

MIT OpenCourseWare  
<http://ocw.mit.edu>

CMS.608 / CMS.864 Game Design  
Spring 2008

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.

Neil Dowgun  
CMS.608  
3/17/08

## **The Creation of “Churchill Choice”**

Over the past decade, poker has captured a huge audience in America. It has become so popular that it has infiltrated both the internet and television, establishing itself in our shared consciousness. I waded into the internet, expecting to find an infinite variety of home-grown games, but there was a surprisingly large amount of overlap in variations that I found.

Apparently, there are many, many games of poker that are commonly played, but most of them can be described as variations of a few basic forms, only with extra mechanics introduced. These basic forms are Draw Poker, Stud Poker, Shared Card Poker, and games of the Guts (Match Pot) family.<sup>1</sup> Of these, Shared Card Poker has become the most popular recently, due to the televised World Series of Poker featuring Texas Hold'em, which is a Shared Card game. Because of this, I wanted to create a new Shared Card game that employs a new mechanic, but one that stays true to all the qualities that have made Texas Hold'em and the other forms of poker so fascinating to the populace.

Each and every variation of poker is based upon a common foundation that allows players to easily pick up new games with a general understanding of how they are going to play out. In creating a new variation, I made sure I knew these factors and maintained them in my new set of rules. The first convention is the “Poker Hand.” This is a ranking of different sets of five cards, which orders them from the easiest to obtain to the hardest to obtain. This ranking

---

<sup>1</sup> “Mike’s Poker Pages.” Mar 15, 2008. <<http://www.pokermike.com/poker/>>

serves as the “evaluation function” of the vast majority of poker games,<sup>2</sup> even though sometimes the goal can be to get the lowest hand in the ranking instead of the highest.

The second convention is the centrality of chips. Poker has been described as a card game where one does not play with the cards, one plays with the chips instead.<sup>3</sup> In standard Stud games and many Shared Card games, this is undeniably true – each player must accept the cards they have been dealt, and their only choice is how large of a wager to place on them. Draw and many variations differ in that players may take an action, such as exchanging cards for new ones from the deck, or bidding on cards to add them to their hand (Auction).<sup>4</sup> In these, the focus still tends to be on the chip values, as the amount of chips used to bid has to be weighed against how many chips can be won with that card. The more actions involving cards are introduced, the less the game is focused on the chips, and the more it deviates from what many would consider “real poker.” Texas Hold’em, for example, is completely meaningless without chips, whereas Anaconda (which involves three rounds of card exchange) could almost be played just to see who can make the best hand. In my experience with poker players, Anaconda is taken a lot less seriously than Hold’em, even with money on the table.

The third and final convention is the types of information that are available to players. Celia Pearce suggests that there are four types of information that a game can have: information available to all players, information available to one player, information available to the game, and random information. I believe that all varieties of true poker contain the first three, and *only* the first three, types. Although not applicable to Draw, Stud and Shared Card poker both contain a lot of information that is available to all players. In both games, the majority of each player’s

---

<sup>2</sup> Bjork, Staffan and Jussi Holopainen. “Games and Design Patterns”, *The Game Design Reader*, ed. Salen and Zimmerman. p. 419

<sup>3</sup> Parlett, David. *A History of Card Games*. Oxford University Press, USA, 1991. p. 63

<sup>4</sup> “PokerNews: Stud Poker Variations.” Mar 15, 2008. <<http://www.pokernews.com/poker-variants/studpoker.html>>

hand is turned face up, so that the range of possible hands that they might be holding is calculable for the other players. The information that is known only to a single player manifests in the face down cards that each player has. Each player knows the value of their own hands, but they are free to pretend that those cards are something different until another player calls them on it. The last piece of information, which is at once what makes poker so entertaining and so frustrating, is the information that is only available to the game. These are the cards in the deck, which are waiting to be turned up. The players can only speculate as to what these cards will be based on the first two pieces of information, but it should be pointed out that this is not random, and the probability of certain types of cards being drawn can be accurately calculated by the better players.<sup>5</sup> It is because there is no truly random element involved that poker is considered a game of skill.

The question before us now is, how do we make a new poker game that appeals to those who are already accustomed to their favorite varieties? Obviously, we start by utilizing the conventions that have been tried and proven successful. We want to use the standard poker hands as the measure of success. This is simple, but what is slightly trickier is maintaining the probabilities that veteran players are accustomed to and use to evaluate their hands. Some variations, such as Chicago, use strange winning conditions (in Chicago, it is having the highest spade that is not showing<sup>6</sup>) that can frustrate players who don't play them frequently. Another mechanic that is often seen is Wild Cards,<sup>7</sup> but these too can screw with the probabilities and completely change the distinction between good and bad hands. I made a point to avoid these mechanics so as not to alienate the hard core Hold'em veterans.

---

<sup>5</sup> Salen, Katie and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. The MIT Press, Cambridge, 2004. p. 179

<sup>6</sup> "PokerNews: Stud Poker Variations." Mar 15, 2008. <<http://www.pokernews.com/poker-variants/studpoker.html>>

<sup>7</sup> "Mike's Poker Pages." Mar 15, 2008. <<http://www.pokermike.com/poker/>>

The other constraint I imposed upon my game was what sort of actions are allowed. The most popular games (again with the exception of Draw, which seems to be declining in notoriety, if anything) only allow actions involving the chips (fold, call, bet, raise). Other actions, such as trading cards, passing cards, exchanging cards, start to blur the line between the “Null” card games and the “Exchange” card games, such as Gin Rummy.<sup>8</sup> It is also required that the actions that *are* allowed convey information to all players. Without this, there would be no basis for any common poker strategy, and the game would amount to guesswork or strict calculation of probabilities.<sup>9</sup> In fact, strategies are not just based upon signals received, but often involve transmitting signals as well. Exchanging cards conveys relatively little information, and so no player would exchange a certain amount of cards just to convince other players that he has a good hand. Conversely, betting on a hand or bidding on a card can be a bluff because it conveys the intentions of the bettor.

In choosing a new mechanic, I wanted to make sure that it conveyed information, and did not change the probabilities of the hands. I was intrigued by the possibilities of Auction games, but they *do* already exist, and it seems that they are likely to cause those who are outbid to abandon their hands and cause less showdowns. Instead, I decided to use a Choice of cards, similar to games like Church or Elevator, where players only use a portion of the community cards.<sup>10</sup> However, this essentially boils down to Hold'em with more possibilities, so I tried to combine that with the declaration that players make when they bid upon cards. From this mix, the Horse race was born.

---

<sup>8</sup> Parlett, David. *A History of Card Games*. Oxford University Press, USA, 1991. p. 64

<sup>9</sup> Salen, Katie and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. The MIT Press, Cambridge, 2004. p. 193

<sup>10</sup> “Shared Card Poker Variants: Church.” Mar 15, 2008. <<http://gamereport.com/poker/shared.html#Church>>

The idea is that by declaring which community cards they are using, each player is wagering on a certain hand, and eliminating any other possibilities. The game works like so:

1: All players are dealt two cards face down, and one card is dealt face up in front of each player. These are the “Horses” that players can choose. A round of betting follows, starting with the player with the highest face-up card in front of them. This player starts every round of betting as long as they stay in.

2: Two cards are dealt face up in the middle of the table. These are community cards. A round of betting follows.

3: One card is dealt face up in the middle of the table. A round of betting follows. If players put money down here (that is, if they bet or call a bet), they must declare which “Horse” they will be using in their final hand.

4: One last card is dealt face up in the middle of the table. A final round of betting occurs.

This variant adheres to the three conventions. The best hand is determined by the standard poker rankings. All three forms of information affect play in the same way that they do in standard Hold'em or Stud. For example, players could conceivably avoid choosing their card and getting their chips in until all the cards are revealed, in order to avoid the information that is known only to the game. Thirdly, the focus is kept on the chips, since the action of choosing a card only is done by putting chips down on that card.

Now, the point of creating a poker variation is not just to create something different, but rather a game that is *more* interesting than the standard rule set, at least to some people. I feel that the Choice element accomplishes this, because it adds an additional Action to the game, and creates a new Mode of play.<sup>11</sup> In standard poker, you start with some odds of catching certain

---

<sup>11</sup> Bjork, Staffan and Jussi Holopainen. “Games and Design Patterns”, *The Game Design Reader*, ed. Salen and Zimmerman. p. 417

hands, and those odds decrease or increase as more cards are revealed. In my variation, each player starts with a greater number of possibilities, and then has to narrow them down themselves, concentrating on one hand that they want as that final card comes out. You could describe these different stages as the “Setup”, the “Choice”, and the “Race” (wherein the final card is turned over). Standard poker has some inkling of these stages, but the only choice in actions is whether to continue betting or not. Sometimes in Hold’em, players catch extremely unlikely hands that they were not even aiming for (a “bad beat” or “suck out”), and I find that that actually detracts from the game. The player who lost is usually angry, and the player who won does not feel wonderful about winning without any skill. The Choice that I have introduced is aimed at focusing the strategy of each player.

I played iterations of this new variation three times, and learned some of the subtleties of creating a poker variant. First of all, I quickly discovered how the centrality of the chips affects testing in practice – poker games simply *cannot* be played without chips. The first several rounds that were dealt were completely pointless because we attempted to do just that. The result was many players going “all-in” during the “Setup” portion of hands, so that the strategies for the Choice were not explored.

The second subtlety is the style of betting (i.e. No Limit, Limit, Pot Limit, Guts style). The rules of poker games do not seem to have the betting style firmly set in stone. Stud, for instance, can be played with any style, really, but for each variety of poker a certain style of betting often emerges as the most popular (Texas Hold’em is almost always seen as No Limit now). At first I had envisioned my variation as a No Limit game because of the similarities to Hold’em, but No Limit often leads to players with the strongest initial hand betting out all the weaker ones (it’s not really a problem, just a good strategy that happens to be boring). To

encourage players to play through all three stages of the game, I experimented with mixing betting styles. With set limits on how much players could bet before Horses were chosen, I hoped more hands would be played up to a showdown. Although I did not actually tally hands and compare to a game of regular Hold'em, in play-testing there seemed to be many more showdowns than normal considering I was playing with only three to four people. However, Limit and No Limit games each have their own intricacies, and different players came to the table with different ideas of how they would mesh together. As a result, I choose not to strictly enforce the two Limit rounds, two No Limit rounds formula, but leave that up to individual poker communities to decide how they want to structure the betting.

After the betting issue was stabilized, the game ran surprisingly smoothly, with both novice poker players and veterans. Only a few questions cropped up regarding the new mechanic. At first, it was whether two people could pick the same card. I had always intended to allow this, because otherwise the Choice becomes much more like an Auction, and would serve to eliminate players rather than just provide information. The next question was whether you could declare for different cards each time you bet. This was determined to be unfeasible after some discussion, because otherwise the first declaration would be meaningless, as would all the information it provided. The last question was what happened if a player went all in before they needed to pick a card (this was more of a concern when every round was No Limit, but it also happened during Limit when a player just had very few chips). It was decided that they would have to declare their card at their normal point in the rotation unless nobody else was betting (and therefore not declaring cards). This was mainly just to make sure there was no particular advantage or disadvantage to going all in early.

My only regret in how I play-tested this game was that I was not able to test its full range of possibilities. Unlike Texas Hold'em and Stud, where each player always has seven cards to make their hand from, Churchill Choice allows for up to twenty-two cards to be available. Obviously, this is an extreme, as this would require sixteen players and use every card in the deck, but I still would have liked to play with eight or nine people. The special property of the game that introduces a face-up card equal to the number of players in the game threatens to have a great affect. When two players play heads-up, the game is almost exactly like Texas Hold'em. If nine people were to play, the amount of cards available would make even the rarest hands much more likely. This actually amplifies the dynamics of normal poker. When you are playing against one other person, the likelihood that they have a decent hand is not high, but when there are many players, it is quite likely that someone will hit a good hand. I predict that if played seriously, the thrill of getting pretty good hand (say, a flush) would eventually be balanced out by the fear of other players having a *really* good hand (like, a full house). I have felt this effect myself after losing straights to full houses on a couple of consecutive hands, and that was only with three players!

Despite not experiencing it first hand, I still believe that Churchill Choice (which I have dubbed it in honor of the famous racetrack) can be a great game for a large group of friends. It may be wild and social, but I feel that that is often what you would want out of a large game. The more serious gamblers can play head-to-head, and tournaments can restrict the number of players at each table if the game turns out to be too divergent from standard Hold'em. I think though, after playing with several different types of players – those who rarely play, those who play socially, and those who spend hours playing online – that Choice poker offers something for

everybody. It's easy to pick up, it often results in more exciting showdowns, and it requires the same skills of calculating, bluffing, and recognizing signals that every poker variation does.