

---

*Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all past articles are available online at [billiards.colostate.edu](http://billiards.colostate.edu). Reference numbers used in the articles help you locate the resources on the website.*

---

Recently, I posted online video [NV J.75](#) demonstrating 12 ways to use a pool cue to help you aim different types of shots, each of which is described below.

### 1. Visualize the Contact Point

For some people, it can help to visualize the required contact point on the object ball (OB) by using the cue to imagine shooting the OB directly into the pocket. Then, in the shooting position, you need to visualize where to send the cue ball (CB) to create the necessary contact point.

### 2. See the Angle

Some people just need to “see the angle” to be able to aim effectively and know how much of the OB to hit. In the video, I show how to use the cue to visualize the line to the pocket and the required shot line and angle. This technique can be especially useful with long back-cuts which most people tend to overcut, especially if they do not visualize the angle and aim while standing.

### 3. Visualize a Ghost Rail

Some shots, especially back-cuts with the OB in the middle of the table, can be difficult to visualize since there is no nearby rail to serve as a visual reference. In these cases, you can use the cue to simulate the rail. As shown in **Image 1**, just place the cue along the edge of the OB to the edge of the pocket, mimicking a ghost rail. Now you can aim the shot just like you aim a rail cut shot, with the cue pointing the way to the pocket.



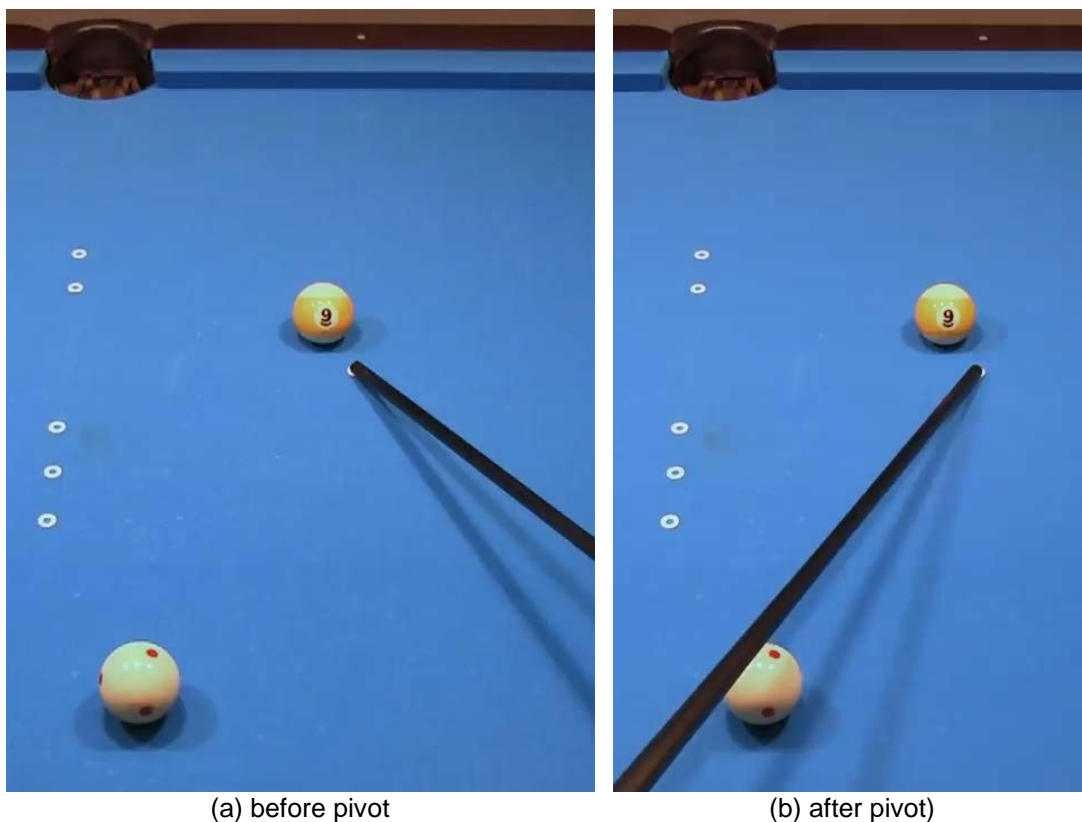
**Image 1** Ghost rail

#### 4. Visualize the Ghost Ball

The ghost ball is the imaginary position the CB needs to be at OB contact to create the necessary OB line to the pocket. If you place a ball at the required ghost ball position, you can practice visualizing the required aim both while standing and while down in the shot. You can also tap down on the ball to make a mark on the cloth. Now you have a precise aim point to target. You can also place a self-adhesive hole-reinforcement label (“donut” or “sticky”) to make the target point even more clear. As demonstrated in the video, by placing the cue over the CB with the tip in the center of the donut, you can clearly see the required line of aim of the shot. And you can use the same marked OB and ghost-ball positions to practice shots of many different cut angles.

#### 5. Aim with Cue Pivot

**Image 2** shows a simple way to use the cue to help you aim fairly accurately. First place the tip at the center of the required ghost ball position, with the cue pointing at the pocket (see Image 2a). With an accurately-placed donut, you can practice judging how close the tip needs to be to the OB to locate the center of the ghost ball. Try to remember how big the gap looks, or just remember that the tip needs to be half a ball’s diameter in front of the OB. Now pivot the cue to the center of the CB (see Image 2b). This gives you the required line of aim of the shot. When you pivot the cue, it helps to apply downward pressure on the cue to prevent the tip from sliding during the pivot. After the pivot, it can help to pick a spot on the cloth or a far point on the rail as a precise aim target. Alternatively, you can just visualize where the line of aim is relative to the edge of the OB.



**Image 2** Cue pivot aim

## 6. Visualize the Tangent Line

The cue can also be useful to visualize CB direction after the hit. For a stun shot, where the CB has no top or bottom spin when it arrives at the OB, the CB heads down the tangent-line direction, which is perpendicular to the OB's line to the pocket. This is called the 90° rule. One way to visualize the tangent line is to position the joint over the ghost-ball position, with the cue pointing to the pocket. The joint surfaces are perpendicular to the cue, so the joint points down the tangent line. As shown in **Image 3**, you can also do this in reverse, pointing the joint at the pocket, in which case the cue points down the tangent line.



**Image 3** Tangent line

As demonstrated in the video, another way to visualize the tangent line is to hold the cue over the ghost-ball position in an orientation that would be required to push the OB into the pocket. Another approach is to point at the pocket with the tip in the ghost-ball position and just visualize the perpendicular direction like the top of a capital letter “T.”

## 7. Visualize the Natural Angle

If you have watched some of my past videos, you probably know about my 30° rule peace-sign technique used to visualize the natural angle on rolling-CB shots. If you point one finger in the initial CB direction, the other finger will point in the final CB direction. In the video, I demonstrate how you can move your head from the first finger line to the second to accurately visualize the final CB direction. When some people try to do this, they rotate the fingers, which results in big errors. If you have this problem, leave your head along the initial CB line and place your cue over the 2nd finger to clearly see the expected CB direction (see **Image 4**).



**Image 4 Natural angle**

## **8. Bob's Natural Angle Cue Trick**

In online video [NV J.76](#), I show several alternative ways to use the cue to predict rolling-CB carom angle direction for cuts of any angle. One of the methods demonstrated in the video is from fellow columnist Bob Jewett. Assuming you have a standard 58" cue, you first need to mark or remember the 34" spot (measured from the tip). First place the tip over the ghost-ball position with the cue over the CB. Then pivot the butt of the cue toward the shot 90° about the 34" point. Now a line through the butt and ghost-ball position will point in the natural-angle direction. For illustrations, demonstrations, and more information, see the [Rolling CB Carom Angle \(RCA\)](#) FAQ page at [billiards.colostate.edu](http://billiards.colostate.edu).

## **9. Visualize Draw Shot Direction**

For those who have seen or used my three-times-the-angle system, you know the cue can also be used to predict CB direction for draw shots. If you visualize the cut angle between the CB and the line to the pocket, you just need to duplicate this angle twice to find the direction the CB will head for a good-action draw shot. The cue can be used to visualize everything. For demonstrations and more information, see the [3-times-the-angle draw shot system](#) FAQ page at [billiards.colostate.edu](http://billiards.colostate.edu).

## **10. Visualize Full-Hit CB Direction**

Another three-times-the-angle system applies to predicting CB direction for full hits. The 30°-rule peace sign is used only for cut shots between a ¼-ball and ¾-ball hit. With a hit fuller than ¾-ball, use the cue to measure off the cut angle pivoting with the tip at the ghost ball position. Then duplicate this angle 3 times in the direction of CB motion to predict where the rolling-CB will head. For demonstrations and more information, see the [full-hit CB control](#) FAQ page at [billiards.colostate.edu](http://billiards.colostate.edu).

## 11. Visualize Extended Diamond Distances

With some kick and bank shot aiming systems, you need to be able to count diamond distances beyond the table, and you can use your cue to help with this. I show an example in the video where I am using my [1/3-more-than-twice bank-shot diamond system](#) to bank an OB straight back off the end rail. The OB will hit the end rail at the 2-diamond point, so the CB must hit the OB along a line coming from 1/3-more than 4 diamonds from the target pocket. The two-diamond point is easy to see, but the 4th diamond, and 1/3 more than 4 is difficult to see because they aren't marked on the table. As demonstrated in the video, the cue makes it easy. Just measure off 2 and 1/3 diamonds on the cue, shift the tip to the 2nd diamond, and you have the answer.

## 12. Visualize 1-Rail Kicks

The cue can also be used to aim 1-rail kicks. As shown in **Image 5**, I need to kick across table to pocket the 9 in the side and get a shot at the 8 for the win. Start by choosing an aim point for where you want the CB to go. Then place your cue over this point with the tip along the diamonds of the kicking rail. Then pivot the cue until the tip is exactly in between the CB position and the part of the cue adjacent to the CB. For most pool tables, this gives you the required aim point on the rail for a rolling CB. In the video, I also show another way to use your cue to get the required line of aim. First measure the distance from the CB to the line of diamonds. Then mirror this distance to the other side of the rail by moving the tip to the line of diamonds. Now look from your measured point on the cue to the desired target to get the required point of aim on the rail. Both approaches give the same answer.



**Image 5** 1-Rail kick

As online video [NV J.75](#) shows, the cue can be a very useful tool to help you visualize aim for a wide range of shots. Be sure to watch the video and give everything a try at the table to see if you find any of the techniques useful. Reading is good ... watching is better ...but doing is best.

Good luck with your game from Dr. Dave!



[NV J.75](#) – 12 Ways to AIM WITH A POOL CUE

[NV J.76](#) – Rolling-Cue-Ball CAROM ANGLE Systems

PS:

- I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you do not fully understand, please refer to the [online glossary](#) at [billiards.colostate.edu](http://billiards.colostate.edu).

*Dr. Dave is a PBIA Advanced Instructor, Dean of the Billiard University, and author of the book: [The Illustrated Principles of Pool and Billiards](#) and numerous instructional DVD series, all available at: [DrDaveBilliards.com](http://DrDaveBilliards.com).*