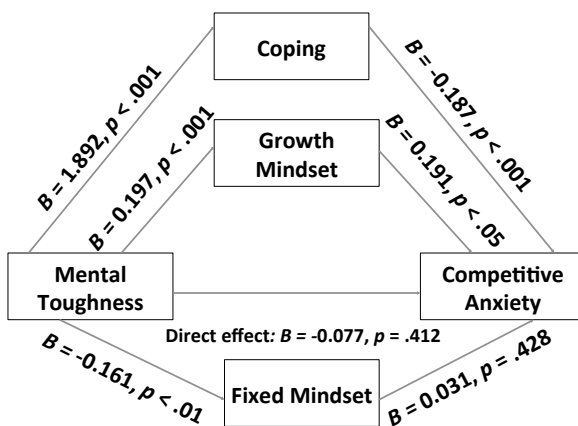
- Mental Toughness, Resilience and Coping are positive attributes that limit performance detriments and help athletes manage Competitive Anxiety in stressful situations
- Growth Mindset has become more accepted as a positive attribute in sport; individuals with strong Growth Mindsets may believe their sports skills and abilities can be improved through increased effort
- This project examined the role of Mindset and explored its associations with Competitive Anxiety, Resilience, Mental Toughness, and Coping in competitive athletes

In a cross-sectional research design,  $N = 281$  competitive athletes in Australia (48% female, 52% male aged 16 to 73 ( $M = 32.21$ ,  $SD = 14.40$ )) completed an online questionnaire examining Mindset, Coping, Mental Toughness, Resilience and Competitive Anxiety.

Summary of Correlations, Means and Standard Deviations for Scores ( $N = 281$ ).

Measure	1	2	3	4	5	6	M	SD
1. Mental Toughness	-	.69**	.74**	.27**	-.18**	-.34**	46.84	4.41
2. Resilience		-	.69**	.21**	-.20**	-.34**	30.22	5.46
3. Coping			-	.22**	-.16**	-.44**	53.17	11.30
4. Growth Mindset				-	-.27**	0.01	25.88	3.24
5. Fixed Mindset					-	0.07	13.91	3.98
6. Competitive Anxiety						-	20.13	5.12

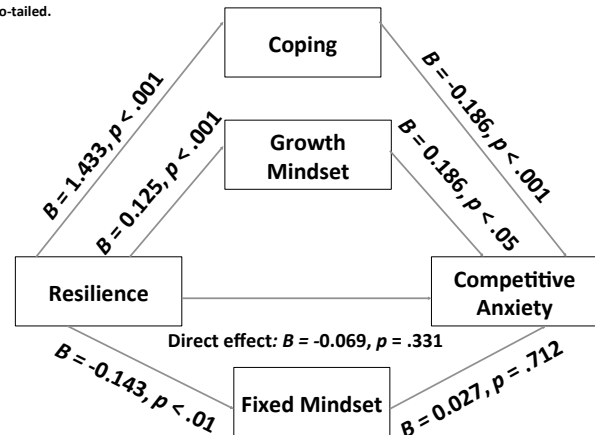
\*\*  $p < .01$ , two-tailed.



### Parallel Mediation of M. Toughness and Competitive Anxiety:

Specific Indirect Effect of Mediators	$\beta$	95% CI
Coping	-0.305	[-0.420, -0.193]
Growth Mindset	0.032	[0.002, 0.068]
Fixed Mindset	-0.004	[-0.027, 0.017]
TOTAL Specific Indirect Effects	-0.277	[-0.401, -0.152]

Note. Standardised Beta Coefficients ( $\beta$ ). (Percentile confidence intervals (CI) based on 5000 bootstrap samples.



### Parallel Mediation of Resilience and Competitive Anxiety:

Specific Indirect Effect of Mediators	$\beta$	95% CI
Coping	-0.285	[-0.389, -0.184]
Growth Mindset	0.025	[0.002, 0.054]
Fixed Mindset	-0.004	[-0.030, 0.021]
TOTAL Specific Indirect Effects	-0.264	[-0.372, -0.158]

Note. Standardised Beta Coefficients ( $\beta$ ). (Percentile confidence intervals (CI) based on 5000 bootstrap samples.

## Results:

- Positive relationships were found between Growth Mindset, Mental Toughness, Resilience and Coping, underlining their relatedness in competitive athletes.
- Growth Mindset and Coping both mediated the relationships between Mental Toughness and Competitive Anxiety, and Resilience and Competitive Anxiety.
- Coping had a significant negative effect on Competitive Anxiety, whereas Growth Mindset contributed a small and significant positive effect on Competitive Anxiety.

## Conclusions:

- The effect of Growth Mindset on Competitive Anxiety illustrates the attribute's importance.
- Growth Mindset may be facilitative of optimal performance, reflective of optimism and positive appraisal of the challenge of competition.
- More research is needed to understand the role of Growth Mindset, and its value as a attribute for sport performance.