

CLUBHEAD PATH AND SWING PLANE

The Two Axis Graph

UP & DOWN and ROUND & ROUND

Upper Body Machine & Lower Body Machine

We now all know that the ‘Human Golfing Machine’ is comprised of three distinct ‘Parts or Aspects’. 1) **‘The Lower Body Machine’** (‘LBM’), 2) **‘The Upper Body Machine’** (‘UBM’) and 3) **‘The Head Machine’** (‘THM’). When properly combined, these three join in making ‘Golf Music’ that gives us endless pleasure. Or can beat us to near death! It all depends on how much we work at understanding and earning the right to make successful ‘Golf Shots’.

There is no magic! We must just logically manage the challenge the old fashioned way ...
“We Must Earn ‘IT’!”

We all know as well about **‘Clubhead PATH’** and its ability to be one of three conditions. These are 1) ‘Inside Out’, 2) ‘Square To Square To Square’ (‘Parallel’) and 3) ‘Outside In’.

We also know about **‘Clubhead PLANE’** or **‘Swing PLANE’**. There are also three conditions in this aspect. When ‘Swinging The Clubhead On Its Inclined Plane’, one can be either 1) ‘Below Plane’, 2) ‘On Plane’ or 3) ‘Above Plane’.

SWING PLANE:

Let us deal with this ‘Swing Plane’ for a moment and see if we can make any sense of this, sometimes rather nebulous term.

‘The Tether Ball Swings Around The Pole’. When the ‘Axis or Pole’ is plumb, the ‘Ball and Rope’ will naturally and uniformly swing around the ‘Pole’ at almost right angles to the ‘Axis’ if the ‘Rotational Velocity’ is high enough to produce adequate ‘Centrifugal Force’ to get the ‘Ball & Rope’ on a ‘Swing Plane’ that is ‘Perpendicular To The Pole’.

This simple ‘Physics’ should make at least reasonable sense.

Keeping this in mind, remember that the ‘LBM’ produces all the ‘Horizontal Motion’ or all the ‘Round & Round’. The ‘UBM’ produces all the ‘Vertical Motion’ or all the ‘UP & Down’. When we have these two distinct **‘Planar Motions’** operational and mixed, we will end up an **‘Average Motion’** somewhere between ‘Round & Round’ and ‘Up & Down’. This is appropriately called the **‘Resultant Plane’**.

This is about 'Swinging The Golf Club Around A Forward Inclined Axis With Some Aft-Tilt' which sets up the average of this 'Round & Round' and 'Up & Down' enabling us to get the 'Squarely AIMED Clubhead Away From And Speedily Back To The Butt Of The Ball' in a predictable manner.

THE TWO AXIS GRAPH:

We all know and understand the basic '**Two Axis Graph**', right. If you consider the 'Motion Formula' 'Distance Equals Rate/Speed Times Time' or ' $D = RT$ ', you can portray this information graphically. Let us place the 'Speed Information' on the 'X or Vertical Axis' and the 'Time Information' on the 'Y or Horizontal Axis'. Now we can show on a piece of paper what happens if we drive at 30 miles per hour for 4 hours. Take a look at the ' $D = RT$ ' graph below.

(see Illustration)
D = RT Graph

LIFT vs. ROTATION:

Now, let us shift gears to the topic of the 'Golf Swing Plane'. Interestingly, the 'Clubhead' (along with other related and connected parts) is what swings on 'Plane', which produces the 'PATH'. Let us just stick to the consideration of 'Plane' for now.

Picture yourself or even 'SET-UP' at 'Address Ready or IMPACT FIX' with your 'Clubhead Soled' on the ground or floor. Place your 'Target Foot & Shoulder' against the wall. Your 'Hips & Shoulders' are 'Perpendicular To The Wall'.

Consider the 'Two Axis Graph' again for a moment. You are now standing in a real life size version of the graph! The 'X Axis' is the floor. The 'Y Axis' is the wall.

If you 'Swing The Clubhead' dead flat or horizontal, ('Zeroing Out All Lift'), the 'Round & Round' will keep the 'Clubhead Soled' or in contact with the floor. This is the 'Horizontal Plane'.

If you 'Swing The Clubhead' straight up vertically, in front of your chest, (Zeroing Out All 'Rotation') your 'Hands & Arms And The Clubhead' will swing nominally 'Up The Wall'. The 'Clubhead PATH' will follow 'Up & Down The Wall'. This is the 'Vertical Plane'.

When we smoothly 'MIX' these two 'Planar Motions', we produce what again is called the 'Resultant Planar Motion'. This is the actual 'Golf Swing Plane'.

You can now visualize and understand that, if there are any 'Conditional Changes in the Spinal Axis' ('Tether Ball Pole') during the 'Planar Swinging Motion', the 'Orbit Of The Clubhead' or 'Tether Ball' will be directly affected. Just out of interest, there is a slight 'Lead & Lag Factor' in the affect. The 'Orbital Oscillation' occurs just a moment after the axis change.

This is a very good example of the skill your '555 TEAM' calls '**Isolating The Parts**'. If we can 'Feel and Understand The Parts', we can understand the 'Whole' as well!

ISOLATING THE PARTS:

The 'LBM' goes 'Round & Round' (R&R) ... '**Horizontal Exclusivity**'

The 'UBM' goes 'Up & Down' (U&D)... '**Vertical Exclusivity**'

If we perform these two distinct functions simultaneously and at the same 'Rate Of Movement' ('Pace or Speed'), we will move the 'Clubhead' on a 'Line or Plane' that is 45 degrees to the floor and 45 degrees to the wall. In other words, the 'Resultant Swing Line' is 'Half Way Between the Floor and the Wall'. This is the 'Swing Plane' you produce with perfectly timed and blended or 'Matched Motions'.

(see Illustration)
Lift vs. Rotation and Plane

ONE MOVE BACK & UP:

The optimal 'Post SET-UP Motion' in the above 'Take-Away Hand Path', which produces the 'Resultant Swing Plane', is **'One Move Back & Up'** from the 'Address Ready' or IMPACT FIX Position' right to the 'Top Of Back Swing' ('TOB').

If you were to make the 'Back & Up Swing' as Jim Furyk does, with an **'Outside, Up & Back, Inside Out Loop'**, you are making two or three independent yet sequential moves. You will 'Feel' these various **'Isolate The Parts'** moves as soon as you are aware of them. Awareness is the purpose of the 'Isolate The Parts Exercises'. When we understand the existence of certain reality, we can optimize or even change elements ('Components') at will. You may yet become a 'Golfing Machine'!

TARGET LEVER BREAK DOWN:

Remember, the 'Back & Up Swing' is a **'Brace Handed and Brace Sided Motion'**. Anyone who prefers to make it the wrong way, with the 'Target Side', can suffer the ills of that 'Mechanical Error'. If the **'Target Lever Break Down'** or that **'Reverse Pivot & Reverse C'** are known to you and disliked, if you are suffering from a chronic case of the 'FAT THINS' and 'Pushes and Pulls', you might reconsider taking the 'Golf Club' away from your 'SET-UP Position' with your 'Brace Hand' and a very 'Soft Target Hand' and that 'Dead Rope Target Lever'. This will lead you directly to better 'Clubface Control, more reliable Swing Radius and a predictably effective #4 Pressure Point'. These 'Impact, Pivot and Plane or Delivery Components' (see 'ALSDR' and '5 Essential Elements') are central to your 'Linksy Happiness'.

Just knowing about them is the very real 'First Step'!

ON, ABOVE AND BELOW PLANE:

Now, further, let us 'Pre-Select' that we shall 'Swing The Clubhead On This 45 Degree Resultant Plane'. It is our task or objective!

If we perfectly 'Blend or Match The Horizontal and Vertical Motions' we shall follow the 45 degree Swing Plane'. This is referred to as 'Being On Plane'.

If we 'Rotate' the 'Clubhead Faster R&R or Horizontally' than it is 'Lifted Vertically', we will 'Swing It Below The Resultant Swing Plane' or closer to the floor. This is called **'Being or Swinging Below Plane'**.

The flip side is true as well.

If we 'Lift' the 'Clubhead Faster U&D or Vertically' than it is 'Rotated Horizontally', we will 'Swing It Above The Resultant Swing Plane' or more up the wall. This is called **'Being or Swinging Above Plane'**.

You will hear your '555 TEAM' speaking about 'Matching Components & Procedures'. This is an example of its applicability. When we have 'Balanced Lift and Rotation', balanced 'Upper Body Machine' and 'Lower Body Machine' 'MOTIONS', we then move the 'Clubhead' on a 'Pre-Selected PATH & PLANE' that, in turn, naturally produces 'Pre-Selected Results'. This enables us to be predictable and to play 'Reliable and Repeatable Golf'.

We can thus learn 'Remembered Feel' and perhaps, one day, become that very special 'Reflex Golfer' we aspire to become.

We all know how cool that would be!

I hope these few moments spent together on the topic of 'PATH & PLANE' has helped you to better grasp and understand **'The Logic and the Mechanics Of The Golf Swing'**.

Remember, the science of this 'Swing' is all about **'The Physics Of Rotation'** and **'The Geometry Of The Circle'**.

Thanks again you for your time!