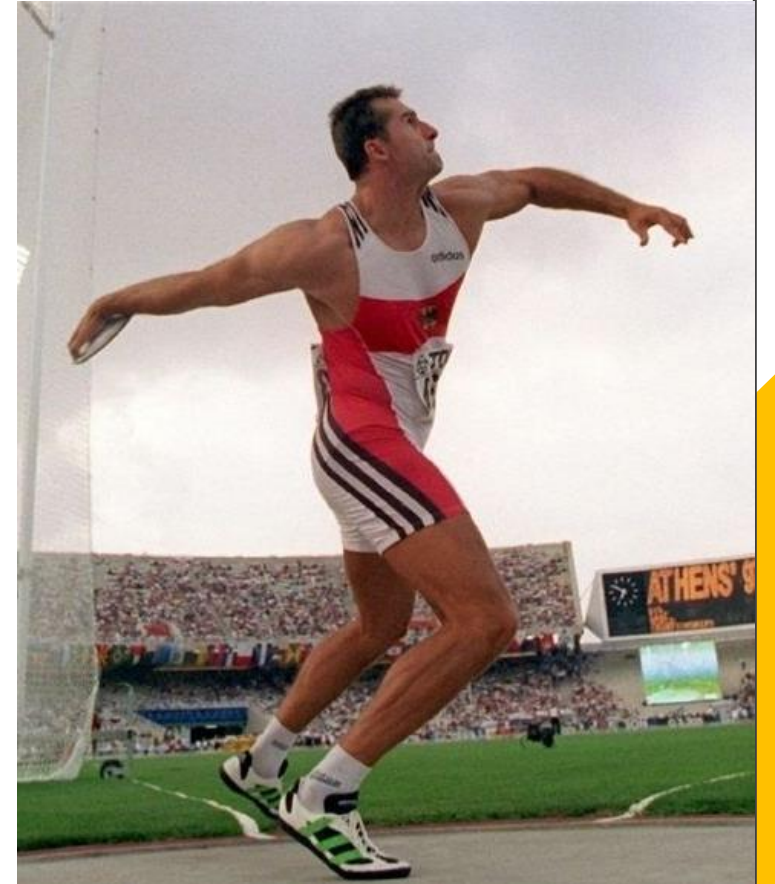


Coaching the Discus

ATCA Winter Meeting 2024
- Speaker Dave Rodely



Level Set Terminology

- References to the Athletes Right and Left
 - ALL Right and Left terminology used is in reference to a Right Handed Thrower
- Back of the Ring / Front of the Ring
 - The FRONT of the Ring is where the Discus is Released
 - The BACK of the Ring is where the thrower sets up the spin
- Degrees of Toe Turn
 - References to Toe Turn are all Relevant to the location in the Ring
MOVING/SPINNING to the Left
 - i.e. if the Back of the ring = 12 o'clock = $0/360^\circ$9 o'clock = 90°(remember we are spinning to the Left).....6 o'clock = 180° and 3 o'clock = 270°

Discus Throwing Backgrounder

(Gen Knowledge / Key components)

- Athlete Identification
 - Choosing the wrong athletes to become throwers makes it harder to coach
 - What would a good thrower look like? (Too Big to be Decat / Way to big to be a Gymnast)
 - Bodyweight weakness makes positions difficult to achieve = hard to coach
 - Okoye (23yr=1st fb rep) / 60m Tautvydas Kieras (NFL w/o a snap)...why? = 271, 35", 4.69 / Schmidt 6'6, 254, HJ 2m/180kg clean
- Athlete / Thrower Development
 - Time is MASSIVELY Valuable – spend it on things that matter
 - Technique / Throwing / Speed / Strength / Athleticism
 - Mike Boyle (renowned strength coach)
 - Only 3 Energy systems that exist
 - Impossible to become great discus thrower and NOT have tools to play HS FB
- Don't Get Frustrated....Learning to throw discus is NOT easy & takes time
 - Some of your athletes been running for 12+ years and still NOT good at it

Creating your own Demons

- I have seen this done by BOTH coaches and athletes
- First things First – Spend time on what matters
- What makes athletes great throwers?
 - Explosive Power and Technique
 - There are ONLY 3 Energy Systems Spend time in the Right PLACE (ATP/PC)
 - Time is limited WHY are you wasting it doing something counter productive
- Case Study – IL HS Throws Coach Early in his career (400s for fouling)
 - Result – Got rewarded for spending time on the wrong thing
- Athletes Especially / Coaches sometime
 - What are you working on?
 - Trying NOT to....XYZ...How do you do that? What I learned from WR Holder of my time
- Becoming proficient and doing it wrong
 - See this in throwers who are less athletic and lack focus to have “intentional practice”

Foundational Components

(before spinning with the Discus)

- Holding the Discus

- How and Where

- Discus should ride forward in the hand
 - Meaning the bisecting long axis thru the discus COG should be closer to the base of Index finger and thumb THAN the middle of the palm
 - Sign of doing this correctly is that the ring finger and pinky finger wrap around the rim of the discus MORE than do the index and middle finger
 - Thumb needs to lay flat on the discus NOT be UP or pushing down
 - Later we will review SOME fairly technical Information so that you understand discus flight, but Do NOT speak to your throwers in those terms...for them use KISS
 - Circumferential Velocity Story



Foundational Components

(before spinning with the Discus)

- The Release
 - Good release should include a “finish” with the dominant finger
 - Spinning the discus = “flying” the discus
 - Bowling the Discus is a good way to learn to release the with a stable wrist and off the correct finger
 - The Angles (Position of the discus is increasingly important the better you get)
 - 4 Primary angles of concern
 - Angle of Release (COG reference)
 - Angle of Tilt (short axis rotation on the long axis) – overcoming the magnus effect
 - Angle of Inclination or Attitude (long axis reference)
 - Angle of Attack (diff between Rel Angle and Attitude)...Frequently Negative attack angles in long throws
- Youth throwers need to learn to control the discus and feel the angles of attack and tilt



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Foundational Tools

(before spinning with the Discus)

- Stand Throw
 - Non-Reverse (IMO – Great for discus throwers to learn to both Rev & Non)
 - (Lower body) Weight over right leg – turn and drive – climb the block
 - (upper body) Head Back / Left Arm long and Back / Drag discus twd Hi Pt Orbit
 - “Head and Hand on the bolts”
 - Engage Right Toe Turn, Knee & Hip Drive, while simultaneously climbing the Lt Leg
 - PULL with the left side
 - Intentional Step over Foul
 - Same components of Non- Reverse but finish hard in a straight line
 - Cheat Code = Dragging the Rt Toe
 - “Pull & Chase”
 - Finish tall and allow right leg to get “ripped” off the ground
 - The better the thrower turns right toe and drives right hip the better the result
 - Throw with Reverse
 - Simply a Progression from above such that there is a violent upward Drive with the legs that allows the thrower to “switch” feet in the air....HOWEVER Non-reverse throwing is effective in the discus and a Reverse does NOT have to be taught (but IMO tougher to teach non-reverse discus throwers to effectively spin with the shot put)
 - Timing is important and learned – Discus leaves hand after completion of fully applied ground forces by the thrower

SPIN Baby!

Reminder language in reference to Right-Handed thrower

- Know the Critical Positions
 - Dynamic Balance over the left out of the back with a “counter”
 - Left toe stops in the direction of the throw with extensive distance between the left and right foot (sweep)
 - Significant difference between left toe and left hip (“long bow” = “Back C” out of back)
 - Upper Body and Left Arm UP
 - Active Right Leg with extensive loading of left (similar to shot but different)
 - In the discus there is a drive out off the back from the left leg
 - Review images below (what do you Notice?)



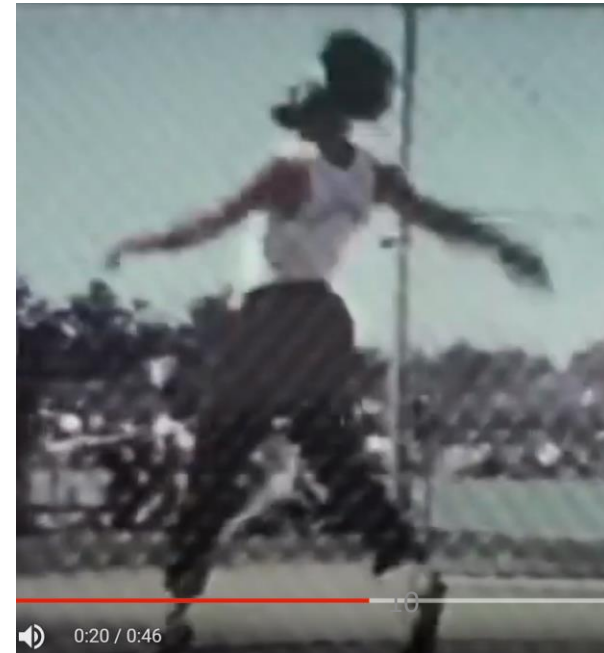
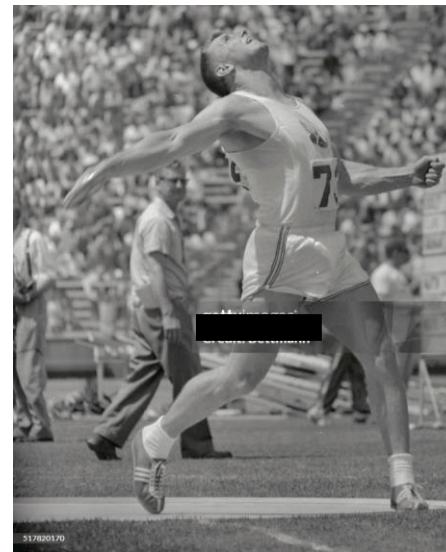
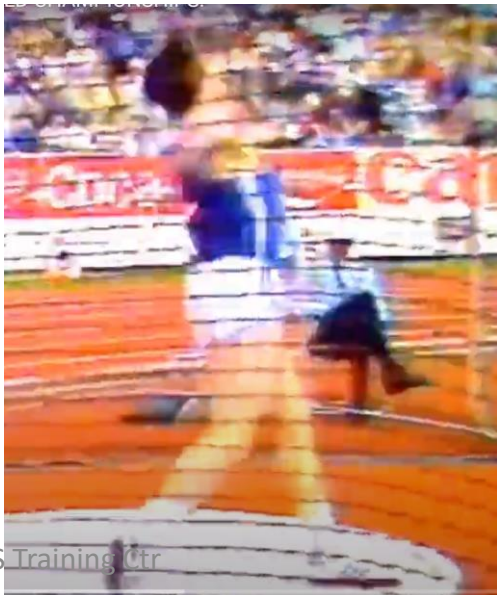
Critical Positions (cont'd)

- Dynamic Balance over the Right Toe in the Middle
 - Upon landing right hip literally over the right toe on a significantly flexed knee
- Elite throwers all get “wrap” entering the middle
 - The head and Lt. hand back just prior to Lt foot contact. Developing throwers want to “OPEN” up in order to turn = Head and LT. Hand move twd throwing area EARLY is common among beginning throwers....
- ORBIT (High Point and Low Point Achievements)
- Review IMAGES below...what do you NOTICE (whats Important/different/etc)



Critical Positions (cont'd)

- Achievement of Back C (long bow) at the front of the ring allowing for a massive PULL
- Finishing the Right Hip and Right Toe completely to the front into an effective BLOCK Leg and Accelerated Bent Lt Block Arm
 - CREATES speed via acceleration on the discus at the point of release
- Effective Release of the discus
- Look at the images below (what do you see?)



Common Technical Problems (Whys & Fixes)

- Over Rotating out of the back
- Lack of getting HIPS over the left leg out of the back
- Butt Out vs SLIDING Hips Left
- Leading throw around with left arm and head
- Right leg too close / “tight” to the body
- “Falling” off to the left when entering the power position OR “falling into the bucket”

Drills to help improve tech:

- **DISCLAIMER** - NOTE that there is a requirement for creating technical proficiency thru the use of drills. = **performing drills correctly...I call this intentional practice**
 - Most throwers (especially kids) just want to throw and see how far they can make it go. This is the same reason that most people who play golf are what I call perpetually mediocre...they go play golf...they seldom intentionally practice. Pro golfers seldom play...but instead spend thousands of hours intentionally practicing.
- Drills should be performed without a discus UNTIL thrower has a fair level of proficiency.

Drills Help the Thrower *LEARN to TURN*

Basic Drills & Keys

➤ 0 – 360 Drill

- (match lefts – shift leg – separate knees – right foot glued to ground until left foot is at 90– sweep with a wide right leg...think inside of the thigh)

➤ 90 - step out / step middle

- (match lefts – shift left – turn left toe to 90 – step out with right foot (while right foot is leaving pad – left toe continues to turn to direction of throw and stops in direction of throw)

➤ Half turn drills

- (start upright – with left arm and left toe matched = direction of throw – and right foot at 270)
 - Weight primarily under COG but slight shift to Rt leg to allow for the Rt toe turn in middle
 - Lt leg is more inactive during this drill than in the actual throw because it is a static move AND pushing off the Lt in this drill too much will cause the thrower to fall “off-balance” and into the bucket...NOT a demon you want to practice.
 - COACH = “TURN the toe – SHOOT the left)

➤ Towel Drills / Pole Drills (View on Next Slide)

- Aids to assist in teaching positions (especially how to counter) and keeping arms opposite

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Advanced Drills

➤ 90 - step out / step middle / Half Turn

- (duplicate all the keys from each basic drill...just do them together)

➤ South Africans

- In this drill I recommend that the athlete start with the left toe at approximately 120° (whereby starting position in back = 0° and direction of the throw = 180°) in order to allow the athlete to engage turning the toe which makes it a bit easier to counter – also it is important that the right leg be significantly “behind” or simulating the separation from the left the right would have at the point in time when the left toe reached 120° in a normal exit during a full spin

➤ Full Turns

- all the components of a good technical throw just done without the implement AND I recommend teaching young throwers to stop the spin upon landing in the power position
 - mimicking the finish of the throw during a drill or dry spin, should only happen without the implement after the athlete has BOTH mastered stand throwing with the implement AND has mastered landing in an effective power position for said drill and/ or dry spin)
 - the transition is typically for the thrower to move from a paused good position THEN mimic the finish of the throw as a second movement (what we are after here is for the athlete to really “FEEL” the correct positions)
 - I personally do NOT like throwers to mimic the throw without the implement because they practice doing it wrong and slow

1. Lets do some Q&A....Then...
 2. We can look at some videos to see what we can identify and how to correct it
- QUESTIONS???
 - What Questions do you have – This is the time to ASK ANYTHING about the shot put you might have on your mind

Now to videos - Identifying strengths and development needs (what do you see)

- Lets figure it out together...
 - What key problem(s) do you see
 - What needs to happen
 - What should we work on to improve it

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Parking lot info –questions which might need more explanation

