

Some Training Principles & Human Energy Systems

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Content

- **Goal setting (briefly)**
- **Review human energy systems (briefly)**
- **Arousal & control effects**
- **GPS project outcomes**
- **Latest fitness trends**
- **Summary**



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Goal setting

- **Why goal setting?**
- **Who should be involved?**
- **What should be planned?**
- **When should it occur?**
- **How should it be implemented?**
- **Recording and acknowledging**

Arousal & control

- Purpose of arousal
- Science of arousal
- Control strategies

“Most of what we do every minute of every day is unconscious. I suggest that if the elite athlete practices the psychological strategies and mental preparation techniques to build routines and rituals until they become automatic responses so that on game day the athlete will have the decisive advantage over their competitors. The coach must plan this training into the macro and micro cycles of periodisation for athletes. No area can be overlooked or under trained.

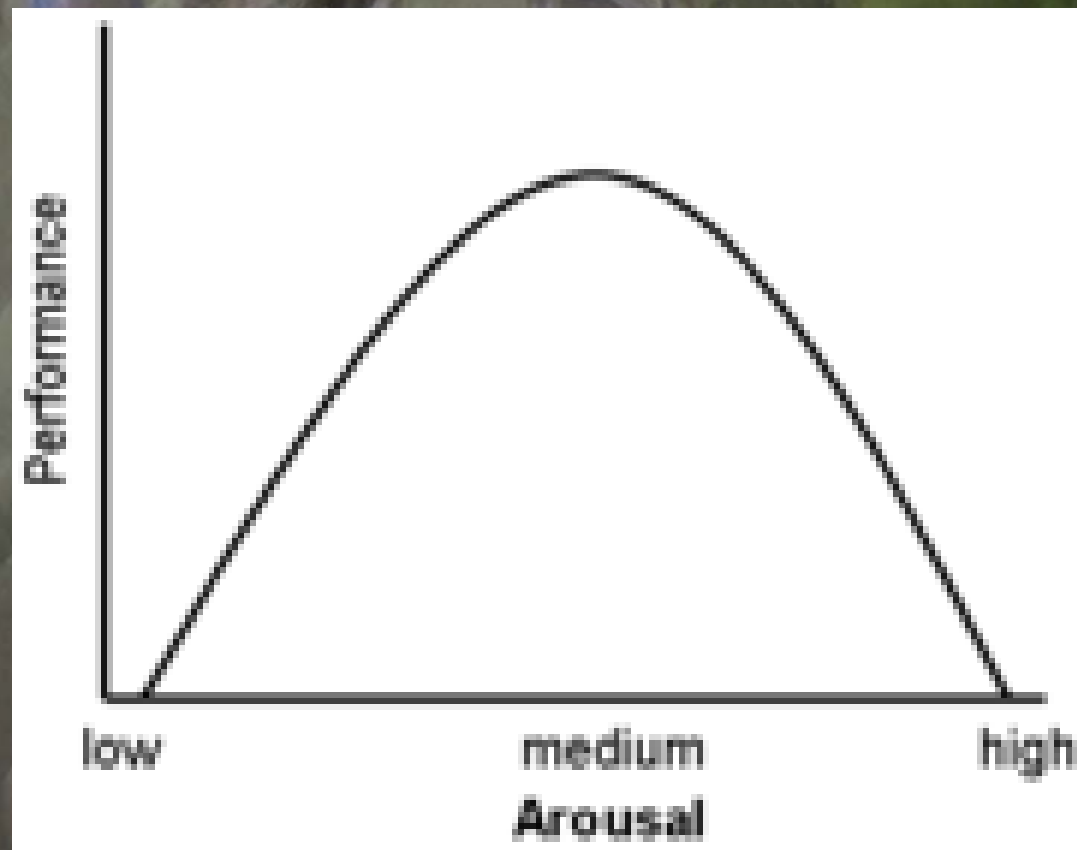
***Neuroscientist Paul Whelan
February 28, 2004 issue,
US News and World Reports***



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The arousal curve



GPS: Arbitrary “Zones”

6 x Speed ZONES

(KPH)

- Zone 1: Below 7
- Zone 3: 7 to 10
- Zone 3: 10 to 15
- Zone 4: 15 to 20
- Zone 5: 20 to 25
- Zone 6: Over 25

6 x Heart Rate ZONES

(BPM)

- Zone 1: Below 120
- Zone 3: 120 to 135
- Zone 3: 135 to 150
- Zone 4: 150 to 165
- Zone 5: 165 to 180
- Zone 6: Over 180



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GPS Data Analysis 3

Sum of Time Segment

HR Zone

OPEN

Speed Zone	1	2	3	4	5	6	Total
1	2.32%	4.04%	5.87%	6.87%	64.47%	5.67%	89.24%
2	0.17%	0.31%	0.69%	1.46%	2.11%	2.14%	6.88%
3	0.04%	0.11%	0.33%	0.73%	1.06%	0.92%	3.19%
4	0.00%	0.02%	0.06%	0.12%	0.18%	0.12%	0.50%
5	0.00%	0.01%	0.02%	0.05%	0.06%	0.03%	0.18%
6	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.02%
Grand Total	2.53%	4.49%	6.98%	9.23%	67.89%	8.88%	100.00%

Sum of Time Segment

HR Zone

SENIOR

Speed Zone	1	2	3	4	5	6	Total
1	7.93%	12.68%	14.47%	17.13%	16.53%	4.49%	73.23%
2	0.29%	1.01%	2.67%	5.67%	5.94%	1.69%	17.26%
3	0.14%	0.36%	1.12%	2.49%	2.61%	0.71%	7.43%
4	0.03%	0.02%	0.26%	0.57%	0.46%	0.11%	1.45%
5	0.00%	0.01%	0.08%	0.23%	0.19%	0.03%	0.55%
6	0.00%	0.00%	0.01%	0.04%	0.03%	0.00%	0.08%
Grand Total	8.38%	14.08%	18.62%	26.13%	25.75%	7.04%	100.00%

Latest Fitness Trends



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Summary: Training Principles & Energy Systems

- **Goal setting**
- **The 3 human energy systems**
- **(Personal) arousal levels - GPS**
- **Latest trends**



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