CMS.608 / CMS.864 Game Design
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DrawBridge

       My card game is based largely upon the game of Bid-Whist. Bid-Whist is a variant of Whist that is extremely similar to the Bridge game taught by Philip in lab. One important difference is that in Bid Whist there is a kitty. The kitty is a collection of cards purposely not dealt to the players' hands which the declarer can take to replace some of the cards in his/her hand after winning the bid. This element both adds an element of uncertainty and increases the advantage for the team that wins the contract. This results in higher bidding than in Bridge which can result in more excitement during particularly risky bids. I decided to keep this element and expand upon it.   An element I did not include was the choice between "uptown" and "downtown," a choice that affects how the cards are ranked. I did not include this element because it would have greatly reduced the attachment to cards that are used in bidding, since the higher cards would only be useful half of the time. Since Bid-Whist and Bridge still share a large amount of common themes and most of the class is unfamiliar with Bid-Whist, I've decided to call it DrawBridge to better convey the basic playing style to beginning players.

       Just as in Bridge, a large portion of the bidding involves communication of information between partners. Normally in Bridge, only the teams with better hands get a chance to pass information since the other team would be set if they bid. However, in my variant there is an incentive to keep bidding at a low level, since that enables you to replace more of the cards in your hand. The more cards you replace, the more voids you can give yourself to allow easy trumping. If you take into account benefits of taking in and discarding cards while bidding in addition to the last two cards in the kitty it becomes much easier to bid competitively even with a worse hand.

       The main inspiration for my changes to the bidding process was trying to incorporate some of the primary elements of rummy into the game. After the initial bids, you usually have a pretty good idea of what suits you and your partner are going for and which suits your opponents are going for. Instead of trying to collect sets and sequences, players try to collect cards of the same suit and high cards. Just as in rummy, one strategy could be to purposely take a card you feel your opponents would want just to deny them the card. Note that I did find another game that uses the cards in your hand for bidding. This game, called 99, uses the different suits in your hand to indicate how much you bid (The Ten Best …). I feel that my bidding system is sufficiently distinct from it, since mine has a form of negative feedback for bidding regardless of which suit you bid.

       From playtesting, I found that often one suit would often become completely neglected and would end up being used primarily for bidding. Since players are unsure who is going to win the contract players may not want to void themselves in their opponents suit or their partner's suit or else they may regret it if they do not win the contract. Sometimes when players ended up discarding all of the cards in their opponents' suit they would be forced to drive up the bid even more knowing that they would be powerless to stop their opponents from cross-trumping. In order to avoid this issue, I found a good strategy to be to discard the opponents' suit only after picking up the kitty.

       My initial intent for this game was to make a variant where each bid would require a player to place a card, with higher cards representing higher bids. The idea was to implement a form of negative feedback for players bidding high by forcing them to

give up their higher cards. Negative feedback would be useful here since it's in the beginning of the game, and it makes players able to start the game at about the same footing (Salen & Zimmerman). However, this also causes some positive feedback since players with higher cards can more easily bid to higher levels. For this reason, I added the constraint that cards must also be attached to the level, but bidding at a higher level requires higher cards. This way both teams get the advantage of throwing their low cards in the beginning and driving the bid up would remove this advantage from both teams and require the team that did so to go to a high level. This effect balances the beginning state of each hand.

In order to make the game still flow, each team needs an incentive to win the bid. As a result, I allowed the declarer to essentially get an extra two free draws from the top of the draw stacks. This is a form of positive feedback that encourages people to play more risky games. Positive feedback is useful here because it causes a stronger differentiation between the declarer and the opposing team (Salen & Zimmerman). The game becomes more interesting because the higher bids result in more risk, but are not completely chance-based due to the fact that the "kitty" is known beforehand. I feel this is a compromise between increased strategic level and the feeling of uncertainty akin to that of a high-stakes bluff in poker.

As I worked on the game, it evolved in many different ways. In the initial version the bidding worked slightly differently with each player allowed to play any card higher than the previous card and bid any level that is greater than the previous bid. I also had a special rule where you could bid the same level as the previous person only if you played the same bid card as the previous person. I realized that the flaw in this bidding is that if some team had the majority of the aces, they could "buy" the contract at a really low level. To fix this problem, I then tried adding a requirement that the bid must be at least half the value of the bidding card used. So if you play an eight you must bid at least 4 and if you play an ace you must bid at least 7. This forced players to play at a decent level before the contract could be "bought." However, in the end I decided that even then players were being too limited by the cards they were dealt. I instead eliminated the double bidding system where both the card and the bid must be beaten each time. I made the bidding closer to Bridge with only the bid mattering. However, I required each bid to have a bid card placed as a "toll" for bidding.

In my initial iteration, I had only nine cards dealt to each player and had more cards in the draw stacks. However, I found that we rarely exhausted the supply of the draw stack. Additionally, with so many cards out of play and unknown, there was a great amount of uncertainty in the game. Since this game is based of Bridge and Bid-Whist, strategy is an important element of the game. With so much information hidden from the players, it becomes very hard to predict the optimal play. For instance, if multiple high trumps are missing in the remainder of the draw stack the declarer may try to flush them out only to find that he/she is wasting all the trumps for nothing. To restore the strategic element to the game, I changed it so ten cards are dealt to each player. I found that in this case the bidding usually resulted in only three or four cards being obscured from all the players.

When I begin with this game idea, I had only planned to find a way to combine elements of rummy with elements of trick-taking games. However, as the game evolved I was better able to identify the key points that made this game unique and interesting.

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The bidding draws upon players experience from rummy-type games to add a new element to trick-taking games. The ability to change your hand gives players more control over how strong their hand is and leaves less up to chance than the opening deal in Bridge. Leaving some cards unknown to all the players can add some more uncertainty to the game, but adding too much uncertainty can diminish the strategic elements of the game. Through these elements I feel that I have successfully created a unique experience.

Appendix
DrawBridge Rules:

Players: 4 players only

Deck: 1 standard international 52 card deck

Setup: Each player is dealt out 10 cards. The remaining 12 cards are split into two draw stacks of 6 with the top card in each stack face up.

Goal: Players are split into two teams with partners sitting across from each other. Players can decide ahead of time to either play a set number of hands or until a designated point total is reached. The team with the highest score wins once the designated ending point has been reached.

Bidding: Players take turns bidding clockwise starting with the left of the dealer (the deal should be rotated between each hand as well). A bid consists of choosing a trump suit (or no trump if you want to play without a trump suit) and the minimum number of tricks you think that you and your partner can make out of the maximum possible number of ten. A player bids by dropping a card from their hand onto the bidding stack and picking up one of the face-up cards at the top of the two stacks. After a card is taken from a draw stack the next card in that stack is flipped over. Note that if a single draw stack is emptied players will only have one choice from the draw pile when they bid. Cards on the bidding stack are out of play for the rest of the hand; they cannot be picked up again by anyone. The rule is that you must place a card valued at least 3 higher than the number of tricks you are bidding. So if you make a bid of 3 spades, the card played must be at least a 6 or higher. Additionally, each bid must be at a level greater than or equal to the number of tricks needed in the previous bid, where it can only be equal if the card placed down is higher than the previous card placed. Suit does not have any effect on how high a bid is. So a bid of 3 spades with a 7 of hearts played can be beaten by any bid of 4-level or any bid of 3-level which has a card ranked 7 or higher placed down. Each player also has the option to pass which means that they don't get to pick up a card for that round. If a player passes they still have the option to bid in the next round if someone changes the bid after they passed. Bidding ends when 3 players pass in a row or if both draw stacks are emptied.

Play: The player who wins the contract is referred to as the declarer. After the declarer wins the contract they get a chance to take the two face-up cards and discard whichever two cards they want from their hand. If one or more of the draw stacks has been emptied, the declarer may only take the face-up card from the remaining stack, not two cards. Note that the declarer has the option to discard the same card he/she picked up. After the declarer discards, all the players have one final chance to reexamine the bidding cards and the cards discarded by the declarer. Once everyone has finished, the player to the left of the

declarer leads a card. Play proceeds in the same manner as Whist/Bridge with each player required to follow suit and every trump being higher than all non-trumps (trump being the suit chosen by the declarer during bidding).

Scoring: If the team makes the contract (gets as many tricks as they bid), they get double however much they bid and 1 point for every overtrick. If the team fails to make the contract, their opponents instead get 4 points for every trick they set them by. For example, if one team bids 7 and makes only 5 tricks, the opponents get 4*2 = 8 points. If they had instead made 8 tricks, they would have gotten 7*2+1 = 15 points.

Works Cited

Salen, Katie, & Zimmerman, Eric. 2004. *Rules of Play*. Cambridge: The MIT Press.

"The Ten Best Card Games You've Never Heard Of."
	http://bantha.org/~develin/cardgames.html.