

## **Foundations of sport and exercise psychology**

Dr Germano Gallicchio

Lecturer in Psychophysiology and Cognitive Neuroscience

School of Psychology and Sport Science, Bangor University, UK

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## **Agenda**

- Information about your lecturers and this module
- Be able to describe what sport and exercise psychology is and what sport and exercise psychologists do
- Understand major historical developments in this discipline
- Get an overview of career opportunities and future directions in sport and exercise psychology

## **Suggestions for optimal learning**

- Attend lectures, seminars, etc.
- Ask for breaks when you need one
- Ask for clarification as soon as possible
- Take notes
- Do not copy the slides
- Review your notes regularly
- Study from books and articles. The slides are not the only study resource.
- Do the optional ungraded homework
- Be proactive

## Resources

- Activities
  - lectures
  - seminars
- Blackboard website
  - Recordings (Panopto)
  - Reading list (Talis)
  - Presentation slides
- People
  - Lecturers
  - Personal Tutor
  - Peer guides
  - Fellow students

I'll now demonstrate the Blackboard website, the Module Handbook, the Talis Reading List, etc.

## Attendance pin

To log in your attendance enter the unique pin in your checkin app.

<https://checkin.bangor.ac.uk/>

The pin is unique to each session and is generated by the lecturer.

The lecturer can also add you manually when you ask them in person.

## Definitions

Sport and Exercise Psychology is the:

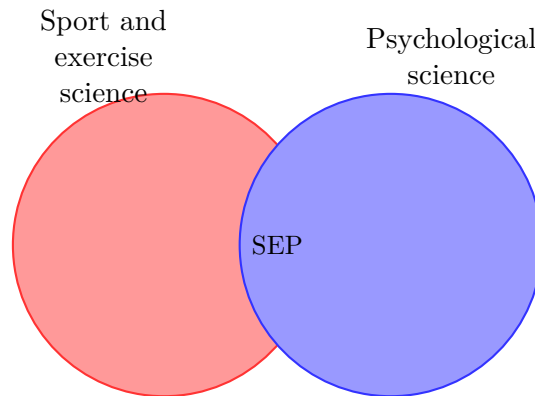
- **study** of people's behavior, thoughts, and feelings in sport and exercise contexts
- **applications** of that knowledge

The ABC of Psychology

- **Affect (Feelings)**: Emotions, moods; Stress, anxiety; Motivation
- **Behavior (Actions)**: Performance, habits; Communication; Leadership
- **Cognition (Thoughts)**: Beliefs, attitudes; Decision-making; Problem-solving

## Discipline location in relation with Sport Science and Psychology

Sport and exercise psychology lives in the *intersection* of sport and exercise science and psychological science



### Two objectives

We will review in turn each of the two objectives: sport and exercise.

#### Sport and exercise psychology objectives:

- Sport   Exercise (bidirectional relationship)

#### Objective: Sport psychology

Understand the effects of psychological factors on physical or motor performance.

Examples:

- What are the effects of anxiety on basketball free-throwing accuracy?
- Does greater self-confidence improve a child's ability to learn to swim?
- Do psychological skills (e.g., imagery) facilitate injury recovery

#### Objective: Exercise Psychology

Understand the effects of physical activity on psychological development, health, and well-being.

Examples:

- Does running reduce anxiety and depression?
- Does taking physical education classes improve a child's self-esteem?
- Do children become more aggressive by participating in youth sports?

## Target populations

Children

People with disabilities

Elderly

Recreational athletes

Elite athletes



## Role of sport and exercise psychologists

### Main roles:

- Research
- Teaching
- Consulting

### Research

Goal: Advance knowledge in the field

Where: University or Research Institute

### Teaching

Goal: Educate future sport and exercise psychologists

Where: usually in a University

### Consulting

Goal: depending on the client (e.g., well-being, performance)

Where: Athletic teams, military, fitness industry

## Two specialties

### Main specialties:

- Clinical
- Educational

### Clinical sport and exercise psychologists

- Identify and treat individuals with emotional disorders (e.g., anxiety, depression, eating disorders)
- Require clinical license on top of sport and exercise psychology training

### Educational sport and exercise specialists

- Not licensed for clinical psychologists
- Extensive training in kinesiology
- Provide “mental coaching” through psychological skills

## Three orientations

### Main orientations:

- Social-psychological
- Psychophysiological
- Cognitive-behavioral

### Social-Psychological

Study of how individuals are influenced by the social environment and vice versa

### Psychophysiological

Physiological activity (e.g., brain waves, heart rate) as markers of psychological states (e.g., concentration, attention)

### Cognitive-behavioural

Mental processes (e.g., memory, attention, language, perception) driving observable behaviour (e.g., performance, decisions)

## Attention

To watch in your own time.

Video 1 is on an elite sport application. Videos 2 and 3 are about selective attention (which will a later topic this semester).

# **Brief historical overview of sport and exercise psychology**

## **Historical timeline:**

- 1890-1920s: Early years
  - 1920-40s: First laboratory testing
  - 1940-60s: Preparation for the future
  - 1960-80s: Academic discipline
  - 1980-90s: Multidisciplinary science and practice
  - 2000-present: Contemporary sport and exercise
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## **Development of sport and exercise psychology (scrollable slide)**

### **Early years**

- 1890-1920s
- Philosophical perspective
- Experimental perspective
- E.g., Why do cyclists ride faster when racing in groups than individually?

### **First laboratory testing**

- 1920-40s
- Development of laboratories in
- various western countries
- Testing athletes on reaction times, concentration, aggression, etc

### **Preparation for the future**

- 1940-60s
- University professors teaching sport and exercise psychology -First consultants hired by professional athletic teams

### **Academic discipline**

- 1960-80s
- Kinesiology (sport and exercise science) becomes a discipline
- Sport and exercise psychology as part of kinesiology

## Multidisciplinary science and practice

- 1980-90s
- Sport and exercise psychology becomes a separate discipline
- Specialty scientific societies and journals

## Contemporary sport and exercise psychology

- 2000-present
- Exponential growth
- Esteemed academic discipline
- Recognised practical importance
- Driving knowledge in other fields

## Review questions

Discuss in small groups

1. Think of **examples** of sport and exercise psychology science or practice that you have come across.
2. What is sport and exercise psychology? What are its two **objectives**?
3. Describe the three main **roles** of sport and exercise psychology specialists

## Science vs practice | Sport and exercise psychology as science



**Tenets** of the scientific method:

- Systematic approach to studying a question
- Control/manipulation of conditions
- Empirical (based on observations)
- Objective evidence and not opinions
- Critical analysis of measurements and ideas

A major objective of the application of the scientific method is the development of a **theory**

What is a **theory**?

- Not a speculative guess...
- ...but a set of interrelated facts on a certain phenomenon

- Describes the **what** of a certain phenomenon
- Explains the **how** and **why** of its mechanisms
- Supported by **empirical evidence**
- Makes **testable predictions**

## Science vs practice | Sport and exercise psychology as practice



- Guided by trial-and-error learning
- Based on systematic observation, personal experience, introspection, intuition, ...and scientific method

Compared to scientific knowledge:

- More holistic (global)
- Quicker to implement novel ideas
- Produces fewer or no explanations
- Affected by bias and less reliable

## Critical reflections | small-group activity

You are interested in studying the effects of two strategies of penalty taking in football/soccer.

**Strategy A.** Pick a target and ignore any goal-keeper's movements

**Strategy B.** Observe the goal-keeper movements during the run-up and then decide where to place the ball

How would you design an experimental study to test which strategy leads to better performance outcome?

Think about participants, Instructions, Measurements, Groups/Conditions, Analysis

## Institute for the Psychology of Elite Performance



<https://ipep.bangor.ac.uk/>



## Further Reading

- [Why elite athletes are harnessing their own brain waves for sporting success](#)
- [Golf: The neuroscience of the perfect putt](#)
- [Unlocking the secrets of flawless putts: Understanding human performance in high-pressure situations](#)

## Review (MCQs 1)

1) Which best describes Sport and Exercise Psychology?

- A) The study of physical training methods
- B) The study and application of behaviour, thoughts, and feelings in sport/exercise contexts
- C) The study of nutrition in sport
- D) The application of biomechanics to performance

correct answer: B

## Review (MCQs 2)

2) Which is NOT one of the two main objectives?

- A) Understanding effects of psychological factors on performance (Sport)
- B) Understanding effects of physical activity on health and well-being (Exercise)
- C) Developing strength and conditioning programmes
- D) Understanding psychological development related to activity (Exercise)

correct answer: C

## Review (MCQs 3)

3) Which population is explicitly within SEP's remit?

- A) Only elite athletes
- B) Only children and adolescents
- C) Children, people with disabilities, elderly, recreational, and elite athletes
- D) Only adults in clinical care

correct answer: C

## Review (MCQs 4)

4) Which role focuses on advancing knowledge?

- A) Teaching
- B) Consulting
- C) Research
- D) Personal tutoring

correct answer: C

## Review (MCQs 5)

5) Which statement about specialties is true?

- A) Educational specialists diagnose and treat emotional disorders
- B) Clinical SEP require an additional clinical licence
- C) Clinical SEP do not work with mental health issues
- D) Educational SEP cannot work in universities

correct answer: B

## Review (MCQs 6)

6) Which best matches the psychophysiological orientation?

- A) Studying social context effects on individuals
- B) Using brain waves/heart rate as markers of psychological states
- C) Emphasising thoughts driving behaviour
- D) Analysing technique via biomechanics

correct answer: B

## Review (MCQs 7)

7) A core tenet of the scientific method is:

- A) Relying on expert opinion over data
- B) Systematic approach and control of conditions
- C) Avoiding replication
- D) Prioritising intuition

correct answer: B

## Review (MCQs 8)

8) A scientific theory is best described as:

- A) A speculative guess
- B) A set of interrelated facts describing, explaining, and predicting a phenomenon
- C) A personal belief supported by anecdote
- D) A single confirmed hypothesis

correct answer: B

## Review (open questions)

Discuss briefly in pairs/small groups:

- 1) Give two real-world examples of SEP science or practice you've encountered.
- 2) Contrast “science” vs “practice” in SEP: what are the strengths and limitations of each?