

PRISONER'S TRILEMMA

GAME THEORY IN ACTION



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30-60 min



2-6



10+

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THE TECH DECK

Playing cards debuted in 9th century China. By 1377, the French used cards with Hearts, Diamonds, Clubs, and Spades. The Tech Deck **MODERNIZES** classic playing cards by depicting 21st century concepts on each card. It is **PORTABLE** and **VERSATILE**: play games anywhere, any time with anyone. It is a **GAME PLATFORM** you can play many games with. The domains (suits) of the Tech Deck are Knowledge (📖)[Low], Science (🧪), Technology (⚙️) and Services (🌐)[High].

TECH DECK RESOURCES: RULES, VIDEOS

Rules and videos for Tech Grid Poker, Tech City, Tech Exchange, Tech Chess, Gears of Industry, Chronological, Elevator Pitch, Peer-to-Peer, Cardoku, Newsworthy and Card Barrage at cheung.interzone.com, Boardgamegeek & Youtube.

GAME THEORY

Game Theory as a discipline was founded by John von Neumann and Oskar Morgenstern in 1944 with their book *Theory of games and Economic Behavior* to study two-person zero-sum games. Now, modern Game Theory is the science of logical decision making in humans, animals, and computers through strategic interactions among agents. It has applications in all fields of social science, logic, systems theory, and computer science. As of 2020, 17 Nobel Prizes have gone to game theorists. To learn more, watch the Trilemma Play Guide Video and download the extended rules.

OBJECTIVE & WINNING THE GAME

OBJECTIVE OF THE GAME – Players try to score points based on outcomes of their decisions for various trilemmas. Players get points from a payout table based on whether other players chose to cooperate, betray, or compromise.
GAME END – The game ends after five rounds (after five trilemmas are considered).

GAME SETUP

CREATE TEAMS – This is a head-to-head game. If playing with 4 or 6 players, divide players into two teams. One player/team is designated Player A or Pa. The other player/team is designated Player B or Pb.
PREPARE DECKS – Expel (remove) the Wild cards. Take out the Science domain cards to form the Payout deck. Expel the values 8 through 13 of the Technology domain cards. Shuffle the remaining cards together to form the draw deck.
DRAW CARDS – Each player/team draws 13 cards from the common draw deck. Have the Trilemmas for use.

PRISONER'S TRILEMMA GAME PLAY



Prisoner's Trilemma is played in rounds. Each game round has the following phases:

- 1. DRAW & SELECT TRILEMMA PHASE** – Each player/team draws two cards from the deck. Select a Trilemma for the round.
- 2. TRILEMMA PHASE** – Players consider the Trilemma with a fixed payout table (below). If playing in teams, players may deliberate. Decide whether you will cooperate, defect or compromise. Choose a service domain card to represent cooperating. Use a knowledge domain card to defect. Choose a technology domain card to compromise. Play the chosen card face down. Reveal cards and consult the Trilemma phase payout table. Find the cell in the table based on the cards played and calculate & note scores.

PAYOUTS FOR TRILEMMA PHASE AND GAME THEORY PHASE



Trilemma Phase Payout Table (PT)	Player A (Pa) Cooperates (Service Domain)	Player A (Pa) Defects (Knowledge Domain)	Player A (Pa) Compromises (Tech)
Player B (Pb) Cooperates	If both Pa & Pb cooperate, they each get a 1 points	Pb cooperates scores 1 points. Pa defects and scores 2 points.	Pb looks at face down Game Theory Phase card. Pa Scores 0.
Player B (Pb) Defects	Pa cooperates scores 1 points. Pb defects and scores 2 points	If both Pa & Pb defect, they score 0 points.	Pb looks at face down Game Theory phase card. Pa Scores 0.
Player B (Pb) Compromises	Pb looks at the face down card for Game Theory Phase. Pa Scores 0.	Pb looks at the face down card for Game Theory Phase. Pa Scores 0.	Both Pa & Pb see face down Game Theory Phase card.

- 3. GAME THEORY PHASE** – Reveal a card face up from the Payout Deck for the cooperate payout score card; another for the defect payout score card. Draw a third card & place it face down for compromise payout card. Reshuffle the payout discard to form a new Payout Deck if necessary. Players consider the Trilemma again. If playing in teams, players may deliberate. Decide whether you/team will cooperate, defect or compromise. Choose a service domain card from your hand to represent cooperating. Use a knowledge domain card to defect. Choose a technology domain card to represent compromising. Play the chosen card face down.
- 4. GAME THEORY SCORING PHASE** – Both players/teams reveal their chosen face-down play cards. The Game Theory Phase uses the Game Theory Payout table. Find the cell in the Payout table based on the row and column of the revealed player cards. Follow the instructions in the table cell to claim payout (science) score cards. Discard any unclaimed payout (science) score cards.
- 5. CHECK FOR END OF GAME** – The game ends after the fifth game round. Afterwards, calculate scores. Add the points earned from all five Trilemma phases. Value 1-8 Payout (science) cards in your score pile are worth 1 point. Value 9-13 are worth 2 points.

Game Theory PT	Player A (Pa) Cooperates	Player A (Pa) Defects	Player A (Pa) Compromises
Player B (Pb) Cooperates	The highest service card gets the cooperate payout card. The other player gets the lowest payout card.	Pa takes the lowest payout (score) card from a player. Cooperator (Pb) takes the cooperate payout Card.	Pb takes cooperate payout card. Pa takes compromise payout card.
Player B (Pb) Defects	Pb takes the lowest payout (score) card from a player. Cooperator (Pa) takes the cooperate payout card.	Defector (Pa) takes any payout (score) card from a Player. Cooperator (Pb) takes the cooperate payout Card.	Pb takes defect payout card. Pa takes compromise payout card.
Player B (Pb) Compromises	Pa takes cooperate payout card. Pb takes compromise payout card.	Pa takes defect payout card. Pb takes compromise payout card.	Highest Tech card player may swap 2 cards in score piles.

Title	Description / for more Trilemmas visit the Prisoner's Trilemma web page at cheung.interzone.com
PRISONER'S TRILEMMA	The police capture two people on a misdemeanor. They suspect they have committed a major crime (felony). They separate them and make an offer to each. If one will betray and testify against the other, they will cut them a deal. COOPERATE: If they cooperate with each other, both are only convicted of the misdemeanor and serve a light sentence. BETRAY: If one betrays the other, the betrayer serves no time. The other will serving time for a felony. If both betray each other, they will each serve a lot of jail time. COMPROMISE: If either compromises, they and their lawyer will try to make a deal with the police to create a better offer.
THAT SINKING FEELING	Your daughter and her best friend are swimming in the ocean and are caught in a sudden storm. Your daughter is a strong swimmer. However, her friend is a weak swimmer. Your daughter asks you to save her friend. COOPERATE: If you cooperate, you will save her best friend. But endanger your daughter. BETRAY: You choose to save your daughter. She is sure to survive. However, her friend is likely to drown. COMPROMISE: You try to find a middle ground. You will work to save your daughter. If it is clear she can get to safety, you will switch to assist her best friend.
GREATER OF TWO GOODS	Two people dart out in front of your car. You have just enough time to decide to swerve choosing to hit the person on the left or right. Do you hit the president of your country or your wife? COOPERATE: If you cooperate, you hit the president of the country and your wife lives. BETRAY: If you choose to betray, you will hit your wife and the president of your country will live. COMPROMISE: You slam on the brakes hoping to try to navigate between the two people.
YOUNG AND INNOCENT	You are the prosecuting lawyer for a high-flying court case. The defendant is accused of a serious crime. Deep into the trial, you discover that there is credible evidence that proves the defendant is truly innocent. This is a Prohibition moral dilemma. COOPERATE: If you cooperate, you will throw the case in favor of the defendant and allow the innocent defendant to go free. BETRAY: If you betray, you will prosecute the case to the best of your ability, sending the innocent person to jail. COMPROMISE: If you choose to compromise, you will attempt to strike a deal with the defendant and defending lawyer. This has a chance to fail; however, it also has a chance to save your reputation and put your conscience at ease.
GET RICH QUICK SCHEME	Your best friend requests a sizeable investment from you in what you assess is a get rich quick scheme. You think this "business opportunity" is unlikely to produce favorable results. It is questionable in its legality. Should you support your best friend? COOPERATE: If you choose to cooperate with your best friend, you provide a large invest into his business opportunity that has only a small chance to produce potentially large returns. BETRAY: If you choose to betray your friend, you point out that it is unlikely to succeed and respectfully decline to support him. COMPROMISE: If choose to compromise, you choose to make a small investment in his scheme. However, even a small investment might turn out to be complicit, if the activity is deemed illegal.