**Game Theory, Strategic Thinking and Politics**

***Reading and Grammar***

**Read the text and fill in the gaps with the modals below. Only four of them can be used.**

**Could will must might should ought to can would**

Suppose you and a friend have been arrested for a crime and you're being interviewed separately. The police offer each of you the same deal. You can either confess, incriminating your partner, or remain silent. If you confess and your partner doesn't, then you get 2 years in jail (as a reward for talking), while your partner gets 10 years. If you both confess, then you both get 8 years (reduced from 10 years because at least you talked). If you both remain silent, you both get 5 years, as the evidence is only sufficient to convict you of a lesser crime.

What **would** your strategy be? As a selfish and rational individual, you **might** talk. If your partner also talks, then your confession gets you 8 years instead of 10. If your partner doesn't talk, then it gets you 2 years instead of 5. Talking is your dominant strategy, it leaves you better off than silence, no matter what your partner does.

The trouble is that your partner, just as selfish and rational as you, **ought to** come to the same conclusion. You **will** both decide to talk and get 8 years each. Paradoxically, your dominant strategy **can** leave both of you worse off than silence would have done.

The prisoner's dilemma is one of game theory's most famous games because it illustrates why people **could** refuse to cooperate when they **must** be better off doing so. One real-life situation that is similar to the dilemma is an arms race between two countries, in which both countries increase their military might when it **should** be better for both to disarm.

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***Grammar***

**Modals of Possibility Quiz**

#### Right or wrong?

#### "I might have broken my leg, but luckily I got away with a few scratches." **Right**

#### 2. Do these two sentences have the same meaning, or are they different?

#### 1) "They couldn't have finished everything already."

#### 2) "They might not have finished everything already."

They haven’t the same meaning. The first expose a past situation and the second a coming situation

#### Right or wrong?

#### "Lemons can't grow in cold climates." **Right**

#### Right or wrong?

#### "She may have forgot about the meeting." **Right**

#### 5. Do these two sentences have the same meaning, or are they different?

#### 1) "He can be a bit hard to talk to."

#### 2) "He could be a bit hard to talk to."

The first is affirmative and the second conditional

#### Right or wrong?

#### "It can be cold tomorrow." **Right**

#### Right or wrong?

#### "He might stay for two or three days." **Right**

#### 8. Do these two sentences have the same meaning, or are they different?

#### 1) "You couldn't have seen him. He's in Canada!"

#### 2) "You can't have seen him. He's in Canada!"

Yes, they are both quite similar.

#### 9. Do these two sentences have the same meaning, or are they different?

#### 1) "They might win the match."

#### 2) "They could win the match."

Yes, they have the same meaning. Could and might are synonymous.

#### 10. Do these two sentences have the same meaning, or are they different?

#### 1) "The staff may lose it."

#### 2) "The staff may have lost it."

The first issues a contingency and the second the fact that it could have happened.

**Game Theory, Strategic Thinking and Politics**

***Reading***

1. **Read the text carefully and answer the questions below in the most appropriate way, using your own words:**
2. **Which are the two principles of Game Theory that are mentioned in the text?**

- Be unpredictable.

- Take an unequivocal position to force your opponent to take position.

1. **What did Trump answer when asked whether he would use nuclear weapons to stop terrorists?**

He has been ambiguous and has shown his unpredictable side.

1. **Why is being unpredictable a good strategic strategy in game playing?**

To be unpredictable, prevent his opponent from reading his game.

**What should a player do to make his/her choices less predictable?**

He doesn’t always use the same strategy

**Is ambiguity a winning or a losing strategy in games?**

It could be a winning strategy but, by using it too much, we can end up losing. Players can get “bored” and stop playing with you.

**Why did Trump propose to evict millions of Mexicans who were in the US illegally, during his campaign?**

To force people to take a stand. For good or for bad..

**How does the author expect Trump to be, if he is elected president?**

He expects Donald Trump to be less extreme in his positions if he is elected President of the United States

1. **Find the following words and phrases in the text:**
2. An adjective meaning **coherent** (para 1)

- consistent

1. A verb meaning **to carry out** (para 2)

- To guess

1. A noun meaning **a feeling of liking something or a tendency to do something a lot**

(para 2)

- Penchant

1. A verb meaning **to promise to do something** (para 3)

- To commit

1. a verb meaning **not to tell someone something** (para 4)

- to randomise

1. a verb meaning **to resist** (para 4)

- To hold

1. **Using your reasoning, as well as the context, give a synonym or a definition in English for the following words and expressions:**
2. **outguess :** Get ahead. Take the initiative on the other
3. **strike fear :** Impress, scare the other.
4. **to evict :** Expel
5. **a pie-in-the-sky idea :** a crazy idea, something wacky.
6. **Demeaning :** Degrade
7. **stem from :** Derived from

***Donald Trump, game theorist***

Like or hate Donald Trump, the presumptive U.S. Republican Party nominee for president, his positions are consistent with two principles of game theory.

The first is to be unpredictable, leaving an opponent guessing about what one might do. When questioned about whether he would shut down the government to pursue a cause, Trump declined to say, "because I want to show unpredictability." He gave a similarly ambiguous response when queried about whether he would use nuclear weapons to stop terrorists, again reflecting his penchant for unpredictability.

In fact, this is a rational strategy in games in which your best choice, and your opponent's as well, depends on what strategy each of you chooses. Such interdependence of choices makes the selection of a strategy a matter of which side, if either, will commit first, enabling the other side to respond optimally.

But if each side is determined to hold out on its choice, game theory suggests that one should randomise one's choices, not necessarily equally, which prevents an opponent from predicting exactly what you will do. (If your choice is truly random, you will not be able to predict it either, rendering it impossible for your opponent to **outguess** you.) Leaving your choice to chance — in negotiations, walking away from the table, holding out longer, or offering a compromise settlement — can be both unnerving and effective.

The uncertainty of your choice may force an impatient negotiator to move in your direction. On the other hand, it may sabotage a deal. Appearing to be unpredictable is the essence of Trump's approach to extracting, in difficult negotiations, the most from an opponent.

Paralleling this strategy is Richard Nixon's "madman theory": By credibly appearing to be mad, you **strike fear** in the heart of an opponent that you might do something dreadful, even at your own expense — such as using nuclear weapons that might escalate to a nuclear exchange — so your opponent will back off from a dire confrontation.

This strategy reflects another principle of game theory. In some games, it is optimal to be anything but ambiguous. Instead, one should take an unequivocal position and force an opponent to respond to it. Trump's proposal to **evict** millions of Mexicans who are in the United States illegally, and force Mexico to pay for a wall that will keep them out in the future, is **a pie-in-the-sky idea**, as many have pointed out. It will not happen, even if Trump is elected president.

So what purpose does it serve? It forces people to respond, some with delight and some with outrage. It demonstrates to his supporters his strength, his willingness to take a provocative position, even if it alienates others. Trump's **demeaning** comments on both his opponents and women also show to many that he is a person to be reckoned with, as evidenced so far by his strong showings in caucuses and primaries.

[…]

I suggest that much of what Donald Trump offers is ambiguity, which in part **stems** from his ignorance on policy issues. This stance is anything but a stupid strategy in deal-making. He combines it with confrontation, which works to draw out opponents on a battlefield on which Trump thinks he can win. The latter strategy is dangerous, however, if one is bluffing and the bluff is called.

This may happen to some extent in the remaining campaign, but the danger will subside if Trump is elected president. Then he can back off from his extreme stances by saying, in effect, that he has more important issues to attend to. This is more difficult in the campaign itself, when he is hammered by opponents, but then he can revert to his tactic of claiming to be unpredictable. We will see how he juggles this heady mix of ambiguity and provocation as the campaign progresses — or, in the eyes of his opponents, regresses.

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**About the author**

Steven J. Brams is professor of politics at New York University. He is the author of, among other books, [*Game Theory and the Humanities: Bridging Two Worlds*](https://plus.maths.org/content/game-theory-and-humanities) (MIT Press, 2011).

***Listening***

1. **Watch the video «Jane Austen Game Theorist » and list the main ideas mentioned by the author.**

He speaks about how people make decisions and anticipate actions of others, how we could measure the potential gains and losses in a decision-making process and also how the game theory is closely related to mathematics.

**Watch again and draw a list of the examples of films, books and political events making use of Game Theory that the author mentions.**

*- Dr Strangelove*

*- Thirteen Days*

*- Footloose*

*- Baltimore Ravens*

*- Persuasion*

*- Pride & Prejudice*

*- Flossie and The Fox*

*- Eyes on the Prize*

*- Clueless*