Review Track Chair: Daniel Lock

Insight in Fair Play and Violent Behaviour in Sport Using a Smartphone Application

Floor, Corry and Romijn, David

Mulier Institute, Netherlands c.floor@mulierinstituut.nl

Aim

In 2012 in the Netherlands a football referee died of the injuries inflicted by football players who did not agree with his judgement. Extreme violence like this case does not happen often in the Netherland. However, data on the behaviour of sport participants during sport matches are scarce. The aim of this research is to give more insight in violent and non-violent behaviour during sport matches in the Netherlands.

Literature Review

Studies show that environmental influences are predictors of the behaviour we show (Smith, 1983). Especially in football research shows that participants are subject to the negative influences of coaches and supporters (Beaver et al., 2016; Kavussanu et al., 2009). Furthermore, characteristics like gender, age and type of sport are predictors of violent behaviours during sport matches (Kavussanu et al., 2009; Maxwell et al., 2009).

Research Design

Mulier Institute monitors behaviours in sports in function of the policy program of the Dutch government: "Naar een Veilig Sportklimaat" (*Towards a safer [social] sporting climate*). This policy program, in place since 2012, is focussed on reducing violence and non-sportive behaviour in sport in the Netherlands. Mulier Institute plays a role in monitoring this behaviour during the year (Romijn and Van Kalmthout, 2017). To fulfil this monitoring role, Mulier Institute developed an application to measure behaviour during sport matches. The development of the application resulted from the lack of data of the behaviour of sport participants during sport matches. The data gathered had either a retrospective character or it was not possible to observe every behaviour during a match, because the behaviours happened to quickly to observe and describe in a traditional way. The solution for these problems were found in an innovative research method, namely the creation of a smartphone application.

The application is a specially designed research tool which gives the opportunity to register the action of the players real-time during the match. The application has a pre-registration with information about the match (type of sport, age, sex, division). The main registration defines twelve different types of behaviour categorized in four categories:

- Very positive behaviour (hugging, supporting, applauding);
- Positive behaviour (high fives, apologizing, addressing behaviour);
- Negative behaviour (slowing down the match, disputing the referee);
- Violent behaviour (pushing/pulling, kicking/hitting and swearing).

After the match is finished the observers rank the behaviour of the coaches and supporters ranking the behaviour from "very positive" to "very negative". Observers can also add comments about how they experienced the match.

In 2017 and 2018, in a four to six weeks period, data is collected by a group of 20 trained research assistants. The assistants observe sport matches with use of the application. They can choose from ten different sports: badminton, basketball, (beach)volleyball, (indoor)football, handball, hockey, korfball, ruby, tennis, water polo. Each period they observe 12-15 matches within different age categories (children, youth, adults). Which leads to a total of 900-1200 observed matches within four periods.

Findings

Preliminary results from the first two periods (520 matches) in 2017 show that most of the behaviour during sport matches is positive and non-violent. In total approximately 54.000 individual behaviours are registered. Of these behaviours almost 90 percent where (very) positive behaviours. Among the 10 percent 'negative' behaviours 3 percent consists of violent behaviour.

Behaviour varies between sports and age groups. In sports like volleyball, korfball and handball the percentage of non-violent behaviour is between 97 and 90 percent. Water polo and football know approximately 75 percent positive behaviour. In regard to age, a difference can be seen between children, youth and adults. Adults are more prone to show violent behaviour than children or youth according to our measurements.

Implications

Data collection is still in process for this research. During the conference we are able to present the outcomes of three periods of data collection (approximately 750 matches). These data will show insight in the (non)violent behaviour in for example football and hockey. Furthermore, regression analysis will show the influence of coaches and supporters on (non)violent behaviour.

References

- Beaver, K.M. & Barnes, J.C. & Boutwell, B.B. (2016) Exploring the Relationship Between Violent Behavior and Participation in Football During Adolescence: Findings From a Sample of Sibling Pairs. *Youth and Society*, 48(6) 786–809.
- Kavussanu, M., Stamp, R., Slade, G., & Ring, C. (2009). Observed prosocial and antisocial behaviors in male and female soccer players. *Journal of Applied Sport Psychology*, 21(1), 62-76.
- Maxwell, J.P & Visek, A.J. & Moores, E. (2009). Anger and Perceived Legitimaxy of Aggression in male Hong Kong Chinese Athletes: Effects of Type of Sport and Level of Competition. *Psychology of Sport and Exercise*. 10(2), 289-296.

Romijn, D. & Van Kalmthout, J. (2017). VSK monitor 2017. Utrecht: Mulier Institute.

Smith, M.D. (1983). Violence and Sport. Toronto: Butterworths.

Van Kalmthout, J. & Van Ginniken, Z. & Romijn, D. (2016). *Evaluatie SportklimaatApp Pilot 2*. Utrecht: Mulier Institute.