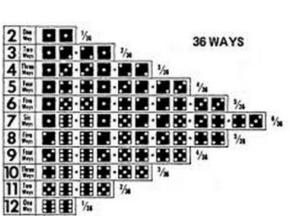


"Is Card Craps With Dice a Card Game or Dice Game?"

In most gaming jurisdictions throughout the gaming industry, the traditional casino game of Craps (played with dice) is common.

(Craps developed from a simplification of the early English game of "hazard". Its origins are complex and may date to the Crusades, later being influenced by French gamblers. What was to become the modern American version of the game was brought to New Orleans by Bernard Xavier Philippe de Marigny de Mandeville, a gambler and politician descended from wealthy Louisiana landowners. During World War II, street-style craps became popular among soldiers, who often played it using an Army blanket as a shooting surface.)

In a standard casino dice game two dice are used. Each of the six sides of each cube has a unique number one through six. Two dice produce 36 combinations of 11 numbers.



	DICE CHART			
	ROLL	PROBABIL	PROBABILITY →	
	2		1/36	
	თ		2/36	
	4		3/36	
	5		4/36	
	6		5/36	
200	7		6/36	
	8		5/36	
	9		4/36	
	10		3/36	
	11		2/36	
	12		1/36	

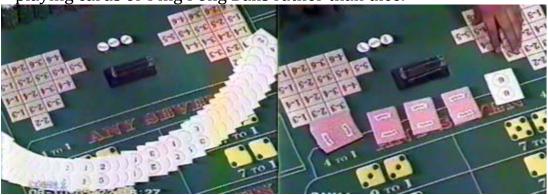
Odds for the game of Craps are fixed and each decision is therefore independent of the last. The game is a series of independent trials.



-2- Card Craps Memo 11-17-14

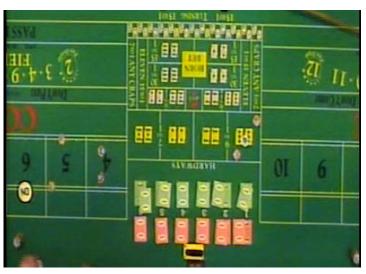
In several states including Oklahoma and California Casino Crap Games have surfaced where the outcome of the crap game is determined by

playing cards or Ping Pong Balls rather than dice.



Playing cards or Ping Pong Balls are numbered with the same 36 possible combinations produced in a standard Craps Game.





The odds in Card Craps and/or Ping Pong Craps are therefore the same as in a Craps game where dice are used.



-3- Card Craps Memo 11-17-14

For completeness sake, consider that casino table games such as Roulette and Poker have been played with Ping Pong Balls.



Notice examples of Ping Pong Roulette Balls & Ping Pong Poker Balls... Although utilizing the same odds, Roulette played with Ping Pong Balls is not Bingo Game or a Ping Pong game simple because ping pong balls are used.



Examples of Roulette Games played with playing cards.....



-4- Card Craps Memo 11-17-14

In order to accurately assess the question of whether or not a Crap Game played with Cards and Dice is a Card Game or Dice Game, it is necessary to understand two fundamental concepts;

- 1. Delivery System
- 2. Element of Outcome

Traditionally in the casino game of Blackjack, the dealer acts as the delivery system and the playing cards create the outcome. Another element such as an automatic shuffle machine may be added to assist the delivery system...



Notice the Bar Coded playing cards which assist the shuffle machine in distributing the cards in a random fashion for Casino Poker or Duplicate Bridge Tournaments. The barcode and shuffle machine are the delivery system...the playing cards create the gambling decision.



-5- Card Craps Memo 11-17-14

The casino game of Pai Gow Poker was (and still is in some jurisdictions) dealt manually by a dealer. The playing cards are dealt in 7 stacks of 7 cards each in a row in front of the dealer;

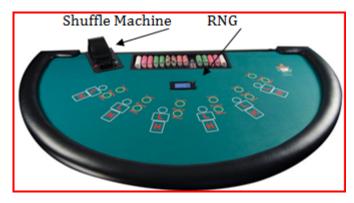


Next, a dice cup containing 3 dice is shaken and the resulting number indicates which player (or dealer) receives the first set of playing cards.



The dealer and the dice are the delivery system...the playing cards Create the actual gambling outcome.

Pai Gow Poker has transitioned from a dice delivery system to a shuffle machine and Random Number Generator delivery system, but is neither a dice game nor an electronic gaming device. The RNG indicates the 1st hand.





-6- Card Craps Memo 11-17-14

Examples of various delivery systems for gambling games



Bingo Cage Lottery Blower Sic Bo - Asian Dice Game

Balls in Bingo and Lottery create the decision. In Sic Bothe, dice create the decision.



Texas Hold Em' played with a video machine is the same game mathematically, but the entertainment element is altered and live employee jobs are eliminated. In the above example, the RNG is the delivery system. In casino Texas Hold Em', the dealer in a game does not create the outcome. The dealer and Button are simply the delivery system for the playing cards. The playing cards create the outcome. There is no mathematic correlation between the delivery system(s) and the decision.

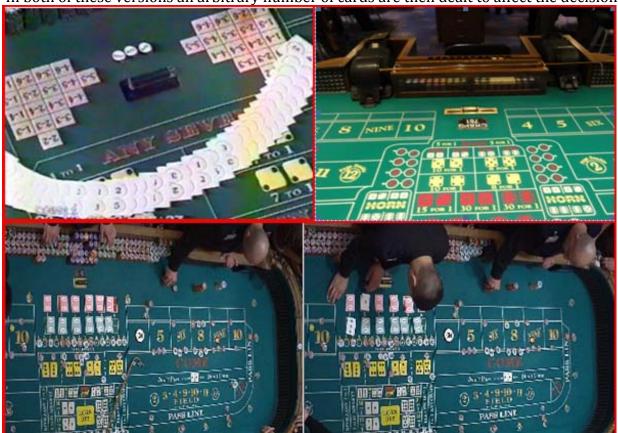


7- Card Craps Memo 11-17-14

Card Craps With Dice

In this version of Card Craps the dealer Manually shuffles the playing cards In this version of Card Craps shuffle machines are used to mix the cards

In both of these versions an arbitrary number of cards are then dealt to affect the decision.



The bottom two photos show a Card Crap version where shuffle machines mix the cards. Next, two rows of 6 cards each are spread on the layout...One row of Red & One of Green. Dice are thrown by a player. The random numbers on the dice tell the dealer to turn over One card from each row. (The shuffle machine and dice are a unique delivery system for The playing cards which then determine the outcome...The playing cards make the decision.



-8- Card Craps Memo 11-17-14

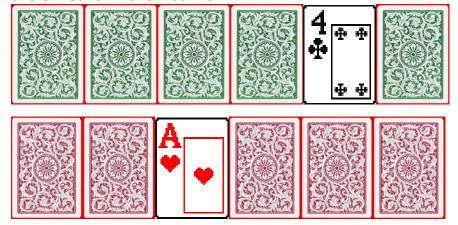
Critical Elements of Card Craps:

- The term "Craps" does not mean Dice.
- The term "Craps" refers to the numbers 2, 3 or 12
- The dealer in a Dice Crap Game makes "Game Calls" based upon the numbers on the dice. As an example;



In a dice game the dealer would call..."8 – "Came Easy" – "No Field"... Wagers involving the Number 8 would be affected...The dice created the decision.

- In Card Craps with Dice, the dealer would not make a "Game Call" affecting any gambling decision. The dealer would simply say..."5 3". The dice total of 8 does not affect any decision or wager or payoff on any number.
- Next, a dealer or Boxman turns over the 5th Card in the Green Row & the 3rd Card in the Red Row...



The Game Call based upon the playing cards is "5". The Game Call is "Five...No Field Five." There is no correlation between the Delivery System (RNG) and the Element of Decision.



-9- Card Craps Memo 11-17-14

• There is an unintended game protection advantage which arises as a unique aspect of a Card Crap Game with Dice. Because there is no mathematical (or even superstitious) correlation between the delivery system and the element of decision, historic cheating attempts such as Marked Cards or Loaded Dice have no advantage for the crooks.

Summary:

Having studied the elements of Card Craps and Card Craps with Dice, it is my opinion that Card Craps with Dice is a Card Game. The game offers a unique delivery system in that the dice are in fact a Random Number Generator for the playing cards...the gambling outcome is not created by dice but rather playing cards. There is ample precedence in the gaming industry to support this claim.

Please contact me with any questions or comments.

Respectfully Submitted,

George D. Joseph

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GJ/ccj

PS: For completeness sake, I have attached descriptions of Card Craps at various Casinos in California.



Pala

The following equipment is used: (A) A red die numbered with three 1's, and three 4's, (B) a blue die numbered with three 2's, and three 3's, and (C) A 36-card deck featuring all possible permutations of two dice. Two cards are drawn at random and placed face down over red and blue regions of the table. The dice are thrown. If the red die is higher then the red card is turned over and used as the roll, if the blue die is higher then the blue card is used. Note that there can be no ties. Also the blue die is irrelevant. A 1 on the red die will always lose to the blue die, and a 4 will always win. The odds are the same as conventional craps.

The "Super Field" pays if both cards are the 1-1 and 6-6, in either order. Wins pay 500 to 1. The probability of winning is 0.154%, for a house edge of 22.685%.

Harrah's

Two separate six-card decks, one red and one green, are used. Each shoe consists one each of ranks A, 2, 3, 4, 5, and 6. Aces count as one, all other ranks count according to its pip value. Six cards are dealt from each shoe. Two ordinary dice are thrown, one red and one green. The outcome of the dice determine which cards are turned over, which represent the roll. The odds are the same as conventional craps.

Normandie

Two partial decks are mixed together, each consisting of all four suits ranked ace to six. So, there are 48 cards total. Two cards are drawn without replacement. If they are the same suit, then there is no action. Otherwise, the two cards represent the roll. This is mathematically equivalent to using dice. There is also a "No Call" bet, which pays 3 to 1 on two cards of the same suit. The house edge on that bet is 6.38%. As usual with the Los Angeles county casinos, the player must also pay about a 1% fee on all bets.

Barona

Six cards are used, numbered one to six. They are randomly placed in six positions on the table. The roll of two dice will determine which card(s) are turned over, that shall deterine the outcome for betting purposes. With each new shooter, the cards are re-arranged. The odds are the same as conventional craps.