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Football 2005-2006

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I have begun an analysis of the European football (what people from the United States call “soccer”) leagues for the 2005-2006 seasons. Analyses have been completed on the Dutch, English, Spanish, Portuguese, Danish, French, and Italian leagues. The analyses consist of 132 teams and 2372 games.

Note the data structure of leagues is a round-robin: Each team plays each team, home and away. With the help of my assistant, Kara Taliento, I created for each league two round robins: goals scored when the home team which will be designated as HOME and goals scored when the away team. I then analyzed the data using the Social Relations Model.

Home-Field Advantage

Perhaps the most striking but hardly surprising effect is the home-field advantage. The home team scores about 0.4 more goals than the away team. The result is all the more impressive in that teams average less than a goal and half per game.

Consistency

It can be measured whether some teams score more goals both home and away and whether some teams allow few goals both home and away. There is indeed evidence that some teams are consistently better than other teams, but the level of consistency is surprisingly low. Chance accounts for about 80 per cent of variable, about four times as much the teams that are playing. It should be pointed out that injuries and changes in personnel over the course of the season are not accounted for in this analysis. Moreover, teams may “let up” after they have clinched or failed to clinch a position. Note that chance is much less important in a team’s overall record than it is in any one game.

Offense-Defense Relationship

Are good offensive teams also good defensive teams? Or is it the case that teams that score many goals have poor defense? The results indicate that

good offense is associated with good defense. The correlation between the two is .72, a very strong association.

Field Effect

We might ask if there is a field effect: For some teams are there are more or less goals scored at its stadium, by both the home and away team, than there are for other teams? This effect controls for the teams that are playing. There is no evidence of this effect whatsoever.

Match-up Effect

Do some teams play better particularly against some teams and worse against other teams? Such an effect might be called a “match-up” effect. The data indicate that there is no such effect. It is possible, but not very parsimonious that there are two effects that cancel each other out: One is the match-up effect. The other is that when a team does poorly against a team, they try harder and also the team that does well “let’s up.” This latter effect would mask the match-up effect.