
Note: Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, and technical proofs (TP), and all of my past articles, can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the article help you locate the resources on the website. If you have a slow or inconvenient Internet connection, you might want to view the resources from a CD-ROM or DVD. See the website for details.

After writing so many serious articles on pool physics recently, I decided to take a break and write something less serious, and maybe even a little silly. This month’s topic deals with the effects of alcohol on one’s actual and perceived levels of play. I have not done extensive research on this topic, but I do have a fair amount of anecdotal experience from my college and graduate school days of playing pool and drinking beer with friends at bars and pool halls. People sometimes complain to me that I use too many charts and graphs in my articles (e.g., squirt vs. speed, throw vs. cut angle, etc.). Hopefully, the graph in this article is one most people will understand and relate to, either from direct experience or observing others with alcohol on their breath in bars and pool halls. When you’re an engineer like me, even silly articles like this need graphs to help visualize the effects. Maybe this article can help some of the graph-fearing readers out there better understand future pool-physics graphs I might present.

Diagram 1 shows the effects of alcohol on both one’s actual level of play and one’s perceived level of play. Also shown is the “beer goggle” curve that illustrates the level of desire for unattractive members of the opposite sex. The horizontal scale on the graph represents the number of beers consumed. If you prefer wine, mixed drinks, or hard liquor instead, the scale will be more compressed (i.e., the effects happen faster). Curve “A” (the red curve) shows how level of play might actually vary for a typical good player who is not new to drinking. The level of play is fairly good to begin with. As the person drinks 2-3 beers, he or she might actually start playing a little better because the beers might help relax the person (alcohol is a depressant after all), resulting in less tension and a smoother, more accurate stroke. However, as the number of beers is increased, the actual level of play decreases significantly as the level of intoxication increases. Obviously, the shape of this curve and how fast and far it drops will vary from one person to the next. Some people also might not benefit at all from the relaxing affects of the alcohol. Curve “B” (the green curve) shows one such example. This player is not very good to begin with ... his or her sober level of play is just “medium.” Alcohol only makes things worse ... the level of play decreases even with the first beer, getting worse with subsequent beers.

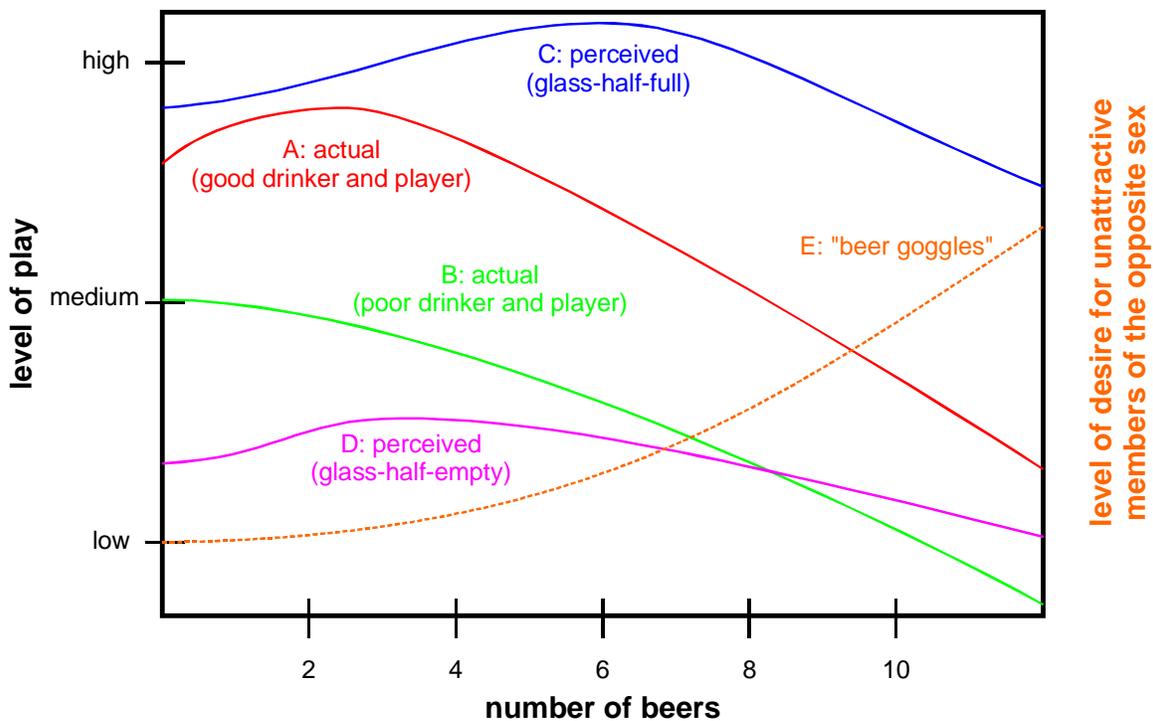


Diagram 1 Effects of alcohol

Now, actual level of play can be very different from a person's perceived level of play, especially when alcohol is involved. Inebriation can make some people delusional and affect their judgment. Curves "C" (blue) and "D" (magenta) show examples of two such people. The curve "C" person is delusional even before the first beer ... his or her perceived level of play is actually higher than his or her actual level of play. This only gets worse with more alcohol ... up to a point (about 6 beers). I call the curve "C" person a "glass-half-full" player, because he or she has an optimistic view of their level of play. As the drop in the curve shows, even an optimistic person with false confidence will eventually realize when their level of play has degraded to a really low level. I call the curve "D" person a "glass-half-empty" player because he or she doesn't perceive a high level of play to begin with, and the perception goes up only as the level of play goes up (as with curve "A"). Alcohol doesn't seem to have much effect on the pessimistic curve "D" player's perception of their actual play (i.e., the curve is fairly horizontal).

Curve "E" (orange) shows an entirely different effect called the "beer goggle effect." I'm sure many people have either direct experience with, or have observed, this effect in action. When you drink too much, your judgment is not as good concerning what you think is attractive or not. With intoxication, and as the night grows later, your level of desire for less-than-attractive members of the opposite sex (or same sex, depending on your orientation) will generally increase. Most people also become less inhibited with alcohol, so they are more likely to "seek" partners, sometimes with uncharacteristic bravado. This might be analogous to a drunken player's go-for-it attitude and belief that he or she can sink any shot on the table. Before anybody accuses me of being sexist, I want to be clear that these effects apply equally well to both genders. Women can get the same false perceptions and "beer goggles" just like men do.

When I wrote "The Illustrated Principles of Pool and Billiards" several years ago, I actually wanted to include this article's topic and graph in the book, but several people advised me it was too silly. I'm glad the BD managing editor (Mason King) allowed me the freedom to express my silly side in print. What recently made me think about writing this article was a country music radio station. I was on a long drive with friends out in the middle of nowhere, with only one radio

station available ... and it was as country as country gets. Country isn't my favorite music genre, but we very much enjoyed some of the creative, down-to-earth lyrics. The song that inspired me to write this article was about a cowboy named Billy who drinks too much on weekends at a country bar. Here's the inspirational lyric that I don't think I'll forget for as long as I live:

"He can't see ugly through bloodshot eyes. Billy's got his beer goggles on."

To get the full effect of this line (from Neal McCoy's "Billy's Got His Beer Goggles On"), you need to hear the slide-guitar twang in the background. Read it (or try to sing it) again with a country-style tune in your head.

I hope people like Billy will appreciate this article and think about the graph the next time they drink too much when playing pool or looking for a potential "companion."

Well, I hope you didn't think my article was too silly. If so, don't despair ... I return to my normal "shtick" next month.

Good luck with your game,
Dr. Dave

Dr. Dave is a mechanical engineering professor at Colorado State University in Fort Collins, CO. He is also author of the book, DVD, and CD-ROM: "[The Illustrated Principles of Pool and Billiards](#)," and the DVD: "[High-speed Video Magic](#)."