

Analysis of Jamie Sadlowski's Mechanics

By Jack Kuykendall – Golf's #1 Scientific Teacher

Scientific Education:

- Clubhead speed comes from arms speed.
 - Arm speed, in a traditional golf stroke, comes from:
 - Right arm levers straighten from the top of the backstroke to impact.
 - Forearm rotation
 - Fast twitch muscles
 - Stretch reflex
- Body rotation is a support mechanism.
 - Hips generating clubhead speed is assault on intelligence
 - Torqueing the hips to the shoulders is not only an assault on intelligence it is extremely dangerous – back problems

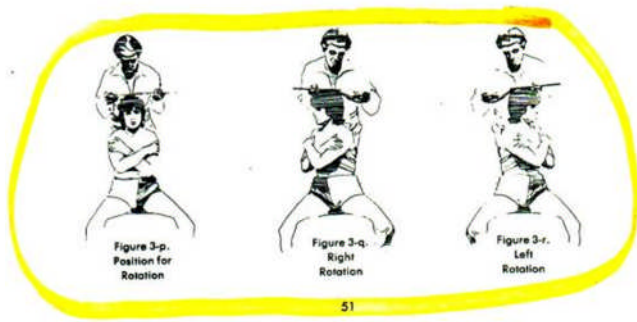
1st: Conventional Paradigms and why they are false.

- Hips can create clubhead speed.
 - This is an assault on intelligence
 - The hips rotate on a plane that is parallel to the ground. The only connection of the hips to the shoulders is through the spine. Since the lower body moves independent of the spine, there is NO mechanism for the transfer of the 3 to 4 mph of hip speed.
 - Even if it the hips could transfer their speed, it would be less than 2 mph; cos of the angle between the hips and arms.
- X-Factor

The X-Factor is scientifically false!

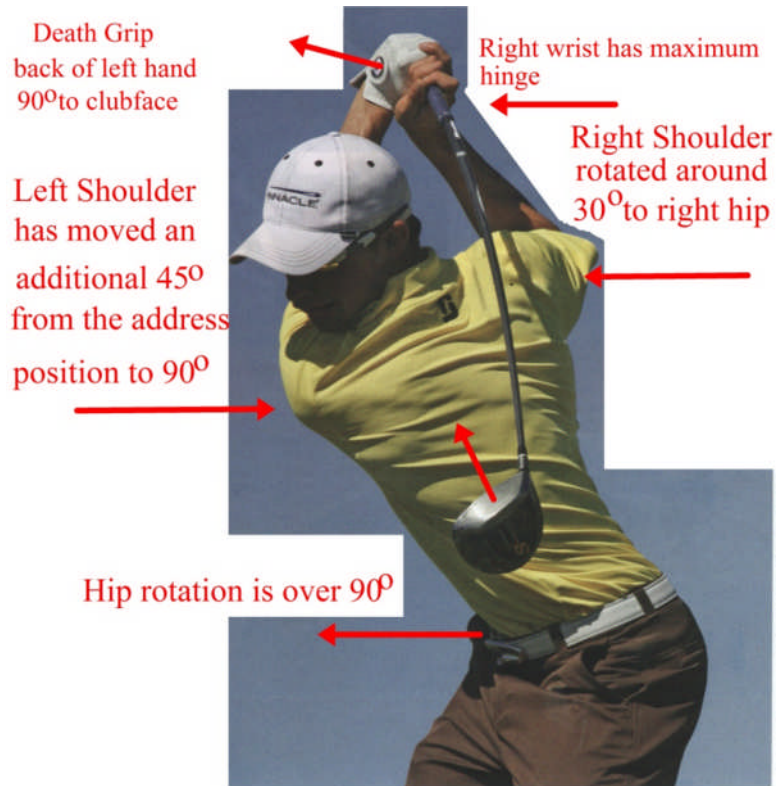


The shoulders operate independently of each other. If you place your shoulders against a wall, you can barely touch your fingers together. In a golf address position, both shoulders rotate forward around 60°. When you take the backstroke, the left shoulder rotates forward another 30°. The right shoulder rotates backward from its 60° forward position to a 30° behind the right hip. There are 15 vertebra in humans and each vertebra can rotate around 2°. The X-Factor testing instrument measures the left shoulder to the right hip; totally false science!



Chiropractor Manuals shows that 30 degrees is the maximum you can rotate your right shoulder to your right hip. McLean claims that golfers he tested can rotate between 2 and 18 degrees more than anatomy allows.

2nd: Scientific analysis of Sadlowski's mechanics



Analysis of the top the backstroke.

- Hips rotated over 90°.
- Left shoulder rotated an additional 45° from it address position.
- Right shoulder was rotated around 60° forward at address. The right shoulder rotated backward the 60° forward and an additional 30° relative to the right hip.
- Sadlowski uses the Death grip (left hand on top of the grip); clubface is 90° to the back of his left hand.

2 axis



1. arms
2. shaft

- At address, Sadlowski sets up with a two-axis system. The right forearm is not in line with the club shaft.
- His left hand (seeing all knuckles) is on top of the grip – the death grip.

The two-axis death-grip mechanics requires the following body mechanics:

1. The down stroke requires rotation on five different planes:
 - a. Shoulders on 1st plane
 - b. Arms on a 2nd plane
 - c. Hands rotate inside the arm plane on a 3rd plane
 - d. Because it is a two-axis system, the:
 - i. The clubhead rotates on a 4th plane
 - ii. The clubface rotate inside the clubhead plane on a 5th plane

Squaring the clubface at Sadlowski's clubhead speed is incredibly difficult.

right shoulder to right hip



around 30°

From this angle,

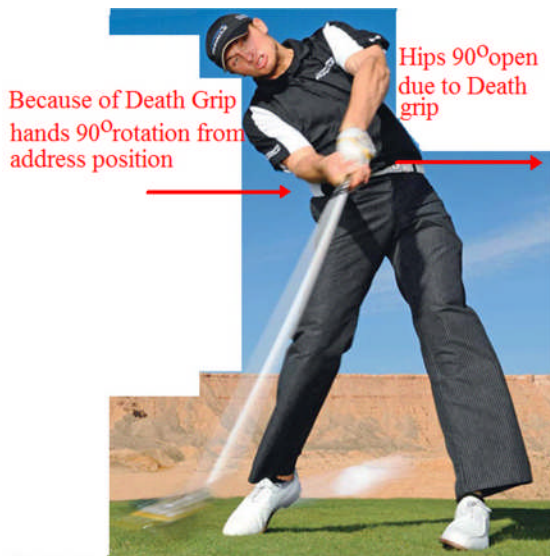
- Hip turn is over 90°.
- It is easy to observe that the right shoulder is rotated only around 30° to the right hip.

0.06 sec to impact



Downstroke to waist high in the downstroke:

- The hands move backward and downward
- The right wrist retains maximum hinge.
- The right elbow is outside the right hip.
- The clubhead is moving around 50 mph at this point



Impact (smaller photo):

In all two-axis system, body center and hands must move upward and backward in order to keep from driving the clubhead into the ground.

Observe that Sadlowski's hands are substantially higher than they were at address.

Impact (larger photo):

Because of the death grip, the hips must be open by 90° in order not to snap hook the ball. The up on the toes is to allow for the straightening of the arms due to the two-axis address position.

From the waist high in the downstroke position to impact, Sadlowski increases his clubhead speed by around 90 mph. This is due to:

- Right arm lever straightening
- Forearm rotation of both arms
- Extraordinarily high degree of fast twitch muscles
- Extraordinarily high degree of stretch reflex in his right wrist

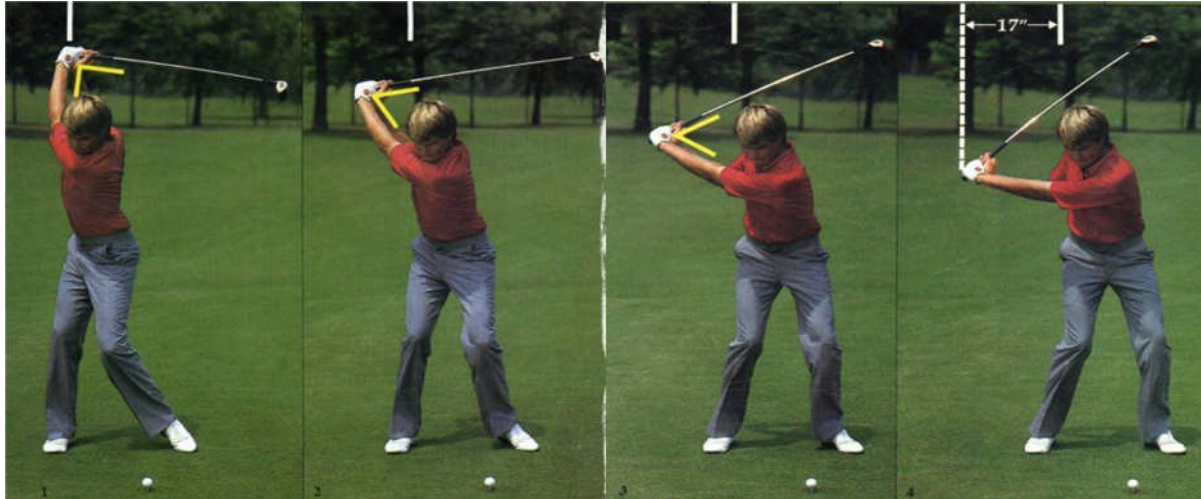
This is a very typical traditional mechanics. The extraordinary comes from his muscles arm muscles being able to produce such high horsepower.

What is the scientific explanation of Sadlowski's incredibly high clubhead speed?

There are three major reasons:

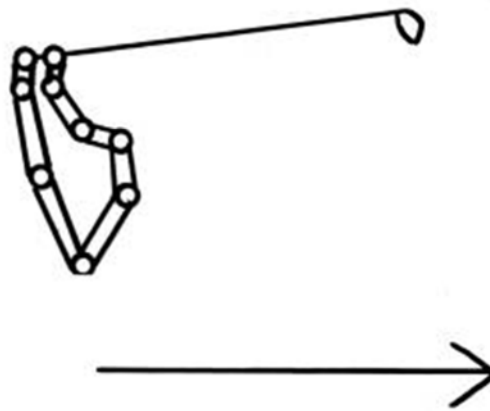
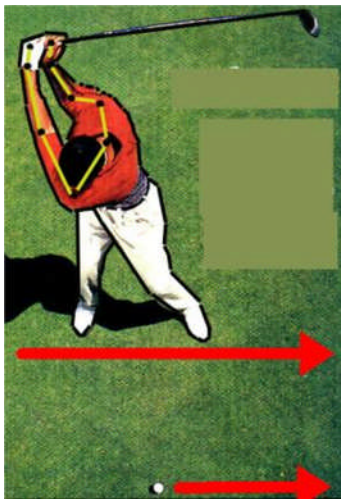
1. Optimized speed producing for the a traditional two-axis straight left arm mechanics
2. Fast twitch muscle.
3. Stretch reflex.

THE TWO-AXIS STRAIGHT LEFT ARM METHOD

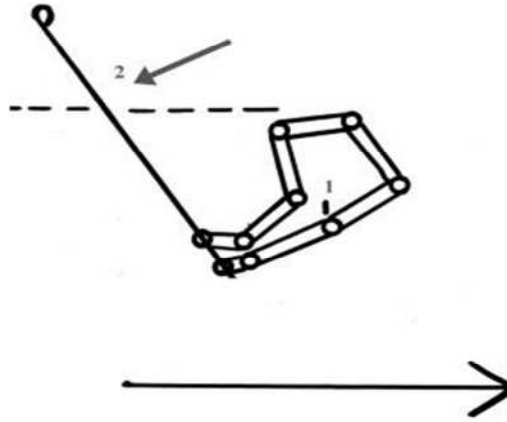


The above photo of Davis Love illustrates the two-axis straight left arm version for producing power.

- From the top, his 1st move is to sit down and move the hands backward and downward.
- Minimal rotation of hip and legs – support only.
- Back remains to the target as long as possible.

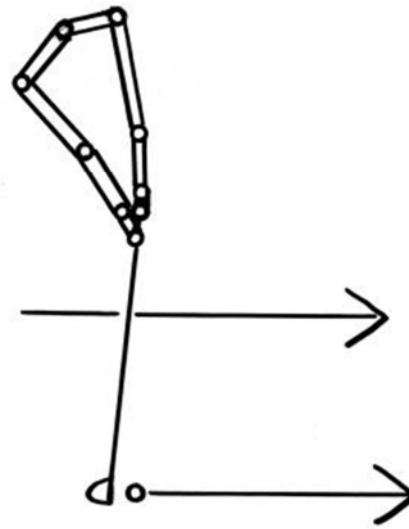


Observe the 9 levers of Tiger Woods at the top of his stroke.



Waist high in the downstroke:

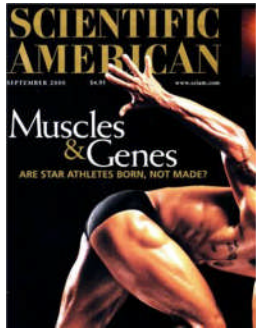
- Tiger's clubhead is substantially behind his back.
- His right arm is in an excellent hammering position outside his right hip.



From the last position, Tiger uses a right arm hammering action along with forearm rotation to create his extraordinary clubhead speed.

Fast Twitch Muscles and Stretch Reflex:

Fast twitch muscle can move an object twice as fast a standard muscle.



Scientific America's September 2000

Sadlowski has been developing fast twitch muscles since his first swing with a driver. He has created as much speed as he possibly could with each ball hitting session. His arms have the fast twitch muscle speed to break all 100m records if they were in his legs. His fast twitch muscles development is superior to anyone competing in the long drive contest.

Sadlowski uses the stretch reflex of his right wrist to its maximum. He has to have a stretch reflex at this joint that is higher than anyone competing in the long drive contest.

The amount of muscle fiber and the type of muscle fiber determine how fast a muscle can move an object. Sadlowski obviously has enough.

All the books¹ on golf that contain how much horsepower the arm muscles can create are off by a factor of at least two.

Sadlowski's incredible clubhead speed is easily explained and understood using correctly interpreted science!

1. Search For The Perfect Swing
2. The Physics of Golf - Jorgensen