



## Instructor's Corner

Roger Rowlett & Mary Jane Walsh  
USCA Level II Certified Instructors

***What is the "drag effect?" I hear it mentioned from time to time around the tables after the game.***

The drag effect sounds like a good excuse for your poor play in the E-event Sunday morning after losing in the B-semifinals Saturday night and having a few too many with the opposing skip drowning your sorrows into the wee hours. But alas, it actually has to do with angles when hitting frozen or nearly frozen rocks.

The classic example is shown in Figure 1, where it looks like the two red rocks are lined up in such a way as to miss the target yellow stone on the 4-foot if struck with hit weight. However, if you hit the top stone about  $\frac{2}{3}$  to  $\frac{1}{2}$  rock on the high side with takeout weight, the stone closest to the house will be driven directly into the target stone. The physics is that when you drive the top stone sideways (by hitting it off-center), some of its momentum will be transferred to the stone to which it is frozen. It is easily possible to get 2 feet of "drag" from top of house to tee-line with this shot using normal takeout weight. If you don't believe this, set up some stones in front of the house and push a rock into the frozen stones and observe their trajectory. The drag effect is strongest if the rocks are frozen, but it is still possible to get appreciable drag for rocks as much as 2-3 inches apart. (I have personally made a shot identical to Figure 1 with the red stones about 3 inches apart.) However, when the stones are not frozen, it is necessary to strike the first rock thinner and quite a bit harder to get the necessary drag.

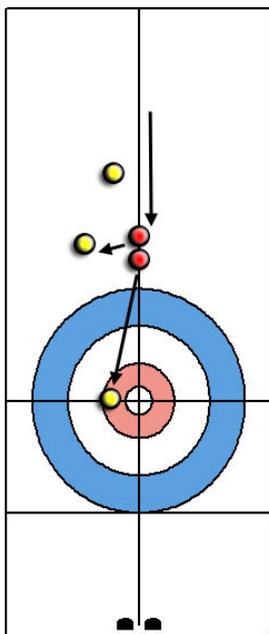


Figure 1

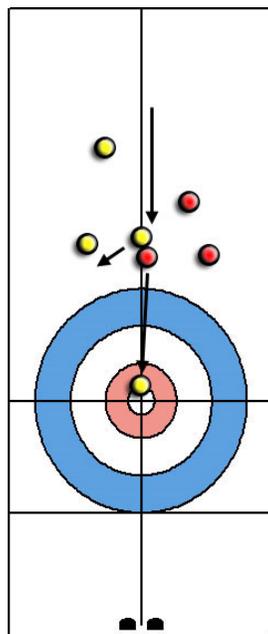


Figure 2

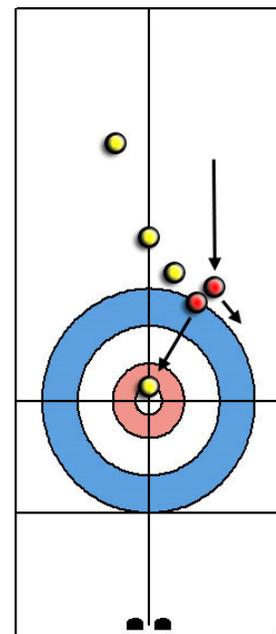


Figure 3

When your team has frozen rocks in front of the house, you should always look at the drag possibilities. They may not always be as obvious as Figure 1. Consider Figure 2, which was played in a recent league game with the last rock. There is no way to outdraw shot rock, and the two stones in front of the house do not look like they are lined up right for the raise takeout. However, this is a relative simple drag shot which was successfully executed to score one for red. The red stone, which one might think would be lined up to cross the tee line in the 8-foot circle, was “dragged” into shot rock some 2 feet left of the “expected” trajectory at tee line.

Don’t forget to look at rocks off the centerline. In Figure 3, you might expect the red rocks to miss the yellow shot rock over the top, but the drag effect will spill the rear red stone directly on to shot rock.

Now that you know how it works, look for these shots in your games. Sometimes, when curling is a “drag,” it’s a good thing!

***Help! I’m a third year curler and have improved every year, but this year I seem to be regressing. What can I do?***

It’s not unusual to steadily improve and then pick up bad habits that lead to inconsistent shotmaking. (Been there, done that, got the tee-shirt!) Contact your club Level II instructors to set up a personal instruction session. We like doing it, and need the work to stay certified! We can diagnose common delivery problems, provide training exercises to practice and learn good technique, and if necessary, can do a video session so you can see what you are doing.

*Good curling! Have a question for Instructor’s Corner?  
Send an email to [curlingschool@uticacurlingclub.org](mailto:curlingschool@uticacurlingclub.org)*