Favouritism under Social Pressure in Football and in Life

Economics seeks to answer important questions about how people, industries, and countries can maximise their productivity, create wealth, and maintain financial stability. So is it possible that it can learn from the beautiful game of football? LSE’s Professor Ignacio Palacios-Huerta believes so and his latest book, Beautiful Game Theory: How Soccer Can Help Economics deals with this topic.

If you live in England or follow English football closely, you will be well-acquainted with the phenomenon of Fergie Time. This is a well-established idea among football fans that during the heyday of Sir Alex Ferguson as manager of Manchester United, the club would receive an extra helping of added time when they were losing.

As you would expect, former Premier League referee Graham Poll does not believe in Fergie Time. However, he did say, “I think it would be too easy to just say it’s rubbish. When you analyse and think psychologically what happens, the pressure that’s on you at Old Trafford or the Emirates or Stamford Bridge, the pressure that is implied upon you must have an effect, even if subconsciously.”

It is a fact that social environments influence individual behaviour. Professor Palacios-Huerta’s interest was in the effect of nonmonetary incentives on behaviour, in particular, with the study of social pressure as a determinant of corruption. However, social forces are difficult to quantify or even observe accurately and the influence on behaviour cannot be established unless it is clear how a person would have acted in the absence of such forces.

Few people receive as much pressure as referees. In addition, they conduct their work in public and, as a result, most of their behaviour is difficult to hide from observation. Therefore, they are the perfect vehicle for testing whether social pressure can really corrupt our actions.

Casual observation suggests that many decisions by the referee, such as awarding penalty kicks or calling offside, may seem just or unjust depending on which side you support. However, there is one specific decision that a soccer referee makes that allows a clean testing of the importance of social pressure in decision making: the amount of injury time added at the end of the game. This is because it is easily quantifiable. As Law 7 in the official Laws of the Game (Fifa 2012) says, “allowance for injury time is made in either period of play for all time lost through substitutions, assessments of injury to players for treatment, wasting time, or any other cause.”
Researchers have found that referees on average are more likely to add more injury time when the home team is behind in a close game than when it is ahead in an equally close game. When the game is not close and extra injury time is less likely to change the outcome of the outcome, no such bias is found.

Professor Palacios-Huerta used data from La Liga in Spain to prove whether referees do indeed favour the home team when they are behind in a close game. He found that for games with a difference of 2 or more goals separating the two sides, the referee adds roughly the average amount of injury time, regardless of whether the home or visiting team leads the match. When the home team is ahead by one goal, the referee allows almost 30% less additional time than the average, whereas if the home team is behind by one goal, the referee allows 35% more time than the average. In both cases, the difference is statistically significant. On the face of it, this looks like evidence of favouritism on the part of the referee. The observation indicates that referees may consistently favour teams simply because they play at home.

However when he examined what happens at the end of the first half, he noted that although referees also add injury time, the marginal effect of adding one or two extra minutes is likely to be extremely low. Accordingly, there was little or no evidence of favouritism at half-time. It is also a similar situation when there is a two-goal difference in the score at end of the second-half.

There are other situations when the preferences of the crowd may induce changes in a referee’s behaviour. One such area is towards the end of the season when fans are concerned about their league position whether it is in regard to avoiding relegation or winning a place in Europe. As a result, fans may be more vocal in their support of their team, and we see that referee bias does increase in these situations.

However, the size and composition of the stadium crowd plays a role in the amount of referee bias. For example, while average attendances do not seem to significantly affect the amount of injury time added by the referee, the effect does rise predominantly when it comes to larger stadiums with unusually high attendance of more popular teams.

It is also notable that the referees’ susceptibility to social pressure is quite universal in that most referees appear to be equally biased. It is also homogenous across all the teams in the league. Understandably Barcelona and Real Madrid have benefitted the most given that their stadiums have a capacity of 98,000 and 85,000 respectively.

In short, referees are honest and impartial, but there is no doubt that external factors can push them to show favouritism for one side or another at key moments. That can be true in life as well as in sport.