Stress and coping

C.4 · SL and HL

The greatest gymnast stops

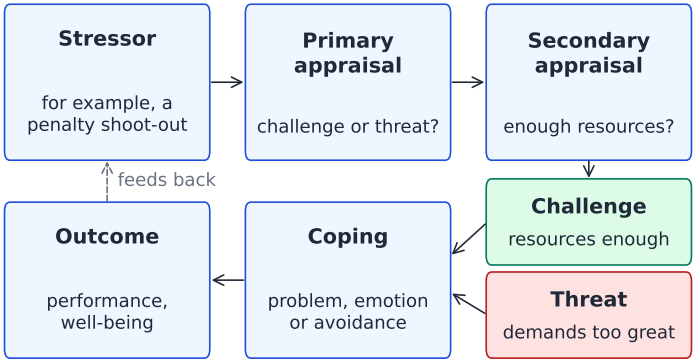
> Coping with stress is part of performance and of health.

- Tokyo 2021, Simone Biles withdrew from the team final.
- She had lost her sense of position in the air.
- This unit: stress $\rightarrow$ arousal $\rightarrow$ anxiety $\rightarrow$ coping.

Sources of stress

Source	Example
Competitive	A penalty, the crowd
Organisational	Selection, travel, the coach
Personal	Exams, family, social media
Injury	Fear of re-injury

Appraisal



- Primary, challenge or threat?
- Secondary, enough resources?

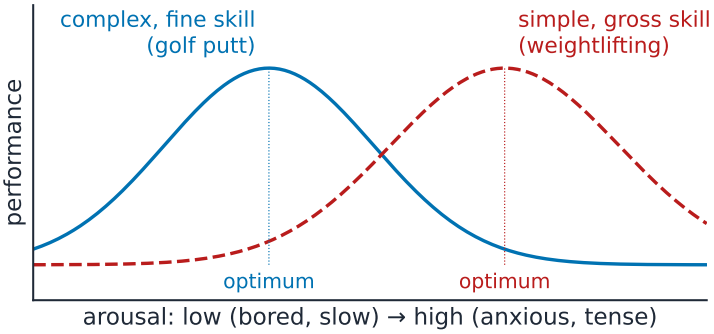
exercises.lol exercises.com.cn

The stress response

General adaptation syndrome: alarm $\rightarrow$ resistance $\rightarrow$ exhaustion.

- Adrenaline in seconds; **cortisol** from the HPA axis.
- Long-term cortisol weakens immunity.

The inverted U



- Lower optimum for fine, complex skills.
- Higher for experts and extroverts.

Drive theory

Expert

Dominant response correct.

A crowd helps.

Beginner

Dominant response an error.

A crowd hurts.

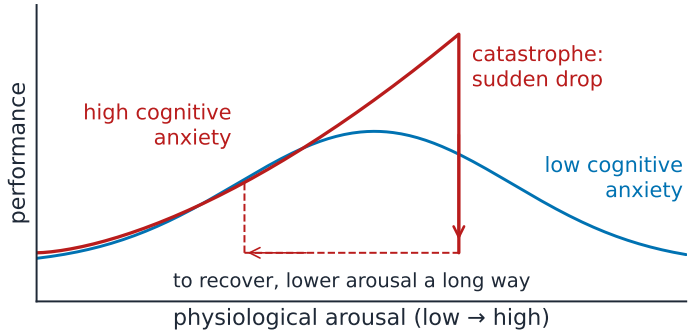
Finding a zone

1. **Zone.** About 19 to 25
2. **Today.** 31, above the zone
3. **Action.** Breathing control to calm down

Decision

Each athlete has their own zone

Catastrophe theory



- Needs high **cognitive anxiety**.
- Recovery needs a large fall in arousal.

Types of anxiety

Cognitive

Worry, negative thoughts.

Harms performance in a straight line.

Somatic

Racing heart, butterflies.

Inverted U; some helps.

Direction of anxiety

> A racing heart can be read as "I'm ready" or "I'm going to fail".

- Same intensity, different interpretation.
- Elite athletes more often see it as helpful.

Measuring anxiety

Tool	Measures
SCAT	**Trait anxiety**, 10 to 30
CSAI-2	Cognitive, somatic, confidence, 9 to 36 each
Heart rate, **cortisol**	Bodily arousal

Reading CSAI-2 scores

1. **Cognitive.** 30, high worry
2. **Somatic.** 16, moderate
3. **Confidence.** 14, low

Decision

Use a cognitive technique, such as self-talk

Coping strategies

Strategy	Example
Problem-focused	Make a plan, practise the weak skill
Emotion-focused	Relaxation, reframing, support
Avoidance	Music before a match

Check: choose the coping

Your turn

A player is angry about a wrong refereeing decision. Which strategy fits best?

A. Argue until the decision changes
B. Breathing control and reframing
C. Practise the weak skill
D. Leave the pitch

Burnout

> Exhaustion, reduced accomplishment and devaluation of the sport.

- Risk, early specialisation, too little rest, pressure.
- Prevent with rest, variety and enjoyment.

Exam tips

> Explain stress with **stressor**, appraisal, challenge and threat.

- Draw and label the inverted U correctly.
- Catastrophe needs high **cognitive anxiety**.
- Evaluate CSAI-2 or SCAT.

Check yourself

Try these

Explain why optimal arousal differs for snooker and rugby.

Compare catastrophe theory with the inverted-U hypothesis.

Compare problem-focused and emotion-focused coping for an injured athlete.