Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at <u>billiards.colostate.edu</u>. The reference numbers used in the articles help you locate the resources on the website.

The pool world has been rife with myths and misconceptions throughout its sordid history. Fortunately, with the wealth of excellent instructional books and videos and online resource now available, much of the misinformation has been solidly debunked. However, some preconceptions and wrong assumptions are hard to break in some people ... especially pool "Old Timers" and the individuals they influence with their constant spewing of pool mythology.

In the June and July issues, I presented my categorized list of **Top 100 Pool and Billiards Myths**. In this installment of the Pool Myth Buster series, I want to take a closer look at Myth 12 on the list:

12. A closed bridge is better than an open bridge.

This might be true for some people and some shots, especially if one has stroke flaws, but it is not true in general.

In the days of yore, most pool players used a closed bridge for most shots, and many pool players still do; but there seems to be a trend in the last 10-20 years toward using an open bridge. I think the reason is that an open bridge offers many advantages. Many players and instructors still think a closed bridge is better for draw and power shots, but I firmly believe an open bridge is better for most players and most shots, including draw and power shots. It doesn't look as fancy as the wide variety of closed bridges people use (see the "closed bridge variations" resource page in the "bridge" FAQ section at billiards.colostate.edu), but an open bridge offers the following advantages.

- 1. It is very easy to learn and master, even for beginners.
- 2. It provides an unobscured view of the shaft, especially with a low stance, to help with aiming and establishing the stroking direction.
- 3. It is very stable, even at fairly large heights, with the heel of the hand on the table and the knuckles raised up.
- 4. It keeps the shaft centered and unrestricted in the V-shape through the entire stroke, even with significant shaft taper. This is not the case with many closed bridges.
- 5. It offers the least and most consistent resistance to cue movement, especially with hot, humid, and/or dirty conditions; although, a pool glove can help limit these concerns.
- 6. It offers a greater range of bridge heights. It can be easily flattened to a low cue position, and can be raised higher when bridging over a ball or shooting jacked-up shots.
- 7. It makes it easier to reach extended shots, as an option to using a mechanical bridge.

Now, some people don't like the cue leaving their bridge hand, which can occur with an open bridge on power shots with english; but as long as there is no risk of hitting nearby obstacle balls (in which case, a closed bridge might be advisable), this is not really an issue since the CB is already gone before the shaft moves in the bridge (see more on this below). The cue can also leave the bridge hand on draw shots with follow through into the table; but, again, the CB is long gone before this happens.

There has been an increasing trend toward using a lower stance (with the chin close to the cue) and an open bridge in the pool world, and practically all snooker players use a low stance and an open bridge. This is no surprise since accuracy is so important with tighter pool pockets (another pool trend in recent times) and in snooker, where the table is huge and the pockets are tiny. A low stance, with the chin on or just over the cue, offers the following advantages:

- a) It makes it easier to be consistent with your visual alignment (for more info, see the "vision center" FAQ page). With the chin so close to the cue, it is easier to see (or even feel) whether or not you are off to one side or the other.
- b) Being closer to the cue allows you to sight more along the cue (especially with an open bridge), similar to a marksman looking down the barrel of a gun. This can help you better visualize the line of the shot.
- c) There is less eye movement between the cue ball (CB) and object ball (OB) while checking the tip position and aiming line in the set position.
- d) It is easier to visualize and create the exact tip position desired.

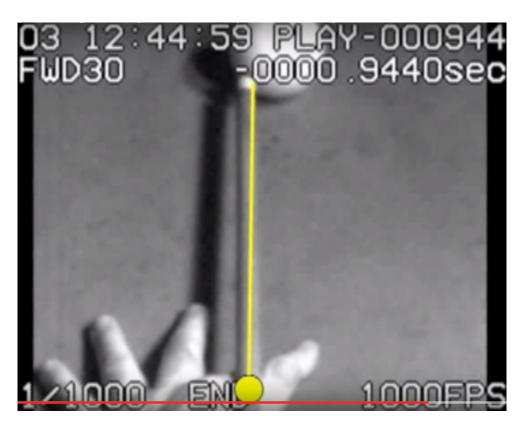
Diagram 1 includes still images from the <u>2:32 point</u> in part 2 of <u>NV B.96</u>. They clearly show that the CB is long gone before any shaft motion in the bridge occurs. In Diagram 1a, the tip is first making contact with the CB. In Diagram 1b, which is one thousandth of a second later, the CB is already starting to leave the tip and the part of the shaft on the bridge hand has still not moved. In Diagram 1c, two thousandths of a second after initial contact, there is a gap between the CB and the tip, and the part of the shaft on the bridge has still not moved. Notice how the end of the shaft is flexed quite a bit at this time. During the rest of the motion (see <u>NV B.96</u>), the CB continues to separate from the tip and the bridge hand finally feels sideways motion and vibration of the shaft. The shaft actually reaches maximum flex sideways well after the CB separates from the tip (see the "<u>cue vibration</u>" FAQ resource page for clear demonstrations of this). Since the CB is long gone before the shaft interacts with the bridge hand, the type of bridge can have no effect on the action of the shot.



a) just before tip contact



b) during tip contact



c) just after tip contact

Diagram 1 Cue flex during a fast-speed sidespin shot

Now for people who tend to lift the tip up during a stroke, especially with shots requiring more power, a closed bridge can help ensure a more-accurate tip contact point and help prevent possible miscues. However, tip lift is due to stroke flaws, usually grip tightening and/or elbow drop during the stroke into the ball. So tip lift is a stroke fundamentals issues ... not a bridge issue. In my opinion, eliminating the grip or stroke flaws is a better approach than using a closed bridge as a "Band-Aid" to limit bad consequences of poor technique.

As clearly demonstrated above, whether the bridge is closed or open really has no effect on the CB, except for the fact that the increased friction associated with a closed bridge could reduce power and control a small amount. Now, some rail bridges, especially when cueing low close to a cushion, do require a closed bridge. And psychologically, there could be advantages to a closed bridge. For example, some people just feel more secure with a closed bridge.

For demonstrations of most of the concepts related to both open and closed bridges, view parts 1 and 2 of online video NV B.96. And for those who are really interested in Pool Myths and want to explore more on your own, the complete list of 100 myths with links to supporting resources are available at billiards.colostate.edu/pool myths.html. Enjoy!

Good luck with your game, Dr. Dave



NV B.96 – Grip and bridge technique and advice

<u>PS</u>:

 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 don't fully understand, please refer to the <u>online glossary</u> at <u>billiards.colostate.edu</u>.

Dr. Dave is a PBIA Advanced Instructor and author of <u>The Illustrated Principles of Pool and Billiards</u> book and DVD, the Video Encyclopedias of <u>Pool Shots (VEPS)</u>, <u>Pool Practice (VEPP)</u> and <u>Eight Ball (VEEB)</u>, and the <u>How to Aim Pool Shots (HAPS)</u> and <u>Billiard University (BU)</u> instructional DVD series, all available at: **DrDaveBilliards.com**.