Psychological drivers in doping: a developmental vulnerability model

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Doping

“All artificial stimulation of the body in order to increase performance in sport” (Breivik, 1987)

Performance enhancement with the intention to gain competitive advantage at the expense of the opponent (Lüschen, 1993)

Doping is defined as the occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.8 of the Code. (Word Anti Doping Code 2007 3.0)

- use of prohibited substances and masking agents
- possession of prohibited substances
- physical (non-therapeutic) manipulation
- trafficking and/or administration of prohibited substances/methods
- failing to provide testing sample / availability
Anti-doping: detection

- Detection-based deterrence
  - Criminalisation: testing and sanctioning
  - Narrow focus (high performance only)
- Effectiveness
  - Method being banned does not automatically mean that the ban can be enforced (i.e. no tests are currently available)
  - New performance enhancing methods
  - Escalating costs of doping testing (Trout & Kazlauskas, 2004) for a small probability to be actually caught leads to doping (Haugen, 2004)
- Hypocrisy
  - The “two out of three prong” approach, including ‘against the spirit of sport’
  - Methods with clear evidence for performance enhancing properties and possible health hazards are not banned (i.e. caffeine, altitude chamber, certain nutritional supplements)
- Anti-doping rules may be perceived as hurdles
  - which prompts the intention not to comply but to find the way around
Anti-doping: intervention & prevention

► Education
- those who use PEDs tend to have more knowledge

► Set examples (Athlete ‘ambassadors’)
- Negatively balanced by high profile cases (F. Landis, M. Jones, etc.)

► Creating a framework for a drug-free sport culture (declared objective)
- athlete-focused: “you should play clean”
- assumes the system is clean & need not change
- Only relevant if the objective is genuine
- Link to practice is questionable
- Culture evolves, not created
Existing doping models

**Models**
- Economic/game theoretical model (Haugen, 2004)
- Sport drug control model (Donovan et al., 2002)
- Drugs in Sport Deterrence Model (Strelan & Boeckman, 2003, 2006)
- Heuristic model of the decision making process (Tangen et al., 1997)
- Two-step doping model (Petroczi, 2007)

**Pros**
- Complexity of precipitating factors (compared to investigating a single determinant)

**Cons**
- Snapshot (focusing on the end of the process)
- Seldom tested empirically
The life-cycle of doping violation

The cycle equally applies to all performance enhancement methods.

Each stage has its risks & vulnerabilities.

They also have their breaking points that can be exploited by an intervention.

Factors: individual vs. systemic
stable vs. transient

Contextual contingencies / Situation
Parameters of the model

Performance Enhancing methods
- potency
- accessibility / detectability
- health risks (immediate or long term)

System
- permissive-prohibitive
- testing regime / protocols
- sanctions (‘sticks’)
- incentives (‘carrots’)

Individual
- compulsiveness
- groups dependence
- expediency
- risk aversion
Contextual contingencies

- Motivational climate / Perceived expectations
  - improvement
  - winning
- Perceived behavioural control
- Availability of PEDs and alternative methods to the individual athlete
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<td>Expediency</td>
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Treating doping as a health issue instead of criminalisation
Better understanding of doping behaviour
Factors are interrelated - change can not be made by focusing on one but ignoring the other(s)
Coordinated research effort
Research investment should be made into basic research before funding large scale intervention/prevention programmes

External events: ie. new PED