

Arousal Regulation

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Aims of the Lecture

- ▶ To provide a recap on the previous session.
- ▶ To consider why athletes need to regulate their anxiety level.
- ▶ To discuss various interventions at reducing Cognitive and Somatic Anxiety.

Aims of the Lecture

- ▶ Discuss hypnosis and facts about hypnosis.
- ▶ Discuss Coping Strategies.
- ▶ Discuss Confidence, Anxiety/Arousal and Performance.
- ▶ Look at Arousal Inducing Strategies.
- ▶ Take part in a brief Progressive Muscle Relaxation Session.

Recap

- ▶ What is Anxiety?
 - *Anxiety* is a negative emotional state with feelings of worry, nervousness, and apprehension associated with activation or arousal of the body
- ▶ Is Arousal the same as Anxiety?
 - No, *Arousal* is a blend of physiological and psychological activation, varying in intensity along a continuum

Recap

- ▶ What is Trait Anxiety?
 - Trait anxiety is a personality disposition that is stable over time
- ▶ What is State Anxiety?
 - State anxiety refers to “right now” feelings that change from moment to moment.

Recap

- ▶ Is Anxiety multidimensional?
 - Somatic Anxiety
 - Cognitive Anxiety
- ▶ What theories have explored the relationship between Anxiety and Performance?
 - Drive Theory
 - Inverted U Hypothesis.
 - IZOF
 - Catastrophe Theory
 - Reversal Theory
 - Jones (1995) Model.

Recap

- ▶ Why does Arousal and Anxiety influence performance?
 - Increased muscle tension and coordination difficulties
 - Attention and concentration changes etc etc etc.
- ▶ Sources of Stress / Anxiety
 - Situational
 - Personal
- So can Anxiety be facilitative to performance?

Arousal / Anxiety Regulation

- ▶ One thing all theorists agree is that Arousal levels play a MAJOR role in a person's sporting performance.
- ▶ Not just sporting performance though.
- ▶ So it is hugely important that the athlete regulates his/her arousal level so that he/she can perform to their full potential.

Why Regulate Arousal?

- ▶ Athletes who don't effectively cope with stress may experience decreases in performance as well as mental and physical distress.
- ▶ Athletes need to be able to regulate arousal to stay focused and in control.
 - Weinberg and Gould, 2011.

Self-Awareness of Arousal

- ▶ You must increase your **awareness** of your psychological states before you can control your thoughts and feelings.
- ▶ Once you are aware of your optimal arousal, you can employ arousal regulation (reduction, maintenance, induction) strategies.
- ▶ How individuals cope with anxiety is more important than how much anxiety they experience.

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Self-Awareness of Arousal

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- ▶ “It’s not a case of getting rid of the butterflies, it’s a question of getting them to fly in formation.” –Basketball coach Jack Donahue
- ▶ Compared to non-elite athletes, elite athletes see their anxiety **symptoms** as facilitative rather than debilitating.

Anxiety-Reducing Techniques

- ▶ Somatic anxiety reduction
- ▶ Cognitive anxiety reduction
- ▶ Multimodal anxiety reduction packages

Anxiety Reduction Techniques

▶ *Somatic anxiety reduction*

Progressive Muscle Relaxation

Learn to feel the tension in your muscles and then to let go of this tension.

Anxiety Reduction Techniques

- ▶ *Somatic anxiety reduction*
- ▶ **Breath control**
- ▶ **Learning to control your breathing in stressful situations**
 - When you are calm, confident, and in control, your breathing is smooth, deep, and rhythmic
 - When you are under pressure and tense, your breathing is short, shallow, and irregular

Anxiety Reduction Techniques

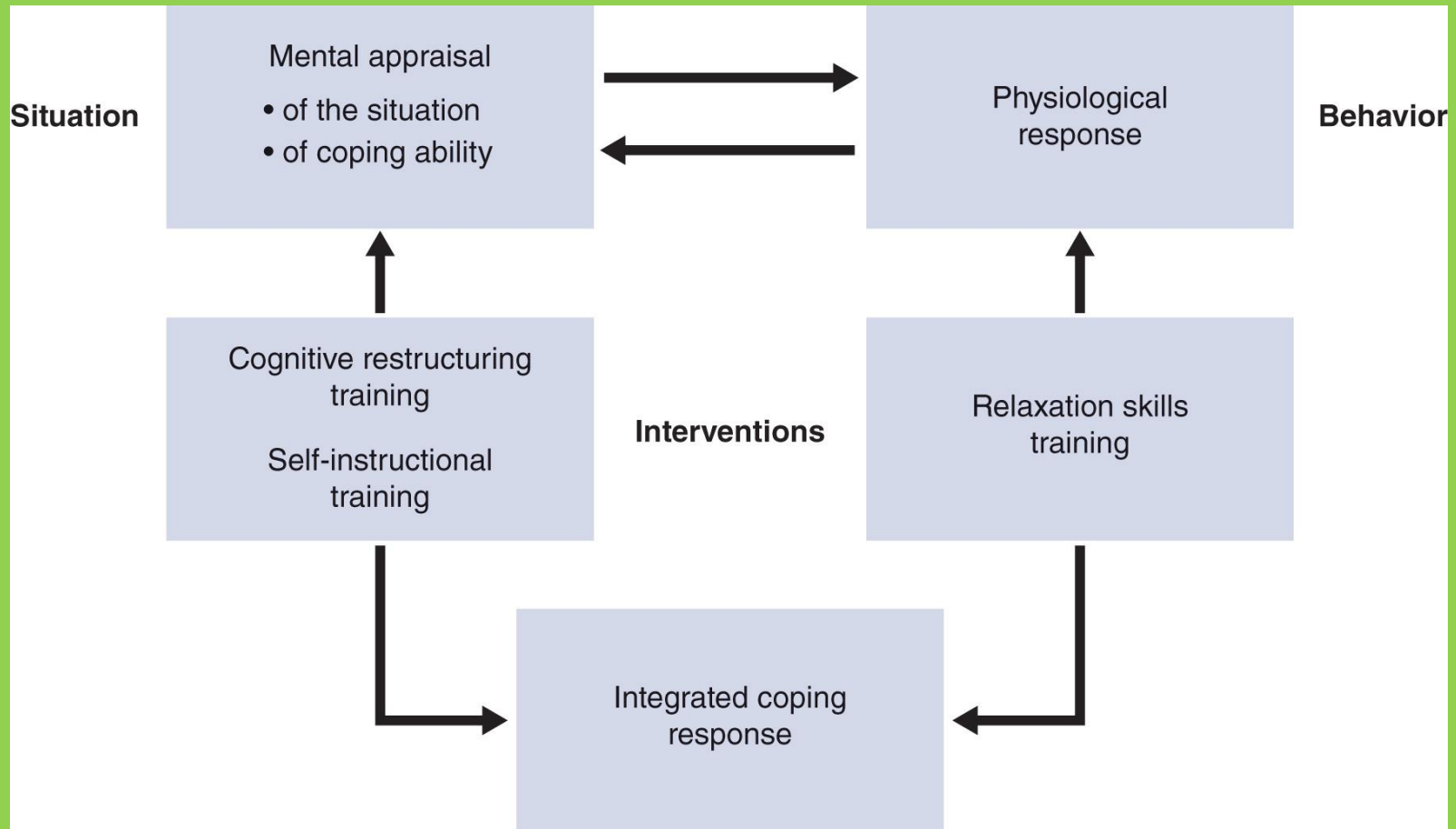
▶ *Somatic anxiety reduction*

Biofeedback

- ▶ **Becoming more aware of your autonomic nervous system and learning to control your physiological and autonomic responses by receiving physiological feedback not normally available.**



Smoll and Smith (1980).



Adapted by permission from Smoll and Smith 1980.

Anxiety Reduction Techniques

▶ *Cognitive anxiety reduction*

- Relaxation response teaches individuals to quiet the mind, concentrate, and reduce muscle tension by applying the basic elements of meditation.

Anxiety Reduction Techniques

▶ *Cognitive anxiety reduction*

Autogenic Training

A series of exercises designed to produce two physical sensations—warmth and heaviness—and, in turn, produce a relaxed state

Anxiety Reduction Techniques

Multimodal anxiety reduction packages

- ▶ ***Cognitive-Affective Stress Management Training (SMT)***
- ▶ **Teaches a person specific integrated coping responses, using relaxation and cognitive components to control emotional arousal**

Four Phases of Stress Management Training

- ▶ Pretreatment phase (assess skills and deficits)
- ▶ Treatment rationale phase
- ▶ Skill acquisition (training in muscular relaxation, cognitive restructuring, and self-instruction)
- ▶ Skill rehearsal

Anxiety Reduction Techniques

Multimodal anxiety reduction

Stress Inoculation Training (SIT)

- An individual is exposed to and learns to cope with stress (via productive thoughts, mental images, and self-statements) in increasing amounts, thereby enhancing his or her immunity to stress.
- Identifies cues to the source of stress and applies the strategy at the start of the cue.

Anxiety-Reducing Techniques (continued)

- ▶ Four steps to stress inoculation training (SIT)
 - Prepare for the stressor. (“It’s going to be rough; keep your cool.”)
 - Control and handle the stressor (“Keep your cool since he’s losing his cool.”)
 - Cope with feelings of being overwhelmed (“Keep focused; what do you have to do next?”)
 - Evaluate coping efforts (“You handled yourself well.”)

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Anxiety Reduction Techniques

Hypnosis

- ▶ **An altered state of consciousness that can be induced by a procedure in which a person is in an unusually relaxed state and responds to suggestions designed to alter perceptions, feelings, thoughts, and actions**

Facts About Hypnosis

- ▶ Although researchers and practitioners don't always agree on the definition of hypnosis, they generally agree about the following aspects of hypnosis:
 - The more open individuals are to receiving suggestions, the more likely they are to benefit from suggestions given under hypnosis.
 - The deeper the trance, the more likely it is that suggestions given under hypnosis will be effective.
 - General arousal techniques are more useful than hypnotic suggestions in enhancing muscular strength and endurance.

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Facts About Hypnosis (*continued*)

- Positive suggestions are effective in facilitating performance, regardless of whether the athlete is hypnotized.
- Negative suggestions almost always cause a decrement in performance.
- Hypnotic responsiveness depends more on the efforts and abilities of the individual being hypnotized than on the skill of the therapist.
- The ability to experience hypnotic phenomena does not indicate gullibility or personality weakness.

The Matching Hypothesis

- ▶ An anxiety management technique should be matched to a particular problem.
- ▶ *Note:* Some crossover effects occur (e.g., somatic anxiety relaxation techniques produce cognitive anxiety relaxation as well).
- ▶ Also Note – Very different to the Matching Hypothesis discussed in Social Psychology relating to romantic relationships.

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The Matching Hypothesis

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- ▶ Follow predictions of matching hypothesis.
 - Cognitive anxiety should be treated with mental relaxation.
 - Somatic anxiety should be treated with physical relaxation.
 - If you are not sure what type of anxiety is most problematic, however, use a multimodal technique.

The Matching Hypothesis and Social Support

- ▶ To produce maximum anxiety reduction, the specific types of social support (e.g., informational, emotional) should be matched to the specific anxiety problem (e.g., competitive pressure, technical problems) experienced.

What Is Coping?

- ▶ Coping is a process of constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands or conflicts appraised as taxing or exceeding one's resources (Lazarus & Folkman, 1984).
- ▶ Researchers differentiate between two types of coping: Problem-focused and emotion focused coping.

Coping Categories

- ▶ Problem-focused coping: Efforts to alter or manage the problems that are causing stress (e.g., time management, problem solving)
- ▶ Emotion-focused coping: Regulating the emotional responses to the problem that causes the stress (e.g., through relaxation, mediation).

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Coping Categories *(continued)*

- ▶ Major problem-focused categories
 - Information gathering
 - Precompetition and competition plans
 - Goal setting
 - Time management skills
 - Problem solving

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Coping Categories *(continued)*

- ▶ Major problem-focused categories
 - Increasing effort
 - Self-talk
 - Adhering to injury rehabilitation program

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Coping Categories *(continued)*

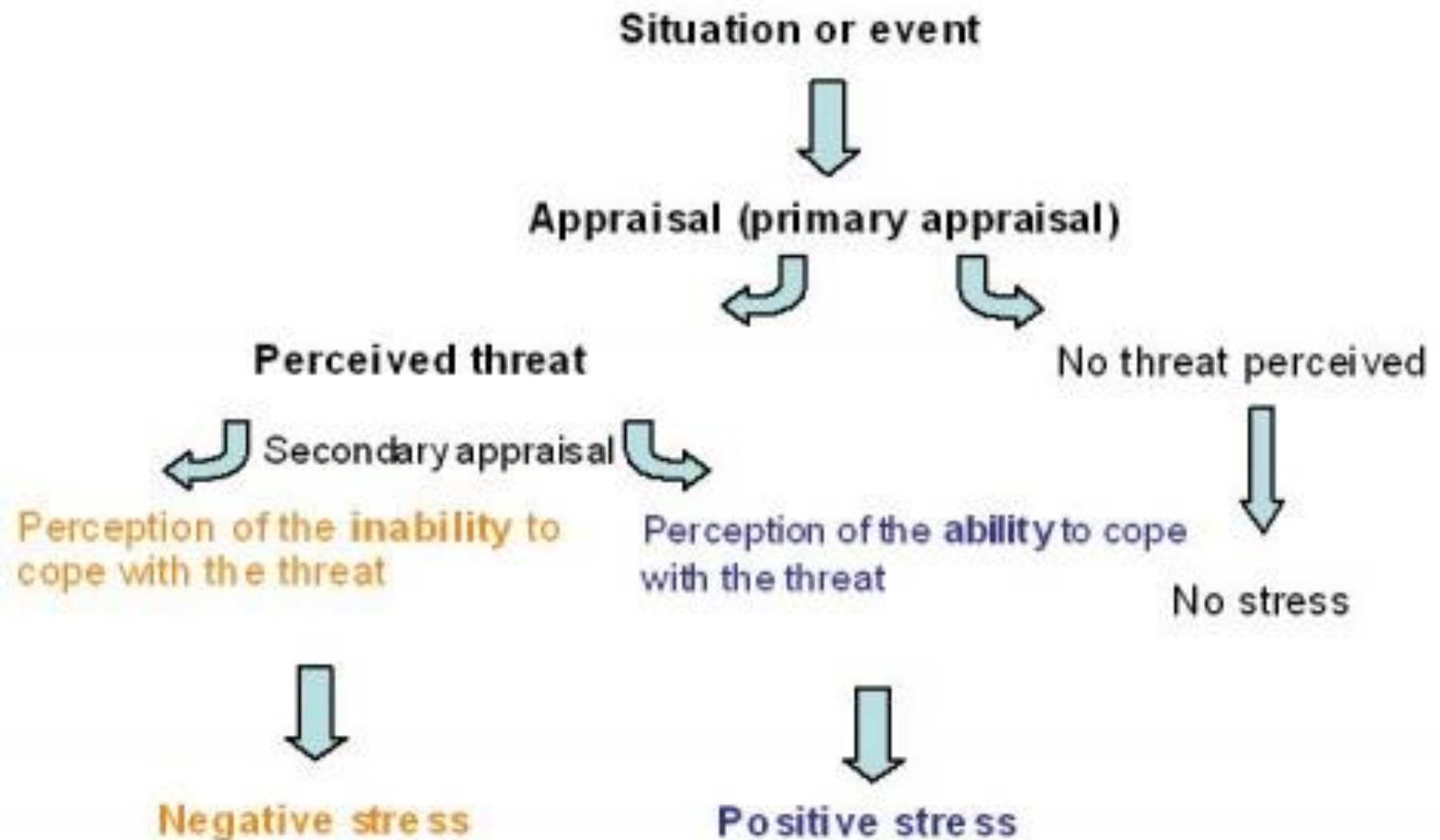
- ▶ Major emotion-focused categories
 - Meditation
 - Relaxation
 - Wishful thinking
 - Reappraisal
 - Self-blame, mental and behavioral withdrawal
 - Cognitive efforts to change the meaning (but not the actual problem or environment) of the situation

Lazarus and Folkman's Appraisal Model (1984). .

- ▶ In order for a situation to be stressful it must be appraised as such.
- ▶ Cognitive Appraisal are central to determine whether the situation is threatening, constitutes a harm/loss, a challenge or isn't stressful.
- ▶ Both person and environmental factors influence the PRIMARY appraisal.

Lazarus Appraisal Model.

- ▶ Coping Responses.
 - Problem focused Coping.
 - Emotion focused Coping.
- ▶ Secondary Appraisal.
 - Evaluation of the resources available to cope with the problem.
 - Can alter Primary Appraisal.
- ▶ Primary Appraisal also includes the perception of how stressful the problem is.



What influences the Appraisal.

- ▶ “The worst stress situation is one where there are high demands and the person attributes a lack of control to the task.” (Hancock and Warm, 2003).
- ▶ Control.
 - Previous Experience, Personality, Confidence, Knowledge, Support from others.

Coping With Adversity

KEY:

- ▶ Use problem-focused coping when stressful situations can be changed; use emotion-focused coping when situations are not amenable to change.

Coping in Sport

- ▶ **Athletes need a broad spectrum of coping strategies to use in different situations and for different stress sources.**
- ▶ **Coping strategies frequently used by athletes**
 - Task focus
 - Rational thinking and self-talk
 - Positive focus and orientation
 - Social support
 - Mental preparation and anxiety management
 - Time management
 - Training hard and smart

Self Confidence

- ▶ Numerous studies have highlighted a near lineal relationship between Self-Confidence and facilitative perceptions of the SYMPTOMS of anxiety.
- ▶ Studies have shown that interventions used to enhance confidence can improve performance by reducing the individuals fears or changing the PERCEPTIONS of the symptoms from negative to positive.

Some Confidence enhancing techniques.

- ▶ Setting challenging but attainable short term and long term goals.
- ▶ Positive Self Talk.
- ▶ Interaction with the coach.
- ▶ Imagery / Mental Rehearsal.
- ▶ Using previous experience to your advantage.

Social Support

- ▶ There is evidence to suggest that appropriate Social Support (from coaches, peers, family) can have an positive impact on anxiety levels in sport.
- ▶ Cohen and Wills (1985) Stress Buffering Hypothesis suggests that Social Support improves performance as it buffers the detrimental impact of the stressor in **SITUATIONS OF HIGH STRESS** (e.g. reduces negative impact of anxiety associated in high stress).

Social Support

- ▶ However, Rees et al (2010) reported that social support could also increase positive emotions and reduce negative emotions (including anxiety) even in situations of low stress.



On-Site Relaxation Tips

- ▶ **Smile when you feel tension coming on.**
- ▶ **Have fun—enjoy the situation.**
- ▶ **Set up stressful situations in practice.**
- ▶ **Slow down; take your time.**
- ▶ **Stay focused on the present.**
- ▶ **Come prepared with a good game plan.**



Arousal-Inducing Techniques

- ▶ The goal is to get athletes at an optimal level of arousal.
- ▶ Often things such as pep talks and motivational speeches can overarouse athletes.
- ▶ If arousal is to be raised, it should be done in a deliberate fashion with awareness of optimal arousal states.

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Signs of Underarousal

- ▶ **Moving slowly, not getting set**
- ▶ **Mind wandering, being easily distracted**
- ▶ **Lack of concern about how one will perform**
- ▶ **Lack of anticipation or enthusiasm**
- ▶ **Heavy feeling in legs, no bounce**

Arousal-Inducing Techniques

- ▶ Increase breathing rate.
- ▶ Act energized.
- ▶ Use mood words and positive statements.
- ▶ Listen to music.
- ▶ Use energizing imagery.
- ▶ Complete a precompetition workout.



Pep Talks

- ▶ Guidelines for a coach's successful pregame talk
 - Give them a plan.
 - Make them believe they can win.
 - Do not lie.
 - Be yourself.
 - Use humor.

