When UEFA rules had inspired unfair behavior on the field

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"If you can’t win, make sure you don’t lose.”

(Johan Cruyff)

1 Introduction

According to a recent survey of sporting rules (Wright, 2014), since sports are of great interest to a high percentage of the world’s population, there is little that could be researched into that is more important. In the scientific literature, Kendall and Lenten (2017) is probably the first comprehensive – but by no means exhaustive – review of sporting rules, which have led to unexpected consequences.

Abstract

Qualification for UEFA club tournaments is known to be incentive incompatible in certain seasons, meaning that a team could be strictly better off by exerting a lower effort. We show that it is not only a theoretical scenario: SC Heerenveen was ex ante interested in not kicking a goal on its last match in the 2011/12 Dutch national soccer championship.

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Some works have followed a different approach by investigating the strategy-proofness of sports rules applied in the real world, because it may lead to tanking, the act of deliberately dropping points or losing a game in order to gain some other advantage. Dagaev and Sonin (2017) present a hypothetical example caused by an incentive incompatible regulation of UEFA\(^2\) described later. The same theoretical flaw might have punished a team in the qualification for the UEFA Champions League (Csató, 2018e). Dagaev and Sonin (2013) and Csató (2017) illustrate the problems of the European qualification for recent FIFA World Cups, Csató (2018b) and Csató (2018f) demonstrate that this is not only an irrelevant scenario, while Csató (2018a) discusses a general model to suggest some potential remedies. According to Csató (2018c), another tournament design, widely used in handball (Csató, 2018d), also violates incentive compatibility. Furthermore, the author describes two handball matches where a team was not interested in winning by a high margin.

However, none of these papers has come up with a historical match where a team had clear incentives to lose, and a third team suffered as a result of this unfair behavior.\(^3\) In a sense, this is not surprising since sports administrators probably do not suggest rules that are obviously flawed. Nevertheless, we are able to present such a match in the following.

2 The example

The Eredivisie is the top professional league for association football clubs in the Netherlands. The KNVB Beker is another competition organized in a knock-out format, which is often referred to as the Dutch Cup. According to the access list for the 2012/13 UEFA club competitions (UEFA, 2012, Annex IA), the following teams qualified for the more prestigious UEFA Champions League and the second-tier competition called UEFA Europa League on the basis of the 2011/12 Eredivisie and the 2011/12 KNVB Beker results:

- the champion club of the Eredivisie qualified for the group stage of the Champions League;
- the runner-up club of the Eredivisie qualified for the third qualifying round of the Champions League;
- the third-placed club of the Eredivisie qualified for the play-off round of the Europa League;
- the fourth-placed club of the Eredivisie qualified for the third qualifying round of the Europa League;
- the fifth-placed club of the Eredivisie qualified for the second qualifying round of the Europa League – but the Dutch association chose to organize a special play-off for this place among the teams placed fifth through eighth;
- the winner of the KNVB Beker qualified for the play-off round of the Europa League.

\(^2\) UEFA stands for *Union of European Football Associations*, the administrative body for association football in Europe. However, several UEFA member states are primarily or entirely located in Asia. It is one of the six continental confederations of world football’s governing body FIFA.

\(^3\) Perhaps the closest case, a soccer match played in the qualifying phase of the 1994 Caribbean Cup between Barbados and Grenada, has not harmed any innocent team (Kendall and Lenten, 2017, Section 3.9.4.).
Note that the cup winner may qualify for the Champions League or the Europa League through the domestic championship, too. In this case, UEFA (2012, Article 2.04) applies: “If the winner of the domestic cup qualifies for the UEFA Champions League, the domestic cup runner-up qualifies for the UEFA Europa League at the stage initially reserved for the lowest ranking top domestic league representative. Should both the winner and the runner-up of the domestic cup qualify for the UEFA Champions League, the association concerned may enter for the UEFA Europa League the club which finishes the top domestic league immediately below the other club or clubs which qualify for the UEFA Europa League. In both cases, the access stage initially reserved for the domestic cup winner is reserved for the club which finishes the domestic league in the highest position out of all the clubs which qualify for the UEFA Europa League from the association concerned. Each representative of the domestic league will then enter the competition at the stage initially reserved for the domestic league representative ranked immediately above it.”

Table 1: Ranking of top teams in the 2011-12 Eredivisie before the last matchday

| Pos | Team          | W  | D  | L  | GF | GA | GD | Pts |
|-----|---------------|----|----|----|----|----|----|-----|
| 1   | Ajax          | 22 | 7  | 4  | 90 | 35 | 55 | 73  |
| 2   | Feyenoord     | 20 | 7  | 6  | 67 | 35 | 32 | 67  |
| 3   | PSV Eindhoven | 20 | 6  | 7  | 84 | 46 | 38 | 66  |
| 4   | SC Heerenveen | 18 | 10 | 5  | 77 | 56 | 21 | 64  |
| 5   | AZ Alkmaar    | 18 | 8  | 7  | 63 | 35 | 28 | 62  |
| 6   | Twente        | 17 | 9  | 7  | 80 | 42 | 38 | 60  |

Pos = Position; W = Won; D = Drawn; L = Lost; GF = Goals for; GA = Goals against; GD = Goal difference; Pts = Points. All teams have played 33 matches.

Table 1 shows the Eredivisie table before the last matchday played on 6 May 2012. Tie-breaking rules were: (1) the number of points; (2) goal difference; (3) the number of goals scored. A win was awarded by three points, and a draw by one point.

The KNVB Beker was finished by this time as PSV Eindhoven defeated Heracles Almelo by 3-1 on 8 April 2012. Ajax would be the champion and Twente could not reach the fourth position independently of their last match. Feyenoord played against SC Heerenveen, PSV Eindhoven against SBV Excelsior, and AZ Alkmaar against FC Groningen on 6 May 2012.

Consider the situation from the perspective of SC Heerenveen:

- If it wins, it cannot be placed worse than fourth, so its participation at least in the play-offs of the Europa League is assured.

- If it plays a draw, it cannot be placed better than fourth. Consequently, it qualifies for the third qualifying round of the Europa League unless both PSV Eindhoven and AZ Alkmaar win. In the latter case, SC Heerenveen is only the fifth (it has a worse goal difference than AZ Alkmaar), furthermore, PSV Eindhoven is the runner-up in the Eredivisie, which creates a vacancy in the Europa League, so Heracles Almelo qualifies for the second qualifying round (UEFA, 2012, Article 2.04). It means that SC Heerenveen should participate with three other teams in the play-off for the place available in the third qualifying round of the Europa League.
If it loses, it cannot be placed worse than fifth. However, Feyenoord will be the runner-up, thus PSV Eindhoven cannot qualify for the Champions League, and SC Heerenveen has a guaranteed place at least in the third qualifying round of the Europa League.

Table 2: Scenarios for SC Heerenveen in the 2011/12 Eredivisie before the last matchday

| SC Heerenveen | PSV Eindhoven | AZ Alkmaar | Place in the Europa League |
|---------------|---------------|------------|----------------------------|
| wins          | any result    | any result | at least play-off round     |
| draws         | wins          | wins       | play-off for the third qualifying round |
| draws         | does not win  | wins       | third qualifying round      |
| draws         | any result    | does not win | play-off round            |
| loses         | wins          | wins       | third qualifying round      |
| loses         | does not win  | wins       | third qualifying round      |
| loses         | any result    | does not win | play-off round            |

The case corresponding to the row in *italics* occurred.

Table 2 summarizes these cases. It is clear that SC Heerenveen should not play a draw against Feyenoord since losing is an *ex ante* strictly dominant strategy. In other words, the misaligned UEFA rule may punish this team for its better performance in the national championship.

Therefore Johan Cruyff, the famous Dutch soccer player, who was voted European Player of the Century in an election held by the International Federation of Football History & Statistics in 1999, was not right: in certain situations, if you can’t win, you should lose.

3 Assessment

Actually, SC Heerenveen lost against Feyenoord by 2-3. Since PSV Eindhoven and AZ Alkmaar won, SC Heerenveen would be strictly worse off by playing a draw. In the absence of such incentives, SC Heerenveen would probably make more efforts to kick a goal in the last minutes, and a successful attack would send PSV Eindhoven to the more prestigious international competition.

It is a bit mysterious for us but the betting markets seem to be not affected by the possible scandal, the odds for the loss of SC Heerenveen (draw) were not especially low (high).\(^4\)

The bizarre situation was recognized by the governing body of soccer in the Netherlands as an inherent flaw of the play-off system (*Voetbalnieuws, 2012*).\(^5\) Some commentators thought the cup final should not have played earlier, however, it did not eliminate the bad incentives of SC Heerenveen. While the absence of the European play-off would have solved

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\(^4\) See the betting odds, for example, at [http://www.betexplorer.com/soccer/netherlands/eredivisie-2011-2012/heerenveen-feyenoord/b3qCaTyl/](http://www.betexplorer.com/soccer/netherlands/eredivisie-2011-2012/heerenveen-feyenoord/b3qCaTyl/) and at [http://www.oddsportal.com/soccer/netherlands/eredivisie-2011-2012/heerenveen-feyenoord-b3qCaTyl/](http://www.oddsportal.com/soccer/netherlands/eredivisie-2011-2012/heerenveen-feyenoord-b3qCaTyl/).

\(^5\) The Dutch media also discussed this particular case, both before (see [https://www.vi.nl/nieuws/heerenveen-mag-in-laatste-wedstrijd-niet-gelijkspeLEN](https://www.vi.nl/nieuws/heerenveen-mag-in-laatste-wedstrijd-niet-gelijkspeLEN)) and after (see [https://www.frieschdagblad.nl/index.asp?artID=59683](https://www.frieschdagblad.nl/index.asp?artID=59683)) the match.
this particular problem, the main mistake was committed by the UEFA: Dagaev and Sonin (2017) have proved that in order to guarantee incentive compatibility, all vacant slots should be awarded to the teams based on the results from the round-robin tournament.

4 Conclusions

Tournament organizers supposedly design rules that cannot be manipulated through exerting a lower effort. It never seems to be acceptable if a team is trying to lose in order to gain some later benefit. We have demonstrated that a mistake made in the UEFA Europa League entry rules (identified by Dagaev and Sonin (2017)) probably had led to an unfair behavior in a historical soccer match, which may have resulted in a significant financial loss for a third team, and might have upset betting markets. Consequently, the governing bodies of the major sports are advised to consult more with the scientific community, especially if some rule changes are planned.

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