Trustworthiness of high-performance sports and the fight against doping from the athlete’s point of view

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Current headlines

Current newspaper headlines reveal an immense drop of trust in Anti-Doping System.

Lose Trust and You’re Lost: Five Crucial Steps Lance Armstrong Didn’t Take
Forbes, Januar 2013

I don't trust the system! Djokovic launches scathing attack on 'ridiculous' anti-doping body after Troicki's 12-month ban
By ELEANOR CROOKS
PUBLISHED: 12:49 GMT, 6 November 2013 | UPDATED: 12:49 GMT, 6 November 2013

We Don’t Trust IAAF on doping, athletes cry out
Vanguard, August 2015
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Agenda

1. Background Anti-doping
2. Trust in high-performance sport
3. Doping prevalence
4. Anti-doping measures
Anti-doping-fight

Doping is defined as the occurrence of one or more of the anti-doping rule violations set forth in Word Anti Doping Code (WADC).

- Anti-Doping-tests are conducted as competition tests and as unannounced training tests between 6 a.m. and 11 p.m..
- Urine and blood samples are taken under supervision.
- Samples are split in A- and B-samples.
- The A-sample will be analyzed shortly after in an accredited laboratory or will be stored there.
- If the A-sample is positive, the athlete possesses the right that his B-sample will be analyzed as well.
Doping dilemma

Professional athletes have to weigh the risks of doping against the risk of doping renouncement.

<table>
<thead>
<tr>
<th>Doping risk</th>
<th>Renouncement risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Health risks</td>
<td>• Risk of not being competitive</td>
</tr>
<tr>
<td>• Risk of detection:</td>
<td>→ Economic risks (less success, less rewards)</td>
</tr>
<tr>
<td>→ Negative social effects (ethics, values, loss of image)</td>
<td>→ Social risks (loss of status)</td>
</tr>
<tr>
<td>→ Economic risks (job loss)</td>
<td></td>
</tr>
</tbody>
</table>
Doping dilemma

The Anti-Doping Agency faces ability- and incentive-issues.

<table>
<thead>
<tr>
<th>Inability issue</th>
<th>Incentive issue</th>
</tr>
</thead>
</table>
| • Due to missing resources and insufficient infrastructure, the Anti-Doping Agency is not able to control:  
  • All athletes  
  • At every place  
  • To every point in time  
  • For all doping substances | • Anti-Doping Agency faces the risk of negative effects:  
  • If the amount of (detected) doping is large, public interest in sport will decrease  
  • If other institutes or the media detect doping cases not detected by the Anti-Doping Agency, it becomes untrustworthy. |
Underlying trust model

The ABI-model is used to illustrate trust in individuals and groups as well as trust in institutions.

Proposed Model of Trust by Mayer, Davis and Schoorman (1995)
Relations of trust from the athlete’s point of view

The athlete’s doping decision is mainly influenced by four actors.

- Teammembers
- Competitors
- Team Management
- World Anti-Doping Agency (WADA)
Sample

45 German professional cyclists took part in the online-survey.

- Participants are member of an international team.
- Professional cyclists are sensitized for the Doping issue.
- All professional athletes belong at least to the General Testing-Pool of NADA respectively of WADA.
- These athletes have experiences in Anti-Doping-issues (ADAMS, ABP).
- Athletes can be checked anytime without prior notice.
- For the purpose of anonymity, biographical data, e-mail-addresses, team-membership data and such like were not asked in the survey.
Elite-athlete’s Personality

Employing the 10 Item Big-Five-Inventory, we find minor deviations compared to normal population.

<table>
<thead>
<tr>
<th>Personality Trait</th>
<th>Normal Population</th>
<th>Elite-athletes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td></td>
<td></td>
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<tr>
<td>Neuroticism</td>
<td></td>
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<tr>
<td>Openness</td>
<td></td>
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</tr>
</tbody>
</table>

Trustworthiness of high-performance sports and the fight against doping from the athlete’s point of view
Relations of trust between the actors

Within our online-survey we collected data about the three antecedents of trust by Mayer et al. (1995).

![Bar chart showing trustworthiness of high-performance sports and the fight against doping from the athlete's point of view. The chart includes data for Ability, Benevolence, and Integrity, with bars for Teammates, Team management, Competitors, and NADA.]
Study design: Athlete’s doping behavior

To guarantee the athlete’s anonymity Randomized Response Technique (RRT) was used.

The 10-digit number on the back side of a 10€ note was used for random distribution. Athletes got the following instruction:

A) If the last number is zero, one or two you have to answer ‘Yes’ no matter if it is true or not.

B) Otherwise you have to answer truthfully.
Study results: Athlete’s doping behavior

Using RRT only a few athletes admit that they have been offered or used doping but many think that their competitors take PED.

<table>
<thead>
<tr>
<th>Question</th>
<th>Std. Dev.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you ever been offered prohibited substances and/or methods?</td>
<td>0,100</td>
<td>0%</td>
</tr>
<tr>
<td>2. Have you ever used prohibited substances and/or methods?</td>
<td>0,102</td>
<td>0%</td>
</tr>
<tr>
<td>3. Do you think one or more of your team members use prohibited substances and/or methods?</td>
<td>0,107</td>
<td>1%</td>
</tr>
<tr>
<td>4. Do you think your competitors use prohibited substances and/or methods?</td>
<td>0,075</td>
<td>75%</td>
</tr>
</tbody>
</table>
How do athletes evaluate the Anti-Doping-fight?

The interviewed athletes evaluate improved diagnostics to be the most effective Anti-Doping-measure.
Conclusion and implications

Results indicate a lack of trust, which could be repaired by a balanced set of anti-doping measures.

**Conclusion**
- Doping issue seems to be diminished within the last decade
- But there is still a huge lack of trust in particular in competitors and anti-doping authorities.
- Perceived effectiveness differs a lot between various anti-doping measures

**Advices for practise**
- Anti-doping measures should be used to reduce doping prevalence and to build to trust.
- Balanced mix of anti-doping measures → Intelligent Testing
- Transparent presentation of anti-doping work by the anti-doping authorities
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