

# AN IDIOGRAPHIC APPROACH TO THE FLUCTUATION OF APPRAISALS AND COPING DURING A TRAPSHOOTING COMPETITION

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## 1. INTRODUCTION

Emotions and behaviours are the result of a dynamic, interactive process between individuals' cognitive appraisals, coping efforts and contextual characteristics (Lazarus, 1999). Athletes use a combination of strategies to deal with the demands of competition (Gaudreau et al., 2001).

Primary cognitive appraisals (threat, loss, challenge and benefit) are thought to be related to how athletes cope with ongoing changes in the person-environment transaction.

Positive appraisals (i.e., challenge, benefit) are thought to be associated with positive emotions, while negative appraisals (i.e., threat, loss) are associated with negative emotions.

Purpose:

- ♦ To describe fluctuation of emotional states during competition.
- ♦ To describe sequences of appraisals and coping mechanisms occurred during competition using an event-sequential approach.

## 2. METHODS

### Shooter A

- ♦ Veteran, 68 years old
- ♦ 4th category (regional level)
- ♦ 28 years of experience

### Shooter V

- ♦ Veteran, 59 years old
- ♦ 1st category (International level)
- ♦ 30 years of experience

### Procedures and Data Analysis

- ♦ Affect-grid (Russell, et al.1989) after each target (25 targets x 6 sets).
- ♦ Delayed verbal report (Ericsson & Simon, 1993) after each set.
  - ♦ Definition of critical and non-critical periods of competition.
  - ♦ "Tracing" process to identify specific thoughts and emotional states.
- ♦ Coding of Verbal reports
  - ♦ Negative Appraisals (NEGA): verbalizations conveying the possibility of future damage occurring as a result of an outcome or the perception of damage that has already occurred.
  - ♦ Positive Appraisals (POSA): enthusiasm or excitement about the struggle to overcome obstacles or perception of benefit that have occurred.
  - ♦ Problem-focused coping (PFC): attempts to primarily manage or alter the problem causing the distress.
  - ♦ Emotion-focused coping (EFC): attempts to primarily regulate emotional responses to the problem.
  - ♦ Withdrawal (WTH): mental disengagement from the stressful situation.
  - ♦ Others: verbalizations that did not fit into the previous categories.
- ♦ Performance
  - ♦ Objective: Hit target with the first shot (H); hit target with the second shot (H2); Miss (M) target
  - ♦ Subjective: "How do you rate your performance in this target? (1 = poor, 9 = excellent)
- ♦ Discussion Analysis Tool (DAT; Jeong, 2003) – Probability of occurrence of pairs of events (event sequence).

## 3. RESULTS

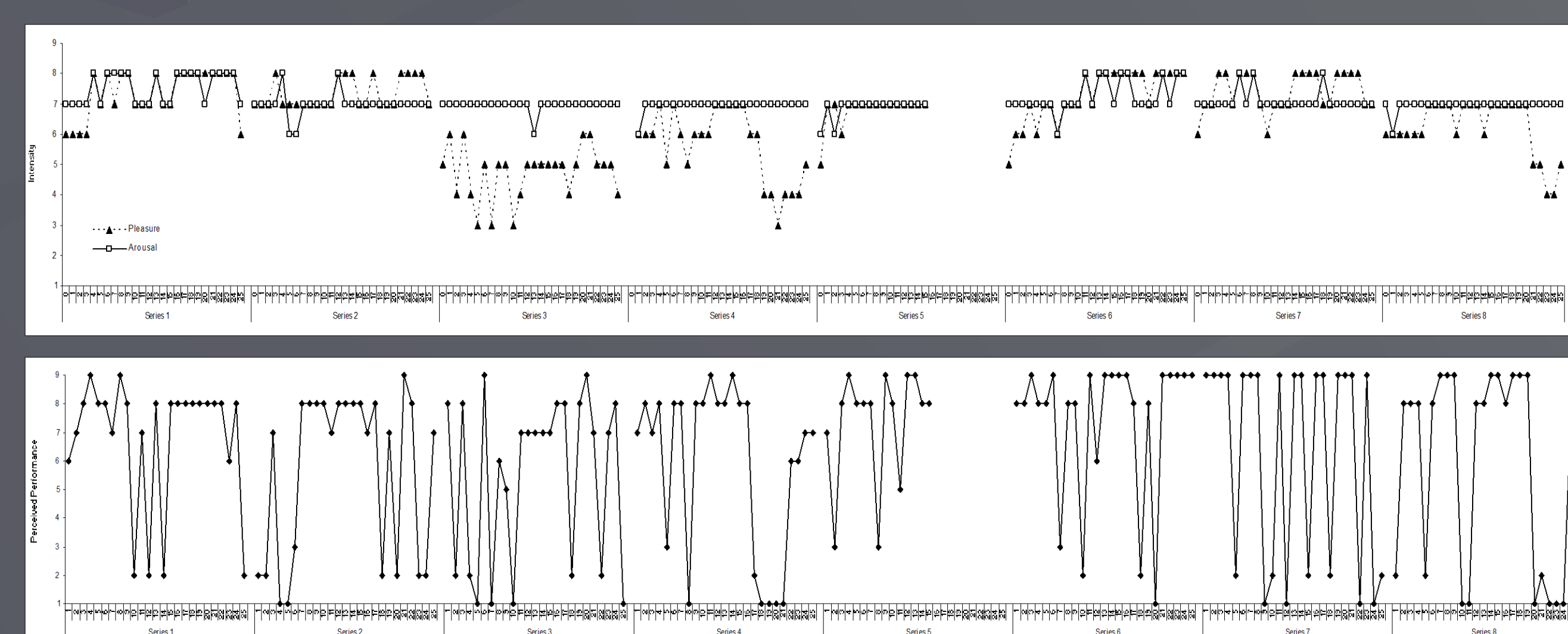


Figure 1. Fluctuations of hedonic tone ("pleasure", -▲-) and activation ("arousal", -□-) (above) and perceived performance (below) after each shot during shooter's A first competition.

## 6. ACKNOWLEDGMENTS

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## 3. RESULTS

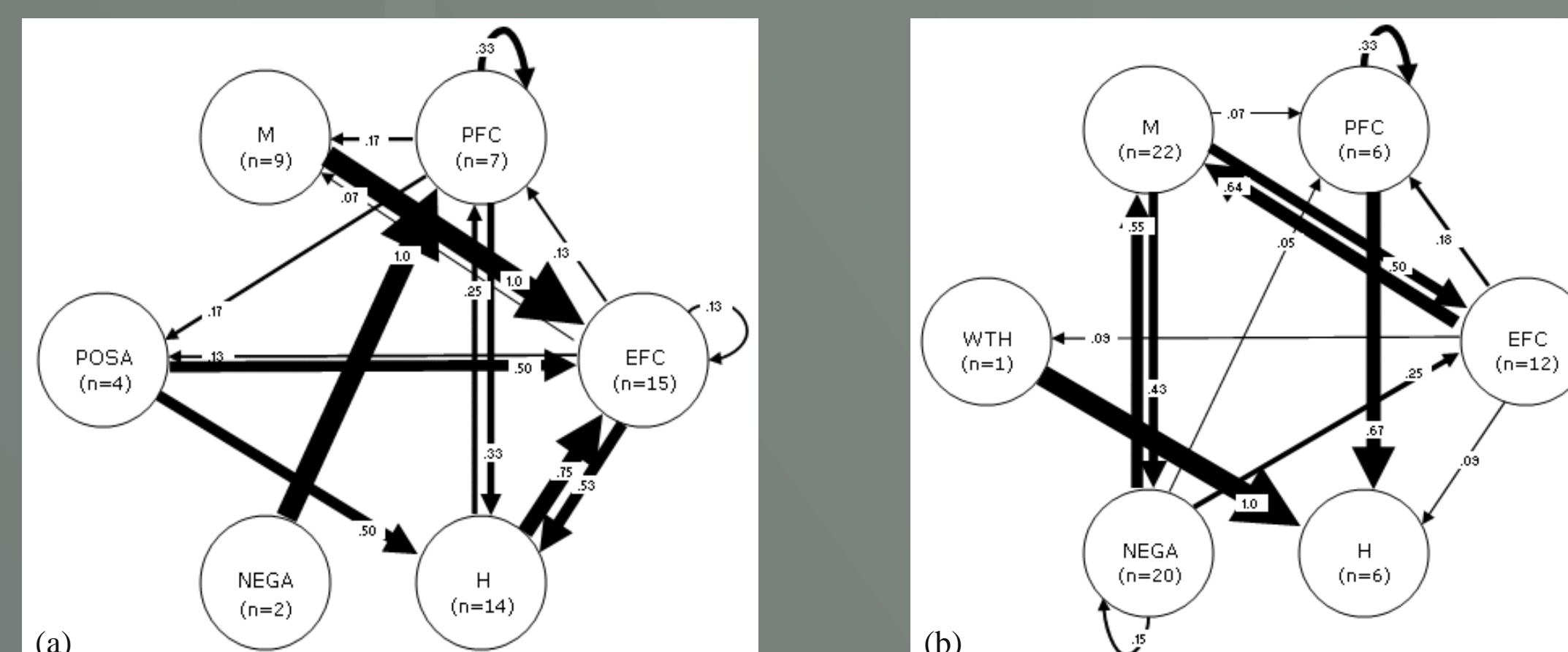


Figure 2. Event-sequence analysis during (a) non-critical, and (b) critical performance periods of shooter A..

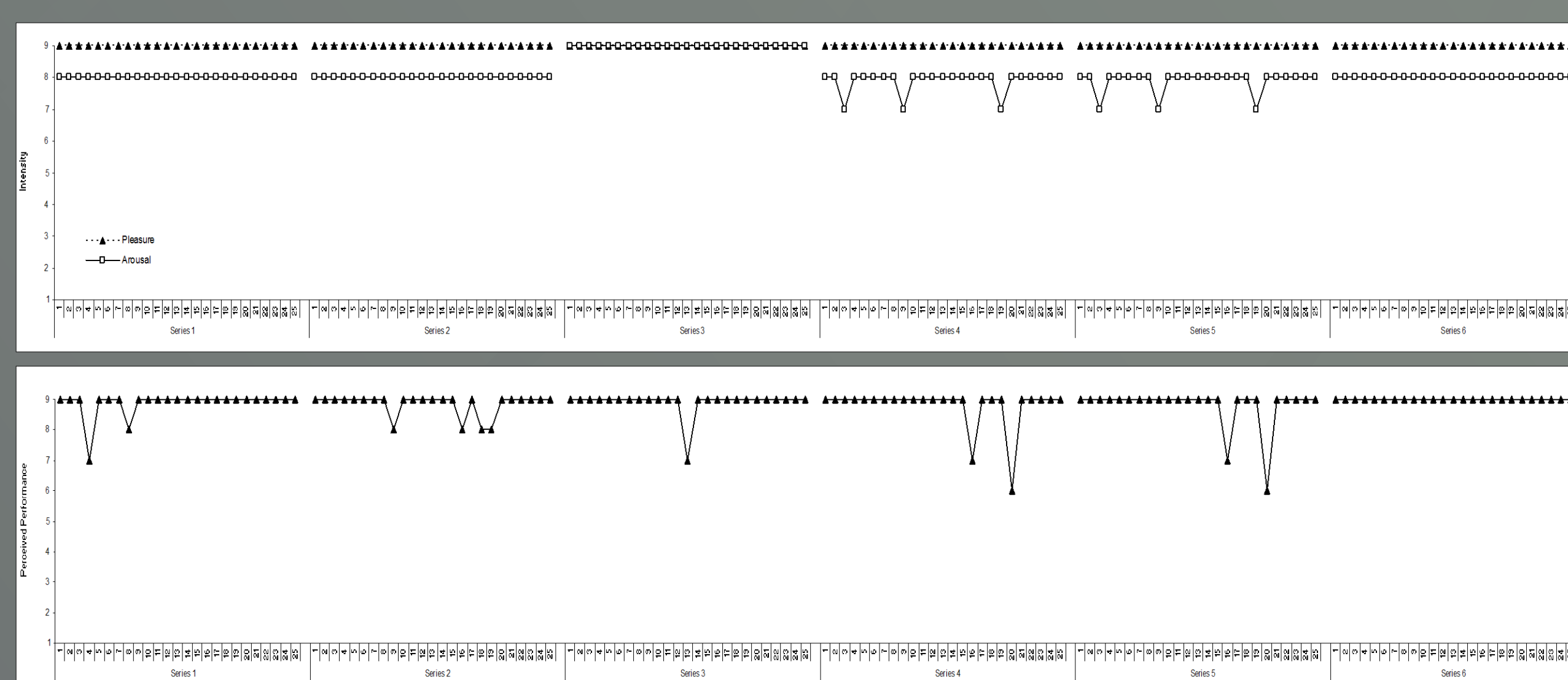


Figure 3. Fluctuation of hedonic tone ("pleasure", -▲-) and activation ("arousal", -□-) (above) and perceived performance (below) after each shot during shooter's A first competition.

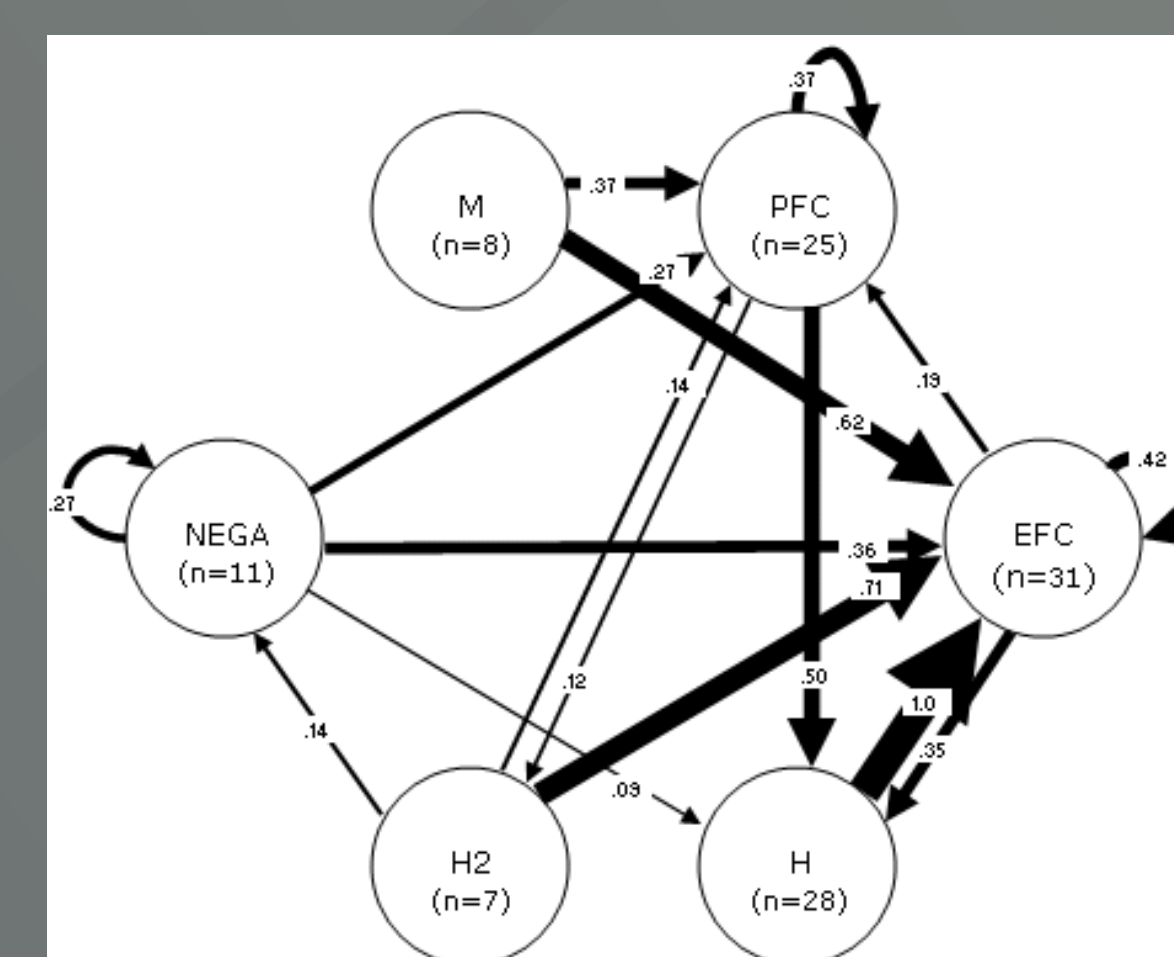


Figure 4. Event-sequence analysis during critical performance periods of shooter V.

## 4. DISCUSSION AND CONCLUSION

- ♦ V has higher emotional stability than A (Golden et al., 2004).
- ♦ V reports not remembering specific thoughts during non critical performance periods: less information processing associated to positive affects (Bless, 2001).
- ♦ During non-critical periods, A deals with threat focusing on the problem; during critical periods, he appears to cope less often, but when he does, he focuses on coping with the affective state: Threat (negative appraisal) as a motivational function (Jones & Swain, 1995) vs. increased cognitive workload (Eysenck & Calvo, 1992).
- ♦ V does not appraise the missed target negatively; V attempts to use distancing and accepting responsibility; A uses more venting of emotions and self-blame.
- ♦ After a hit target, V engages in self-reassurance while A does it only in non-critical periods.
- ♦ There is a considerable intra-individual variability as a function of the context.
- ♦ An idiographic approach is suggested with an event-sequence analysis of cognitive and emotional processes measured online as it provided more detailed information for individually tailored interventions.

## 5. REFERENCES

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