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.

This month, I am continuing a Pool Myth Buster series by listing the second half of my Top 100 List of Pool and Billiards Myths. And over the next few months, I'll pick some of the most entrenched pool myths and do my best to debunk, bust, and explain them in detail. For now, here's my categorized list. Last month, I covered 1-50 in the categories of equipment, fundamentals, stroke, aiming, cue ball control, follow and draw, and english (sidespin). This month, I list 51-100 in the categories of english (sidespin), squirt (cue ball deflection), bank and kick shots, throw and spin transfer, break shot, jump and masse shots, fouls, pool physics, and general advice.

The list contains links to supporting resource pages referenced by the parenthetical "see" items in the explanations below. All of the resources are available in the FAQ section at *billiards.colostate.edu*.

Dr. Dave's Top 100 Pool and Billiards Myths ... Debunked, Busted and Explained

... continued from last month ...

English (sidespin)

51. When a ball is rolling with sidespin, it curves.

Actually, this is not true. When you first hit the CB with sidespin (with an elevated cue), the CB swerves initially (while it is sliding), but once it starts rolling (with sidespin), it heads in a straight line (see <u>ball swerve and turn</u>).

52. "Helping english" should be used to pocket balls.

When spin is transferred to an object ball, the spin can help the pocket accept the ball if the spin is in the "running" direction on the pocket facing; however, attempting to create "helping english" by changing the way you hit a shot is generally not advisable (see "get in" english).

53. A touch of inside english is the best choice for most shots.

Inside english can offer advantages with certain types of shots, but it is not always the best choice (see inside english effects).

54. Sidespin helps in breaking out a cluster with power.

Sidespin might offer a slight advantage in certain limited cluster situations, but this is just not true in general.

Squirt (CB Deflection)

55. You don't need to understand squirt, swerve, and throw to use english effectively.

With enough practice, an intuitive feel can be developed for these factors; however, a solid understanding of <u>squirt</u>, <u>swerve</u>, <u>and throw effects</u> can speed the learning process and help one use sidespin more effectively.

56. Squirt varies with speed.

Not true. Squirt (CB deflection) is independent of shot speed. However, swerve does vary with speed (and cue elevation, and conditions), so "net CB deflection" (AKA "squerve") does vary with speed (see squirt speed effects).

57. CB deflection is caused by cue stiffness.

This is not true; although, cue stiffness can be indirectly related to shaft endmass, which does affect squirt (see cue endmass and stiffness effects).

58. The butt of a cue has an effect on CB deflection.

This is not true. The amount of squirt a cue produces depends only on the endmass of the shaft (see what causes squirt?).

59. Tip type, hardness, and size significantly affect the amount of squirt.

Tests clearly show that this is not the case (see <u>Cue and Tip Testing for Cue Ball Deflection</u>, <u>tip hardness effects</u>, and tip size and shape effects).

60. Net CB deflection is not a concern for slow shots because swerve cancels squirt.

This is true in some situations, but it depends on shot distance and exact speed, cue elevation, shaft CB deflection, and conditions (see <u>squirt, swerve, and throw effects</u>).

61. Cue testing machines are the best way to test and compare shafts.

With carefully designed machines and testing procedures, this can be true; however, there are many factors that can result in misleading data (see <u>squirt robot test results and concerns</u>).

Bank and Kick Shots

62. Kick and bank shot aiming systems are not useful.

This is simply not true. <u>Kick and bank shot aiming systems</u> can be very effective when used properly and with understanding of <u>bank and kick effects</u>.

63. The "angle of reflection" is the same as the angle of "incidence" (i.e., a kick or bank comes off a cushion at the same angle at which it comes in).

This is the basis for many kick and bank shot aiming systems, and it is true at certain angles and speeds, but this is not true in general (see bank and kick effects).

64. Kick shot aiming is not affected by speed.

Not true. All kick-shot-system aims must be adjusted based on speed, spin, distance, and angle effects (see bank and kick effects).

65. Bank shot aiming is not affected by cut angle, speed, spin, or conditions.

Many aiming systems assume this; but to bank and kick effectively, it is important to understand and have a feel for all bank and kick effects.

66. Slower speed is better for bank shots because the pocket is more accepting at slower speeds.

It is true that the effective size of the pocket can be larger at slower speeds, but fast speed offers many advantages with bank shots (see advantages of fast-speed banks).

67. Spin transfer is not an important effect with bank shots.

This is not true. In fact, certain types of bank shots cannot be made without spin transfer (see spin transfer bank shots).

68. With a cross-corner bank shot, a double kiss is likely if a line through the CB and OB goes through the pocket center.

This is close to true, but the more accurate line is through the near pocket facing (see <a href="https://example.com/how-to-but-near-pocket-facing-near-pocket-facin

69. Cue twisting is necessary for certain types of bank shots.

Somebody might be able to use cue twist to pocket certain shots, but this technique is certainly not required or recommended (see stroke swoop and cue twist).

Throw and Spin Transfer

70. CIT is constant for all cut angles and speeds.

This is not true. Cut-induced throw varies significantly with angle and speed. Maximum CIT, with no sidespin, occurs with slow speed at about a 1/2-ball hit (see throw).

71. More spin creates more SIT.

This is one of those cases where more doesn't give more. Maximum spin-induced throw occurs with slow speed and about 50% sidespin (see maximum throw).

72. Frozen balls throw more than non-frozen balls.

When balls are frozen, maximum CIT results, but a stun shot can create the same throw (see frozen-ball throw).

73. A follow or draw shot throws the same amount as a stun shot of the same speed.

Not true. Follow and draw shots throw about half as much as stun shots (see throw draw and follow effects).

74. Outside english prevents cut-induced throw.

This is true only if the "gearing amount" of outside english is used (see gearing outside english).

75. The amount of spin that can be transferred to an OB is insignificant.

This is not true. In fact, certain types of shots are not possible without spin transfer (see spin transfer shots).

76. Cling/skid/kick is caused by static electricity.

This was a common misconception in the past (especially with some people in the snooker world), but it is simply not true. Cling is caused by chalk marks on the balls. It can also be caused by some cleaning products and polishes (see cling/skid/kick). It is important to recognize that a normal amount of throw (especially when the normal throw is large, as with slow stun shots or slow small-cut-angle shots with sidespin) can sometimes be confused with cling/skid/kick (see

maximum throw). Normal throw (even a large amount) is a direct result of throw physics effects, and it is not due to something being wrong with the balls.

77. Chalk brand has no effect on the frequency or amount of cling/skid/kick.

Careful tests have shown that the type of chalk does make a difference with the frequency and amount of cling (see chalk brand comparison).

Break Shot

78. CB hop during a break is a good thing.

CB hop on a break is often an indicator of an accurate and powerful break, but this is not something one should force (e.g., by elevating the cue) because it represents lost energy (see break hop and squat).

79. The optimal break-cue weight is the same for everybody.

The best weight for a cue is a very individual thing (see optimal cue weight).

80. Pattern racking is legal, and players who know the tricks should use them.

In most pool games (and under the official rules of pool), pattern racking is illegal and unethical; although, knowing where certain balls in a rack tend to head is useful to know (see <u>pattern</u> racking strategy).

81. CB deflection is not a concern with a break cue.

If you use a break cue with a <u>natural pivot length</u> well matched to your bridge length, stroking errors will not affect your accuracy (see <u>pivot-length</u> article).

Jump and Masse Shots

82. It takes a lot of power to jump the ball.

The jump shot is about finesse and technique, not power (see jump shot technique advice).

83. Aim through the center of the CB for best jump results.

For best jump results, it is actually better to aim between the center of the CB and resting point on the cloth (see jump shot article).

84. The dart stroke is not as effective as a normal stroke for jump shots.

With higher cue elevations, the dart stroke will be more comfortable and effective for many people (see jump shot technique advice).

85. If you over-cut a jump shot, it is because your aim was off or you had unintentional sidespin on the shot.

Jump shots are often over cut due to the CB hopping into the OB (see jump shot overcut effect).

86. The only way to aim masse shots is by feel.

Masse shots do require feel to judge speed effects, but the <u>Coriolis aiming system</u> can be very helpful in choosing a line of aim.

Fouls

87. Hitting into a CB frozen to OB is a foul because it results in a double hit or push.

This is simply not true; and under standard WPA rules, this type of shot is legal (see <u>frozen cue</u> <u>ball shots</u>).

88. Miscues are usually not double hits.

Actually, most miscues do involve secondary contact. Regardless, miscues are not considered fouls unless they are intentional or if there is obvious visual proof of secondary contact (see miscue fouls).

89. "Scoop" jump shots always involve a miscue.

It is possible to hit a "scoop" shot without a miscue, but this sort of shot is still illegal (see illegal "scoop" jump shot).

90. If the CB and OB are frozen (or if there is a small gap), angling the cue at 45 degrees (or more) horizontally or vertically is enough to avoid a foul.

This is not true (see double hit detection and avoidance).

91. With a straight shot where there is a small gap between the CB and OB, if the CB advances forward more than a chalk's width, the shot is a foul.

This is simply not true (see double hit detection and avoidance).

Pool Physics

92. What the stroke or grip does during tip contact makes a difference.

What the grip or arm does during the incredibly brief tip-contact time has no practical effect on the outcome of a shot (see grip tightness effects and stroke acceleration).

93. The manner in which the cue is stroked can change the outcome of a shot (for a given tip contact point and cue speed at contact).

The "style" of "quality" of stroke has no effect on the outcome of a shot, for a given tip contact point and stroke speed (see <a href="style" and "quality" stroke" stroke "type" and "quality" stroke" stroke "type" and "quality" stroke".

94. Tip/CB contact time is increased by "accelerating through" the CB.

Not true. The ball contact time varies some with cue speed and tip hardness, but the type of stroke has no practical effect (see <u>cue tip contact time</u>).

General Advice

95. Practice makes perfect.

Only perfect practice makes perfect. If all you do is reinforce bad habits, or if you fail to learn and develop understanding during practice, it won't help your game much. In fact, "practice can make permanent" the wrong things.

96. Drills won't make you play better.

Drills can be very useful to help you efficiently use practice time to develop specific skills that can help you improve your overall game the most (see why do drills).

97. Natural talent is more important than hard work.

For certain sports (e.g., anything involving jumping or speed like some track and field events), this can be true. Also, someone with good eye-hand coordination (e.g., from genetics and/or previous experience with other activities and sports) will have an advantage over someone who is not very coordinated. It also helps to have sharp vision and good visual perception. However, practice, experience, and hard work are the most important ingredients of success in pool. See also: what it takes to play like a pro.

98. Pro Players make the best instructors.

A session with an <u>experienced</u>, <u>qualified</u>, <u>and professional instructor</u> can often be much more helpful, regardless of the current or past level of play of the instructor (see <u>selecting an instructor</u>).

99. Safeties are for sissies.

This is ridiculous. Defensive play is a very important part of high-level pool. One should always play safe when it increases your chances of winning a game.

100. I lost because of "bad rolls."

Bad luck and a "bad roll" can sometimes cause a loss of game; but, in general these things can be avoided by better play. Generally, the better you are, the "luckier" you get (i.e., you need to be good to get lucky). Also, occasional "good luck" and "good rolls" tend to balance out the "bad luck" and "bad rolls."

For those who are really interested in this topic and want to explore more on your own, the complete list of 100 myths with links to supporting resources are available at <u>billiards.colostate.edu/pool myths.html</u>. Enjoy!

Good luck with your game, Dr. Dave

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 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: <u>DrDaveBilliards.com</u>.