Randomizing your play

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Recently I have read portions of the impressive book by Dan Harrington and Bill Robertie entitled *Harrington on Hold'em.* It is one of the most informative and well written poker books I have seen. One topic dealt with in the book is randomizing your play. This caught my eye and is the topic of my column this month.

How much value is there in introducing some randomness into your game? The harsh truth is that there are many opponent for whom randomization is pointless. An opponent who is at the point in her development where she is not thinking at all beyond her own hand is a wasted target for tactics based on randomness. Even players who think about what you might have, but do not actually modify their own play accordingly, are going to be immune from the subtleties randomness introduces.

Of course, you can run into strong players anywhere at any time. If you are playing in a game where you either know or strongly believe there are at most two strong players, then you may find that for the most part you are attacking the other weaker players. In such a case you might not want to bother with subtleties. On the other hand, if there are four or more strong players who either know you well or seem to be getting a good read on your play, you may want to introduce some randomness into your game.

Let's now assume that you want to make some decisions based on random events. In the above-mentioned book, I was a little surprised to read the recommendation that you use your watch for generating the randomness. The authors even say that this scheme is perfect because even if an opponent knows you are making a random move, it provides no information about what the move is. While this is true, it does require you to possibly alter your behavior unless, of course, you look at your watch on a random basis as well.

I might not be able to convince you that using an external source for randomness may help a really perceptive opponent, but I do hope to convince you that it is unnecessary to look to an external source. There is something else that generates randomness and requires not one iota change in behavior. I am speaking of the two cards you are dealt in hold'em. You look at them every hand so that basing randomness on your hole cards produces absolutely no change in your behavior. The questions then become: How can you use your two cards to generate randomness, and are the methods of equal value?

Suppose you are dealt a pair of rank x. There are 6 ways of being dealt a pair so that you can use that fact to generate any probability that is expressible as a fraction with denominator 6. For example, suppose you are holding K-K and have decided ahead of time that you will neither raise nor re-raise with pocket kings with probability about 15%. You can then tell yourself that whenever both kings are red, you simply will limp. This will occur with probability 1/6 which is slightly more than 15%.

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If you want to take a certain random action with pairs about 1/3 of the time, then you could do so whenever both cards have the same color. If you want a random action with probability about 1/2, then you could do so whenever one of the cards is a spade. There are a variety of ways to obtain desired probabilities.

Suppose you are dealt two cards x-y of distinct ranks and not suited. There are 12 such combinations which allow you to get any probability, when expressed as a fraction, with denominator 12. So if you want to do something with probability about 8%, use both colors being red with the larger rank being a heart because this event has probability 1/12. If you want to do something with probability about 1/3 in this case, you could do so whenever the cards have the same color. Again, there are many possible criteria one could use.

The method I am advocating has the advantage of not requiring any change in the player's behavior, but it has one apparent disadvantage when compared to looking at your watch. If you use the reading of the seconds on your watch, you have a lot of flexibility in the probabilities that can be generated because there are 60 seconds in a minute. On the other hand, I don't believe there is enough precision involved to be worrying about doing something randomly with a probability like 29/60. Any sensible person would simply use 1/2 instead. So the question becomes "can we get enough precision using just the two cards in our hand?"

Two suited cards of distinct ranks x-y appear to offer the least flexibility of all because there are only four possibilities. Even here we can easily get eight possibilities by using the order in which we see the two cards. For example, suppose we decide that we would like to limp with A-K suited with a probability of 1/8. We shall do so if both cards are hearts and, given that both are hearts, the first card we see when peeking at our cards is the ace of hearts. The probability of this event is 1/8. So even with two suited cards of given ranks, we can get a range of probabilities with denominator 8.

Using the order in which we see pairs, we can get probabilities with denominator 12. For unsuited card of different ranks, we already have probabilities with denominator 12. Because of the lack of strategical precision in randomizing your play, I believe it is possible to use your two hole cards to achieve an effective randomization scheme.