CMS.608 / CMS.864 Game Design
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3-2-x-1 Psycho Stud (Psycho Stud)

This paper discusses the creation of the stud poker variant 3-2-x-1 Psycho Stud, or

Psycho Stud for short. Inspiration for this game arose from categories of information sources.

The ability to trade an current card with a community card is what separates this variation of stud

poker from most other versions. Through the iterative design process, this game was gradually

refined until the end result was something enjoyable and dynamic.

Much of inspiration for this game was derived from Celia Pearce's concept of multiple

types of information within games as explained by Salen and Zimmerman. Pearce claims that all

game information can be described by four categories: information known to all, information

known to one, information known to the game, and information randomly generated (Salen,

Zimmerman 205). Salen and Zimmerman critique Pearce's findings and claim that information

that is known to the game or created randomly can be considered one category on the basis that

randomness is only a player's perception of what the game already knows (206). 3-2-x-1 Psycho

Stud therefore suits Salen and Zimmerman's amended take. At the beginning of the game, three

cards are dealt to all players. The identities of these three cards are known only to one player.

Each player will also be given a number of cards what will remain face up. The value of these

cards are known to all the players. To whom certain cards are given out is the knowledge of the

game that the player perceives as randomness. Before cards are given out, the order of cards in

the shuffled deck is only known to the deck if the deck can be personified to have knowledge. If

not, the shuffled deck represents randomness. In addition to the aforementioned categories of

knowledge, in creating this game, another knowledge concept was utilized: information known to

some. In the original rules of this game, a player must discard one of two card, leaving it face

down within a community of discarded cards. Later in the game, if another player chooses, any discarded card may replace any current card in the player's deck. This leads to the possibility of both the card discarding player and card replacing player having knowledge of the identity of the same card. However, it is not explicitly stated in the rules that two players must have knowledge of the same card. The game behavior of allowing two players to have knowledge of the same card is, in Robin Hunicke's terminology, a game dynamic created by game mechanics (Hunicke, LeBlanc, Zubek 2-3). The mechanics or rules permitting a player to trade any current card with a discarded card creates common knowledge between two players. The dynamics of the situation were intended to affect betting strategies. A player with more knowledge of his opponent's situation can make wiser future bets.

Hunicke also states that: "Fellowship can be encouraged by sharing information across certain members of a session..." (3). A fellowship or the capability to form an alliance was also an intended dynamic of the discard community. One player could see what another has in the face up portion of his hand, and encourage the other player to take the discarded card in an effort to defeat their common adversary. This technique could also work to promote backstabbing treachery and work as psychological noise for other players as defined by Salen and Zimmerman (Salen, Zimmerman 197). Noise has the purpose of all good bluffs. It inhibits other players from perceiving accurate information regarding the game state.

The mechanics surrounding the community of discarded cards were intended to be the unique element of 3-2-x-1 Psycho Stud that separated it from other versions of stud poker. Research sources indicated that some versions of stud poker vary in the number of cards given out, number of cards given in between betting rounds, number of cards face up and face down, and the idea of permanently discarding cards (Diagram Group 283-303, Wikipedia). However,

the idea of creating a community of re-attainable discarded cards seems to be an idea relatively

unique to this game. This single element was what was intended to help the game stand out and

create the rich dynamics already mentioned that may very well be absent from most other variants

of stud poker.

Unfortunately, in its original form, the rules of the Psycho Stud produced very undynamic

and none complex behavioral pattern as defined by Christopher Langton. If player behavior is

reduced to predictable and periodic, it cannot be complex.   Salen and Zimmerman believe that a

quality, meaningful game must contain complexity (Salen, Zimmerman 152-155). During play-

testing, when players liked their own discarded card, they would pick it up again. When players

did not like their own discarded card, they would not pick it up. What defines the likability of a

card is the ease with which it can be incorporate into the player's own hand with the end result

being a strong or winning combination of cards according to poker standards. The community of

discarded cards simply acted as an opportunity for players to get their own card back or an

opportunity to essentially replace a bad card in their own hand with another card known to only

two people. This rule also seemed to give any person to the left (with respect to the dealer or

pervious player) an advantage. A player who chooses another player's card, inhibits that player

from picking their own card if they consider it to be a good card. The move is done out of

rejection of one's own card instead of confirmation of betterment with another card. Since the

new card is face down, confirmation of its potential is difficult. For the selecting player, choosing

a card not their own is like choosing a card at random from the deck and then showing it to one

other person. The idea of alliances never formulated either. Players learned fast not to trust each

other. At best, 3-2-x-1 Psycho Stud played as a complicated and moderately fun variant of stud

poker.   Yet the community of discarded cards as it stood offered little complexity and stood as

mainly a depository for one's own card.

The next iteration of this game amended rules of the discarded community: a player may not take back his own card. This rule was instituted in order to take the advantage away from a person to the left. This was done by putting every player at an equal disadvantage of not being able to retrieve their own card. This dynamic was greatly missed as players often had to depart with a quality card, never to see it again. This lead to the aesthetic of angry players. The imperfect knowledge of the game's existing face down cards inhibited a player's ability to know if a discarded card would be advantageous to another player or not. According to Salen and Zimmerman, imperfect information is knowledge unknown to other players and is very common in card games (Salen Zimmerman 204). Although a portion of perfect knowledge exists in the form of cards known too all, the majority of a player's hand is only known to that one player. One who discards a card may know if that particular card is advantageous to themselves or not, but is most of the time not sure if the discarded card is advantageous to an opposing player. A disheartening aesthetic emerged where self hate for a player who is forced to discard an advantageous card increased. Furthermore, an opposing player who picks up the card has little knowledge of what discarded card is being picked up. The situation can be reduced to purely luck. Players were angered that their discarded card helped another player win by chance rather than skill.

In an effort to alleviate player anger while still restriction privilege by position, game rules were further amended to convert the discarded community cards from imperfect information to perfect information. All cards in the discard community were to remain face up. This created equality by advantage. Additionally, because the dynamic of retrieving one's own card was so advantageous and missed in the previous iteration of the game, rules were reverted to permit the strategy. Given the assortment of cards displayed in the discard community and face up cards,

players may infer an opponents motivations and card identities based on what cards they discard or exchange. For instance: a player who rejects an ace, picks up a six, and already has a four and five face up may very likely be going for a straight or possibly three or two of a kind. There is also the dynamic possibility that this player is bluffing in an attempt to lead other players into he is going for a good hand (a straight presumably). The mechanics of the game permit a player to both bluff with chips and bluff with cards substantially with mucn enjoyment..

After the discarded community of cards became perfect information, interesting dynamics seemed to emerge. Betting became more conservative. From experience, the technique of big bets is done to intimidate other players into folding, or to drive up the value of the pot. In 3-2-x-1 Psycho Stud's face up community iteration, more perfect information and perceivable information existed, reducing the effectiveness of bluffing to stimulate big bets. Bluffing remained a viable technique though, as up to three of a player's cards remained knowledge known to only one player. However, with the current rule amendments, high betting had an unfortunate side effect: too high a bet could force another player to fold whose card the wanted. If the player folds, he may not exchange any of his cards. The high better has effectively shot himself in the foot by inadvertently causing another player to fold. This leads to in-game complexity. Betting becomes a dynamic process for certain players where a balance needs to be maintained between two conflicting ambitions: raising the value of the pot and keeping another players in the game.

In an interview with game tester Neil Dowgun, a question was asked about what he thought of the current game how to improve. Dowgun responded along the lines of: "The game is pretty fun. I like how your options become less and less as the game goes on. I feel like it would be the kind of game you would break out at a party. It deserves a crazy name, but it could also use a name that makes the game procedure easier to remember"(Dowgun). At the time of

the interview the game was unnamed. "3-2-x-1 Psycho Stud" is a close mesh of craziness and procedure. Each number represents the number of cards a player receives, x represents the exchange of the original three cards, and after each accumulation of cards a round of betting takes place. The exact rules for the final iteration of this game are reproduced at the end of this paper.

This iteration of 3-2-x-1 Psycho Stud proved most satisfying when played through. It involves betting psychology, exchanging psychology, and memorization techniques. It utilized a balance of imperfect and perfect information, and attempted to dynamically neutralize advantage based on position. The resulting dynamics of this game emerged through modified mechanics through iterative design. The original concept of incorporating information known by some with information known by all and none served for the base for an end result that did not utilize information known by some, though the core mechanic associated with this concept survived: exchanging a card with one in a discarded community. The final iteration of this game proved enjoyable, complex and dynamic.

3-2-x-1 Psycho Stud Game Rules:

- **3** cards face down are dealt to each player

- Round of betting follows, starting with the player to the left of the dealer going clockwise

- One card face up is deal to each player followed by two cards face up. Of these two, one must accompany the original face up card, and one must be put face up in the discard community. At the end, each player accumulates **2** face up cards

- Round of betting follows, starting with the player to the left of the dealer going clockwise

- A player may e**x**change up to three face down cards with cards from the deck.

- Round of betting follows, starting with the player to the left of the dealer going clockwise

- A player may switch any **1** card in hand with a card in the discard community, starting with the player to the left of the dealer going clockwise

- Betting resumes until player calls or is only one left

Card setup in a two player game after all usable cards have been dealt.

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