High School Shot Put: Glide or Spin?

Glenn McAtee

- Clemson 2002-2008
- Cal State Northridge 1998-2002
- South Carolina Grad School 1996-1998 Master of Arts in Teaching Physical Education
- High School and Club Coach in Canada 1990-1994
- Hammer thrower
- USATF Level III Certified in Throws
- USATF Level I and II Instructor

Objective Comparison: Glide vs. Spin Boys

MICHAEL CARTER 81’3
BRENT NOON 76’2

Objective Comparison: Glide vs Spin Men

ULF TIMMERMAN 75’8
RANDY BARNES 75’10
Glide vs Spin: Objective Comparison

- What about comparing elite female throwers?
- No tradition of spin shot putting among elite female throwers (East Block).
- Best glide results 74’3
- Best spin results 63’2 by Jill Camarena?
- Perhaps it is more fair to compare US women’s results only.

Objective Comparison: Glide vs Spin Girls

Michele Carter 54’10  Sarah Stevens 50’4

Objective Comparison: Glide vs Spin American Women

Ramona Page 66’2  Jill Camarena 63’2

What should your thrower do?

- Depends on many factors, and is not always objective.
Initially, the spin was promoted as a way to “level the playing field” for normal sized people.

Today, throwers of all sizes are spinning.

Spinning seems to allow higher performance levels for less tall people. Ex: Reese Hoffa and Adam Nelson

Critical Factors

- Size
- Gender
- Rotational ability
- Strength levels
- Throwing Discus
- Role modeling

Critical Factors cont.

- Time available for training
- Psychological factors
- Coaching expertise

Cantwell, Hoffa and Nelson
Gender

- There is no tradition of women throwing far with the spin at the international level.
- A woman has never made an Olympic final (top 8) using spin.
- Does that suggest that women cannot be effective with the spin?
- Are the reasons for the lack of success with women’s spin physical, political, historical, cultural or something else?

Women’s All Time List

<table>
<thead>
<tr>
<th>Athlete</th>
<th>Country</th>
<th>Best Result</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisovskaya</td>
<td>Soviet Union</td>
<td>74'3</td>
<td>1987</td>
</tr>
<tr>
<td>Fibingerova</td>
<td>Czechoslovakia</td>
<td>73'10</td>
<td>1977</td>
</tr>
<tr>
<td>Briesenick</td>
<td>East Germany</td>
<td>73'8</td>
<td>1980</td>
</tr>
<tr>
<td>Losch</td>
<td>West Germany</td>
<td>72'9</td>
<td>1987</td>
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<tr>
<td>Khrisitova</td>
<td>Bulgaria</td>
<td>71'10</td>
<td>1976</td>
</tr>
<tr>
<td>Adam</td>
<td>East Germany</td>
<td>71'8</td>
<td>1979</td>
</tr>
<tr>
<td>Li</td>
<td>China</td>
<td>71'4</td>
<td>1988</td>
</tr>
<tr>
<td>Akhrimenko</td>
<td>Soviet Union</td>
<td>71'3</td>
<td>1988</td>
</tr>
<tr>
<td>Pavlysh</td>
<td>Ukraine</td>
<td>71'2</td>
<td>1998</td>
</tr>
<tr>
<td>Sui</td>
<td>China</td>
<td>71'0</td>
<td>1990</td>
</tr>
</tbody>
</table>

Is Height a Factor?

- Larry Judge has theorized that the lack of performance by women in the spin could be a result of the way we ID talent.
- Most top female throwers are tall….does that make it harder to spin?
The spin is dominant nationally among boys, but not so for girls. Perhaps it takes a longer time to learn to spin effectively, so the boys are at an advantage since they are starting to spin earlier? Also, women tend to have shortened careers due to socio-cultural factors. Does that negatively impact the spin?

Women tend to be more process oriented as throwers. This allows them to master technical patterns easier than their male counterparts. This gives them an advantage in learning to spin. It is like dancing……

Many of the top coaches in the US appear more motivated to work with men. If spinning is more technical and the most talented women don’t always have the best coaching, then this would negatively impact the development of results in the spin among women.

Throwing movements can be linear (glide shot, javelin) or rotational (spin shot, discus, hammer and weight, javelin). You can make a slow person less slow, but you can never make them fast. Likewise with rotational ability.

Testing for rotational capability.
**Strength Levels**

- Glide may be less efficient mechanically.
- Strength numbers can be misleading or misrepresented.
- Core strength is a big factor: linear versus rotational.
- Some evidence suggests that less upper body strength is needed for spinning. That would make it ideal for women, who are less strong in the upper body than men relative to leg strength.

**Throwing Discus?**

- If the athlete is already throwing the discus, then teaching the spin saves time, as the techniques are similar (or identical).
- Some good high school coaches start by teaching the basics of the discus turn then resort to the glide if the results are not good.
- If you cannot throw the discus, then you are probably not a spin shot putter.
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Rutger Smith

Females who throw discus and spin shot at a high level?

Andy Bloom

Only one: Becky Breisch
Role Models?

- Everyone in the top 10 in the US on the men’s side throws with the spin now; glide is essentially dead for men in USA.
- Boys and Girls get much of their information from the internet and the various video sites: what are they seeing?
- Does the athlete believe they can throw far using a particular technique: what is that worth?
- Who does that athlete “identify” with?

Psychological Factors

- Approach to the glide and spin is different.
- How cool under pressure is the thrower?
- Does the spin technique itself hold up under the pressure of big competitions; historical record?
- Do you want to produce consistent throws, or do you want to produce the big one?

Time Available for Training

- How long is the season?
- How much extra work will that thrower do on his own time?
- How long will that athlete throw for?
- What grade in school are they now?
- How important are the results this year?
- How patient is the thrower?

Oly Games: Spin vs Glide

<table>
<thead>
<tr>
<th>Year</th>
<th>Medal</th>
<th>Name</th>
<th>Result</th>
<th>Technique</th>
<th>World Rank</th>
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<tbody>
<tr>
<td>2008</td>
<td>Gold</td>
<td>Majewski</td>
<td>21.51</td>
<td>Glide</td>
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<td>Cantwell</td>
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<td>Spin</td>
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<td>Mikhenivich</td>
<td>21.05</td>
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<tr>
<td>2004</td>
<td>Gold</td>
<td>Bilonog</td>
<td>21.16</td>
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<td>Silver</td>
<td>Nelson</td>
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<td>Spin</td>
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<td>Bronze</td>
<td>Olsen</td>
<td>21.07</td>
<td>Spin</td>
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<tr>
<td>2000</td>
<td>Gold</td>
<td>Harju</td>
<td>21.29</td>
<td>Spin</td>
<td>7</td>
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<tr>
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<td>Nelson</td>
<td>21.21</td>
<td>Spin</td>
<td>1</td>
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<tr>
<td></td>
<td>Bronze</td>
<td>Godina</td>
<td>21.20</td>
<td>Spin</td>
<td>5</td>
</tr>
</tbody>
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Coaching Expertise

- Are you better at coaching the glide or the spin?
- What do the athletes think?
- You have to start somewhere: get your feet wet with someone who is an underdog and teach them to spin.

Final Analysis

- The proof is in the “putting.”
- Use the technique that produces the desired result:
  - Championships versus records

Changing to the Spin

- Have a game plan and put that plan into effect as early as possible.
- Lay the groundwork at the end of the season, and prescribe drills for use during the off season.
- Set a timeline and stick to it, even when it is easy to jump ship.

Questions?

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