# The phenomenon of social influence on the football pitch: Social pressure from the crowd on referees' decisions

### DONATELLA DI CORRADO, ELENA PELLARIN and TIZIANO ALESSANDRO AGOSTINI

In most areas of society, the phenomenon of social pressure on the behaviour of individuals has always played a critical role and affects the outcome of important events. One of the environments in which the phenomenon of social influence and pressure is most evident is sport: the preferences of a particular group, the crowd at a football match, can in fact greatly influence the referee's behaviour and decisions. In this paper, we will report a brief summary of the literature about the social influence in general, and about the social pressure exerted on a referee in particular. We will then report some studies that have looked at empirical evidence on the social pressure exerted on a referee: these studies have analyzed the number of yellow and red cards given on average against the home team and against the visiting team, the frequency with which penalties are awarded to the home and visiting teams and the decision of how much recovery time will be given at the end of normal time.

Key words: social pressure, decision-making, behaviour, team, home bias

The phenomenon of social pressure on the behaviour of individuals has always played a critical role in most areas of society, and affects the outcome of important events. In fact, in many situations each single individual is encouraged by social pressure to make decisions which, although against their own inclinations, conform to the expectations of the group they are in, thus looking to avoid disapproval and being judged.

In briefly introducing the influence of social forces, it is important to note that this phenomenon is rarely clearly defined, due to the wide range of processes which it covers. Therefore many social psychologists have decided to use an 'open' definition on the basis of which research into the influence of social forces is an analysis of the ways in which an individual's or a group's mental processes, emotions, decisions and behaviour is modified according to the presence, literal or symbolic, of other individuals or groups.

# DIFFERENT KINDS OF SOCIAL PRESSURE

There are various types of social influence (Mucchi Faina, 1996). The first and most important regards *social* 

Donatella Di Corrado, University Kore of Enna, Italy; Elena Pellarin, University of Trieste, Italy;

Tiziano Alessandro Agostini, Department of Psychology "Gaetano Kanizsa", University of Trieste, S. Anastasio, 12, 34100 Trieste, Italy. E-mail: agostini@units.it (the address for correspondence).

pressure and conformity to the majority, whereby a majority group influences an individual to behave in the same way as the others in the group. Then there is 'minority' influence, whereby any group of people, though a minority, manages to completely change a situation thanks to their ability to resist and oppose. A third type of influence is based on credibility, and defined as influence of ability, in which a credible person becomes important and revered without needing any formal recognition or exercising any pressure. Further, there is an involuntary influence known as pluralistic ignorance which comes from the mistaken belief in the existence of social norms, when individuals perceive there to be a discrepancy between social norms in place and their own way of thinking, taking for granted that others are in agreement with such rules A final case which may be considered a phenomenon of social influence is that known as mass psychogenic illness in which the sphere of influence is responsible for the diffusion of presumed illnesses and serious symptoms of psychological disorders.

# SOCIAL PRESSURE IN SPORT: THE EFFECT OF FOOTBALL SUPPORTERS PRESENCE ON REFEREEING

Going into further detail, one of the environments in which the phenomenon of social influence and pressure is most evident is sport: the preferences of a particular group, the crowd at a football match, can in fact greatly influence the referee's behaviour and decisions.

In general, an umpire's attention is greater than that of the players on the field, and the figure of the referee is only questioned when a result is not accepted by a team and its supporters, and he becomes a scapegoat. He is thus a target of social pressure from the players, trainers and especially the spectators. This pressure is nonetheless an integral part of the referee's role, at all levels, and the way in which such pressure is confronted and dealt with determines, together with physical and cognitive-psychological qualities, the referee's success or failure.

# PSYCHOPHYSICAL AND COGNITIVE REQUIREMENTS IN REFEREEING

As far as the physical and cognitive-psychological requirements for a referee to deal with situations of social pressure are concerned, it is worth clarifying that above all he must be in excellent physical health, given that physical fatigue would lead to a reduction in mental capabilities with a negative effect on the ability to make a quick decision in the face of various types of pressure, in particular from the crowd

Five fundamental physical abilities which should be among those trained by a referee have been identified (Helsen & Bultynck, 2004; Krustrup et al., 2009): resistance, enabling him to follow the game at any pace, and always be in the right place at the right time; speed, to run across large spaces in a short time; the ability to repeat sprints, that is the capacity to repeat brief accelerations in succession with short breaks and with only a small decrease in running speed; strength and flexibility or articular mobility, important in avoiding injuries. It is also important for a referee to strengthen the six essential qualities of psychological stamina (Cei, 1998). Among these some basic points have been identified, regarding self-management and management of the referee's role. The first regards trust, commitment and looking to improve, all three of which are closely linked; the second, on the other hand, involves strategic thinking (which enables the sequence of actions of the players on the field, and thus their performance, to be anticipated), knowing how to make decisions and how to represent the organisation of referees of which they are a part. Another important factor for a referee regards information management in minimal time: in particular, referees must know how to keep their attention on numerous stimuli, differentiating between essential and superfluous information. Management of anxiety and of stress is thus of great importance for a referee to perform well, for which relaxing techniques are of great help, also management of interpersonal relationships, so as to know how to communicate and establish relationships effectively, and time and attention management, which requires using analytical skills necessary in prioritising tasks and identifying personal responsibility.

#### STRESS AND COPING STRATEGIES IN REFEREEING

An umpire is therefore constantly exposed to a number of potentially stressful factors which can be put into five categories (Goldsmith & Williams, 1992; Stewart & Ellery, 1998): those related to the fear of failure and making a mistake, those linked to the limits of time in decision making, those pertaining to the fear of suffering an injury, those connected to verbal aggression and the most important which regard the pressure from players, trainers, and the crowd. Consequently, it is fundamental that a referee is able to adopt coping strategies to face all these situations which, though short-lived, can create a psychological condition of insecurity and can therefore worsen the referee's performance.

Most sport psychologists have made reference mostly to coping strategies of approach and of avoidance. In studies which have analysed the strategies adopted by referees (Anshel & Weinberg, 1999; Kaissidis-Rodafinos, Anshel, & Porter, 1997) it has emerged that in the face of a stressful event and a source of social pressure, strategies of avoidance rather than approach are usually used; among the most used are 'ignore the players, the trainers, the crowd and the media', 'avoid discussions', 'try to continue with the match as quickly as possible', 'try not to think about it' and 'remain calm and breath deeply'. Moreover, it has emerged that referees perceive stress to be positively correlated to strategies of approach and negatively linked to those of avoidance, and while the former are more often used when an event is perceived to be under control (for example in the case of aggressive reactions from players or trainers), the latter are adopted when the situation seems to be uncontrollable (for example in the case of the crowd's reaction). Essentially, therefore, referees who succeed in ignoring or psychologically distancing themselves from sources of inappropriate comments and aggression directed towards them will probably feel less stressed and will continue to pay attention to the relevant information in the most efficient way. On the other hand, referees who feel compelled to react to every comment or any hostile behaviour directed at them during the match will be subjected to higher levels of stress which will negatively affect their performance.

However, it is important to clarify that, while these coping strategies are very useful in confronting stress and anxiety which a referee inevitably suffers during a match, the referee is nonetheless unconsciously influenced in his decisions by the sources of pressure present, above all the crowd.

## THE "HOME BIAS" PHENOMENON

Moving on to examine in more detail the influence of social forces which can be recognised on the football pitch, what is apparent above all is the form of social pressure and conformity with the majority when, as Asch and Milgram's models (Asch, 1951; Milgram, 1963) suggest, a majority

group, the home crowd watching the match, exerts it's influence and symbolically evokes a response to which the target, in this case the referee, tends to conform to avoid disapproval. What is seen in these cases, however, is the phenomenon of *acquiescence* or *compliancy*, that is, conformity to prevailing norms which are shown to be merely superficial without an internalisation of such rules: essentially, the referee conforms publicly but not privately to sources of social pressure. What is seen in these cases is also a form of *indirect pressure* where usually no particular behaviour is explicitly asked of the referee.

Umpires, therefore, though having to carry out their work as impartially as possible, are often subjected to distorting effects which can alter their performance and their decision making ability, especially in short time periods and ambiguous conditions. There is therefore a certain level of favouritism on the part of the referee towards the home team due to the pressure exerted by the fans of this team, because of their majority presence. Such a phenomenon is commonly defined as *home bias* and this, in turn, creates what is known as *home advantage*: this term refers to the fact that, in sports matches, the home team wins more than 50% of the total number of games played, home and away, over a sports season (Courneya & Carron, 1992).

#### EXPERIMENTAL RESULTS

# Acoustic information affects referee's decisions

Nevill, Balmer, and Williams (2002) carried out an interesting experimental study on the social pressure which the crowd exerts on the referee, in which 40 football referees watched a film containing 47 disputes which took place during a match of the most important English championship and in which one team was playing at home, and one away. After each of these actions, the referees had to decide whether they were acceptable. The participants were divided randomly into two groups, one of which watched the film with the noise of the crowd, the other without any sound: the two independent variables were therefore 'conditions of noise' and 'conditions of silence'. To evaluate each dispute, participants had 4 possible responses which acted as dependent variables: 'foul by the home team', 'foul by the visiting team', 'no foul' and 'unsure' in the case that the referee was unsure of the regularity of the action.

Among the first results noted was that in comparison with the referees who watched the clip with the presence of the noisy crowd, those who watched it in total silence were much more convinced of their decisions (less 'unsure' answers), gave a greater number of fouls by players from the home team and more often chose the response 'no foul'. Moreover, in order to compare the answers of the experiment's participants with the actual refereeing decisions in a

real football match, the options 'no foul' and 'unsure' were grouped together under 'no foul'. This comparison showed a very interesting result: the decisions taken by the referees belonging to the group which was exposed to the noise of the fans were very often the same as those of the referees at the real football match.

The authors of this experimental study were able therefore to demonstrate that the presence or absence of a noisy crowd, which exerts psychological pressure on the umpire, affects the decisions taken. The main effect of the crowd's support, however, is a lower number of fouls given against the home team, rather than a greater number given against the away team.

#### Different kinds of home bias

Several studies then looked at empirical evidence on the social pressure exerted on a referee. It could be seen that the crowd at a football match play a crucial role in the referee's decision-making process, and more specifically the favouritism shown by the referee towards the home team made itself felt in different ways. Research looking into the number of bookings and red cards which the referee gives on average against the home team and against the visiting team has shown that less vellow and red cards are given to the home team (Buraimo, Forrest, & Simmons, 2008; Dawson & Dobson, 2010; Dohmen, 2005, 2008; Downward & Jones, 2007). Other research has analyzed the frequency with which penalties are awarded to the home team and the visiting team, and confirms the existence of a home bias from the referee: a greater number of penalties are indeed awarded to the home team (Dohmen, 2008; Harari, 2009; Nevill, Newell, & Gale, 1996; Sutter & Kocher, 2004). Finally, it has been noted that there is also refereeing bias in the decision of how much recovery time will be given at the end of normal time: less minutes of recovery time are given at the end of the second half when the home team is a goal up or when there is a draw, to give the away team less chance to go on the attack; more minutes of recovery time are given when the home team is down a goal, to give them a greater chance to equalize (Dohmen, 2008; Garicano, Palacios-Huerta, & Prendergast, 2005; Lucey & Power, 2005; Sutter & Kocher, 2004).

# Nationality and home bias

Dawson and Dobson (2010) considered the influences on agents' decisions in an international context. Using data from five seasons of European cup football matches they found that referees favour home teams when awarding yellow and red cards. While social pressure is also found to be an important influence in this study, the international setting shows that nationality is another important influence on the decision making of referees.

#### SUGGESTIONS FOR FUTURE RESEARCH

It would be interesting for future research to manage to manipulate the stadium setting in order to observe the effect on the referee of different groups of fans, each appropriately trained to react to a greater or lesser extent to the decisions taken, and therefore to exert more or less intense pressure on him. It could be conjectured that, in cases where fans do not react to the umpire' decisions, he would be more impartial, and consequently there would be less favouritism towards the home team, while on the other hand the level of home bias shown by the referee would be particularly high when public pressure is great.

#### REFERENCES

- Anshel, M. H., & Weinberg, R. S. (1999). Re-examining coping among basketball referees following stressful events: Implications for coping interventions. *Journal of Sport Behavior*, 22 (2), 141-161.
- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), *Groups, leadership and men* (pp. 177-190). Pittsburgh, PA: Carnegie Press.
- Buraimo, B., Forrest, D., & Simmons, R. (2008). *The twelfth man? Refereeing bias in English and German soccer* (IASE Working Paper No. 07-07). Limoges, France: International Association of Sports Economists.
- Cei, A. (1998). Psicologia dello sport. Bologna: Il Mulino.
- Courneya, K. S., & Carron, A. V. (1992). The home advantage in sport competitions: A literature review. *Journal of Sport and Exercise Psychology*, 14, 28-39.
- Dawson, P., & Dobson, S. (2010). The influence of social pressure and nationality on individual decisions: Evidence from the behavior of referees. *Journal of Economic Psychology*, 31(2), 181-191.
- Dohmen, T. J. (2005). Social pressure influences decisions of individuals: Evidence from the behavior of football referees (IZA Discussion Paper No. 1595). Bonn, Germany: The Institute for the Study of Labor.
- Dohmen, T. J. (2008). The influence of social forces: Evidence from the behavior of football referees. *Economic Inquiry*, 46 (3), 411-424.
- Downward, P., & Jones, M. (2007). Effects of crowd size on referee decisions: Analysis of the FA Cup. *Journal of Sports Sciences*, 25 (14), 1541-1545.

- Garicano, L., Palacios-Huerta, I., & Prendergast, C. (2005). Favoritism under social pressure. The Review of Economics and Statistics, 87 (2), 208-216.
- Goldsmith, P. A., & Williams, J. M. (1992). Perceived stressors for football and volleyball officials from three rating levels. *Journal of Sport Behavior*, *15* (2), 106-119.
- Harari, M. (2009). The impact of social pressures on referee's sanctions in professional soccer: A case study of penalty kicks in the MLS. Richmond, VA: Economics University of Richmond.
- Helsen, W., & Bultynck, J. B. (2004). Physical and perceptual-cognitive demands of top-class refereeing in association football. *Journal of Sports Sciences*, 22 (2), 179-189.
- Kaissidis-Rodafinos, A., Anshel, M. H., & Porter, A. (1997). Personal and situational factors that predict coping strategies for acute stress among basketball referees. *Journal of Sports Sciences*, *15* (4), 427-436.
- Krustrup, P., Helsen, W., Randers, M. B., Christensen, J. F., Macdonald, C., Rebelo, A. N., & Bangsbo, J. (2009). Activity profile and physical demands of football referees and assistant referees in international games. *Journal of Sports Sciences*, 27 (11), 1167-1176.
- Lucey, B. M., & Power, D. (2005). Do soccer referees display home team favoritism? (SSRN Working Paper No. 552223). Rochester, NY: Social Science Research Network.
- Milgram, S. (1963). Behavioral study on obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Mucchi Faina, A. (1996). L'influenza sociale. Bologna: Il
- Nevill, A. M., Balmer, N. J., & Williams, A. M. (2002). The influence of crowd noise and experience upon refereeing decisions in football. *Psychology of Sport and Exercise*, 3, 261-272.
- Nevill, A. M., Newell S. M., & Gale, S. (1996). Factors associated with home advantage in English and Scottish soccer matches. *Journal of Sports Sciences*, *14*, 181-186
- Stewart, M. J., & Ellery, P. J. (1998). Sources and magnitude of perceived psychological stress in high school volleyball officials. *Perceptual and Motor Skills*, 87, 1275-1282.
- Sutter, M., & Kocher, M. G. (2004). Favoritism of agents: The case of referees' home bias. *Journal of Economic Psychology*, *25* (4), 461-469.