



The challenge of coaching the jumps events

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This is how it is

- Whatever statistics we use (WR, top list, medals at major champs) they will show that we are not at the level of the late 1980ies/early 1990ies
- It's not a specific problem of the jumps but we are facing it as well

This is how it is

		Men	Women
HJ	WR	1993	1987
Number in Top 50 in 2000+		9	19
LJ	WR	1991	1988
Number in Top 50 in 2000+		12	8
TJ	WR	1995	1995
Number in Top 50 in 2000+		12	23
PV	WR	1993	2009
Number in Top 50 in 2000+		13	-

This makes it even worse

- Better training conditions

Tracks, indoor facilities, Olympic training centres etc.

- More training knowledge

Worldwide exchange, research centres, practical experiences

- Better coaches' education

IAAF CECS, area coaches associations, European coaching summit, national coaches' education programs

This makes it even worse

- More scientific knowledge
 - i.e. details of adaptation, energy storage in tendons, cellular adaptation to weight training, ...
- More scientific and medical support
 - Biomechanics, sports medicine, physiotherapy,
- More nations involved
 - WC 1991: 21 nations in medal table
 - WC 2011: 41 nations in medal table

This may be a few reasons

Doping

This may be a few reasons

- Less attractiveness of athletics
 - TV coverage, less small competitions, few participants in regional champs,
- “Social benefits” less important
 - Getting a car or a flat, unlimited travelling etc. is available without athletic career
- Less “natural” skills
 - childhood is different, easiest skills are not self-evident

This may be a few reasons

- Increased conflict sports – education
 - The demands for the job market increased
 - Even an Olympic gold medal in athletics does not guarantee a long term advantage
- Too much overall support for too poor performances
 - Early satisfaction
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Possible solutions

What National Federations must work on

- Athletics in schools
- Athletics on TV
- Support to combine top level training and school/ university/ education
- Post career life balance

Possible solutions

What we can work on

- Quality of training
 - Unlike volume, intensity, density etc. “quality” is not yet an established term in training
- Technical models
 - Quite often we are too narrow in our technical model
 - Make the model fit to the athlete – not the athlete fit to the model
 - Example high jump

Digression: Technical model high jump

Reactive strength capacity



Take-off time



Preparation of take-off



Free elements during take-off



i.e. Lowering of CM; arm action



Approach velocity

Possible solutions

- Consistency in LTAD
 - Change of age group often also means changing the coach
 - Changing the coach too often means changing the technical and general training model
 - Examples from other professional sports (e.g. soccer)
- Individualization
 - There is no organism like the other in terms of load tolerance, recovery, timeline of adaptation etc

Digression: Finding individual adaptation patterns

- Using short interval simple testing like e.g. Optojump



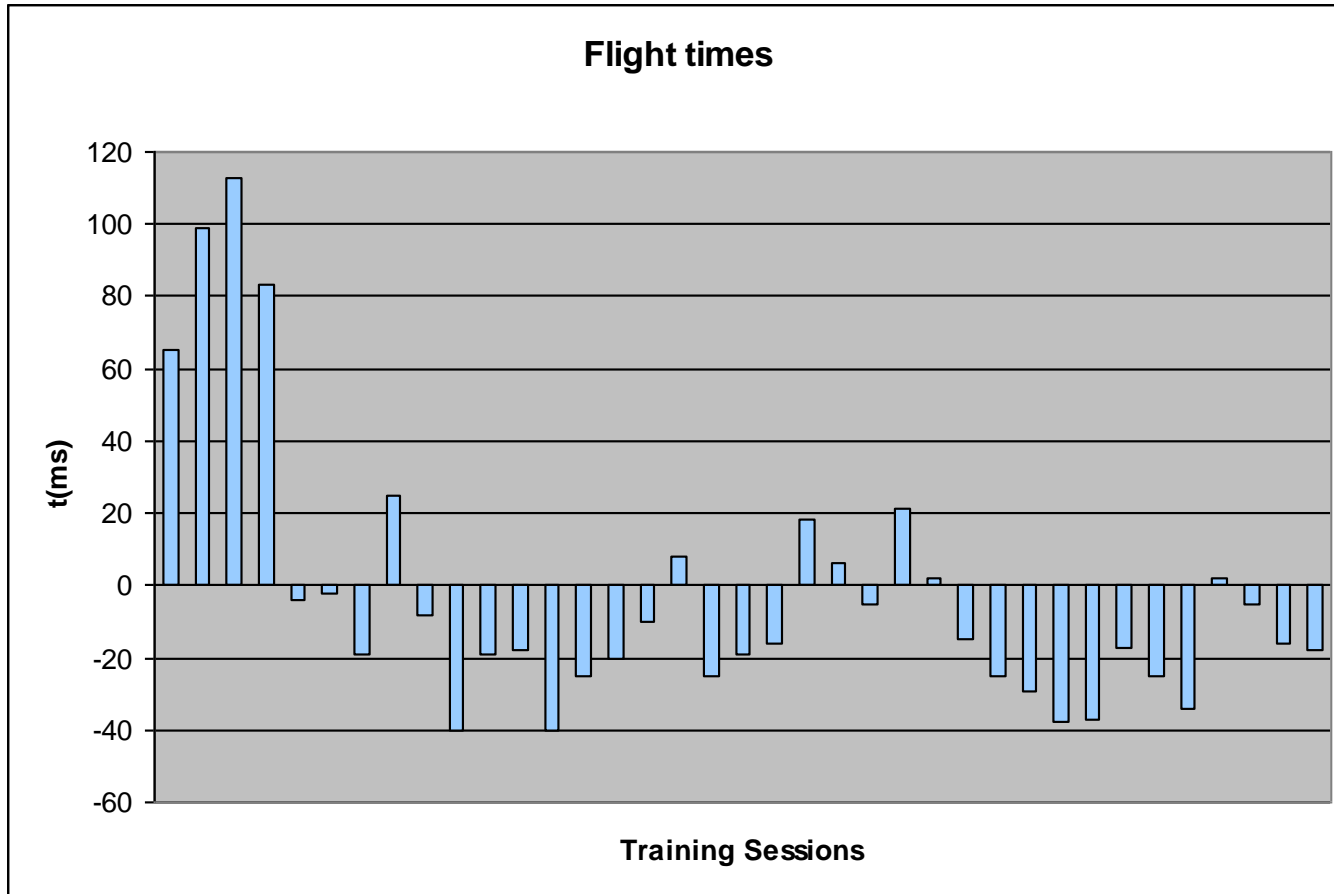
Database

- 10 female high jumpers (national team) with PBs between 1.87m and 2.01m
- Period of observation:
 - 10 athletes during three weeks training camp
 - 5 athletes for 6 months daily training

Questions

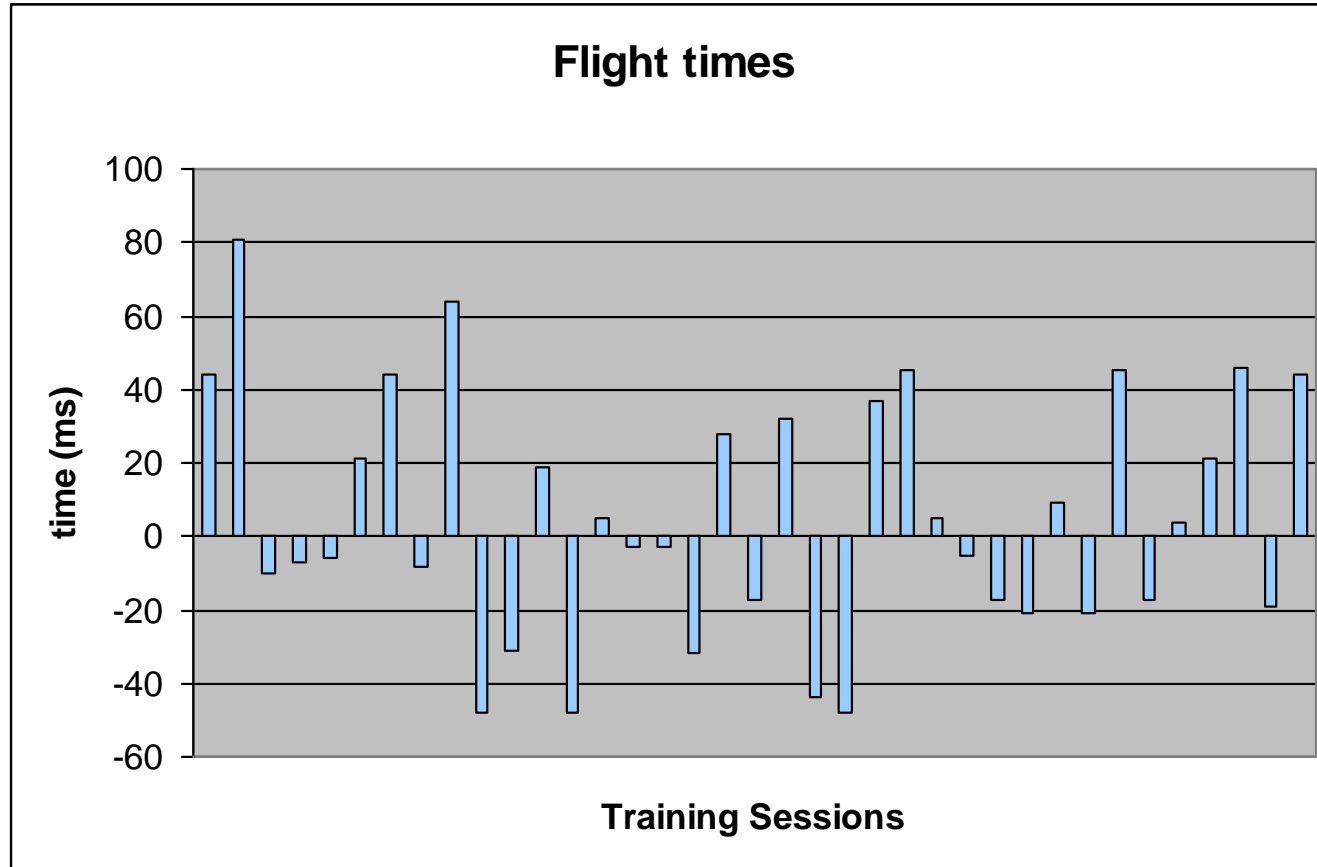
- Are there general or individual responses to defined training loads in top athletes?
- Is there a typical profile in time delay of adaptations?
- Are there any typical training contents that proof to be ideal for each athlete?

Result 1: Training Camp (Athlete 1)



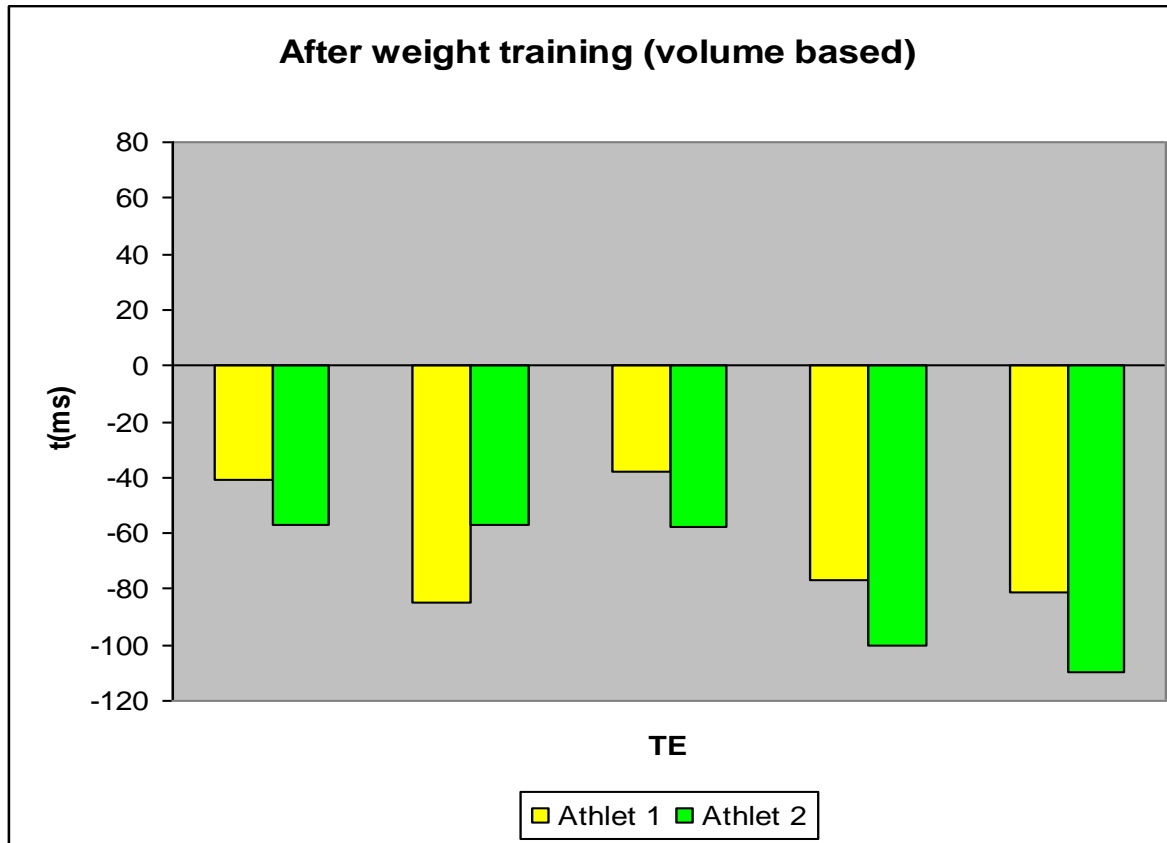
- „0“-Line: Individual average during the whole camp (584 ms)
- +/- : Deviations from average

Result 2: Training Camp (Athlete 2)



- „0“-Line: Individual average during the whole camp (621 ms)
- +/- : Deviations from average

Result 3: Strength Training (volume)



Result 4: Vertical jumps



Possible solutions

- Scientific support
 - There is no serious argument against using scientific support
 - A lot of coaches hesitate
 - Co-operation on an equal footing from expert to expert
- International networking
 - Technically no problem
 - Might be crucial
 - Why to coach my opponent?

Possible solutions

- Communication
 - Two learning types
 - Analytic
 - Intuition
 - But usually we only use one type of advice and/or feedback
 - Detailed verbal instruction
 - What about images, sensations, feelings etc. ?

Possible solutions

- New pathways
 - Two examples
 - The Inner Game (Timothy Gallwey)
 - The “David”- story

The "Inner Game"

- SELF INSTRUCTIONS
 - "Keep concentrated"
 - "Try harder"
 - "Remember the quick foot plant"
- Who is talking to whom?



The Two Egos

- Ego 1: The conscious part
 - Looks for control
 - Doesn't trust Ego 2
 - Permanently interferes with judges, comments and instructions
- Ego 2: The unconscious part
 - Is permanently struggling with Ego 1



The Flow

- Golfers, when in the game, imagine the flight of the ball and where it lands
- They don't instruct their muscles with details
- They trust their body to make it

- Athletes from all sports report that the really perfect jump, throw, shot etc. is “easy going”, “without effort”, “it just happened”.

Resume

- Trust your body
- Don't interfere too much
- Working with images and sensations quite often is more promising than working with verbal instructions

The David -Story

Michelangelo was asked the question how it was possible to make such a beautiful sculpture from a block of marble

His answer

“David has always been there. I just had to remove the redundant marble”.





The classical approach



Potential

Training

Performance

The alternative approach



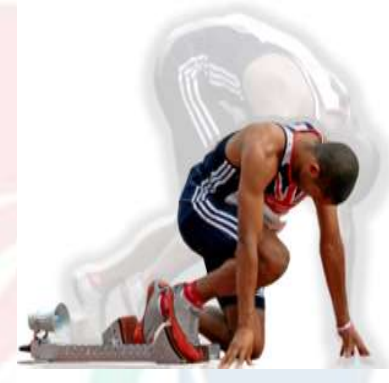
Potential

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Interference

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Performance

Idea

**Training is not adding something
but liberating something already
disposed**

SUMMARY

- 1. We are not at the level of the late 1980ies/early 1990ies**
- 2. Not everything can be explained by a changed doping regime**
- 3. There are duties for politics, society, federations**
- 4. We can work on**
 - 1. Using all knowledge available**
 - 2. New pathways**