

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>.

David Butler
CMS.608 Game Design
Second Individual Paper

Bridge is a classic clubhouse game playable using a standard poker deck of cards. My vision was to modify the mechanics of bridge to create an experience that makes the player feel like he is directly challenging other players more, by putting a greater emphasis on judging other players and bluffing, and by enabling direct player-to-player confrontation. My goal was to achieve this aesthetic while creating meaningful play with tools such as uncertainty and emergent gameplay. During my playtesting process, I tried to identify and eliminate undesired emergencies of gameplay, such as a dominant strategy, and tried to achieve my aesthetic goals, all while creating meaningful play.

Iteration 1

Goals

In designing my first modification, I hoped to take steps toward my aesthetic goal of more player conflict. I also hoped to create meaningful play in several ways. The first way I hoped to create meaningful play was to level the playing field and increasing uncertainty.

In Rules of Play, Katie Salen and Eric Zimmerman describe the relationship between player action and outcome that results in meaningful play, their criteria for meaningful player actions is: “an action a player takes not only has immediate significance in the game, but also affects the play experience at a later point in the game.” In its original form, Bridge can sometimes fail to achieve meaningful play in this sense. In extreme cases when all the high cards are dealt to one player, that player's team can win no matter what, and the actions of all other players become meaningless. In less extreme cases, meaningful play still suffers when the hands aren't dealt evenly. I hoped to reduce this affect by requiring that the bidding progress in a downward fashion for the steal card (see Modifications), giving more value to lower cards and leveling the playing field.

Leveling the playing field serves to introduce uncertainty early in the game about the overall outcome. Salen and Zimmerman detail the value of uncertainty of outcome in Rules of Play: “it is the uncertain outcome of a game that allows players to feel like their decisions have an impact on the game.” Therefore, causing a more uncertain outcome early in the game by leveling the playing field will make players feel as if their decisions have more impact, creating meaningful play.

Modifications

My first modification was to add an almost entirely new system to the game, one that allowed a player to steal cards from another player. The rules of my first modification were as follows:

Overview

In the bidding rounds, a number for the steal card is specified in addition to a projected number of tricks and a trump suit. The steal card number is the number card that can be played to steal

another person's card. For example, if someone wins the bid with the steal card number specified to be four, then all fours in the game can be played to steal another player's card.

Bidding

The steal card number is the least important item being bid on and bidding progresses in the downward direction on this number. If, for example the previous bid was 8 tricks, clubs as trump suit, and 6 as the steal card, then the following bids would be acceptable from the next bidder:

1. eight tricks, clubs, three as the steal card number (since the steal card number went down)
2. eight tricks, hearts, three as the steal card number (since when projected tricks or trump suit increase, steal card can be changed to anything)

Playing the Steal Card

Only the first three players in the trick can play a steal card and attempt to steal. If the last player in the trick plays a steal card, he plays it **as a normal card**.

When a player plays a steal card, he may declare any card in the deck. If the person that is supposed to play after them has that card in his or her hand, the stealing player takes that card and plays it as his card for that turn. The player being stolen from takes the steal card from the stealer, and plays it during that turn **as a normal card**.

If, after the steal card, the next player does not have the card that the stealer declared, then the stealer plays the steal card **as a normal card**.

When playing a steal card, a player is subject to all the normal rules of playing a card. For example, if a player wants to play a steal card, he must play it in the suit of the trick. However, he may request any card of any suit.

If the first person in the trick plays a steal card, the suit of the trick is the suit of the steal card.

Analysis

The modifications I made to the mechanics of bridge did give the game more of a player-on-player competitive feel. The modifications also brought about the desired meaningful play through the leveling of the playing field, and unexpected meaningful play from uncertainty late in the game.

In *Rules of Play*, Katie Salen and Eric Zimmerman discuss problem with a lack of uncertainty in a game: "If a game has no uncertainty – if the outcome of a game is completely predetermined – then any choices a player makes are meaningless, because they do not impact the way that the game plays out." This statement can be applied at any point in a game: if, at any time, the outcome of a game is completely determined, and this is evident to the players, then any choices that the players make are meaningless. Therefore, a game will be made better if it retains uncertainty late in the game. The modifications I made to Bridge did just that by allowing unexpected reversals late in the game through luck and strategic use of steal cards.

The main problem identified in this iteration was that the small number of steal cards (four), and the restrictions on their use (only the first three players in the trick can use them) resulted in steal cards not being used successfully often enough. I decided to address this concern in my next iteration.

Iteration 2

Goals

In this iteration, I hoped to increase the frequency of use of the steal cards, so they may have a bigger impact on the game. I also hoped that with more frequent use of the steal cards would come emergent gameplay.

Emergent gameplay comes from complexity, which results from a large number of components or many interactions between components. From Rules of Play, “the ways that the objects in the system interact to produce complexity are not just additive, but increase geometrically.” I hoped that increasing the frequency of use of steal cards, I would cause it to interact more with other components, increasing the complexity of the game.

Modifications

To achieve my goal of increased complexity and possible emergent gameplay, I decided to take a simple route of allowing two card numbers to be specified as steal cards, doubling the total number of steal cards in the game to eight. This posed problems with bidding (is bidding 4 and 7 higher or lower than bidding 5 and 6?), so I required the steal card numbers to be consecutive. Then, bidding involved selecting a projected number of tricks, a trump suit, and two consecutive steal card numbers.

Analysis

As a result of my latest modifications, two gameplay dynamics emerged. First, players used their steal cards early and always tried to steal trump cards. This resulted in a guessing game where the player with many steal cards would repeatedly try to steal high trumps from the player next to him. This type of play was not my goal, I wanted a competitive feel with players using reason and judging other players when deciding when and what to steal. Fixing this problem would be the goal of my next iteration.

Second, a two-player “move” in the game was found. It involves signaling your partner using steal cards, and revealing cards in your opponent’s hand. The move works like this:

1. The first player in the trick plays a steal card, and tries to steal from the second player.
2. If the second player doesn’t have the card, then play continues until it gets to the third player in the trick. If this player doesn’t have the card that player 1 tried to steal from player 2, he knows for sure that player 4 has the card, and can steal it from him if he has a playable steal card.

This second dynamic supplemented my original aesthetic goal of player-on-player competition nicely, and added a team “move” to the game. It also added meaning to the use of a steal card, which could now be used for signaling as well as for taking cards. For these reasons, I decided to try to keep this dynamic in the game throughout the rest of the playtesting.

Iteration 3

Goals

In this iteration, I hoped to reduce the random luck associated with using steal cards, and force players to use more strategy. The steal cards were also a little overpowered in that you could use them right away to try to steal trumps. Since there was now twice as many steal cards, players would use them carelessly and thoughtlessly trying to steal trumps. This resulted in a loss of meaningful play because players no longer had to think about how and when to use steal cards; the most beneficial way to use them was immediately and to try to steal high trump cards. This encouraged players with high trumps to play them right away as well, to avoid having them stolen. All these resulting dynamics reduced meaningful play. My goal for this modification was to restore the lost meaningful play to the game.

Modifications

To achieve my goal of restored meaning to steal cards, I added a restraint on the use of steal cards: If the stealer is trying to take a card that isn't in the suit of the current trick (such as a trump), and the player that is being stolen from has a card in the suit of the current trick, the player being stolen from doesn't have to give up his card. This modification would have effectively killed the desirable emergent dynamic from the last iteration, so I decided to force the player being stolen from to say if he has the card being requested, even if he doesn't have to give it up.

Analysis of Final Version

The game that resulted from the last modifications had many of the aesthetic aspects I was aiming for in the beginning: it had more player-player interaction, confrontation, and dynamics such as bluffing and trying to read other players. There were also no glaring defects.

Final Rule Amendments

Overview

In the bidding rounds, two consecutive numbers for the steal cards are specified in addition to a projected number of tricks and a trump suit. The steal card numbers are the number cards that can be played to steal another person's card. For example, the if someone wins the bid with the steal card number specified to be threes and fours, then all threes and fours in the game can be played to steal another players card.

Bidding

The steal card number is the least important item being bid on and bidding progresses in the downward direction on this number. If, for example the previous bid was 8 tricks, clubs as trump suit, and fives and sixes as the steal cards, then the following bids would be acceptable from the next bidder:

1. eight tricks, clubs, twos and threes as steal cards (since the steal card numbers went down)
2. eight tricks, hearts, eights and nines as steal cards (since when projected tricks or trump suit increase, steal cards can be changed to any consecutive numbers)

Playing the Steal Card

Only the first three players in the trick can play a steal card and attempt to steal. If the last player in the trick plays a steal card, he plays it **as a normal card**.

When a player plays a steal card, he may declare any card in the deck. If the declared card is in the suit of the current trick or if the declared card is out of suit and the next player in the trick has no cards in suit with the current trick, and the next player has the declared card, the stealing player takes that card and plays it as his card for that turn. If the card declared is out of the suit of the current trick, and the player being stolen from has a card in suit with the current trick, then the player being stolen from can keep his card, but must declare that he or she holds it. If his card is stolen, the player being stolen from takes the steal card from the stealer, and plays it during that turn **as a normal card**.

If the next player in the trick does not have the card that the stealer declared, then the stealer plays the steal card **as a normal card**.

When playing a steal card, a player is subject to all the normal rules of playing a card. For example, if a player wants to play a steal card, he must play it in the suit of the trick.

If the first person in the trick plays a steal card, the suit of the trick is the suit of the steal card.

References

Salen, Katie; Zimmerman, Eric. Rules of Play: Game Design Fundamentals. Cambridge, MA: The MIT Press. 2003.