



#### Warmer

- 1. Read the quotes. Do you agree with them? Why (not)?
  - 'Business is the ultimate sport. In business, as in sport. The one thing you can control is effort.' Mark Cuban
  - 'I failed over and over and over again in my life and that is why I succeed.' Michael Jordan
  - 'Unlike sport, in business the win-win is the best possible score.' Rasheed Ogunlaru
- 2. What are the parallels between sport and business?
- 3. Do you think lessons learned from sport can be applied to business? Why?

#### 2 Key words

- a. Read the definitions and find key words in the article that match the definitions. The section number is given in brackets to help you. Check your answers and your understanding of how the words are used by using the same word to complete the example sentence immediately after each definition. Then read the complete article to see how each of the key words is used in context.
  - showing the best characteristics of a particular type of thing, of high quality, and lasting value (paragraph 1)

    It was not a \_\_\_\_\_\_ quarter, but we are optimistic about the remainder of the year.

    2. to be very enthusiastic about something you know a lot about and are interested in but that others might find dull (paragraph 1)

    The contest calls for recent graduates to \_\_\_\_\_\_ and submit a passion project to be eligible for a much sought-after internship.

    3. a set of numbers that provide information about a particular activity (paragraph 1)

    We track several search engine optimisation \_\_\_\_\_\_ to inform our strategy.

    4. an advantage over others (paragraph 1)

    The aim of this presentation is to leave potential investors informed and explain why UGymRat has an \_\_\_\_\_\_ over competitors.





5.	forced and unnatural (paragraph 2)					
	The decision for the currency to remain	against the dollar is				
	quite polemical.					
6.	worrying or causing problems (paragraph 2)					
	While the landscape is improving for investors, the aver	age consumer still finds higher prices	S			
7.	a feeling of strong dislike (paragraph 4)					
	Risk is embedded in our de	cision-making mechanism and helps	us to			
	make choices that have a more positive outcome.					
8.	causing a feeling of disgust (paragraph 4)					
	The judge presiding over the case called the scheme 'dishonest and					
9.	the feeling of disliking someone or something or thinking	g that they do not deserve your respe	ect or			
	interest (paragraph 5)					
	An anonymous survey reassuringly found that only a sn	nall percentage of employees				
	a colleague.					
10.	to make a clever or humorous remark (paragraph 8)					
	When asked how many employees work at the office, s	he'abou	t half			
11.	a planned way of doing or dealing with something (paragraph 8)					
	The supermarket chain has been accused of using a bait-and-switch					
	and overcharging customers.					
12.	to cause shock or surprise (paragraph 9)					
	Initially, her daring approach	$\_$ at the office, but soon everyone wa	ıs			
	trying to emulate her success.					





3.	supporting or opposing a person or thing unfairly	because you allow personal opinions to influence	
	you (paragraph 10)		
	Recency is the tende	ency to overweigh new information or events and	
project them into the future. It should be avoided when making investment decisions.			
4. obvious without needing any proof (paragraph 14)			
	I'm afraid there is no	solution; we will have to resort to trial and error.	





### What geeks can learn from sport

IT'S BEEN A VINTAGE SUMMER FOR SOCIAL SCIENTISTS INTERESTED IN HOW INDIVIDUALS AND TEAMS CAN PERFORM

#### TIM HARFORDBACKLASH

- 1 For those of us who love sport, the Euros followed by the Olympics have given us a vintage summer. For those of us who love geeking out over data, even more so — because sport, like life itself, is ever more quantified, a world in which metrics are thoroughly analysed in the hope of finding an edge.
- 2 But while high-performance sport is hoping to learn from the geeks, there is also the possibility that the geeks may learn from sport. Sport is far more constrained than life, which helps social scientists looking for clear, sharp answers to vexing questions about how individuals and teams behave.
- 3 The economist Ignacio Palacios-Huerta has been making this argument for many years, and recently published a working paper titled "The Beautiful Dataset", surveying a wide landscape of economic topics that have been addressed using data from sport.
- 4 For example, professional golfers are less accurate when trying to make birdies and eagles (better than the par score) than when trying to avoid bogeys (worse than par). This is an example of "loss aversion": golfers, like us, seem to hate losses more than they like gains. Another example is whether a free market tends to reduce unfair discrimination. It might, in theory: after all, refusing to hire good people on the basis of race or gender is not only repugnant, but an expensive vice. But in practice? Hard to say.
- 5 The history of baseball offers a clue: after 1947, major league teams were permitted to hire Black players. Many managers disdained that idea. Those who were more open-minded could hire good Black players cheaply, and gain an advantage in the league. Did they? The answer, according to a 1974 study: yes... but with outrageous slowness.
- 6 The penalty kick in football is a great example of the stark simplicity of some sporting situations. Most strikers will have a stronger side, but to favour it too much is to become predictable. The striker might aim

- for the weaker side instead. So should the striker aim left, or right? And since the keeper has to guess which way to dive, which way should they go?
- The situation, argues Palacios-Huerta, is perfect for testing a foundation of game theory: the Minimax theorem, proved by the brilliant mathematician John von Neumann in 1928. After looking at hundreds, and then thousands, of penalty kicks, Palacios-Huerta concluded that both strikers and goalkeepers play in accordance with the optimal game theoretic strategy, perfectly balancing the advantage of unpredictability and the advantage of favouring the stronger side.
- 8 When I previously wrote about this research, I quipped that top football professionals were also "superb economists", suggesting that players intuitively optimised their tactics. But there may be nothing intuitive about it; teams can if they wish easily analyse such questions and advise star players accordingly. (Recall the England goalkeeper Jordan Pickford, who faced a penalty shootout with Switzerland. He was armed with a water bottle listing every opposing player and the best guess for how to save their shots.) Teams who neglect their data lose out.
- 9 So while Palacios-Huerta is justified in his proud claim that "these findings represent the first time that both implications of von Neumann's Minimax theorem are supported under natural conditions", the word "natural" might raise an eyebrow. Players are making optimal choices, yes — when supported by backroom teams. One might wonder whether there is any broader lesson.
- 10 Indeed, there is a question mark over whether top football players really do optimise. A study by researchers including Michael Bar-Eli and Ilana Ritov found that goalkeepers, contrary to gam e theory, demonstrate a predictable bias in the way they respond to penalty kicks: the action bias.

Continued on next page





- 11 To understand what that bias is, consider what I left out of my earlier analysis of whether a keeper or a striker should go right, or left. There is another alternative for each. The keeper could stand still, while the striker could cheekily chip the ball down the middle of the goal the "Panenka" penalty named after the Czech Antonín Panenka, who won the Euro 1976 final with the audacious technique.
- 12 The problem is that, as a striker, if you try the Panenka and the keeper stays still, you'll look like an idiot. The goalkeeper faces a similar dilemma. Bar-Eli, Ritov and their colleagues find that goalkeepers would do better if they stood still more often rather than diving for the sake of looking keen.
- 13 Even the starkest of situations, the football penalty, is more complex to model than it might seem. Is it better to assume that each player has two options, or three? Is their aim to win the game, or to avoid embarrassment?

- 14 Perhaps the lesson here is not that professional players optimise, or fail to, but that sport is less clear-cut than it appears. As the statistician George Box was fond of saying, all models are wrong, but some are useful. A game theorist might well be able to give good advice to a team preparing for a penalty shootout, but it is too much to expect them to analyse every detail of the situation on the pitch.
- 15 One of the many pleasures of professional sport is that it offers us much of what makes life interesting, but in a purer, more concentrated dose. That is its attraction to economists too. But let's not fool ourselves. Sport may be simpler than life, but that's not saying much.

Tim Harford's children's book, 'The Truth Detective' (Wren & Rook), is now available



Tim Harford 08 August 2024

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#### 3 Understanding the article

- a. Answer the questions. Provide details where possible.
  - 1. What do social scientists hope to learn from sport?
  - 2. What does Palacios-Huerta explore in his recently published working paper?
  - 3. What behavioural phenomenon do golf data illustrate?
  - 4. What did baseball teams teach us about free markets and unfair discrimination?
  - 5. What did Palacios-Huerta conclude after studying thousands of penalty kicks?
  - 6. What had the author implied with their previous statement that top football players were superb economists?
  - 7. What do football penalty kicks teach us about action bias?
  - 8. Why is the football penalty more complex to model than it might seem?
  - 9. Why might a game theorist not be able to give the best advice on the sport field?

#### 4 Business language - collocations

a. Match these words to form collocations from the article. Then find them in the article to read them in context.

analyse an advantage

2. make an argument / optimal choices

3. address a dilemma

4. reduce a foundation

5. gain a theorem

6. test a topic

7. prove data / every detail / metrics

8. optimise embarrassment

9. face unfair discrimination

10. avoid (your) tactics

b. Decide which of the phrases could be useful to you and use them in sentences of your own.



# Advancec

## **BUSINESS NEWS LESSONS**



#### 5 Business language – word formation

a.	Complete the	statements v	with the	correct form	of the word	'optimum'	or 'theory	<i>,</i> '.
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1.	Sport can tea	ach us how t	0	teamwork.
	-			

- 2. Use statistics to get \_\_\_\_\_ results
- 3. In 2014, game \_\_\_\_\_\_ Jean Tirole was awarded the Nobel Prize in Economics.
- 4. Psychology plays a big role in human performance \_\_\_\_\_\_
- 5. Math's ham sandwich \_\_\_\_\_\_ states that for any three objects in any orientation, there is always a straight cut that can simultaneously bisect them all.
- 6. Game \_\_\_\_\_ uses mathematical models to study strategic interactions.

#### 6 Discussion

- a. Discuss these ideas from the article and give reasons for your opinions.
  - Sport can teach us about life and business.
  - · In life, most people hate losses more than they like gains.
  - A free market reduces unfair discrimination.
  - Teams who don't analyse the available data lose out.
  - Since sport interactions are also complex, it isn't always possible to extrapolate clear take-aways.

## Wider business theme – game theory presentation: what sport can teach us about business

- a. Match each game theory with its definition. Write 1-4 for each definition.
  - 1. The Nash Equilibrium
  - 2. The Stag Hunt Game
  - 3. The Tragedy of the Commons
  - 4. The Ultimatum Game



- a) Each player in a game has chosen the best strategy for themselves while considering other players' strategies.
- b) Individuals who share a common resource will use it in their own self-interest, but overusing it will lead to its depletion.
- c) One of two people is given a sum of money and must offer some of it to the other. If the second person accepts the offer, they both get the money, but if they reject it, neither of them gets any.
- d) Two people can either hunt a stag together or hunt a rabbit alone. The best outcome for both is to hunt together, but it requires them both agreeing to hunt together.
- b. Which theory derived from sport has a clear business application? Choose one of the theories you read about, or research another. Prepare a short presentation on how the theory is applicable to a real business situation. Support your ideas with examples and try to enrich your presentation with quotes about sport and business.

#### Here is a suggested structure for your presentation:

- Introduction to the chosen game theory
- Description of business situation in which theory can be applied
- · Illustration with examples / data
- Conclusion

#### **Useful language**

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I believe that ... is a clear illustration of the game theory ...
Whereas in ... (sport), players ... In business, ...
The metrics / data suggest that ...
First, ... Furthermore, ... Finally, ...
In conclusion, ... would be an optimal tactic in a ... scenario.
To quote ... (who) on (topic), ...
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