Sanderson

Sport Psychology

Chapter 6: Arousal and Anxiety

Key Concepts

* Arousal is a blend of physiological and psychological activity, or the level of alertness in a given situation. Very low and very high levels are detrimental to performance.
* Arousal can be negative or positive. Negative arousal (anxiety) is caused by stressors. When under stress, our bodies enter “fight-or-flight” mode, and direct energy from the parasympathetic system to the sympathetic system and the endocrine systems, which increases heart rate, blood pressure, and breathing rate, and also slows digestion, widens the pupils, and moves blood to the muscles.
* Trait anxiety describes a behavioral disposition, whereas state anxiety is caused by a given situation and is temporary.
* Cognitive anxiety describes anxiety that results from thoughts or concerns. Somatic anxiety describes the perception of physiological responses to stressful situations. Cognitive anxiety tends to be high leading up to events, and then can fluctuate during the event, whereas somatic anxiety climbs rapidly and peaks just before the event.
* The transactional model describes how the interpretation or appraisal of an event is a more important predictor of the experience of a stressful event than the actual event. The primary appraisal asks, “Am I in danger?”, and the secondary appraisal asks, “What can I do about this?”.
* There are many ways to measure anxiety, and can be put into three groups: self-report (questionnaires) measures, behavioral measures, and physiological measures.
  + Self-report measures are easy, inexpensive, and provide large amounts of data, but can be long, and suffer from unreliable reporting.
  + Behavioral measures observe outward manifestations of anxiety, such as heavy breathing, rapid heart rate, and nausea. This is fast, but athletes may attempt to control their behavioral indicators, and different people show signs of anxiety on different ways.
  + Physiological measures include EEG and fMRI, but although these are very accurate, they are also very expensive and time-consuming. Athletes may also experience increased levels of stress when being examined in this way.
* There are multiple theories on the arousal/anxiety-performance link.
  + Drive theory states that as arousal increases, so does performance. This theory acknowledges the influence of skill level on arousal and performance.
  + Social facilitation theory describes how the presence of other people can create arousal. If the task is easy, and athlete will perform well; if the task is difficult, the athlete will perform at an even lower level than is typical. This model tries to explain the phenomenon of choking.
  + Inverted U theory says that performance is lowest when arousal is either very low or very high. This theory acknowledges the influence of skill level on the level of arousal necessary for peak performance.
    - Multidimensional anxiety theory states that somatic and cognitive anxiety influence performance in different ways. Peak performance occurs when cognitive anxiety is low and somatic anxiety is moderate.
    - Catastrophe model proposes an interaction between the effects of somatic and cognitive anxiety on performance. When performance pressure is high and an athlete experiences moderate to high anxiety, even if the athlete is very skilled and experienced, this can lead to a “catastrophe”, or a sudden and substantial drop in performance.
    - Reversal theory proposes that arousal and anxiety may have different effects on performance for different people. The impact of arousal on performance depends on how the athlete interprets the arousal (in a positive or negative way).
  + Individual Zone of Optimal Functioning (IZOF) theory states that the level of arousal that leads to peak performance differs for different athletes. Every athlete has an optimum level of arousal (“individualized zone”) in which their best performance occurs.
  + Flow is a positive state in which a person feels a balance between the challenge of the situation and their skills to cope with these challenges. Athletes report experiencing a very positive state in which they are fully absorbed in their performance, have no sense of time passing, and achieve positive results. Flow can be achieved by mental and physical preparation, self-confidence, focus, positive attitude, and motivation. More experienced and confident athletes seem to experience flow more easily and more often.