

*UNIVERSALS OF HITTING &  
PITCHING: WHAT SHOULD WE BE  
TEACHING?*

*Do what the best in the world do, with  
the flexibility to be yourself*

# *HITTING UNIVERSALS*

- Universals vs. Styles
  - Styles: Many great hitters do things differently
    - Stance, leg kick, type of pre-pitch movement, hand & bat placement, stride, etc. Never “one” right style for everyone
  - Universals: All of the elites have a small number of similarities & key positions
    - E.g. palm up/palm down at contact, no head movement once turn starts, etc.

## *HITTING UNIVERSALS*

- Can you be a good hitter without following the universals? Yes
- Will you be a better hitter if you have a better swing? YES
- But BARELLING-UP the ball overrides everything
  - Avoid overthinking. Athletes need to “be an athlete”

# *HITTING UNIVERSALS*

- A style is a good fit if it HELPS universals; should make a universal easier to achieve
  - Stick with a style for a while to see if works
- 4 Categories of Universals
  - Load
  - Plant Position
  - Turn/Contact Point
  - Finish

# *HITTING UNIVERSALS*

## **1) Load**

- Gets athlete into a *proper* **Plant Position** prior to starting their “turn”
- Load Universals:
  - 1) Weight shifts from back to front leg toward pitcher
    - How = style (e.g. big leg kick, wide stance, small stride, etc.).
  - 2) Head stays near belt buckle (center of body)
    - Helps avoid getting stuck on back foot
  - 3) Land with heels in line (doesn’t matter how they start...style)
    - Allows hips to fully rotate, not closed off or open too early

# *HITTING UNIVERSALS*

- Load Is the most stylistic of all the categories (e.g. big step, small/no step, wide stance, narrow stance, upright, knees bent, bat waggle, bat resting, elbows down, elbows up, etc.).



# *HITTING UNIVERSALS*

- <https://www.youtube.com/watch?v=dUBTt2yTv1M>
- 1:35
  - Patty Shannon style
  - Load = FORWARD, even if hitting change-up
    - Hands back, but weight on forward leg

# *HITTING UNIVERSALS*

– Mika/Malia Change-up ... Nebraska Kid





# *HITTING UNIVERSALS*

- Improper Load...



# *HITTING UNIVERSALS*

## **2) Plant Position**

– Defined:

- *Immediately prior to starting rotation*
- *After load when forward movement STOPS*
  - Not necessarily when foot is down (if foot is down early, still need to shift into proper plant position, e.g. change-up)

# *HITTING UNIVERSALS*

## 2) Plant Position (side view)

Improper Plant Pos.



Proper Plant Pos.



# *HITTING UNIVERSALS*

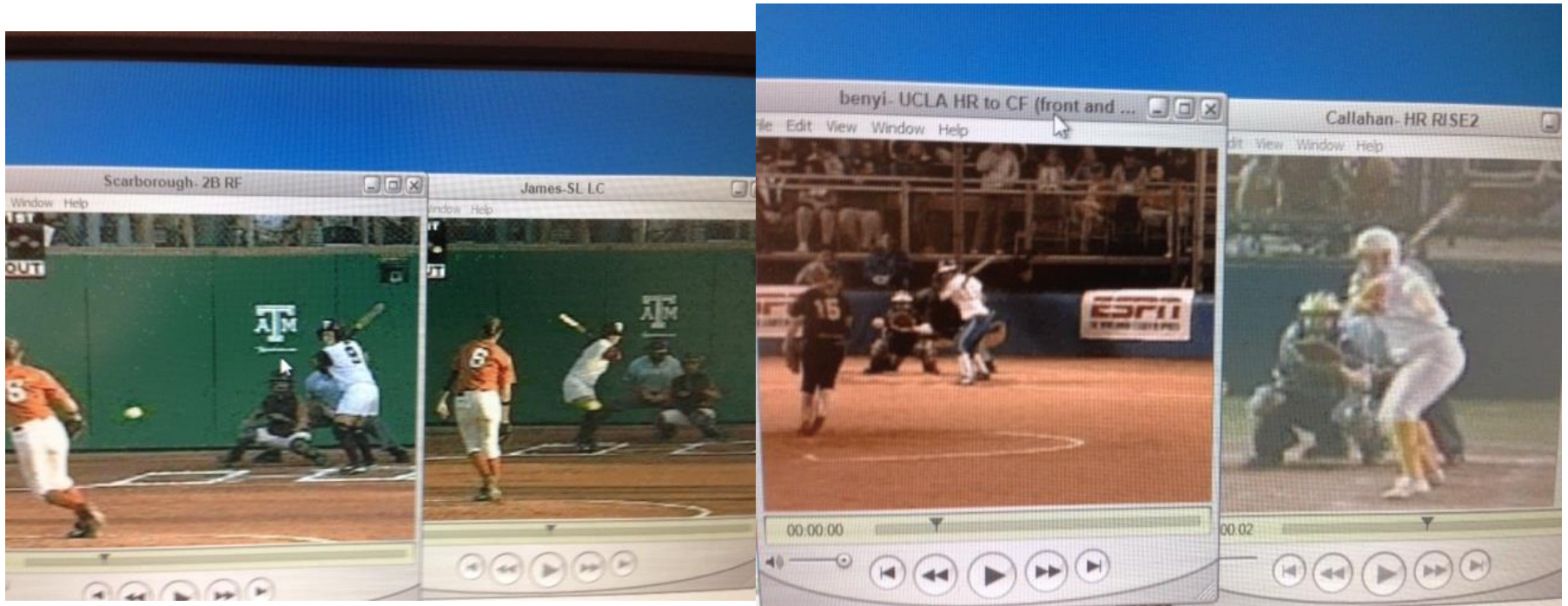
## **2) Bertucci & Bustos**





# *HITTING UNIVERSALS*

## **2) Plant Position (front view)**



# *HITTING UNIVERSALS*

## **2) Plant Position (con't)**

- From Side View

- 1) Back elbow above front elbow (extent is a style)
- 2) Head continues staying in-line with center
- 3) Weight has now transferred; no more forward movement, should be stopped against front leg
- 4) Bat angle pointed *near* 45° toward pitcher (extent is a style)

- Front View

- 1) Shoulders & hips still remain closed, hands “hidden from pitcher”
- 2) “Athletic position,” bend in knees and waist

# *HITTING UNIVERSALS*

Incorrect vs. correct plant position. How many universals can you spot?



# *HITTING UNIVERSALS*

## **3) Turn/Contact Point**

- Hips Initiate Swing & Are Fully Extended at Contact
  - Body should not drift forward anymore (leaks energy)
- Palm Up/Palm Down at Contact
  - Top forearm in-line with bat
- Diamond Shape w/ Elbows (front elbow above back)
  - To avoid reaching/rolling over or releasing barrel early
- Locked Front Knee, Back Knee Driven Forward
  - Back foot often moves due to aggressive hip rotation
- Body Rotates/Swivels Around Head
  - Should not have moved since after load (Plant Position)



# *HITTING UNIVERSALS*



# *HITTING UNIVERSALS*



# *HITTING UNIVERSALS*

## **4) Finish**

1) Chest-High Finish (or higher, especially if low pitch)

- Keeps barrel through pitch for line drives
- Avoids weak ground balls or “tennis backspin” pop ups
- POP UP MYTH

2) Practice: Full Turn- Shoulders and hips fully rotate

- Full turn: Shoulders have “replaced” each other
- Body has slight lean-back due to full hip extension

# *HITTING UNIVERSALS*

- GOMEZ LOW PITCH



# *HITTING UNIVERSALS*



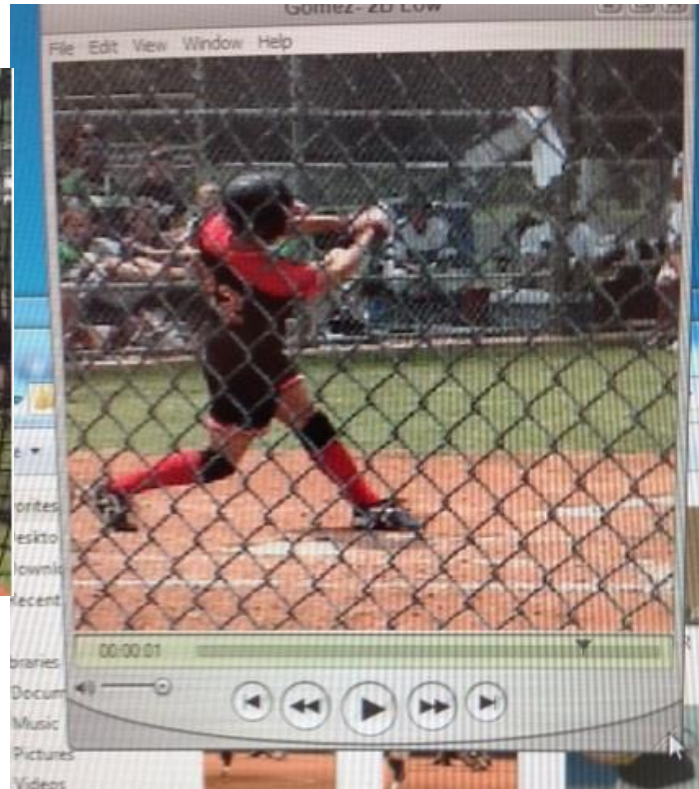


# *HITTING UNIVERSALS*

## Improper vs. Proper Bat Finish



# *HITTING UNIVERSALS*



# *HITTING UNIVERSALS*

- **CONCLUSION**

- Universals and styles are important but barreling up the ball overrides all (lots of components besides mechanics, i.e. timing, mentality, avoiding over-thinking)
  - If Timing = off, mechanics = off. Don't over-think mechanics. "The more you think, the slower you get."
  - Great hitters stay athletic & are able to adjust to make good contact
- PITCH SELECTION also very important
  - Hard to put a good swing on a pitch out of zone



# *HITTING UNIVERSALS*

- **MYTH: Chopping at Rise**
  - NZ Game Winning Grand Slam Video



# *HITTING UNIVERSALS*

- **CONCLUSION**

- For teaching: The greats keep it simple & move well
  - Important to find THE main limiting factor holding someone back (could be mental, could be a universal, could be trying a new style to help a universal, etc.).

# PITCHING UNIVERSALS



# What Should We Be Teaching?

- UNIVERSALS! Not necessarily styles
- Do not “over-teach”
  - Too complex for the athlete
  - Coach validity: teach what’s *certain*
  - Master the basics/fundamentals
- Critically evaluate what the game’s best pitchers do.
  - Not just a few of them
  - What key mechanical positions do they practically all have in common?

# Styles vs. Universals

- Styles = A Dime A Dozen
  - One size does not fit all
  - Certain styles can be encouraged
    - ...but NOT mandatory
- Universals = Essential
  - Proven by research, photos, videos of the greats
  - Biomechanically true positions

# Styles

Could be hundreds when in combination with each other...

- Getting set
- Arm swing
- Initial motion...rock/sway vs. lean
- Angle on rubber
- Foot position during push-off
- Speed/Explosiveness of wind-up
- Glove/arm position after push-off
- Amount of torso turn
- Timing of “Power K”
- Height of Leg kick
- Foot angle at plant
- Stride Length
- Upper body finish
- Lower body finish
- Etc.

# Styles

- Lots of styles vs. small number of universals
  - Easier to say “what’s not” than “what is” among all greats
  - Takes pressure off the athlete...more freedom
  - Less thinking

# Universals

## 5 Categories...

- 1) Weight Back
- 2) Attack
- 3) Sprinter's Position
- 4) Float
- 5) Plant/Release



# 1) Weight Back

- Initial motion preceding wind-up (which is almost 100% style)
- Weight must *truly* go back- e.g. hips/center drifts back
- No advantage to making this fast
  - Need to accelerate later in motion

# 1) Weight Back



**Body/Torso shifts back, not just hips**

# 1) Weight Back

- Styles are how weight goes back...rocking, stopping, combination, etc.
- Should be able to “test” by lifting front foot
- Weight back...hands forward
  - Initiates next position

## 2) Attack

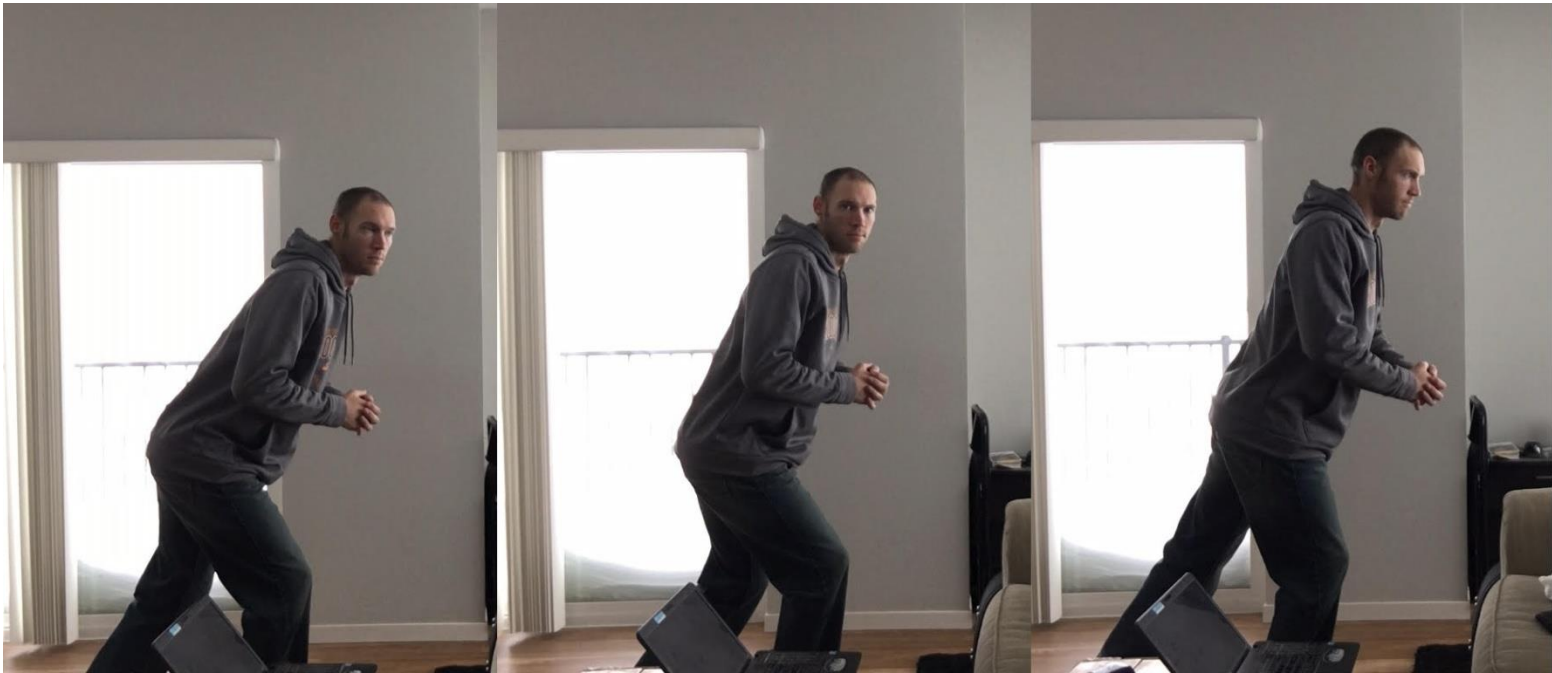
- Low forward body lean angle
  - “Low doesn’t mean low” (that is a style)
  - Lower than initial start due to falling forward
- Hips/Legs, not lower back
  - straight line from back heel up to head
  - Loading front glute for push off
  - Hips all the way forward

## 2) Attack

- Shoulders square to the plate
  - Should not be rotating yet
- Weight forward...hands back



## 2) Attack



### 3) Sprinter's Position

- Back leg drives toward catcher
- Arms Extend Toward Catcher
  - Wrist cocked
- Shoulders stay square to the plate
  - Still no rotation



### 3) Sprinter's Position



- The attack → (into) sprinter's position should be most explosive lower body movement in entire delivery



## 4) Float

### Lower Body

- Zero to minimal weight on either foot
  - should feel like “floating” even with back foot drag
- “Power K” (but arm position is a style)
  - Rotation (extent is a style)
  - Upper rotates more than lower (torque & separation)
    - Avoid rotating together, should stay fluid

# 4) Float

## Upper Body/Arm Circle

- Natural arm circle...bend in arm for whip
  - Myth: Straight/locked arm
- Ball should naturally face 3B/C (for righty)
  - Myth: Ball pointed backward toward CF



# (Arm Circles)



# 5) Plant & Release

## Lower Body

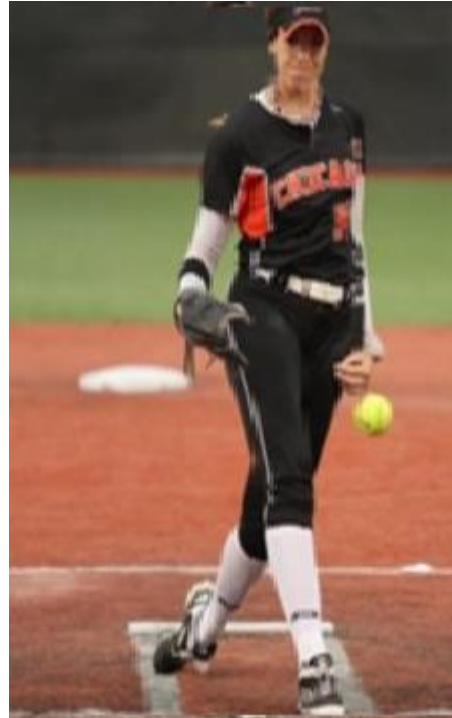
- Full hip extension, tall upper body
- Hip angle should be between 20-45 degrees (style)
  - NOT 90 (myth)
- Stiff front side- all weight on front leg
- Lead leg = arm side of power line (extent is a style)
  - NOT glove side
  - “Screwballs” ... bullet spin ... angle rather than movement ... all arm
    - Not going to “win that battle,” so instead preach sound mechanics

# 5) Plant & Release

## Upper Body

- Elbow hidden from catcher
  - Slight brush on side of body
  - “Tight arm”
- May have tilted throwing shoulder (not necessarily a universal, but pitchers who do this tend to have a bit more velo & rises)
- Wrist snap happens *after* pitch
  - “Elbow snap” is proper sequencing
  - Ball off fingers creates movement

## 5) Plant & Release





# What Should We Be Teaching?

## KEEP IT SIMPLE:

- Sound bodily movement
- Different pitches don't necessarily require different mechanics
  - Hand position on ball ... fingers create movement (even if pitcher “feels” wrist)
    - However, body position creates angles of pitch, not movement
  - More pitches does NOT = a better pitcher
    - Up/Down/Change, locate on corners