

**Being John Motson:
Toward a Computational Model
of Football Commentary**

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Abstract

Computer games are big business, and football games are amongst the biggest titles released every year. They represent most aspects of football very well, with the exception of the commentary, which is static, limited, repetitive and ultimately boring. The aim of this project is to analyse real football commentary, and suggest a way of modelling it that would allow for the generation of more realistic, and more interesting commentary, than can currently be found.

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Declaration

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or professional qualification except as specified.

(*Scott Nowson*)

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Chapter 1

Introduction

Computer games, no one would argue, are very big business across the world. Sony's PlayStation console is without doubt the most popular platform (discounting the hand-held market) for playing these games, with an estimated 70 million units sold world wide. There are 7 million in the UK alone and every year a million football games are sold to PlayStation owners.¹ For the last three years, football games have charted in the top ten selling PlayStation games of the year, and the only reason there was not a football game in the top three last year, as there had been for the previous two years, was due to the release of similar games on the then newly released PlayStation 2, or PS2, Sony's next generation machine.

Football computer games are big business. Electronic Arts' *FIFA* range is the biggest selling of them all, and *FIFA 2001* on the PS2 is an amazing game. The graphics are superb, the level of realism is unparalleled, the players react well when controlled, and the range of teams is astonishing. The atmosphere of the game is impressive, with crowd chants, player noises, and they even have real commentators in the BBC's John Motson and Mark Lawrenson.

For all that computer games have improved over the years, one area in which football games have not made much progress is the commentary. It sounds good, but one would expect high quality sound in today's digital age. However, if you play the game enough, and actually listen to the commentary, you realise that it is limited, repetitive,

¹source: *Chart Track*, figures based on PlayStation game sales from 1998-2000

predictable, can actually be quite awful and is missing a number of the features of real commentary. This is the motivation for this project, and is explained further in chapter 2, though as an example, here is sample of the game commentary used in chapter 6:

Motson - ... nice stop from the keeper

Lawrenson - Yes that's nice work by the keeper

Motson - Yes too true

The main aim of this project, as described in chapter 3, is to look at how it might be possible to set about creating a better commentary system for computer football games. The first task on the road towards this goal was to look at what had gone before.

Chapter 4 contains a literature review of previous linguistic analysis of sports commentary, and in particular football commentary. As well as looking at previous analysis, it is necessary to look at previous commentary systems. Sadly it has not been possible to gain access to or find out about the inner workings of a current football game, because they are commercial property of companies who tend not to release such details to the public. However, there were a number of teams that developed commentators for the RoboCup Simulation League, which is as close to a computer football game as one can get, and these are looked at in chapter 7.

In order to model a commentator (or pair of commentators as is the case in football) one would need to analyse their commentary from real live football. In order to show how such analysis would be performed, and in order to see if the features identified in the literature review really did exist in football commentary, it was necessary to perform such an analysis. Chapter 5 details this analysis, such as which features were present, what the relationship between the two commentators was, and describes other features that appear to define football commentary.

The next best thing to knowing how the game works, is to perform a similar analysis on the commentary from a game football match. This analysis, along with points raised by discussion with an expert in football games can be found in chapter 6.

It has not been feasible within the scope of this project to actually develop a practical system. However, from the analysis of the commentary, and by drawing inspiration from the RoboCup systems, it has been possible to describe how one would make such

a system and how it would work. chapter 8 is a guide, for a games developer or similar, on how to make a commentary system that is more like a real commentator.

Of course, all good software systems need evaluation, and chapter 9 presents a method for evaluating the quality of a game that employs such a commentary model. And since this is an academic thesis, also included are details of a more scientific approach to evaluation.

Chapter 2

Motivation

Football commentary is a well known phenomenon, and at times when a game is shown on two television channels at once, it can be the deciding factor for many viewers. Arguably the most famous British commentator is the BBC's John Motson, and it is he that commentates on the matches, along with Mark Lawrenson, also from the BBC, in the FIFA series of games from publishing giant Electronic Arts.

In an interview (Pearse, 1999) on his part in the making of FIFA 2000, Motson talked about how he had to record lots of player's names, in two tones, excited and normal, responses to match introductions from Gary Lineker, and a wealth of non-player-specific phrases for use throughout the match. The problem with this process is that there are only so many phrases you can record, and whilst the selection of phrases may be dynamically linked with the game-play, the phrases themselves are quite static.

As mentioned in the introduction to this thesis, this results in commentary that is predictable, boring, and bordering on downright annoying. This is not just the author's point of view however. The following was taken from a random review (Kelly 1999), of a random football game of the last few years:

I defy anyone to go through a full season with the commentary on. The 'archer' joke is mildly amusing at first, but hearing it every single time someone shoots off-target is beyond annoying. How difficult would it be to have five or six different 'player misses target' comments?

Similar comments can be read in most reviews of most football games, and whilst the latest games have a great deal more commentary utterances to choose from, due to

increased storage space of new mediums (Sony's PlayStation 2 for example), they still lack a great deal that one would hear in the commentary of a real match.

One of the main things football games seem to be missing is a temporal frame to the commentary. Each match is treated as a solo occasion, previous or future matches are never discussed. Neither are any details about players, such as how often they have scored, or even what nationality they are. Not only is it interesting to hear, say, what the score was last time two teams met, but commentators in the real world are able to refer to any player, match, result, team, venue, etc, at any given time. Due to the nature of the implementation of the game, facts like this are not stored, and so cannot be used to generate commentary.

Also, since each utterance is static, most do not include any direct reference to a particular player or team. To include a statement such as "[name]'s done well there" would mean it would have to be recorded with each player's name in the *name* position. Instead, "he's done well there" is used. This non specific style is the largest factor in the repetitiveness of the commentary.

In order to finally ascertain that this is the view that most players of football games have of game commentary, an on-line questionnaire was administered. It was advertised on the web forum of leading computer games magazine EDGE, from Future Publishing, and a copy of the questions can be found in appendix A. Questions 1-5 are to establish that the respondent was familiar with football games, and to make sure that they had played a recently released game. Questions 7-11 asked their opinion on a number of factors relating to the newest football game that they had played, which they identified in question 6.

Only question 8 was really of importance, as it asked their opinion of the commentary. The reason for the other questions was so as not to lead them to thinking only about commentary. Among the submitted questionnaires were the following responses to the commentary question:

generally, I find commentaries miserable

alright..bit samey..

It was in Japanese, but no less entertaining for that (in fact, it was probably more entertaining than the usual Tony Gubba/Mark Lawrenson five phrases crap.

Crap

These testimonies are pretty standard descriptions of football game commentary amongst game players. It is obviously a weakness in the game, and weaknesses are motivation enough for finding a solution.

Chapter 3

Aims

This project began, and the project proposal had been written, with a number of aims in mind, namely:

- To study the sorts of things that real football commentators say both during a match, and in the post game report.
- To study the state of the art football games, in terms of what they say and how they say it.
- Model how the commentating might be generated more dynamically.
- To implement the commentator through speech synthesiser and virtual talking head.

These aims quickly changed once the project got underway. Firstly it was decided to concentrate purely on in-match commentary rather than post-match summaries, as they play little or no part in computer football games. It also became evident early on that it was not going to be possible to find out how football games work, because developers tend to keep their technology close to their chests.

Also, it was soon apparent that, for a number of reasons, it would not be feasible, or even within the scope of a project such as this, to implement any sort of commentary system. Among other reasons, it is not possible to gain access to the internals of the game to drive the commentary, it would not be possible to either develop new, or

adapt existing text generation systems within the time frame of the project, and current research speech synthesis systems are far from the quality one would need to attempt to replicate human commentary.

The main aim remains the same though, to work towards a computational model of football commentary. This aim comes two main stages:

1. In order to model commentary, it is first required that commentary be analysed, in terms of linguistic features, and content.
2. A model and method of implementing it should then be proposed.

Chapter 4

Literature Review of Previous Commentary Analysis

4.1 Introduction

In order to develop a model of commentary, it is necessary to analyse examples of commentary, and in order to best analyse something, it helps to have a rough idea of what to look for. This chapter looks at what linguistic analysis of sports, and in particular football, commentary that has gone before.

It begins by looking at what it is that makes televised football commentary so unique, and then at the features that the literature has identified as defining it.

4.2 Radio Vs. Television

What exactly is it that distinguishes commentary on the radio, from commentary on the television of the same match? The two biggest differences are obvious, and are forced by the medium.

If you are listening to a football match on the radio, you will more than likely not be able to see what is happening, unlike with a televised match. This means that the commentators need to tell the listeners more of what is happening. In the early days of matches broadcast on the radio, a grid system was employed to enable listeners to

better follow the action. It is from this method of commentary that the phrase “back to square one” arose, square one being the centre circle. Even when commenting on a previous move, like a shot on goal, the exact details of what happened are given.

Also, silence is something radio broadcasters are told to avoid, because it does not come across well to the listeners. This means that radio commentators are expected to say a lot more than television ones. Beard (1998) found that for the same match (the England-Germany semi-final at Euro 96) the commentators of the two television channels broadcasting the match said between them 270, and 324 words, whereas the radio commentators said 473 words in the same period, 80 seconds before the first goal was scored, and 60 after.

This pressure to speak, Beard has discovered, causes a great deal more errors and false starts in the the speech of the radio commentator. There are also more phrases suggesting doubt such as “*Reuter I think*”, due to the fact that a television commentator can pause to confirm which player he is looking at, whereas on radio you cannot.

Another feature of radio vocabulary that Beard noted was the use of a group of words suggesting disbelief when the goal (for England) is scored. He suggests that it is the lack of pictures that enables the commentator to paint his own picture of the events, suggesting that he is witnessing something miraculous.

Pictures also add cohesion to what is being said by a television commentator, and a radio commentator does not have this assistance. The speech of the radio commentator has to form a cohesive whole, and Beard found that a lot more of what is said is like written text.

4.3 Why is Football so Unique

Football is not really a unique sport on its own, but it can be considered as one of a family of sports that have similar characteristics. To illustrate this point, sports can be divided by a range of classifications, each affecting commentary in a different way.

4.3.1 Speed

There are three speeds of sports that we can identify. There are fast sports, intermittent sports, and slow sports.

- Slow sports are ones such as snooker, golf or bowls. The pace of the action is slow, usually methodical, and so there is very little action to describe. The commentators have a calm quiet manner, and will talk about a lot of background, and will evaluate shots at great length.
- Intermittent sports are ones like tennis, cricket, and American football, where the action may be fast, but there are many breaks in the activity. These breaks give commentators more time for evaluation and comment. It depends on behaviour of sports audiences whether commentary continues during play. In American football, audiences cheer most during exciting play, and the commentators get excited along with them. In tennis, it is rude and distracting to talk while the players are in action, and in a reflection of this sporting etiquette, commentators stop during play also, even though they cannot be heard.
- Fast sports are the ones like football, motor racing, and ice hockey. The action is high-paced and continuous. You could say small lulls in activity, such as throw-ins in football make some of these sports intermittent, but these breaks are not as predictable, nor as long as say having a rest every second game in tennis. The main difference in commentary terms between fast sports and intermittent ones, is while they may be a lot to say in both, there is a lot less time to say anything in a fast sport as the action is mostly continuous.

4.3.2 Team Vs. Individual

This is a clear way of dividing between sports, whether they are played by teams, or by two people at a time. Team sports and individual events throw up vastly different commentary opportunities.

In an individual sport such as tennis, the commentator can talk at great length about the competitors, because there are so few of them to talk about at any one time, where

as in a team game there can be from 10 to 30 people to talk about. Not only does this mean that there is more time to talk about any one individual, but there generally less people to talk about in the sport.

In a sport such as Formula 1, at any one time there are 22 competitors, and viewers will recognise them all, and be interested to hear about them all. But even in a small football competition such as the Scottish Premier League, which has ten teams, there will be upwards of 200 possible players, not everyone will know them all, and the commentators will not know a great deal about them, even though they are only expected to be able to comment on any 22 of them at any one time.

This does not take into account match officials such as umpires or referees who are talked about in all sports, nor trainers, managers, mechanics etc for the same reason. It should be noted however, that in teams there are often individuals who stand out, such as star strikers, who tend to be more well known and spoken about more than the rest of the team.

4.3.3 Repetitiveness

In his study of the linguistic features of sports casters, Kuiper (1996), draws heavily, to begin with, on horse racing. He identifies that the commentary of such events is cyclic. There is talk before and after the race, of the horses and their odds, their trainers and jockeys, and during the race most of the commentary consists of repeatedly listing the positions of the all the horses in the field. Some commentators, as the finish draws nearer, only list the top five or six horse, and with increased urgency. This repetitive commentary is in part forced by the repetitive nature of the sport.

Kuiper's further choices of sport are cricket and baseball. Whilst their commentary is not as repetitive as horse racing, the action is. The bowler/pitcher throws the ball to the batter. He misses it, or he hits it, and some action ensues. There are only so many possible outcomes.

A sport like football, whilst some may well describe it (and in fact any sport they do not like) as repetitive, it is a lot less predictable. There are "set-pieces" such as corners, free-kicks and goal kicks, which are often played the same way, but commentators do not know when such events are going to occur, and this effects the kinds of things they

say.

4.4 Features of Sports Commentary

Probably the most cited work in this field is Charles Ferguson's 1983 paper studying syntactics of sports announcer talk. In this paper Ferguson was stating that sports announcer talk¹ could be considered as an unique linguistic register, and he identified a number of features of commentary that make it so. Whilst he uses examples from baseball, most of his points are applicable to commentary in general.

4.4.1 Simplification

One of the more noticeable features of commentary is that many sentences lack certain elements, commonly sentence-initial material. Ferguson found the deleted material to be of a very limited type, in most cases being either a pronoun, or a pronoun plus copula. Examples from baseball are:

<i>Pronoun</i>	<i>Pronoun plus copula</i>
1a. [He] hit 307	2a. [It's a] fastball
b. [It] bounces into the seats	b. [It's] a breaking ball outside
c. [It] hit on the foul line	c. [It's] one and one

The omitted item is contained within the []. Ferguson found that throughout his data, the indefinite article is omitted along with the copula if the noun complement has no modifier, but is expressed if there is an adjectival or nominal modifier. For example *[It's an] out!* vs. *[It's] a big out!*

One reason for these omissions that Ferguson proposes is that they serve to

“index the moment” as non-leisurely (you have to speak rapidly and concisely), informal (you mustn't sound too bookish), exciting (like-the attention-getting language of headlines or advertising copy)

¹Sports announcers are in America, what sports commentators are in Britain, hence sports announcer talk is what is called in the context of this chapter simply commentary.

Ferguson also found that copula deletion can occur on its own, most often after a phrase identifying a player or a team. More examples from baseball:

- 3a. Klutz [is] close at third.
- b. McCatty [is] in difficulty.
- c. A's right hander [is] pitching from...
- d. Runners [are] leading from first and third.

Ferguson points out that these omissions in the event-reporting of commentary is similar to those of event-reporting headlines. For example it is unlikely that a headline would read *Jones is arrested* but instead *Jones arrested* is preferred.

4.4.2 Inversion

Another common characteristic of sports commentary is inversion, structures where the predicate precedes the subject. They are something which happen frequently in written English, but occur rarely in spoken text. Some of Ferguson's examples, and what you would expect them to be:

- 4a. Holding up at third is Murphy. *Murphy is holding up at third.*
- b. And out right is Drew Hill. *And Drew Hill is out right.*
- c. Coming left again is Dave Winfield. *Dave Winfield is coming left again*

Typically, as with the above examples, it is a player's name that is the subject of the sentences, and the verbs are either copula or motion verbs such as coming and going. Ferguson concludes that the most likely reason, for this behaviour is that it gives the speaker a little more time with which to identify the player whose actions they are describing. The announcer can see what is happening, and begins to describe it before they are sure who is actually involved.

Judy Delin (2000) dedicates a chapter of her recent work on Language to the language of sports commentary, and football is one of the sports (horse racing being the other) that she discusses. She also found many examples of inversion:

- 5a. Up goes Sheringham *Sheringham goes up*
- b. In the middle of the field is Munteanu *Munteanu is in the middle of the field*

Delin also agrees that the most likely reason for the re-ordering of structure is for identification purposes, but she also suggests two other reasons for it. Firstly it is to put the players involved at the end of the clause so they are the most prominent part of the utterance. According to Delin, linguists feel that the end of a clause is position reserved for new information, information that is to be presented as unknown, or that is prominent for some other reason. Secondly, it may equally as well be done in order to get the action part of the clause to the beginning, so that the viewer has time to visually identify the action being described for themselves.

4.4.3 Result expressions

What Ferguson terms as a *result expression* is when a commentator wants to indicate that an action he is reporting leads to a particular state, which he then names. There are many ways of expressing this relationship, but the most common are *for + noun* and *to + noun*. Ferguson supposes that it maybe that these expressions occur as a means to save time, but whatever the reason, he finds them to be thoroughly ensconced in the language of sports in both the United States and Britain.

for phrases

6a. He throws *for* the out.

b. Has it *for* the out.

to phrases

7a. And he just keeps alive, reaching out
to foul-tip one back.

b. There's a strike on the outside corner
to make it 2 and 1.

4.4.4 Heavy modifiers

Another frequent occurrence is to include brief incidental identification along with a players name. This information might consist of the players position, some characteristic of their play, or a playing statistic. Ferguson's examples include:

- 7a. Warren Cromartie, *the left-handed hitter*, swings...
- b. according to Paul Pryor, *the plate umpire*.
- c. Larry Milburn, *3 for 4 yesterday*, did not face...
- d. *The quiet Texan* Tommy John delivers...
- e. Steve Yeager, *who won Sunday's game with the dramatic homerun on the heels of Guerrero's shot*, Yeager coming up.

As can be seen from the last example, the incidental information can be so long that the commentator feels the need to say the name of the player again, to remind to viewer who he is talking about.

4.4.5 Tense usage

Ferguson states that sports commentators use three tenses when describing the events they are witnessing. They use simple present, to describe quick actions that they are seeing, *Washington backhands it*, present progressive, to refer to actions of a slightly longer duration, *they're bringing that ball back to the 27-yard line*, or summing up the game or season, *the Expos are perking*, and they use simple past is used in recapping or adding descriptive material, *there goes Haden back to pass...throws it...and Haden threw that ball high*.

An example of each might be:

- 8a. *steps*
- b. he *'s stepping* up to the plate
- c. *stepped*

4.4.6 Routines

A central tenet of linguistics is the rule-governed nature of language, and routines play a large part in everyday life, from politeness formulas to proverbs and clichés. Sports commentary has many routines within it, ranging from idiomatic phrases to fairly lengthy discourses. Ferguson uses the example from baseball of *count*, the number of balls and strikes at a given moment of a players time at bat. Combinatorics says

that there are very many ways to express the count, but baseball commentators give the count in very limited ways.

The order is always balls before strikes, only cardinal numbers are used, the connector is *and* and zero can be either *oh* or *nothing*. Two special cases occur at oh and oh, *nothing across*, and at three and two, *full count*. Some examples from Ferguson's research:

- | | |
|--------------------------|-------------------------------|
| 9a. One and one | f. Nothing across |
| b. One and oh | g. ...to make it two and one |
| c. Nothing and one count | h. Two balls and two strikes |
| d. It's one and one | i. And it's still one and two |
| e. Three and two | |

Baseball uses similar routines to describe the score and a players record, with the connector distinguishing between them:

- 10a. 2 and 2 = two balls, two strikes, count
 b. 2 (to) 2 = two runs, two runs, score
 c. 2 for 2 = two hits, two times at bat, a players record

Kuiper (1996) also identified routines, or formulas in horse race calling. He found that there were particular phrases that are used at particular times in the race such as at the start, or the finish line. Kuiper states that these formula have three linguistic properties:

1. It is a lexical item consisting of a sequence of words.
2. It has syntactic structure
3. It has specific conditions of use, that is, it does particular work for a speaker in a given situation.

The sorts of formula Kuiper is discussing are stored in a speakers memory, for them to recall as whole units when needed. There are no set formulas for any one sport, but each individual will have their own set of preferred phrases. The subject of Kuiper's main study, New Zealand race caller Reon Murtha, is noted for instance for

often using the phrase “*round the showgrounds bend they come*” but never “*round the showgrounds bend they trot*”. Here are some of Reon Murthas preferred formulae for the start of a race, and for locating horses:

Start formula	Locator formula
11a. There they go.	12a. threading its way through
b. They’re away and racing.	b. settling back a little bit
c. They’re off and racing now.	c. getting through on the inside
d. They’re on their way.	d. at the tail end of the field

From these examples, it is clear that many routines consist of different ways of saying the same thing. This adds variety to the commentary, though all formula can still occur multiple times in a commentary.

Delin (2000) and Beard (1998) also noted a number of other features of the language of sports commentary.

4.4.7 It-clefts

It-clefts are so called because they cleave in two the information that is presented in a clause. Delin presented these examples, and their non-cleft alternatives:

It-cleft/Non-cleft
14a. It’s Sensori under Darryl Holland who goes on now <i>Sensori under Darryl Holland goes on now</i>
b. and in the end it’s Ilie the forward who’s back there <i>[In the end] Ilie the forward is back there</i>

It-clefts take an element of a clause and preface it with *it* and the verb *to be*. This allows the reader to dwell a little on the first element (a player, a horse, a team etc.) before they are presented with further information (what they are doing that makes them stand out from anyone else) in a relative clause.

Delin also explains how the it-cleft presents the information in the relative clause as presupposed, that the listener either already knows it, or can know it. From 14b.

above, it is presupposed that the listener can see that someone is *back there*, and the commentator is merely telling them who it is.

4.4.8 Passiveness

Beard suggests using passive clause structure is another trick, like inversion, used to gain time to identify players. Here, the object and subject as they would be in an active clause are switched, and a *by* phrase is required. Hence what could be said in an active clause as *Hagi and Petrescu are tracking him* becomes the passive *he is being tracked by Hagi and Petrescu* (Example taken from Delin, 2000).

4.5 Play by Play Vs. Colour Commentary

Delin (2000) described four different functions that commentary (in football matches) performs:

1. Narrating: describing what is happening action by action;
2. Evaluating: giving opinions about play, players, teams, referee decisions etc.;
3. Elaborating: giving background information about team and player records, the ground, the crowd; speculating on motives and thoughts of the players;
4. Summarising: Giving an overview of play so far.

She splits these into 2 broad types. Narration consists of time-critical utterances, and make up the main body of the commentary. The other kinds of utterances tend to occur at times when there is less going on, and are of a more subjective nature. The switch between these two types is often marked by a change in speaker.

One aspect of football commentary that is familiar to all listeners is that there are always two commentators. The main commentator is responsible for narration, for calling the action, play-by-play. They are always accompanied by an expert who generally performs the more subjective role. The expert never provides narrative, but is called upon to provide the colour commentary in quieter moments of the game, or

after a particularly exciting or controversial bit of play. The play-by-play commentator is however entitled to offer his opinion of event also.²

There is much work on the ways in which speakers successfully navigate turn-taking in a conversation. Some of the methods that Delin lists are:

- Explicit nomination: speaker 1 can name speaker 2 explicitly;
- Pause: a gap allowing speaker 2 to speak;
- Syntactic completion: the grammatical unit speaker 1 is embarked on has clearly finished;
- Gaze: speaker 1 may look at speaker 2;
- Intonation: falling intonation, or rising for a question. may indicate turn completion.

Since football commentators cannot be seen, it is impossible to judge if they use gestures or gaze to indicate a change of speaker. From Delin's studies she found that when the play-by-play commentator is narrating, the expert is quite hesitant at interjecting an opinion. There will often be a long pause before he says anything. If, however, the commentator moves into one of the other commentary modes, the expert is more at ease when it comes to speaking.

Another point she noted is that the expert will often refer directly to the commentator by name, often in terms of asking for his response to his thoughts, as if seeking his approval. The commentator however rarely names the expert, which suggests an unequal balance of power between the pairing. This mis-match of power leads Delin to conclude that the experts contributions are very much opportunistic, as if he is not given pre-established rights to speak.

²Whilst it is most frequent in Britain to call the pair the *commentator* and the *expert*, the terms used here come from American sports announcing, and are useful terms for describing the two broad types of commentary.

4.6 Errors

Speech errors are a much studied linguistic phenomenon, there are hopes that we can learn how the brain processes thoughts into speech if we look at what goes wrong. Errors such as “slips of the tongue” or mistakes are common in everyday speech, and are prevalent throughout sports commentary. Delin (2000) identified a number of kinds of error that occur in sports commentary.

4.6.1 Hesitations

Hesitations are the most common errors in speech production. They are the *umms* and *errs* and pauses that litter every conversation and spoken text. You are aware of people saying them when they are stuck for what to say, they are convenient fillers when you are stumbling over the right words to say.

As with any public speakers, sports commentators are under greater pressure to perform than normal people engaging in normal conversation. Unlike most public speakers however, what they say cannot be (wholly) prepared before hand, since they cannot know what exactly they will have to comment upon.

Delin described commentary as a type of “*unplanned, stream-of-consciousness language*”, and Ochs (1979, cited in Delin, 2000) characterised it as a type of “*discourse that lacks forethought and organizational preparation.*” This performance pressure is increased in a sport like football that can be quite fast, involves a lot of players, and is often viewed from a distance. Football commentators can be heard to hesitate quite frequently, though most often when identifying players. These hesitations are often unvoiced, remaining as short pauses in the commentary.

Examples from Delin’s discussion of horse racing and football (the period “.” indicates a short pause):

- 15a. dummy (.) by Hagi but er Gary Neville refused to buy
- b. And Rock Falcon a little bit slow er and that’s a surprise he normally
 eh wants to make the running

4.6.2 False starts

False starts also often appear in fast unplanned speech. In these cases the speaker invariably restarts what it is that they are saying, maintaining coherence in their utterance. Examples from Delin's football data:

- 16a. he'll he'll be going in the ninety-first
 b. they are keeping as we were saying earlier they are keeping the ball together so well

Note that the speaker of 14b. could have continued his clause where he interrupted it, with *they are keeping as we were saying earlier the ball together so well*, but chose to return to the start.

4.6.3 Re-planning

Similar to false starts re-planning occurs where the speakers gets to a point in their utterance but then abandons it in favour of another. More of Delin's examples:

- 17a. Nigrasine on the left in the er horse with a big white face
 b. we were very tired but we had (.)
 we were clever enough to get a victory

In the first example the commentator begins by identifying a horse by his jockey's colours, but chooses to do so by a distinctive physical feature instead. In the second, the football commentator does not finish his original thought, but re-plans to say something else.

4.6.4 Other errors

There are many other errors that can be made in speech such as perseveration (in which a sound is replaced by one that preceded, *start to sturn*), anticipation (in which a sound is replaced by one that is due, *tart to turn*, and general malapropisms and spoonerisms (where words are incorrect, or swapped with other words). All these sorts of speech errors are at least as likely to occur in commentary as in normal speech.

Among the most famous errors made by commentators are known as “Coleman-balls”, as is the title of a column in which they appear in *Private Eye* magazine, named after the commentator David Coleman. These are the mistakes that most listeners do not spot at the time, but when hearing them isolated they are amusing or even surreal. Beard (1998) lists some of these “linguistic cock-ups” as made by John Motson.

- 18a. We’re back to 1-1.
- b. The World Cup, truly an international event.
- c. It’s a football stadium in the truest sense of the word.
- d. Platt - singularly in two minds.

4.7 Intonation

Intonation is the tune in which we speak, and two of its components are pitch and volume. Sports commentary has a distinctive intonation pattern. As the action gets more exciting, so the commentator gets more excited, and this is reflected not only by the speed of his speech, but the increase in pitch and volume. An exciting attacking move in football, followed by a poor strike will be reflected in a continuous rise in pitch and volume, climaxing with the shot before sharply dropping with disappointment.

Kuiper (1996) studied the intonation of horse race calling, and found each caller to follow a distinctive pattern. As the race progresses, and the action gets more exciting, the caller’s pitch increases in stages as he calls the order of the horses. The closer to the finish, the faster the increases until a peak (at an average of an octave higher than the starting pitch) is reached and the race is over and the pitch returns to normal. Kuiper also found that if something exciting happens early in the race, such as a fall, the callers pitch will jump higher than normal, but rather than returning to where it was, it continues to increase, but at a slower rate than normal until it is in roughly the same place as a normal race.

4.8 Summary

Sports commentary, like all forms of speech has many features, which combine to give it its unique sound. From the linguistic effects of inversion, tense usage and

simplification, to the prosodic effects of a unique intonation style. Personalities of the individual commentators involved play a large part, as do the relationships between them.

Whilst the reasons behind some of these features may not be important, their presence is a good start when attempting to model football commentary for artificial recreation.

Chapter 5

Analysis of Commentary from Real Football

5.1 Introduction

The ultimate aim of a project such as this would be the in-depth analysis of a single commentator (or pair of commentators), since each has their own individual style, and the creation of a model of commentary for the individuals based on the analysis. However, due to the time restrictions on this project, and the availability of data, that is neither feasible nor possible.

Chapter 8 has details of how a full system, based on a specific commentator, or pairing of commentators, could be developed from the findings of this project. This chapter, however, has analysis of a representative sample of football commentaries, from a wide variety of types of matches, and from a variety of different commentators.

Whilst there is not enough data to perform a full quantitative analysis, this chapter will discuss the areas that need to be looked at in order to perform any such in-depth study.

5.2 The Football

The project was conceived close to the end of the football season, and so, since there appears to be no existing collection of football commentary transcripts, there was relatively little data available to collect. Once the project was confirmed, data collection began, and a substantial number of football matches, broadcast on both terrestrial and satellite networks, were recorded.

Due to the time constraint of this project it is not possible to make a full transcription of all the matches. Also, since all the data was collected over a short space of time, from at least four different sources, there is not a great deal of data from any one individual commentator, or pairing of play-by-play and colour commentators. With this in mind, and the goal of carrying out an analysis that covers a wide range, it was decided that one match should be transcribed in full, and a number of others surveyed with the aim of finding commentary that might illustrate specific points. The following matches were selected.

For full transcription:

- Everton V Liverpool, April 16 2001, an FA Premier League match, broadcast by Sky Sports. This match was chosen from the data collected, as it was the most 'normal' game, so it should have the most typical commentary. It is not the most normal game possible however, because it was late in the season, and so teams are trying even harder to win since this can seriously affect league position, and the two teams are old rivals, so much reference will be made to the fact that this match is a *Merseyside derby* match. It was the best of the league matches available, however, as the others were played by teams who either had a similar or even greater rivalry, or who were actually battling each other for league position. This should minimise any context specific commentary, allowing for a more general analysis.

For illustrative selection:

- Albania V England, March 28 2001, a World Cup qualifier match, broadcast by Channel 5. An international match, the commentator of course, being En-

glish, will be obviously biased in who he wants to win. This may or may not be reflected in the commentary.

- Liverpool V Arsenal, May 12 2001, the FA Cup final, broadcast by ITV. Viewed by many as the single most important and prestigious game in the English domestic football calendar. This importance may often be referred to in the commentary.
- Liverpool V Alaves, May 16 2001, the UEFA Cup final, broadcast by BBC 1. Another important match, Liverpool playing less than a week after winning the FA Cup, having already won the Worthington Cup. It could be a historic match for a British team, so the commentary from British commentators may be biased in favour of a Liverpool win.

5.3 The Transcription

The recording of the Everton Liverpool match (henceforth referred to simply as *the match*) was played on a TV/video unit placed beside a computer. Everything the two commentators said, including pauses and mistakes, was transcribed from just before the match began, until the recording ended, about a minute after the final whistle. The full transcription of the match can be found in appendix B.

The format of the transcription is as follows:

- The timing begins with the whistle for kick off at 00:00 and continues throughout the first half, and is reset to 45:00 at the start of the second half.
- The time appears at the beginning of every turn of the two commentators, and in the middle of a turn to mark the time a goal is scored or the end or start of a half.
- AP signifies the play-by-play commentator Alan Parry, and DB the colour commentator, or expert, Dave Bennett.
- There is no punctuation save apostrophes, and uppercase letters are only used at the start of a turn or for a name.

- The numbers in brackets, eg. (X) indicate a pause of X seconds. (.) represents a pause of less than a second.
- Where the commentators speak over one another, the one who lets the other continue is written in parenthesis, and it does not count as a turn for their speaking.
- When a portion of an utterance is quoted, it will be quoted along with the time of the whole utterance, to allow for easy reference to the complete transcription.

A sample of the commentary looks like this:

6:04

AP - Campbell involved in that scramble (.) for possession on the edge of the Liverpool box which resulted (.) in a Liverpool free kick (2)

6:13

DB - I think we can see one or two aerial confrontations there with Ferguson up and er (.) a lots gonna depend how the referee sees those situations sometimes referees give a lot of free kicks for aerial (.) er confrontations which are not because er the balls in the air and there's always arms and legs going (1)

No effort has been made to represent the intonation, pitch, stressing or other prosodic features of any of the commentary, as this would be a separate project. This is discussed further in section 4.8.

5.4 Features of Sports Commentary

The last chapter looked at previous work on sports commentary, and some of the features that define it. This section looks again at those features to establish if they are present in the commentary of the match.

5.4.1 Simplification

Simplification was identified as the omission of certain elements of a sentence. These are most often in the sentence initial position, and either a pronoun or a pronoun plus copula is omitted, or copula omission can occur on its own.

There are a number of instances of this throughout the commentary of the match; below are some examples:

- 1a. 0:00 AP - Fowler [is] caught offside here
- b. 1:03 AP - Campbell [is] (.) onside
- c. 2:50 AP - [It's] a frantic early pace exactly as we expected
- d. 12:53 AP - Heskey [is] beaten to it by Gough
- e. 14:29 AP - [It's] floated in towards Ferguson

Note that all the examples, and in fact all the instances within the text are uttered by AP, the play-by-play commentator. This could be because these statements, as discussed in the last chapter, are similar to event reporting headlines in newspapers, and event reporting is the job of the play-by-play commentator.

5.4.2 Inversion and passiveness

Structures in which the predicate proceeds the subject have been identified in sports commentary, and particularly football commentary. A commentator will say something like *up goes Sheringham* rather than *Sheringham goes up*. The main reason for this is most likely to be that it gives commentators enough time. Passive phrases, it is believed, are used for the same reason as the switching of the subject and object delays identification.

There is no evidence of inversion in the transcription of the match, though there is much use of passive mood:

Passive/Active

- 2a. 10:11 AP - Ferguson (.) hustled out of it (.) by Sammy Hyypia
Sammy Hyypia hustles it out of Ferguson
- b. 12:17 AP - Campbell (.) played off him by McAllister
Campbell (.) McAllister plays it off him

It would appear from these examples that passive clauses are indeed used for identification purposes. In both examples the commentator says who has the ball, and can see that someone has taken it from them, and says as much before they identify who it was.

In the last chapter, there were examples from football (taken from Delin, 2000) of inversion, so it does occur in the game. As explained above, the data used here is from a single football match, and can in no way provide the definitive description of football commentary. The fact that it did not occur at all, is quite indicative however, of this (Alan Parry of Sky Sports) commentator's particular style. It seems that he does not use inversion, but does use passive structures, and this could be taken into account when developing a model of his commentary.

5.4.3 Result expressions

These expressions are of use when a commentator wishes to say that one action leads to another. The words *for* and *to* are most commonly used to indicate this. It is natural to expect that there would be a great deal of these. Anyone who has watched football can imagine hearing commentators saying things like *it came off the defender for a corner* and *the goal keeper waves his arms to move his men up*.

In this match, however, there is not a great deal of evidence for these, certainly not using *to*. Here are some examples that mostly use the word *for*:

- 3a. 11:55 AP - showing up the ball to Neville Carragher to make the interception
- b. 12:13 DB - I think this is going to be a long throw for Ferguson to go to
- c. 20:12 AP - Ferguson (1) beaten to it this time it drops for Xavier
- d. 30:39 AP - Weir with an excellent ball for Watson

Example 3b. is most obviously an example of a result expression, but c. and d. can be seen as examples also, if it is assumed that they are incomplete. It is possible that they could both have *to go to* at the end as in b. or something equivalent like *to play* and their meaning would remain the same.

When it comes to describing the events that one would imagine a result expression could be used for, these commentators say things like *the throw's gone Liverpool's way* and *the clearance by Gemmill has given Liverpool a corner* or they do not explicitly mention it at all.

So the commentators of the match clearly use result expressions, but not at every occasion that one would expect, and often in a truncated form.

5.4.4 Heavy modifiers

Heavy modifiers are when an often brief piece of incidental data is included along with a player's name. There are many examples of these in the match:

- 4a. 1:03 AP - Biscan (.) *returning to the starting line up* feeling
he had a freekick there
- b. 19:05 AP - this is Biscan (.) *the young Croatian player* (1) holding
on from Nyarko
- c. 44:48 AP - and this is where Hamann or indeed Robbie Fowler *who*
scored that brilliant free kick of course against Wycombe in
the FA cup semi-final (.) could come into their own here

It is interesting to note that it appears that the information in 4c. is so long that it is almost as if the commentator has forgotten exactly what he said while remembering what he is trying to say. In short form, it would make sense to say *this is where they could come into their own* or *they could come into their own here* but it takes so long that the commentator says *this is where they could come into their own here*. Whether this was a mistake, or deliberate on the part of the commentator to remind the listener of the point he was making, is unclear.

The play-by-play commentator often gives information about a player not as a modifier, just as the whole meaning of the utterance, though these are discussed in section 4.7.

5.4.5 Tense usage

There are three main tenses used in sports commentary: simple present, when describing quick actions; present progressive, when actions have a longer duration or during summing up; and simple past when recapping. There are examples of each of these in the match.

simple present

- 5a. 1:03 AP - Nyarko knocks it back in
 b. 2:10 AP - Xavier gets there ahead of McAllister

present progressive

- c. 7:06 AP - Fowler (.) showing great skill (.) and winning Liverpool (.) the throw
 d. 12:53 AP - Hyypia coming round the back

simple past

- e. 5:50 DB - he struck it with power
 f. 9:36 DB - Well we see the ball's played up for Biscan 'e puts 'is arm out 'e's
 goes to screen the ball and 'e's definitely got 'is hand up there
 g. 10:11 AP - Watson (3) Heskey (.) tracked the route back to his goalkeeper but
 Weir was there to help out

The colour commentator is the one that uses simple past tense most, as he is more likely to recap than the play-by-play, and vice versa with simple present since play-by-play is the one calling all the action as it happens.

In calling the action though, the play-by-play commentator often omits the verb in his utterance, and this will be discussed in section 4.7.

5.4.6 Routines

Routines are formulaic ways of detailing some aspect of what commentators are talking about. The examples given in the last chapter were taken from baseball and horse racing, and it appears that there may be a relationship between the repetitiveness of the sport being described, and the number of routines that can be identified.

There are a lot of very different things that can happen in a football match, and they can happen so infrequently that it is difficult to spot any formula being used from just one match worth of data. There are obvious times when there would be routines, such as giving the score of a game, and these would vary depending on if they are given during the game, or after a result:

<i>during a match</i>	<i>after a result</i>
The score is X Y to Team A	Team A beat Team B X Y
Team A is leading X Y	Team A lost X Y to Team B
Team A is winning by X goals to Y	Team A drew against Team B
The score all tied at X X	Team A X Team B Y

Two examples of scores from the match are:

- 6a. 5:12 AP - also scored in Liverpool's three one victory against Everton (.)
at Anfield in October
- b. 19:05 AP - Henchoz for Liverpool (.) they lead one nil

There are many set pieces in football, such as freekicks, or corners, that occur in similar ways, but happen so infrequently that it is hard to say if there is a routine being used. The most obvious routine is perhaps the straight calling of the action, which is mostly done by simply calling the name of the players with the ball:

- 7a. 7:26 AP - There's Heskey again (1) Smicer (4) Carragher (.) McAllister
- b. 19:05 AP - Fowler (2) Carragher (5) now Stefan Henchoz
- c. 30:39 AP - Hyypia (1) Heskey (2) Gough's clearance (.) reaches Campbell (.)
Ferguson alongside (.) here he is (.) he finds Gemmill (1) Henchoz
just er (.) quietly reads the play (1) Fowler (2) Weir with an excellent
ball for Watson (1) Gemmill (2) this is Gough (1) Michael Ball

This listing of who is in possession of the ball can go on for some time, and many of the names may come with some sort of description or other phrase. As can be seen in the examples above, phrases such as *here/there is X*, or *X's cross/header/clearance* are quite common.

A better idea of the use of routines may come from interviewing the commentator to ask if he uses such things, or from more in-depth analysis from a larger corpus of commentary.

Another occurrence of a routine that certainly does not look like a routine, may come from specialist phrases used throughout a particular sport, or with regards to a particular individual or team. It is possible to hear commentators, when they are talking

about Michael Owen (of Liverpool and England) who is known for being a very fast player, talking about *Owen's pace*. Also, towards the end of the match, after Liverpool have been leading for the majority of the game, and Everton have just equalised, the commentators are pondering whether it will stay at two all:

8a. 86:52 AP - Unsworth... has got the ball from the penalty spot (.) that looks like giving his team a crucial point here (.) or have Liverpool got something left in the locker

Close to the end of another game, the second leg of a Champions League semi-final, Manchester United are losing, and the play-by-play commentator says that they are not playing as well as they did in 1999, the year they won the championship, beating the team they were losing to then, in the final. The colour commentator's response is:

No I think I think what they're playing at is they're dragging the last dregs if you like of what they've got in the locker room

Different commentators, different teams, different competitions, but the same phrase. Maybe this was just a freak occurrence, but it is possible that this is a routine used by many commentators during the closing stages of matches.

5.4.7 It-clefts

It-clefts are so called because a clause is cleft in two by the use of *it*. Examples from the match, along with their non-cleft alternatives are:

It-cleft	<i>Non-cleft</i>
9a. 15:38 AP - it's Ferguson who wins it	<i>Ferguson wins it</i>
b. 56:10 AP - and it's Watson who won it	<i>Watson won it</i>

These are in fact the only examples in the whole match. All we can gain from this is the knowledge that this particular commentator, does express things in these terms, but quite infrequently.

5.5 Errors

Football commentary is a high speed, high pressure verbal task, and mistakes are inevitable. The last chapter identified a number of types of error that can be made in such a field, and this section looks at the transcribed match commentary to see if they really do occur.

5.5.1 Hesitation

Hesitations are the *ums* and *ers* and pauses that occur in speech all the time. As football commentary is quite high pressure, it is expected that there will be a considerable number of these within the match.

It is difficult to count silent pauses, because there are so many that are not hesitations, but it is possible to count the number of *ers*, *ums*, *ahs*, *uhs*, *erms* and *ehs*. In total, through the 100 minutes of commentary, there were 207 voiced hesitations. Some samples from throughout the match:

- 10a. 0:43 AP - Hyypia against Ferguson's gotta be one of the eh real
fascinating battles
- b. 4:59 DB - he's gonna put 'is foot down and er Unsworth pushed
Biscan away nothing particularly er violent er something
you'd expect in a local derby
- c. 30:39 AP - Henchoz just er (.) quietly reads the play
- d. 40:25 DB - but again (.) er (.) I think that showed up Duncan
Ferguson's sharpness a little bit there Alan when it came
back to him (.) er he just wasn't able to get 'imself moving
quickly and er that happens when you're only playing irregular

By far and away the most common hesitation type is *er* accounting for just under 90% of the total. From the examples above it also appears that DB, the colour commentator, makes more errors, which is not what one would expect. This will be discussed further in section 4.6 later.

5.5.2 False Starts

False starts occur when a speaker restarts part of what he is saying. This happens on a number of occasions within the match. Here are some examples from both commentators:

- 11a. 16:35 DB - evert (.) Everton are pulled all eleven back
- b. 26:17 DB - Scott Gemmill comes in and not s not so great er strength heading
- c. 36:42 AP - they they've been in the game
- d. 51:37 DB - and er (.) Liverpool are if they're going to get back into the (.)
control of the game they're going to have to get their passing going

11d., like 14b. from the last chapter, is an example of when the speaker could have continued his clause where he left off, such as *Liverpool are if they're going to ... the game going to have to ...*, but he chose to restart it.

5.5.3 Re-planning

Re-planning is like a false start in that the speaker begins part of their utterance again, but rather than continuing, they change what they are saying, either in meaning or just their choice of words. Here are some examples from the match:

- 12a. 1:52 DB - it wasn't the type of sort of clearance that you want to give
- b. 36:18 DB - what's important Alan is that Liverpool have got a certain eh Everton
have gotta get some crosses into the box
- c. 80:34 DB - I think that one win'd be impor 'd be ok

Re-planning, like false starts, do occur in the commentary of the match. Not very often, but often enough to be noticeable, and it would seem that the colour commentator again makes more of this sort of error, an issue to which we return in section 4.6.

5.5.4 Other errors

One of the other types of errors that the commentators of the match seem to make is misidentification of players. This maybe because they cannot see them clearly, or possibly they just get their name wrong. It is something that both commentators are prone to:

- 13a. 36:18 DB - er n nys ns Nyarko as well
- b. 47:44 DB - Gerrard uh Gerra um Carra Carragher
- c. 52:05 AP - back in by Ball by er Watson rather to Campbell

The last chapter referred to Colemanballs, to errors made by sports commentators that, upon reflection, are highly amusing. There is nothing particularly funny said (that is not deliberate) in this match, but there are a number of times when, on reviewing the commentary, what is said does not entirely make sense. These are nearly always things said by the colour commentator:

- 14a. 1:52 DB - but it wasn't er the type of sort of clearance that you want to give cos that gives the impression that you're a little more nervous even if you're not
- b. 24:18 DB - It's interesting er (.) Hyypia and Henchoz when they're (.) they're split up they're allowing Campbell to get amongst the two of them

Again, reasons for why it might be that this type of error is made more frequently by the colour commentator are discussed in the next section.

5.6 Play-by-Play Versus Colour Commentary

In the last chapter, there was a brief discussion of the differences between the roles of the play-by-play and colour commentators, and the relationship between them. This section looks at the roles and relationship of the two commentators from the match, Alan Parry, the play-by-play, and Dave Bennett, the colour.

5.6.1 Use of time

The last chapter introduced the four different functions of commentary as proposed by Delin (2000): narration; evaluation; elaboration; and summarisation.

A useful analysis of commentary might be to see how much of their time each commentator spends on each category, and how much of each category is done by each commentator, but that is time consuming and so not considered here. What is considered is a higher level analysis of who does what.

Play-by-play

- Narration: This is the main bulk of the commentary, perhaps the most important part, and it is the responsibility of the play-by-play commentator. Whatever else he does, it is his main responsibility to call the action of the game. He does not comment on every single piece of action, every pass, every tackle, but at the very least, he will verbalise every important or exciting episode in the game.
- Evaluation: Whilst everyone is entitled to an opinion, and the play-by-play commentator is certainly not forbidden from giving his, he does it very rarely.

15a. 0:43 AP - Hyypia against Ferguson's gotta be one of the eh real fascinating battles

b. 26:37 AP - good tackle by Unsworth

c. 30:39 AP - and Liverpool seem more able at the moment than Everton to slow the pace down and keep possession

Often, his opinion is in terms of a move being good or bad, as in example 15b., or they are short, with little explanation behind them, preferring to leave that perhaps to his co-commentator.

- Elaboration: Whilst it is not his main job, the play-by-play commentator gives quite a lot of information with regard to player history, previous results for the teams, and other background detail. It may be that this is just the style of this particular commentator, but throughout the match he gives details of the teams

and players over 30 times. Examples of what he says with respect to information about the players and the team can be found in section 4.7.

- **Summarisation:** The main points of summarising for the play-by-play commentator are at the end of the each half, summarising the action we have seen so far. These are very brief recaps that illustrate only the main points of the game.

He also gives occasional brief summaries during the game, but these are sporadic at best. The examples below are a summary of the first ten minutes, and of the first half:

16a. 10:11 AP - Ten minutes gone (.) penalty turned down (.) a goal scored (.) and a yellow card for each side (.) typical Merseyside derby

b. 47:33 AP - The end (.) of a very lively first half (.) in the one hundred and sixty fourth Merseyside league derby (1) the crowd enjoyed that (1) the tackling was intense (.) the atmosphere excellent (.) Liverpool made a wonderful start with Heskey's goal (.) Everton fans still arguing that they should've had (.) a penalty (.) themselves (.) immediately before Gerald Houlier's team took the lead (.) but Duncan Ferguson has brought them level just before half time (.) and it's set up brilliantly for the second half here (.) Everton one (.) Liverpool one

Colour

- **Narration:** One of the colour commentator's main tasks is narration, but in a different sense to the play-by-play. The colour commentator almost never describes the live action, but he will narrate a replay. Depending on how many replays are shown, he may narrate the same scene a number of times, each one from a different angle, enabling him to put a different spin on what he is saying.
- **Evaluation:** Part of his narration of replays is also evaluation. He will explain again what is happening, but with more emphasis on the reasons behind actions,

or the quality of them. This is perhaps the main role of the colour commentator, because they are considered the expert, and their opinions on the action are highly respected, as they are usually ex-players or managers, and have a different insight to that of their co-commentators.

As well as commenting on replays (17a.), he comments on action he has just seen (17b.), about aspects of performance (17c.), and he responds to his partner's opinions with explanation (17d.).

- 17a. 4:14 DB - we're now just seeing Heskey to 'is credit played through 'e's showed 'is pace and power and 'e's powered that past the keeper (1) er an extreme good power there (.) you can see 'e's taken a good first touch Watson's recovering there (.) 'e's got 'is 'ead up and that's a powerful shot (.) round the keepers legs giving 'im no chance
- b. 14:08 DB - That's good play by Liverpool there (1) they worked to get the ball wide in a circle (.) decent cross into the box (.) if Heskey just pulled off a little bit further he may 'ave been able to adjust is run to come in
- c. 24:18 DB - It's interesting er (.) Hyypia and Henchoz when they're (.) they're split up they're allowing Campbell to get amongst the two of them (.) whether they're looking for the offside but er (.) if Ferguson wins one of those flick-ons it could be completely dangerous cos er (.) Henchoz is the wrong side of Campbell and if 'e could get onto that (.) and it could cause problems but on that occasion they got the offside flag
- d. 32:41 DB - Well I think that's due to a lot of their (.) work off the ball the movement and them finding the spaces they're (.) they're not just playing in straight lines (.) they're making good angles for one another

- **Elaboration:** One would expect elaboration to be an important role of the colour commentator alongside evaluation. As an expert he knows a lot about the players, and has no doubt seen them all play many times. In this match this is far from the case.

There are only a couple of occasions when he refers back to a previous match or to some details of a player. It is possible that this is not defined as his role, and left solely to the play-by-play, or it may be just his style not to give any background details on people and teams.

He does however try and give an insight into what he thinks will be motivating players, or what it looks like they are about to do. As the expert he is better placed to make this sort of judgement, though he does not make such statements particularly often. The examples below illustrate the kinds of things he says:

- 18a. 12:13 DB - I think this is going to be a long throw for Ferguson to go to
 b. 23:58 DB - Hamann was completely unmarked ... and er I think he had a little bit of frustration
 c. 27:43 DB - 'e's 'it 'im ... but there's no (.) er vindictiveness about it

- **Summarisation:** The colour commentator does not really summarise the match in terms of what has happened, but in terms of how well the teams have played.

- 19a. 17:29 DB - I think Liverpool will be pleased with their start er Alan the goal's obviously helped but they're looking (.) very confident
 b. 46:48 DB - it's interesting Alan I don't think either keepers had well a proper save to make
 c. 51:37 DB - It's a good start to the second half for Everton (.) er (.) they've upped their tempo their not giving Liverpool any time on the ball

Summary of roles

Table 5.1 summarises the roles of the two commentators.

Role	Play-by-play	Colour
Narration	The main role	Only on replays
Evaluation	may give brief opinions	The main role
Elaboration	secondary role, gives all player/team details	occasionally comments on what a player might be thinking/feeling
Summarisation	summarises game event	summarises player/team performances

Table 5.1: The roles of the two commentators

5.6.2 Balance of power

The last chapter briefly discussed the balance of power between the two commentators, and how it seemed to be unbalanced, in favour of the play-by-play. One motivation for this theory was how often the commentators referred to each other by name. By looking through the transcription of the match it is possible to see how often the commentators refer to each other by name, and for what reason.¹ Table 5.2 has the details:

	Reason	Frequency
Play-by-play	introducing Dave	2
	talking about Dave	1
	apology to Dave	1
	direct request to Dave	1
	TOTAL	5
Colour	telling Alan something	8
	voicing opinion to Alan	7
	responding to Alan	2
	direct question to Alan	2
	TOTAL	19

Table 5.2: How often each commentator refers to the other by name

¹Although the reasons are not certain, they are the best guess of an observer.

Two things can be seen from these results. The first is that the colour commentator does indeed refer to the play-by-play commentator by name more than the other way round, nearly four times as much in fact. The second comes from the reasons for these references.

The reason behind the play-by-play commentator's use of *Dave* are quite clear. He mentions his name by way of an introduction at the start of each half, he talks about him and he makes a direct request of him. It is interesting to note that the apology is the only time that they speak over each other and the play-by-play commentator does not back down. This time he apologises and continues what he was going to say. This on its own suggests that perhaps it is the colour commentator who is in charge, as the play-by-play just lets him continue.

This does not seem the case from the colour commentator's reasons for addressing *Alan*. His reasons are not as direct: with the exception of the two occasions he asks something of his partner, they are much more the statements of a subordinate, looking for approval of what he is saying.

- 20a. 2:36 DB - It looks like er Walter's decided to go with the back four Alan
- b. 4:14 DB - Well that's amazing Alan I was in the opinion it was a penalty
- c. 8:21 DB - I think we have to accept sometimes Alan in local derbys and things like this

It has been suggested that the relationship between commentators is like a conversation between two people, being overheard by the audience. However, looking at the examples above, and the number of times the commentators address one another directly, it seems very much the case that the dynamic is more one-way. Looking at the transcription and the sorts of things the commentators say suggests that the play-by-play commentator is talking to the audience, telling them what happens and giving them facts about players etc., and the colour commentator is talking to his partner giving him his opinion, and telling him about the things he knows.

Another way we can study the balance of power is by looking at how much time each commentator has control of the floor, so to speak. Of the hundred minutes of the match, how long does each one speak for? This was easy to calculate, as the

transcription has all the times of the turns of each commentator. The figures show that the play-by-play commentator has 70% of the floor.

That figure is just an average of the whole match, however: it does not tell the whole story. Figure 5.1 shows the percentage of floor control of the commentators, averaged over five minutes blocks. Note that there are two 45-50 minute blocks, the first being stoppage time added to the end of the first half, and the second the start of the second half.

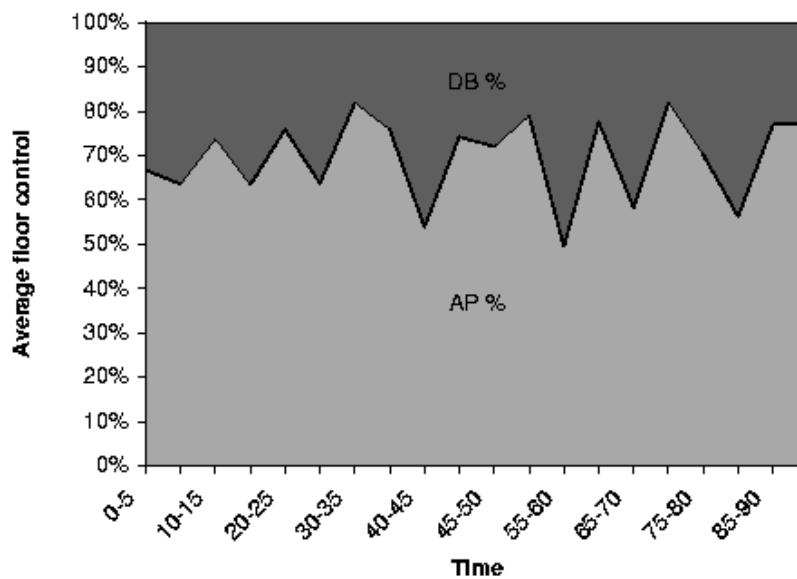


Figure 5.1: The percentage of floor control averaged over five minute periods.

There is, as one would expect a degree of fluctuation throughout the match. Obviously there are points where more happens in the game that the colour commentator can talk about, and points where there is less. There are however a number of points where the colour commentator's share increases considerably. Three of these can easily be seen in figure 5.2, which is the same as figure 5.1, except it is marked to show in which periods the goals occur.

The three main peaks of the colour commentator's control occur when a goal is scored. The first and fifth goal do not show such a peak, since at the beginning and end of a match the play-by-play has a distinct role in introducing the match, and summing it

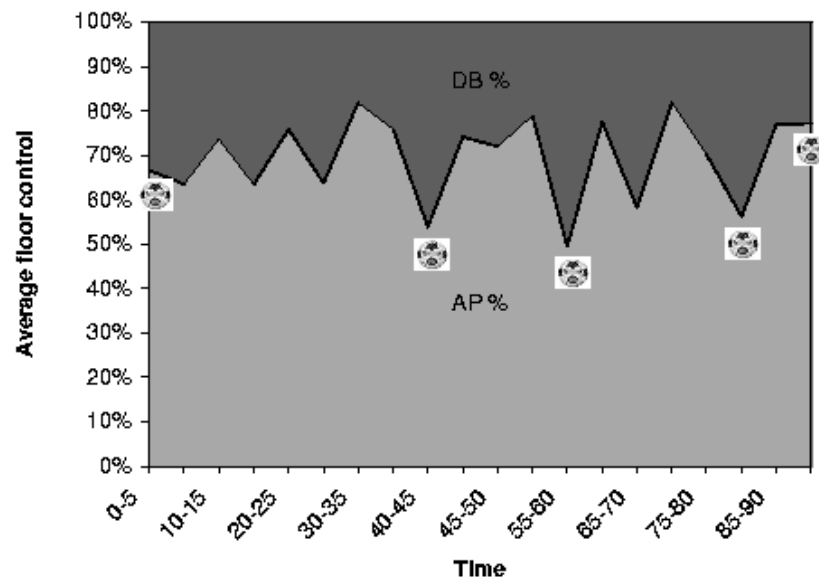


Figure 5.2: The percentage of floor control averaged over five minute periods, with the goals marked.

up respectively. The reason for the peak at the 65-70 minute point is less clear. Looking over the transcript it looks as though there was a sequence of small but exciting incidents in the period that gave the colour commentator quite a bit to talk about.

These impressions are confirmed up by looking at the average turn length of each commentator. The average play-by-play turn is 39 seconds, and colour is 17 seconds. Looking at figure 5.3, a graph of the average turn length in five minute periods, we can see dips in the play-by-play commentator's turn lengths corresponding with the three goals.

The peaks in the play-by-play commentator's turns seem to correspond with points in the match where there is very little happening, and so his turns can be quite long.

The final fact that is of interest in this section is how much the commentators actually say. By separating the two commentator's turns, and removing all the times, pauses and turn markers, it is possible to make a word count. The count for the play by play commentator is 6986, and for the colour commentator it is 5442. This seems strange since the play-by-play commentator has 70% of the floor time, but only says

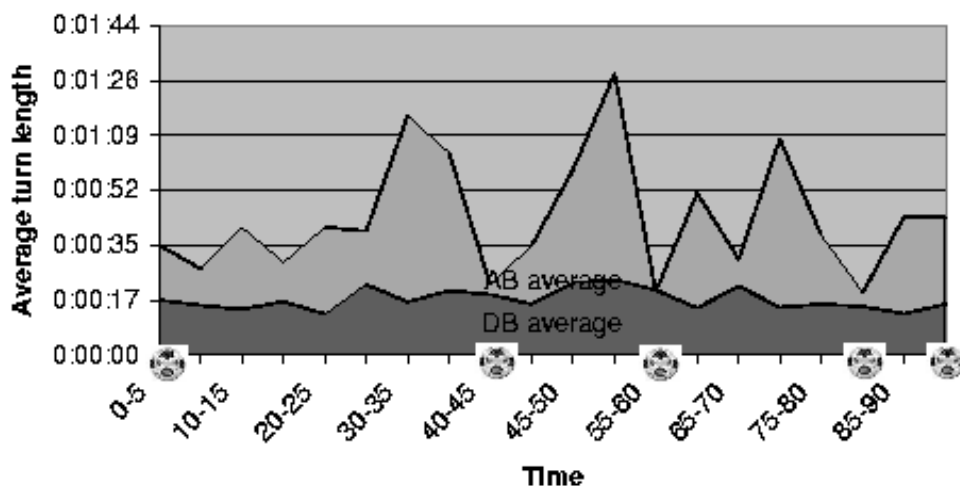


Figure 5.3: The turn length averaged over five minute periods with the goals marked.

56% of what is said during the match.

This means that while the play-by-play commentator is calling the action, he is speaking at roughly 100 words per minute, whereas the colour commentator, who would seem under less pressure to speak, does so at over 180 words per minute. However, these figures do not take into account the pauses in the commentary, so these need to be removed from the total.

Pauses were counted as significant if they were two seconds or longer. Anything shorter is not so much a pause in the commentary, but a pause for breath, or to think for a second. It turns out that amid the play-by-play commentary there is a total of over 26 minutes that is silent, compared to just under 6 minutes of the colour commentary. So for nearly 40% of his floor time, the play-by-play commentator does not actually say anything, and 20% for the colour.

However, even if we take this into account, the *absolute* speaking rate of the play-by-play commentator is still slower at 163 words per minute compared to 227 words per minute. What this seems to suggest is that the colour commentator knows he has not got long to speak, and so tries to say as much as he can in what little time he does have.

This seems to confirm Delin's hypothesis that the colour commentator is an oppor-

tunistic speaker. A great deal more analysis could be carried out on the exact timing of colour commentator speech, but, superficially at least, it appears to be when something noteworthy has occurred, when the play-by-play commentator feeds him something to talk about, or when there is a lull in the action and consequently the play-by-play commentary. Also it is intuitive that he speaks fast since once he is talking, he can never be certain how long he has got: something exciting might happen, bringing the need for him to be cut off, as in the example below:

21a. 81:32 DB - I wouldn't have given the penalty before (1)

81:42 (DB - that's a harsh decision)

AP - And I think that (.) sorry Dave (.) McAllister (.) seemed
to be yellow carded for his protests

This example returns us to the discussion of who lets who speak. This is the only instance when the play-by-play commentator does not let the colour continue when they talk over each other, because he has something important to say. From all the evidence in this section, it is clear that the play-by-play is in charge of this relationship, and so he obviously just lets the colour continue, knowing that he himself does not have anything important to say.

Summary

Table 5.3 summarises all the statistics that have been discussed in this section.

5.6.3 Interesting statistics

There are a number of other interesting features that can be found by examining the data from the match.

Errors

In section 4.5 above, the examples of hesitations seemed to suggest that the colour commentator made more *ums* and *ers* than the play-by-play commentator. Intuitively it should be the other way round, since the colour commentator has time to plan many

	Play-by-play	Colour
References to one another	5	9
Control of floor	70%	30%
Time on floor	65:35	29:55
Average turn length	39 seconds	17 seconds
Word Count	6986	5442
Speaking rate	101 words/min	182 words/min
Total time paused	26:37	5:54
% of floor time paused	38%	20%
Adjusted floor time	42:44	24:01
Adjusted speaking rate	163 words/min	227 words/min

Table 5.3: Statistics of the two commentators.

	Play-by-play	Colour
Average number of words between hesitations	125 words	36 words
Average time between hesitations	74 seconds	12 seconds

Table 5.4: How often the commentators make voiced hesitations

of his utterances, whereas his partner has to react to what he can see, so is under more pressure.

By counting how many of the 207 voiced hesitations were made by each commentator, it can be clearly seen that the colour commentator made just under three quarters of them, 151 in total. Using the figures from the last section, it is possible to show how often they both make such hesitations, in table 5.4.

With a lot more time it would be possible to do a deeper linguistic analysis of what the commentators actually say, what types of utterances they make, to see if this can offer any explanation to why the error balance between the two seems counter-intuitive. One possible explanation for it, however, may be experience. The play-by-play commentator, Alan Parry, has been commentating on radio then television since the mid 1970's, whereas Dave Bassett, the colour commentator, began his career

in the media in January 1999, and commentates only part-time while he manages a club. The colour commentator thus has had a great deal less experience, and so it is understandable that he makes more errors.

Name calling

Another interesting statistic that can be calculated is not just how often the commentators refer to one another, but how they refer to the players. It is not frequency that is of interest here, as this is purely dependent on how much of the action a player is involved in, which has nothing to do with the commentators. One would not expect a player to be mentioned very often if they did very little, though that in itself might make them worthy of a mention. What is of interest is the proportion of the times they are referred to by their surname alone, the standard in sports commentary,² by their full name, or just by their first name.

The full table of figures can be found in appendix C, and it details how often each player was referred to in total, and by each of the two commentators. There are a number of ways at looking at this data, but only the most interesting results are included here.

Table 5.5 shows the percentage of times each commentator referred to players by their full name. Note that the only players to be called by their first names are the team's two main strikers, and with just one exception, always by the colour commentator. He does it between 5 and 11% of the times he refers to them. The first row in the table is the average over all of the twenty two main players, of the likelihood that they are called by their full name when referred to. The second row in the table takes into account only those players that the commentators ever refer to by their full name: if the commentator is ever going to refer to a player by full name, this is the likelihood that they will.

When it comes to calling players by their full names, both commentators are just as likely to do it, around a tenth of the time that they make reference to them. Of all the players they actually refer to like that though, the colour commentator is three

²For male sports at least. For example, in tennis, John Smith is known as Smith, and Jane Smith as Miss Smith.

	Play-by-play	Colour
Average percentage	10%	11%
Adjusted Average	11%	30%

Table 5.5: How likely it is that a commentator uses a player's full name

times more likely to do so. What could be the reason for this difference? One reason is that of the twenty two players, the play-by-play refers to nineteen of them by their full name, and the colour only nine. So why could this be? Why is the colour commentator being so selective?

One possible reason is familiarity with the players. The play-by-play commentator is familiar with all of the players, to a degree, because his job requires it, but the colour may be more familiar with some, perhaps those he has worked with, or met somewhere. One interesting statistic related to this divides the players into those with English names, like Robbie Fowler, and those with foreign names, like Igor Biscan. Table 5.6 gives these figures.

	Play-by-play	Colour
English names	14%	20%
Non-English names	8%	0%

Table 5.6: How likely is it that a commentator uses a players full name

The figures show that while the play-by-play commentator is slightly more likely to call English-named players by their full name, the colour never refers to foreign-named players like that. There is no way of knowing why this is: it could be as simple as him not knowing their full names. Note that the 20% here, is less than the 30% above, because whilst the 30% is made up only of English players, not all English players are referred to by their full names by the colour commentator.

With more time it would be most beneficial to the modelling process to study exactly *when* players are referred to by different versions of their name. Surname alone is obviously the standard, but in what situations are their full names used, or their first names alone?

5.7 Other Observations

Previous sections have discussed features of sports commentary identified from the literature review. This section makes other observations about commentary, based on what was witnessed in the matches viewed. These includes observations on what is said, how it is said, and when it is said.

5.7.1 Verb absence

The verb *to be* is often omitted in football commentary, as in *Fowler [is] caught offside here*, and this was discussed in section 4.4. There are a number of other occasions when verbs seem to have been omitted or are just missing.

- 22a. 1:03 AP - Campbell's flick on (.) Hyypia there ahead of Ferguson
- b. 2:10 AP - Sammy Hyypia for Liverpool with the ball over the top
- c. 5:12 AP - Ball for Everton
- d. 8:48 AP - Westerveld's kick (.) onto the chest of Heskey
- e. 11:11 AP - Weir's clearance (2) Babbel on to Fowler good ball by McAllister

In some of the cases (the first parts of 22a., d., and e.) it appears to be a possible form of nominalisation of a verb. *Campbell's flick on* could be seen as coming from *Campbell flicks the ball on* and *Westerveld's kick* from *Westerveld kicks the ball*.

The reason for these sorts of verb-free utterances is not entirely clear although it would seem that they probably occur in commentary for time saving reasons. Most of the utterances would seem more complete with phrases relating to the ball. *Hyypia gets to the ball ahead of Ferguson*, *Ball has the ball for Everton*, or *Babbel passes the ball on to Fowler* for example. Saying such phrases throughout the whole match would not only be more time consuming, and thoroughly repetitive, but it would also be stating the obvious. Since the ball is the centre of most action, it can be assumed by the listener that it is also the centre of the speakers attention. It is always implicit what the commentator is talking about, without them having to say everything.

5.7.2 Driven by visuals

The last chapter looked at some of the differences between commentary on the radio and on television. Radio commentary is driven by the fact that the listeners cannot see anything. Equally however, television commentary is driven by what the viewer can see.

The commentators have at least a monitor with which to watch what is actually being broadcast, be it action, a replay, or a shot of a manager or a particular player, and they will often speak in direct response to what they can see.

- 23a. 4:14 DB - we're now just seeing Heskey to 'is credit... you can see 'e's taken...
- b. 9:36 DB - Well we see the balls played up
- c. 11:21 AP - well lets look back at that few seconds of football
- d. 57:11 AP - Well it brought delight (.) to the Liverpool bench
- e. 71:57 DB - What 'ave we got 'ere now (1) I really can't understand what all this chatting about I mean really (.) unless you wanna get noticed on telly
- f. 88:34 AP - w (.) well we're gonna have another look here (.) at the challenge
- g. 94:30 AP - full of yellow cards (.) a red card (.) a distraught goalkeeper (.) a delighted goal scorer in Gary McAllister

23a. And b. are the colour commentator describing the scene in a replay, and c. and f. are the play-by-play introducing a replay, though in f. he was not expecting it. Examples d., e., and g. are the reactions to specific camera shots of the Liverpool Bench, the referee and a player, and the losing goalkeeper respectively.

5.7.3 History

One feature of football commentary that it is easy to spot when listening is that commentators often refer to a team's history and previous matches. They may refer to these for a number of reasons. They may talk about a team's general performance of late, or how well they have done in past competitions, they may talk about recent games they have played or about previous times the two teams have faced one another. Here are some examples from the match:

- 24a. 2:10 AP - Everton unbeaten in their last six games at Goodison four of them drawn while they've only won five times (.) in sixteen home matches in the Premiership this season
- b. 6:31 AP - That incidentally is Liverpool's one hundred and first goal of the season in all competition
- c. 24:40 AP - Well with Ipswich winning up at Middlesbrough today (.) and of course with Ipswich holding Liverpool to a draw (.) in the previous league game on Tuesday (.) this is a match that Liverpool are very keen to win to (.) reinforce their champions league ambitions
- d. 30:39 AP - Liverpool incidentally are looking for their first (.) league double against Everton for ten years (.) having beaten them three one back at Anfield in October (3) all the previous meetings between these two famous clubs have been in the top division of English football ... Liverpool have never won here since the Premiership was formed in their previous nine visits (.) Everton have won four (.) and the other five (.) have ended (.) as draws

As mentioned in section 4.6 above, it is nearly always the case in this match that any discussion of previous results is left to the play-by-play commentator, and he does so just over ten times in the match, as opposed to the colours once.

5.7.4 Future

Commentators talk about the event previous to a match, but they can also talk about what will happen in the future. They may talk about games coming up for either team, or what winning or losing will mean for them.

- 25a. 2:50 AP - only four matches left after tonight for Everton (.)
 two tough away games at Arsenal (.) and Chelsea (.)
 and home matches against Bradford and Sunderland won't
 exactly be simple either (2) and on thirty eight points
 Everton will feel (.) another three (.) should see
 them home and dry
- b. 45:10 AP - If Everton win they'll go up above West Ham into
 fourteenth (1) Liverpool are also looking to move up a
 place up the table (.) with their sites set on a champions
 league place (2) six Premiership games left after tonight
 for Liverpool they're at home to Tottenham (.) Newcastle (.)
 and Chelsea (.) and then away to Coventry (.) Bradford (.)
 and Charlton

In this match, discussion of future fixtures only occurs once or twice in each half, so it is obviously less frequent than talk of previous fixtures, but it still occurs.

Along with talking about the distant future, the play-by-play commentator seems to have a penchant for predicting how the match will go depending on player statistics. Examples will perhaps explain this best:

- 26a. Pre 0:00 AP - Everton's Duncan Ferguson who's never been on the
 losing team in eight previous Merseyside derbys
- b. 22:22 AP - Unsworth clears his line for Everton (2) he's never
 finished in the winning team (.) in the last six derby
 games he's played in David Unsworth
- c. 57:11 AP - it was Marcus Babbel's fifth goal as a Liverpool player
 (.) and incidentally (.) whenever he's scored before (.)
 Liverpool have never lost

Now, he is far from actually stating what he thinks the outcome of the match, but at the very least it shows that he has access to a wide range of statistics.

5.7.5 Player details

Statistics and facts about players are often given, not just as modifiers as discussed previously, but just stated for the sake of it.

- 27a. 6:31 AP - Liverpool have their own powerhouse focal point in attack (.)
in the shape of Emille Heskey
DB - I think it's amazing how 'e's improved since
'e's gone to Liverpool he doesn't seem to be falling over
as much as 'e was at Leicester
- b. 10:11 AP - good ball by McAllister given away (.) to Scott Gemmill
(.) two players who used to be Scotland team mates of course
- c. 20:14 AP - Henchoz just gets through so much important defensive work
in a quiet unobtrusive manner (.) does so again for Liverpool (1)
seems to be the perfect foil (.) for Sammy Hyypia
- d. 20:14 AP - Gough's clearance (1) he was thirty nine (.) a couple of
weeks ago Richard Gough what an amazing (.) tribute to his
fitness (.) to be playing in a top Premiership match at that age
- e. 26:17 DB - Well this is a chance ... Scott Gemmill comes in and er
(.) ... it's just the wrong side of the post (1)
AP - Made his Everton debut against Liverpool a
couple of years ago Scott Gemmill
- f. 44:23 AP - Duncan Ferguson's fifth goal (1) in eleven Premiership
appearances this season

The sorts of things commentators say about players includes details of previous appearances, how well they play, statistics from their career, and even more personal details such as age and where they are from. As previously discussed, nearly all player details are given by the play-by-play commentator.

5.7.6 Unique utterances

The sections on errors in this chapter and the last referred to humorous one-off mistakes made by commentators known as Colemanballs. Whilst there was nothing that could

be classed as such in the match commentary, there were some fairly unique moments.

28a. 17:56 DB - they've got one or two large er lumps er in the Everton team

that'll go up ... may go direct for goal (1)

AP - Large lumps is that a technical phrase (2)

Unsworth going for the freekick (.)

DB - I could've called 'em pineapple chunks

b. 59:59 AP - a change here (.) with the young Italian Alessandro

Pistone (.) ready to come on ... and this his first

touch now (4) and eh heh heh (.) he looked like a right
footed player then (1)

DB - Yeah I'm sure he's er (.) feeling he hasn't warmed up

correctly not the best first touch when you come on as sub (15)

AP - Carragher's throw over (.) the head of Heskey clear (.)

by Weir (7) Pistone (1) not the best ball again (.)

third time lucky let's see (2) no

DB - No heh heh heh (3) the subs (.) number might come up again

c. 83:37 AP - Gregory Vignal (.) the man who's come on ... gets his

first touch which was not a successful one (1)

DB - I think 'e was watching Pistone when 'e came on

The first example is in response to something strange that the colour commentator says, and the second and third arise because of substitute's poor early play. Even if these situations did arise at another time, it is unlikely that the same commentary would be spoken. Incidents like these help commentary to keep from being as repetitive as it could be. Here is an example from another match that was checked, the Albania England World Cup qualifier match, to illustrate that this match is not a one-off:

29a. That's gotta be a yellow card (2) Lala (1) with the offence (2) and it wasn't a tinky winky one either

Lala is one of the Albanian players, but Laa-Laa is the name of a Teletubby, and Tinky Winky is the name of another. There was no reaction from either commentator to this joke, and anyone without a rewind button may not have realised that they heard

it. This may be a unique joke to this commentator, or it may be possible that other people have tried a similar joke when encountering this player.³

5.7.7 Occasion specific language

Different events in the football calendar have different levels of importance and prestige. Whilst it may be not be a trivial match, a game between two league teams mid-season is not as important a match as two teams facing off in a cup semi-final. Similarly, as prestigious as it is to be in the semi-final of one cup, it may be even more so to be in a similar place in another cup.

Of course the importance of seemingly minor games can be enhanced by league position. For example, an end of season battle between two teams near to bottom of the league may not seem important, but that fact that they are battling one another to avoid relegation makes it so.

So it would seem that there should be a hierarchy of match types, ranging from World Cup finals down to friendly matches, though these too can often be important, for example for a new manager to prove himself.

An initial attempt to address this was made by comparing the main match of this chapter, an English Premier League game, and the finals of the FA and UEFA cups. The only result that was really clear from this is that commentator's personalities differ greatly, and this has a major impact on the commentary. For example the play-by-play commentator of the Everton Liverpool match was more excited by every one of the five goals he saw, than his counterpart on the UEFA Cup final was by any of the eight he witnessed.

With more time it would be possible to study the language of the descriptions of the goals perhaps as well as the enthusiasm, but the following were to be found in the FA Cup final:

³Perhaps leading to him being described as Po-faced, or playing in a Dipsy manner, taking it further because Laa-Laa's favourite toy is a ball.

- 30a. Colour - Well my first reaction is (.) I've heard people try to knock this competition try and change it try and look this is the greatest look even the build up has proved it (.) the greatest domestic club cup in the world no question
- b. Play-by-play - Lee Dixon who today becomes the oldest outfield player in the FA Cup Final (.) since 1959 he was (.) 37 in march
- c. Play-by-play - Well Ljungberg has been in goal scoring form of late but would you believe that's his first goal in English domestic cup football (.) and what a time (.) and what a place (.) and what an occasion (.) to score that first goal

The above examples show that the commentators do at least acknowledge the importance of the match they are working on, even if their tone of voice does not give that away.

Another aspect of a game that creates special commentary, is if the two teams playing have a long known rivalry. Some examples of this might be England Germany in international football or Rangers and Celtic in Scottish Football, or indeed any teams that both play in the same city. Good examples of commentary from these sorts of matches can be found in the Everton Liverpool match, since this is a Merseyside Derby match (both teams are from Liverpool).

- 31a. AP - Jeff Winters the referee for a fixture that's always volatile and history suggests he's likely to be a busy man tonight
- b. 0:00 AP - and the first tackle (.) from Gemmill (.) underlines (.) I think (.) what we're in for here (.) every Merseyside derby is fiercely fought (.)
- c. 1:03 AP - Biscan ... feeling he might have had a free kick there he better get used to the fact that er tackles that earn you free kicks in ordinary games (.) don't always in this type of atmosphere
- d. 4:59 DB - Unsworth pushed Biscan away nothing particularly er violent er something you'd expect in a local derby

A local derby match brings expectations of rougher tackles and higher tension, all the examples above coming from the first five minutes of the game. Throughout the

match there are 16 references to this being a *derby* game, and references to other such events from Manchester and Newcastle.

5.7.8 Bias

A good commentator should never show bias to one team over another. In the match, the commentators are not biased towards either team: they do not get more excited when one team scores than the other or praise one more highly. If they were biased, the commentary could be quite different.

But that is just a domestic match: English commentators for English teams. What if teams from other countries were involved, or indeed even national squads? Can one expect English commentators to favour English teams in European football or the England team in international football? If this bias were present, one would expect a number of features to reflect this in the commentary:

- talking about the preferred team as *we*, and the opposition as *they*
- getting more excited when the preferred team score
- talking a lot more about the favoured team

To see if this was true, the commentary of an Albania England World Cup qualifying match was studied. The results were surprising. The play-by-play commentator⁴ never referred to the England squad by any familiar term such as *we* or *us*. Jack Charlton and Stuart Pearce, who have both played for England in their careers, spoke about the team as *we*, *Well we've had most of the game I mean we've taken it to them*, for example, but the commentator never did.

He was also no less excited when Albania scored their goal than when England scored their two. His tone was equally as enthusiastic for all the goals, but what is interesting was the language he used when the goal was scored:

⁴It was unclear whether the colour commentator was English or Irish.

- 32a. And Scholes looks for Owen Owen's onside chance for Englaa(2)aaand (.)
 Michael Owen comes up with the important goal (.) at the
 important time (.) the mark of a class goal scorer (.) and
 England (.) have finally broken the deadlock in the ??
 stadium in ??(Albania) (.) brave (.) battling (.) Albania
 nil (.) England (.) out of sorts for so long (.) one
- b. Here's half a chance from the quickly taken throw in England stretched
 (.) a goal for Albania (.) ?someone? (.) the substitute
 (.) gets it (2) and England (.) sloppy (.) right at the
 very end (.) and ?someone? scores (.) a consolation for
 Albania on a night (.) when England have had (.) certainly
 a fright

Albania's goal was at least as good as the England one, but it was described as an England mistake. What is difficult to discern, is whether this is down to bias, or expectation. England are expected to be a better team than Albania, and they were expected to win this match. This could explain the commentary, with England being expected to score as much as the commentator wanting them to score.

In terms of talking about one team more than another, this was true. Rather than bias however, this could be due to familiarity. Most of the England players play for the top clubs in the English domestic league, and the commentators will have seen them in action often, and perhaps even commentated their matches before. The Albanian players however, will be less well known to the commentators, so they have less to say about them.

To check this apparent lack of bias, the UEFA Cup⁵ final, between Liverpool and Spanish side Alaves was also used. The result was similar. While the commentators were obviously more familiar with the Liverpool players than their opponents, all eight goals,⁶ four per team, were received with equal excitement. There were ex-Liverpool players as part of the expert team, but the commentators themselves showed no bias.

All in all, it seems commentators are able to lay aside their personal feelings and affiliations, and provide a reasonably unbiased account of what occurs in a football

⁵The second biggest European competition.

⁶There was a ninth, winning, goal scored in extra time, but this was not on the recording available.

match. It would be preferable to study this further, looking at more matches from the same commentator, and possibly asking them about bias to see if it is always stable. Could an English commentator really be totally unbiased if England were to reach the World Cup final?

5.7.9 Interruptions

In football commentary, there is not always time to comment on every single action that occurs in the game, and most commentators do not even try. There will be occasions however, when a commentator is talking, and some piece of exciting action occurs. Does the commentator complete his utterance, or does he interrupt it with details of the current action? And if he does interrupt it, does he continue where he left off, or does he just continue from there?

This is probably a very personal thing, each commentator has their own style, and some may be more laid back and less prone to interrupting themselves, preferring to finish what they are saying. The play-by-play commentator in the match only interrupts himself once, and prefers to finish what he is saying on most occasions. He also interrupts the colour commentator on one occasion, though again he normally waits until he has finished. The examples below are of the occasion when he does interrupt himself, and two when he chooses to wait:

- 33a. 0:00 AP - every Merseyside derby is fiercely fought (.) Fowler caught offside here (.) but with the real importance of the three points
- b. 6:31 AP - That incidentally was Liverpool's one hundred and first goal of the season in all competition and Heskey almost presented number one hundred and two (.) well played by Robbie Fowler
- c. 24:40 AP - Well with Ipswich winning ... Liverpool are very keen to win to (.) reinforce their Champions League ambitions
Heskey (.) stays down injured here

Again, whether or not commentators interrupt themselves depends on their style, and probably on the actual action itself. Much more study would be required to determine if a commentator was prone to interruption.

5.8 Yet More Analysis

As mentioned throughout this chapter, there is more analysis that would need to be done in order to fully understand everything that is happening in the commentary, and subsequently produce a model of it.

5.8.1 Yet more numbers

This chapter has looked at a number of features of commentary, different things that the commentators talk about, and how they speak. It would be of use to look further at just how often certain things occur. It would help when developing the model to know, not just that a commentator uses a particular feature, but how often they use it.

Perhaps the biggest statistical well not yet mined relates to the play-by-play commentator's narration of the events of the match. How much of the match does he actually narrate? Of all the passes that take place in the game, how many get an explicit mention? This, in some respects, will help the control of commentary when it comes to a model. If it is known that a particular commentator only bothers mentioning, on average, one in every ten passes, but all tackles, then this can be built into the model, so that for every tackle that occurs in a game, an appropriate comment is generated.

This relates to studying exactly how much of their time each commentator spends on the various functions of commentary. This can be used to make sure the computational model is not spending an untypical proportion of time on any one of the areas.

5.8.2 Context

As well as studying how often particular features occur, it would also be interesting, if not useful, to study *when* and *why* things occur. Player details, and heavy modifiers for example. Is it something particular that is occurring on the pitch, or not perhaps, that makes the commentator decide to slip some fact about a particular player into the commentary? And why that particular player?

Depending on the method chosen with which to model the commentary, it could be quite useful to know in exactly what particular contexts certain things are said.

5.8.3 Prosody

Perhaps the most important aspect of commentary to be analysed, that has not been studied here, is the prosody, how the commentary sounds. Sports commentary has a very distinctive sound to it, and without the varied intonation of the commentator, football commentary would be rather boring.

Two of the main features for study are probably pitch and speed. If something exciting happens on the pitch, the commentary gets excited, the commentator speaks faster and his pitch increases. Likewise, if an attempt on goal, for example, ends in failure, the mood turns very much to disappointment: the speech slows, and the pitch drops. This much is obvious from even the most superficial of analyses.

What would be of most interest for attempting to model a particular commentator, would be to study to what degree his intonation changes, and in what situations it does so. Questions that would need to be addressed include:

- Which situations excite the commentator?
- How excited does the commentator get in these situations?
- How is the excitement conveyed?
- How is disappointment conveyed?
- How long does the tone last after the event?
- What other moods, such as surprise, or anger, does the commentator exhibit?
- How and when do these occur?

Another factor of interest is stress. Are there any situations in which the commentators stress particular words? If so what are they? How hard are words stressed in particular contexts?

All of this data helps to model the voices of the commentators. It would be of no use to model what the commentator says, without also modelling how he says it. It would sound horrible for a system to produce an *excited* utterance, but have it voiced in quite neutral tones.

5.9 Summary

Although it is not the aim of this project to actually create a model of a commentator, it was still necessary to perform the level of analysis that this would require. It was needed to see just what sort of features should be included in a model, to see what aspects of the commentator the model would need to take account of.

This chapter has looked in-depth at the commentary from one match, and briefly at other matches, and has identified a number of features, from commentary language to commentary content. It has also suggested further analysis that could be done to learn more about the occurrences of those features and more about the commentary itself.

Chapter 6

Analysis of Commentary from a Football Game

6.1 Introduction

The aim of this project is to work towards producing a model of football commentary for a computer football game. A useful comparison to be able to make would be to see how existing games handle commentary. What is more, it would be very useful know about the sorts of data structures that exist within the game that can be used for generating commentary: what does the computer know about the game and how does it represent it.

It is not possible to acquire this knowledge however, because as football games are commercial products, game developers and publishers are not willing to give away confidential information.

The best alternative is to analyse the commentary produced in a computer match. This chapter will look at such commentary to see how similar it is to real commentary, and consider how it differs.

6.2 The Football

The computer game that was played was FIFA 2001, from Electronic Arts, on the PlayStation 2. At the time of testing it was the latest football program, on the most advanced machine. A number of matches were recorded, some played by an expert, and some by a beginner. Each match is played with four minutes, plus stoppage time, in each half.

Time constraints mean that there was sufficient time to look at one only match in full, and that match was one played by the expert, as England, against the computer-controlled Germany. Another match used for superficial comparison was a beginner player using Brazil, against Scottish league team St. Mirren, selected for the computer. The first game is between two evenly rated teams, but in the second game, a world class team, under the control of a complete novice, who is not very good, is playing a very low ranking team, so this may produce different commentary.

Since this produces a very small sample, with which to perform analysis, the recording session also included a set of questions for the expert, to see whether they had encountered particular commentary phenomena.

6.3 The Transcription

The transcription is of the same format of that of the live match, and can be found in appendix D. In this match JM is the play-by-play commentator, John Motson, and ML is the colour commentator, Mark Lawrenson.

The times, indicating turn times, were made manually. This was because the on-screen game clock runs for the full 45 minutes of each half, but does so in four minutes. To more accurately calculate control of the floor, it was required that the times be in real time, so a clock was used to mark the times as accurately as possible.

6.4 Features of Sports Commentary

Chapter 4 identified a number of features of sports commentary from the literature, and chapter 5 looked for them in real football commentary. This section reports any

examples found in the commentary of the game. Since explanations of each feature were given in the earlier chapters, and since there is less commentary to analyse, the results are in a more reduced form in this chapter. Also, since the examples are only taken from one match, there will not be very many of them, and although not every piece of recorded commentary will be used, a representative sample should be.

6.4.1 Simplification

There are a number of times during the match that this sort of utterance appears, and they are, like real football commentary, all from the play-by-play commentator.

1a. 1:21 JM - [It's] played up the park by the keeper

b. 3:56 JM - [It's] nearly half time here

6.4.2 Inversions and passiveness

One of the main features of game commentary, or rather, one it is missing, is that player names are only ever used on their own, never in other. This renders utterances of these type almost redundant as they are generally used for identification purposes. Only occasionally do passive utterances appear, when the main active object is a generic term rather than a name.

2a. 0:00 JM - the ball cleared by the keeper

b. 1:21 JM - Played up the park by the keeper

6.4.3 Result expressions

There is only one result expression in the match, but that is only to be expected as there are not many occasions when they could be used.

3a. 0:00 JM - the ball crosses the line and out *for* a throw

6.4.4 Heavy modifiers

Since names are only uttered alone, extra information is not given along with the name. Section 6.7 discusses how, in fact, hardly any player information is given at all.

6.4.5 Tense Usage

The three main tenses used in sports commentary are present in the commentary of the game. It is interesting to note that, perhaps because there are no phrases containing names, there is very little that occurs in the simple present tense. The other two seem a great deal more common.

simple present

4a. 0:00 JM - Beckham (.) loses it

present progressive

b. 1:37 JM - good tackling in the middle

c. 3:52 ML - good goalkeeping

simple past

d. 0:00 JM - and cleared up the pitch

e. 5:21 ML - Scored (.) with his first shot John

Example 4a. appears to be a phrase containing a name, but the pause gives it away as merely a coincidentally quick combination of a name, and an action phrase. It is in fact quite rare that this type of linking occurs, though it shows that it would perhaps not be too difficult to slightly alter the system to encourage it to do this more often and at least give the impression of saying player names in utterances.

6.4.6 Routines

Like the real match, there is far too little data to see if any routines have been used, but when there is some sort of routine present, it is all too obvious.

5a. 0:00 JM - hit him low and hard

b. 3:06 JM - flew in hard and low there

c. 4:08 JM - went in low and hard there

The three above examples all describe fairly rough sliding tackles, none of which are bad enough to warrant a freekick. It may appear as if they are variations of one utterance, but they are in fact three distinct utterances that say the same thing. Looking at the times, all three of them occurred within about four minutes, and this level of repetition is very noticeable, and it is one of the main flaws of game commentary.

6.4.7 It-clefts

There are no examples of it-cleft in the game, but as already stated, this does not mean they are not present in the commentary library, though since most cleft phrases involve player names, it is unlikely.

6.5 Errors

As hard as it is to believe, even computer commentators are not infallible. However, they do not make any of the same sorts of errors as human commentators. They do not *um* and *er*, or stammer, or say something and change their mind halfway through. There seem to be two types of error that occur: misidentification of incidents, and implausible commentary.

Misidentification of *players* does not seem to occur, though if it did, it would not be for the same reasons that a real commentator would have for doing so. A real person may get confused and say the wrong name, or may just mistake one player for another, but a computer cannot do that. All the players are represented somehow in the internal processing of the game, and since the commentary comes from this source, it should always be right. Any misidentification of players comes from bugs in the code of the game.

Misidentification of *incidents* can occur. Though it did not happen in this match, it is not unheard of for a piece of commentary regarding a freekick to be given when it is in fact a throw-in. This again may be caused by a bug in the software, or perhaps by the actions of a player. The commentary is driven by the action, and the action of the player is controlled through a keyboard, joystick or joypad. Most current football games use different buttons to perform different functions, and there is generally a *shoot* button. It is possible for a player to kick the ball off the pitch, using the shoot button, hence prompting a piece of commentary relating to a shot, rather than a throw-in.

Whether these occurrences are the indirect fault of the player, or caused by bugs in the software, they are very noticeable, and very irritating.

The second kind of error has nothing to do with player, and is merely the selection of utterances that do not actually go well together. The best example from the game is:

- 6a. 3:56 JM - nice stop from the keeper (.)
 ML - Yes that's nice work by the keeper (.)
 JM - Yes too true

The play-by-play commentator is agreeing with the colour commentator's agreement with something he just said. The system is failing to take into account discourse history. It is of course possible commentators might really say this, but very unlikely. Again, like all errors, it sounds really bad.

6.6 Play-by-play Versus Colour Commentary

In the same way that the relationship between the real commentators was considered at, the roles of - and balance between - their computerised counterparts can also be studied.

6.6.1 Use of time

There is a great deal less time to consider here, so the discussion will be briefer than before. Again, the commentator's time can possibly be divided into the four functions of narration, evaluation, elaboration, and summarisation.

Play-by-play

- Narration: Narration is of course the main task of the play-by-play commentator. As in real football, not every action is commented on, but it certainly makes up the bulk of his commentary.
- Evaluation: Again, like the real thing, his contributions are only in terms of *good save*, and there is no real evaluation of overall performance.
- Elaboration: Since there are no utterances involving player's names, there is no extra information given about any player. There is no background information given at all, in fact.

- Summarisation: The only summarisation given is at the end of the match, but rather than a summary of the game, it is a very generic statement brought about by the result.

Colour

- Narration: The colour commentator, as in a real game, does not provide any live narrative commentary, but in the game, replays, and there are only replays of goals, but these are not commented upon by either commentator.
- Evaluation: Nearly all of the colour comments are in response to an incident of some type, like a shot or a goal. With each of these, he will utter a generic evaluative or elaborating expression such as:

7a. 1:18 ML - It's the first shot they've had John

b. 3:53 ML - Yes he did well there (.) good goalkeeping

c. 5:58 ML - That's a well played freekick to set it up

d. 6:23 ML - he's been under pressure more than his opposite number

He also gives his opinion on how the match has gone at the end of each half, along with how he thought it would go at the beginning of the match. These are very generic statements, not really saying a lot other than the obvious. For example when he says *they've been pretty close ... but more obvious chances at one end than the other* at the end of the first half, this is because one side has had more shots and scored the only goal so far. It is stating the obvious, but without actually being specific about which end, or which team is doing better.

- Elaboration: The only form of elaboration comes from the colour commentator with regards to how many shots a player has had, or how many goals they have scored. See above for examples.
- Summarisation: As in the real match, the colour commentator summarises in terms of performance rather than events, but they are just the brief end-of-half evaluations discussed before.

What is obvious about the colour commentator's role is that it is limited to commenting on critical incidents. Table 6.1 details the reason behind each of his utterances.

Reason	Frequency
Response to a shot	6
Response to a goal	4
Response to a freekick	1
Response to a tackle	1
Giving opinion	3
TOTAL	15

Table 6.1: The reasons for the colour comments

There are total of ten shots, four of which result in goals, and he comments on all of them, as one would expect. He does comment of every freekick, but there was only one in this match which was close to the goal. Likewise the tackle on which he commented was not particularly special, but he declared the game to be *pretty physical* as a result. Interestingly, at around the same time, a minute and a half to go, in another match he said exactly the same thing as a result of a similar tackle.

6.6.1.1 Summary

Table 6.2 summarises the roles of the two commentators.

Role	Play-by-play	Colour
Narration	The main role	Never
Evaluation	One word opinions	Brief
Elaboration	Never	Some generic statistics
Summarisation	Very brief at the end	Brief

Table 6.2: The roles of the two game commentators

6.6.2 Balance of power

There is no real relationship between the two commentators in a game, because they are both just made up of short recorded segments, put together by a computer to describe the events of the football game. However, football games pride themselves on having high levels of realism. Real teams, real venues, weather, and they even employ real commentators. By employing similar methods as used in the analysis of real commentary, it is possible to study how realistic the game commentary is.

In terms of how often the two commentators refer to each other by name, the reasons are the same as for the real commentators, and the frequencies are proportional. Table 6.3 has the details.

	Reason	Frequency
Play-by-play	introducing Mark	1
	agreeing with Mark	1
	direct request to Mark	1
	TOTAL	3
Colour	telling John something	3
	voicing opinion to John	4
	TOTAL	7

Table 6.3: How often each commentator refers to the other by name

By looking at the amount of time each commentator is speaking for, we can see that the play-by-play has the floor for over 90% of the time. This means that he is talking for a much larger portion of the match than his real counterpart. This is to be expected, since the colour commentator is limited to only speaking about critical incidents, and does not get to comment on replays.

This is also reflected by the average turn lengths of the two commentators. The play-by-play averages 33 seconds, whilst the colour only manages 3 seconds. It is not worthwhile looking at a further breakdown of these times, as was done with the real commentators, since these figures represent the whole story. Looking over the commentary it is clear that the colour commentator only has very short turns, and as

discussed earlier he only has turns when there is some sort of critical incident. The word count also tells a similar story, the colour commentator saying proportionally less than his counterpart in the real world.

The final aspect considered in real commentary was how fast the commentators speak. By adding up all the pauses in the commentary¹ the silence can be separated from the talking time. This results in an absolute speaking rate of 135 words per minute for the play-by-play commentator, and 240 for the colour.

This is an interesting result because it is similar to that of the real commentary. Interesting because in this case they are not real people but recordings. It is reasonable to hypothesise that the colour commentator is used to having to speak fast, and so when he went into the recording studio for the game, he naturally spoke fast.

Summary

Table 6.4 contains all the statistics that have been discussed in this chapter.

	Play-by-play	Colour
References to one another	3	7
Control of floor	92%	8%
Time on floor	8:15	0:45
Average turn length	33 seconds	3 seconds
Word Count	555	116
Adjusted speaking rate	135 words/min	240 words/min

Table 6.4: Statistics of the two commentators.

6.7 Other Features of Real Commentary

By looking at the commentary from the game, and by asking an expert who has spent a lot of time playing, it is possible to ascertain whether any of the other observations made from real commentary in chapter 5 occur in the computer game.

¹This time any pause of one second or longer is significant because the computer does not 'pause for thought'.

6.7.1 Verb Absence

It was found, in real commentary, that there were a lot of utterances that contained no verbs. This was either because they were replaced with equivalent nouns, or just omitted to save time and because their content was low. The most noticeable aspect of examples 22a-e of chapter 5, is that they all contain player names. Where one might expect *Westerveld kicks it*, one finds *Westerveld's kick*. Since there are no names used in utterances in the computer generated commentary, this verb free kind of utterance cannot, and does not, occur.

6.7.2 Driven by visuals

One difference between a real football game and a computer football game is in terms of replays. Whenever there is a lull in live action, a replay of a goal, or a penalty decision for example can be shown, to give the commentators something to talk about, and the viewers something interesting to watch. In a computer game there is never a quiet moment.

This is because the person playing the computer game is always involved in the action. If there is just some slow passing taking place, the player is either the one passing or they are trying to tackle the opposition. Also, there are some obvious shortcuts made in the game. If the ball goes out for a throw, the game developers do not really need to simulate someone getting it back and then someone coming along to throw it, while all the other players adjust their position. All this happens instantly: there are no lulls in action.

The only replays occur after a goal, and those are not currently commented upon. The only other time the camera angle changes is for an event such as a substitution, a booking or a goal celebration, and those events could equally be commented upon without the change in visuals, the event viewed in the same way as the rest of the action.

6.7.3 History

Computer games are not played in real time. A person does not play at three o'clock every Saturday.² This rules out the possibility of a computer game saying things like *when these teams last played in October* or some such temporal specific utterance. This does not stop the computer using generic utterances such as *when these teams last played*.

This is not done however. The computer does not remember every detail about a team's past, let alone every player's. This is in part due to the medium. The most popular football games are played on game console systems, which do not have memory of their own like a conventional home computer's within which to store such details. They mostly save games onto small memory units known as *memory cards*, whose capacity is limited, thus making such information hard to retain.

According to the expert player, the only time any sort of history like this comes into commentary is in cup competitions. These are at most four or five rounds, which most players will complete, assuming they win, in perhaps two sittings. For the one team that the player selects, included in the saved data are details of how many goals the team scores in the competition, and how many bookings they get. If, for example, they are often winning two or three goals to nil, a comment about their winning their previous games well might be used. This is still a fairly non-specific utterance, but it is taking into account previous details.

6.7.4 Future

Although not as frequent as their references to previous matches, real commentators do talk about matches upcoming for a team. In the computer game though, this does not occur. This is due, like so many things, to not having any specific names in utterances. Team names only occur in the introduction to a match, and there is a noticeable pause between them.

8a. JM - Welcome to this exhibition match between (.) England (.) and Germany

²Sadly nor do real teams anymore.

The only time a future match is mentioned is when the chosen team is in a competition that is played over two legs, when the result is dependent on the combined score of two games. If the team wins the first leg, in his summing up, the colour commentator will say something like *that will stand them in good stead*, meaning that they have the advantage going into the second leg.

6.7.5 Player details

As stated already, due to the non-specific nature of all utterances, there are very few player details ever given. The only ones that are relate to goals and bookings that a player has acquired in the current match: *he already has a booking* and *that's his second goal* for example.

6.7.6 Unique Utterances

There are of course no genuinely unique utterances that can occur in a computer game. Every utterance is defined in the code, and can possibly occur at any time, and any number of times. There are also no utterances about specific players, so that limits even the possibility of there being such unique statements.

The expert player maintains however, that there appears to be a very large amount of stored commentary, because even after playing for sometime, the commentators still say things that they have not said before. Some utterances are even quite original and entertaining, but once they occur more than a couple of times, they actually become more annoying than the obviously predictable phrases.

6.7.7 Occasion specific language

In real football games, certain games, or certain types of game can lead to specific commentary. This occurs in two forms. The first is the type of match, whether it is a league match, or a cup final. Other than when the game is being introduced at the beginning, and summarised at the end, there is no mention of whether a particular game on the computer is in a cup or is a final or anything.

The second form is in terms of team rivalries. The real match featured was Everton Liverpool, which is in fact a Merseyside Derby. The game featured most in this chapter was England Germany, which is one of the great rivalries in International football. There was no mention of this throughout the game however. This is due, again, to the non-specific nature of all the commentary.

6.7.8 Bias

There is of course, in the non-specific world of game football commentary, no bias. If the developers were to include such team specific utterances, they might as well include team names. This is acceptable though, as it appears from the analysis of real commentary, that most commentary does not give away who the commentator is rooting for.

The commentary in the game, or rather just the summing up at the end, is biased in favour of the human team. Summing up the match in which the human controlled team lost, the commentators say:

- 9a. JM - Not good enough (.) that'll be recorded in the papers tomorrow (.)
 the match ends in defeat and they can't play like that again (.)
 ML - They just didn't make the shots count in front of goal John (.)
 they had more shots but still lost the game

6.7.9 Interruption

A real commentator can interrupt himself should the need arise, but is it a feature of the game that it can do the same? There is one example of the computer doing this with the play-by-play commentator.

- 9a. 0:00 JM - Scholes (.) to oh yes terrific stop from the keeper

The commentator is about to say that Scholes has passed to someone, when he comments upon the save made from a shot. Given the nature of the content selection of the game (described in chapter 8), the player will either press a button to shoot, or to pass, so the computer will generate a comment for that one action. So it is difficult

to see if the player passed, and the computer commentator started a pass comment, but the goalkeeper got the ball so it changed to a shot comment, or if it was always a shot comment, but it was deliberately written to give the impression that the commentator interrupted himself. This later hypothesis is the most likely, because if all the other commentary is so static, why should this one instance be any different?

6.8 Summary

This chapter has looked in detail at how the commentary generated in a computer football game differs from that of real football. There are a number of features that it does not include, and due to its static, limited nature, there are others that simply cannot occur. The results provided here confirm the original motivation for this project, as described in chapter 2.

Chapter 7

Literature Review of Commentary Systems

7.1 Introduction

What would most greatly benefit this project would be access to or knowledge of the inside processes of a real football game. This would enable study of the commentary generation system. How does the computer pick what to say, how does it organise commentary, and also what information is available internally to aid in commentary generation?

Unfortunately, since football games are commercial products, it is not public knowledge how they work. No company would be willing to tell competitors about the technology they use.

There are, however, systems in the academic world that perform an almost identical task. Three systems were developed to commentate on simulated robot soccer games, and this chapter is going to look at quite how they did it.

7.2 RoboCup

RoboCup is an international competition that pits teams of robots against each other in games of soccer, or football. There are different leagues for different sizes of robots,

and there is also a simulation league.

In the simulation league, the robots are replaced by autonomous software agents. These agents are expected to work as a team to defeat their opponents, in a simulated soccer match running on a RoboCup server. This server can provide a continuously updating log of information including the absolute positions of all objects, score, and play modes, such as *throw-in* or *corner*.

Such a field produces enormous possibilities for AI research, and at the 1998 RoboCup competition three groups presented work on systems that were capable of understanding and describing complex scenes that vary over time. They produced commentators for the simulation league.

7.3 Rocco

The ROCCO commentator system was developed by Voelz *et al.* (1998) at DFKI, in Germany. ROCCO uses the information provided by the SOCCER SERVER to create elementary event and state predicates. Examples of elementary predicates include:

- (*Type:HasBall Time:time, Agent:X*)
- (*Type:Kick Time:time Agent:X*)
- (*Type:Speed Time:time Object:X Speed:speed*)

These elementary predicates can be combined to form the justification for higher level events. As with television commentating, it is impossible to comment on every single event that occurs, so ROCCO must decide which events to talk about. For each comment, the event is chosen like this:

- The minimum importance value for the next comment is calculated. The basic threshold decreases during periods of commentator inactivity, thus increasing the likelihood that a less important event will receive attention. A long period of inactivity increases the chance that some background information will be given.
- The topicality of each event is determined by its salience, and the time that has passed since it occurred.

- The event with the highest topicality is selected if it exceeds the minimum threshold. If no event reaches the threshold, a random piece of background information may be given, or the system will wait until there is a more important event or until the threshold has dropped.

The ROCCO team knew that it would be an extremely difficult task to build a fully-fledged natural language generator for football commentary given its slang like nature, and so opted for a template based approach. Each event has a list of templates assigned to it, each of which consists of strings and variables, and in order to increase the variety of expressions, many can be modified at random. Making the choice of comment is governed by a number of factors:

- each template has constraints saying when it cannot be used.
- the length of the template, taking into account any variables.
- whether the template is considered dry, normal, or flowery language.
- each template also has a rating as to how specific it is.
- templates are either slang, colloquial or normal in terms of formality.
- templates have saliency ratings, so that unusual templates do not occur too often.

Once the possible templates are found, a situation-specific preference value is calculated for each. Long templates are punished if time is short, but rewarded if there is little happening. Recently occurring templates are punished, as are unusual templates.

In order to best turn the chosen template into effective commentary, ROCCO uses intonation to convey emotion. Successful actions promote excitement, and failed actions disappointment. It was found that pitch accent, and speed were the best parameters to vary to produce the desired results. A faster, higher-pitched tone conveys excitement, and a slower, lower tone disappointment. The templates are all annotated with the desired intonation pattern.

7.4 MIKE

MIKE, ‘Multi-agent Interactions Knowledgeably Explained’ was developed at ETL in Japan by Matsubara *et al.* (1998, also Tanaka-Ishii *et al.*, 1998). MIKE uses the same data from the SOCCER SERVER as ROCCO, it has quite a range of remarks it can make, and can do so in English, French and Japanese. Its repertoire consists of:

- explaining complex events
- evaluating team’s play
- making suggestions for improving play
- making predictions
- describing set pieces
- talking about passwork

MIKE uses the data it receives in six analysis modules, three of which study basic events, and three that carry out more high-level analysis. This high-level analysis includes working out the average position of each player, how much of the pitch they are covering, and the distribution of the passing between members of a team. Each of these analysis modules post propositions to a shared pool, and these consist of a tag along with an attribute. For example a kick by player 5 is represented as (Kick 5), where Kick is the tag.

MIKE has about 80 possible propositions, and along with being posted by the analysis modules, there is an inference engine that can use existing ones to create more for the pool. Each proposition posted to the pool has an importance value that decreases with time, until it reaches zero at which point it is deleted.

On the most basic level, MIKE selects the most important proposition, and for each type has a number of templates that it can use as the commentary. On a more advanced level, MIKE’s content selection policy is one of importance maximisation, and it has a number of other options:

- Interruption: if a proposition with a much greater importance than the one being uttered appears in the pool, then MIKE can choose to interrupt the current utterance and switch to the new one.
- Abbreviation: if the two most important propositions in the pool are of a similar importance, then it is possible to increase the overall importance by uttering the more important one quickly and moving on to the second one.
- Repetition: once a proposition is uttered, it is marked as being said, and its importance is decreased, but not to zero. This allows it not only to still be used by the inference engine, but also if there is nothing available of greater importance, the proposition can be used again to reinforce the information already given.

Once the commentary utterance has been chosen, MIKE uses a standard text-to-speech system to vocalise it.

7.5 Byrne

Byrne is described by his creators at Sony CSL as

a system for expressive, entertaining commentary on a RoboCup Simulation League soccer game (*Binstead et al., 1998*)

and it is fair to say that the most important aspect of their work was on the characterisation of their commentator. Unlike Rocco and MIKE, Byrne is not just a disembodied voice, but is capable of generating emotionally expressive face visuals.

Byrne can work with any soccer analysis module as input, including, say the authors, MIKE. The input modules generally produce remarks for comment faster than Byrne can say them, so they are stored in a queue. Each remark is given a birthday, the time it entered the queue, a deadline, a time at which the remark becomes *old news*, and a priority. For comment, Byrne will select the remark with the greatest priority and the earliest birthday.

The emotion generation is based on static characteristics such as the nationality of the commentator and the team he supports, and are represented as simple structures consisting of:

- a type, such as anger, happiness or surprise.
- an intensity, from 1 to 10.
- a target, at which the emotion is aimed.
- a cause.
- a decay function, defining how the intensity of the emotion decreases.

Text generation, by the team's own admission is not particularly outstanding. A set of templates is used, constrained by the game situations they can be used to describe, and how recent and how often they have been used. The text produced is marked-up with information relating to the synthesis of the utterances. They also include markers to suggest the best possible points at which to interrupt them, should the need arise.

7.6 Summary

The three systems described here, together won the scientific award at RoboCup '98 for making a "significant and innovative contribution to RoboCup-related research". The creators seem happy with their performance, but all state great plans for the future. Sadly there does not appear to have been any work on these systems since. They do however provide invaluable ideas for the development of a system for computer game commentary.

Chapter 8

Making a Model Of Commentary

8.1 Introduction

There are a number of reasons why it is not feasible to actually make a football game commentary system within the scope of this project. In particular, it would require: the development of specialised natural language production and speech synthesis components, or the adaptation of existing software; the full analysis of a variety of different matches from the same pair of commentators; the use of a game's internal data structures to drive the commentary generation process.

The aim of this chapter is therefore to suggest an implementation for such a system, and to lay out instructions for how it would be created. If a game developer wanted to use a system like this in their game, this chapter details how.

There are a number of possible ways of doing this, of modelling the commentary, and of generating it in the game. The three RoboCup systems of chapter **REF** all have slightly different methods of performing the same task. The system described here will be just one possible method, and it draws inspiration from all three.

8.2 Overview

It is best to begin by looking at how an advanced commentary system would fit into the architecture of a game. In an existing game there must be some form of analysis of

the action in order to generate the commentary (see next section for more details), and figure 8.1 details how this might fit within the structure of the game environment.

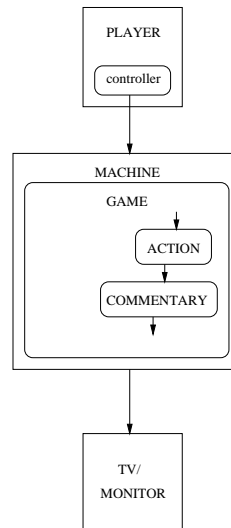


Figure 8.1: Simplification of how a football game operates.

Essentially, the world of the game, what the players are doing, where the ball is, etc., is maintained by the machine. The player has some input in controlling their character, and they are able to view the computers visual and audio representation of the game state through a TV or monitor.

The more advanced system would use the same details of the activity of the game in generating the commentary, but it would also have access to a database of facts about previous matches and player detail. Also, since the commentary is not stored in pre-recorded segments, the commentary generated needs to be passed through a speech synthesiser in order for it to be vocalised. Figure 8.2 suggests how these segments would connect within the game.

8.3 Hypothesis of Game

Whilst it may not be possible to know exactly how a football game works, it is possible to make an educated guess. Essentially, a game is similar to the SOCCER SERVER

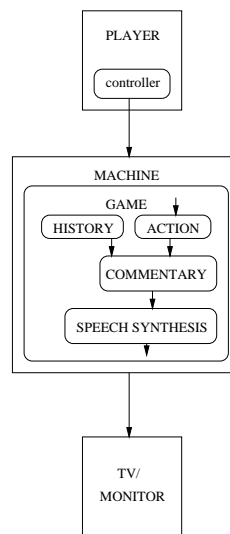


Figure 8.2: Simplification of how a football game works with the extra necessary for advanced commentary.

discussed in chapter 7, in that it maintains all the information such as where all the players are and what they are doing, and creates all the graphics to visualise the action on a television screen.

The big difference is that whilst the RoboCup players are autonomous programs that tell the SOCCER SERVER what they are doing, all the players in the computer game are controlled by the game itself. The only player that is not is the one that at any time a human is controlling. In this case they are pressing various buttons which tell the computer exactly what they want their player to do. So the game knows what every single object is doing at any given time, along with what they are going to do.

All the actions are divided into types. This is not done by any sort of intention analysis, but by the simple fact that the player must easily be given access to each sort of move (shoot, pass, cross, tackle etc) through the controller, so they must each be treated as individual actions within the game. So the game knows every single thing that is happening, and it uses this knowledge to generate commentary.

There is a database of pre-recorded commentary segments, and they seem to be chosen by a fairly simple content selection algorithm.

- The game begins with a comment from the play-by-play commentator introducing the match and his co-commentator.
- The colour commentator responds, and makes a statement based on the comparative rankings of each team.
- The play-by-play commentator calls the action in terms of who has the ball and what they do with it. Passes, interceptions, shots, tackles, headers, fouls etc., all produce different comments. The ball is nearly always the focus of attention. For example, if the human makes their player perform sliding tackles randomly around the pitch, they will be ignored until they hit someone, and the game registers a foul.
- The colour commentator only says something if a particularly notable event occurs. These are most often shots and goals, but also include particularly rough tackles, or set pieces such as corners or freekicks.
- When a goal is scored, the play-by-play makes an appropriate congratulatory comment, and when play resumes, details the result of that goal, ie. drawing level or taking the lead.
- At the end of each half, both commentators give a brief opinion of how the game has been going, based upon simple statistics such as the number of shots and goals that each team has had.
- The play-by-play ends the match with a farewell statement.

The information used to generate the commentary seems similar to that which the RoboCup systems use, and so is enough for a more advanced commentary system. If it is not however, all the information needed is within the computer, and can no doubt be easily used if required.

8.4 Modelling the Commentary

The first stage of a project such as this would be the linguistic analysis and modelling of the commentary. This section describes the data that would be needed, how it could

be collected, and what you would look for from it.

This stage is by far the most time (and money) consuming in the whole process. Once the commentary technology and speech synthesis systems are in place, they can be made to work for any commentary pair. The fact is however, that a game developer would need to do what follows for every pair of commentators, for all the different versions they produce around the world.¹

However, once this is done, and the model is set, the large bulk of the work is over. If the model needs tweaked it can be done without recording new commentary, and unless the commentator completely changes his styles, or the company no longer wish to use him, there should be no need to change anything except for perhaps to improve the technology which uses the model.

8.4.1 The data

The data required is essentially the commentary of the pair of commentators to be used in the game taken from a number of matches. It needs to be the two of them together, so that their relationship can best be modelled. The number of matches needed depends on how thorough an analysis a developer really wants to do. A reasonably thorough analysis should be possible with the following:

- A mid season league game between any two teams, in the country of the commentators origin.
- A league game between two distinctly rival teams.
- A league game from another country.
- A match between league teams of different countries.
- A domestic cup final.
- Any match that is played over two legs.

¹It is interesting to note that recent reviews of the version of FIFA 2001 released in the States commended the team for returning to Motson and Lawrenson, the British commentators, after the apparently dire American commentators of FIFA 2000.

- An important match such as European cup final.
- An international involving the country of the commentators origin.
- An international not involving the commentators home country.
- A match from the final rounds of the World Cup

These matches cover just about every type of match there is. This provides enough data to do an accurate analysis of things like error rates, which occur in all matches, but also provides matches that may contain evidence of specific features such as national bias.

8.4.2 How to get it

There are two ways in which the commentary required could be collected. The first is by having the pair actually commentate on the matches chosen live, exactly as they would normally. They could be given special noise reducing microphones, and the sound recorded without any of the usual background noise of the crowd.

The downside to this is the sheer length of time the whole process would take. In order to fit in with the football calendar, it may takes months to gather the 15 to 20 hours of football desired. A perhaps faster way of doing it might be to use recordings of older matches of the desired types, and sit the commentators together in a studio to commentate on these recordings for a week or two.

The major downside of this approach is the level of unnaturalness it could introduce. Commentators give details about players and teams, either from memory or from written guides, and it may be difficult to get all the facts as they were at the actual time of the match. This may not sound like a problem, since it is which types of details they give that is of interest, and not the details themselves. However, if the commentator is trying to recall things from memory, it may take longer or he may not be able to remember, or he may remember details differently from the sheet he is given. This would lead to the production of commentary that one would not encounter in live commentary. Also, a studio can be a very sterile environment. They would not be at the

match soaking up the atmosphere, they may already know the results, and they may find it difficult to achieve the levels of enthusiasm they would have reached live.

Looking at both options, though it may be more costly, the live method is far better for producing genuine, natural sounding commentary.

8.4.3 What to do with it

The first step in the analysis of the commentary collected is to transcribe it. This can be done manually, or possibly automatically. The transcription for this project was time consuming because it was performed by hand, the transcriber had little experience, and the sound quality of the match was not particularly good. Using quality recordings of commentary, with minimal background noise, and perhaps using a professional transcriber should greatly speed up the process.

It may also be possible to train a speech recogniser on one match, and use it to automatically transcribe the remainder. This may prove to be inaccurate, due to the often fast and unclear nature of commentary, but it would depend on the quality of the system being used. Manual or automatic transcriptions could be shown to the commentator to check to make sure that it was what they said, or at least that it is not completely wrong.

The analysis to be carried out is that performed for this project as described in chapter 5, along with the additional analysis detailed at the end of that chapter. Analysing all these details, over a number of matches, provides all the data required to set down a model of the two commentators. This data will include a large collection of the types of utterance the commentators use, how often they make particular types of error, what roles each of them fulfils, and so on.

In order to know how this analysis would be used, the rest of this section details all the features discussed in chapter 5, and in what sense they would be used in a commentary model.

Linguistic Features

Simplification This is something that all commentators appear to use, and so phrases of this type should definitely be included in the model.

Inversion Phrases that show inversion one would expect to be common, but the main play-by-play commentator of chapter 5 does not use this technique. Therefore, inversion-type phrases should only be included if the commentator actually uses them.

Passiveness The same holds here as for inversions above. If the commentator uses them, include them.

Result expressions Again, if these can be identified in the speech of the commentators, use them. If not, do not.

Heavy modifiers Unless there are some commentators who never give player details, or only give them as stand-alone facts rather than modifiers, these can be included. Statistical analysis would reveal when and why such information is given, and also to whom it tends to be used with.

An example of these at use in a model might be to say that when a player is named in a particular context, 5% of the time add a random fact from the database about that player.

Tense The tenses discussed previously appear throughout most commentaries. It might be possible to study this further to see exactly when and why particular tenses are used in more detail than given. A simple analysis might be that the play-be-play can use both simple present and present progressive in his narrative, and the colour commentator uses past tense in his commentary of replays.

Routines A large amount of data would allow for the identification of any routines that a commentator uses. Since the idea of routines is that they are used in a particular context, they would be easy to include in a commentary model. All the versions of a routine would be triggered by the same event, with variables including the score, and player names within.

It-clefts Again, this is something to be considered on a case by case basis. If the commentator uses it-cleft utterances, they can be included in the model.

Of course, it-clefts are a feature of English language, as many of the other features described above are also. There are only so many different English speaking commentators that a game will use across the world. Many features, such as routines, and content features, will most likely be standard across all languages, but linguistic features will need to be identified in each language individually. Any features found would be included, as detailed above, if the particular commentator actually uses them.

For a discussion on how easy it is to include such features as it-clefts, see the next section on how the model could actually be implemented.

Errors

Hesitations Even the most experienced commentator is prone to *ums* and *ers* occasionally, it is just a matter of when, and how often. These could be included in the model by identifying positions in phrases where they might occur, inserting them with perhaps 5% likelihood, and defining that 80% of the time they shall be *er* and 20% *um* for example.

False starts These may be a distinct feature of a particular commentators style, but they may not be desirable to include in a model. One can forgive a certain amount of hesitation, expect it even, but false starts may just sound too bad, when heard coming from a computer. Especially as there is less time and a great deal less commentary.

If they were to be included, one way of achieving this would be to instruct the speech synthesiser to repeat the first few sounds of an utterance in a slightly different way before finishing the utterance.

Replanning If a commentator starts saying something and changes his mind, it may be considered a sign of unprofessionalism. It may be possible to include it in a model by having a commentator say half an utterance before selecting another one to say in full, but it may not be all that desirable.

Misidentification This, like hesitation, is a more forgivable error, but it depends on the commentator and how it is done. Due to the limited nature of the graphics of a

computer game, characters are not instantly recognisable, so if a computer commentator were just to say the wrong name, a player might not realise. If however they were to apologise and correct themselves, it might be worthwhile including in the model.

Since some players are more recognisable than others, and commentators will be more familiar with certain teams, it is likely to happen a varying amount between all players. Similarly, such a mistake would only involve players that are on the same team and look similar. Each player could have their own misidentification value, depending on these factors.

Commentators

Use of time Narration is the easiest commentary function to model, as comments are simply driven by the action. Summarisation follows from narration, in a briefer form. Elaboration would also be easy to model in terms of facts about players and teams, and details of matches played and yet to come. Evaluation is perhaps the hardest to model well. It is easy to give brief opinions such as describing a particular action as *good*, and also to give overall opinions based simply on how many goals and shots a team has had. Deeper evaluation is harder, however, without some sort of performance analysis.

This is, however, not necessary. At the moment, teams in football games are a great deal more static in performance terms than a real team. Real football players can have off days, everyone has seen their team get beaten by someone that they really should not be, that team obviously having a really good day. According to expert opinion, teams play in an identical way every time you play them in a computer game. There is a fatigue option, which tires players if they run too much and slows them down, but over the small time frame of the game, this does not greatly affect performance, and they recover fully for the next game.

This means that there does not need to be any analysis of how a team plays, since it is known how they will play before the match starts. So, teams could have pre-written evaluation comments that can be given in their matches. Of course, the human player can highly affect his team's performance by taking control of players, possibly rendering these statements incorrect.² So, unless developers want to generate highly

²Brazil should really beat St. Mirren, but in the hands of a novice player, they lost two nil.

accurate evaluation commentary, based on the exact events of a match, there does not seem to be a great need for a deep evaluation, a simple judgement call should suffice.

Another consideration is the use of the colour commentator. In real football he is an opportunistic speaker, making comments whenever there is a chance, and this occurs most often when the play-by-play has little or nothing to say. Also, in a ninety minute match, there is plenty of time to discuss any given incident. In the computer game however, games last for eight to ten minutes, and there is never a lull in the action for the player.

With all this in mind, the roles of the commentators in a model should be as follows:

- **Play-by-play:** The main role will of course be narration, but in this model, as compared with current computer games, the play-by-play can also give details about player and teams. He will also be able to summarise the game, by the computer remembering all the critical incidents, such as penalties, goals and sending-offs, and then generating a summarisation in terms of those incidents.
- **Colour:** The colour commentator should be limited to just commenting on critical incidents, as in current games, but he should be able to say more. For instance he should comment on automatic replays of goals. This should be possible because the computer was able to generate play-by-play commentary of the actions leading up to the goal, so the same actions can drive past tense commentary to accompany the replay. If the player chooses to skip the replay, as is often the case if the goal is against them, he should finish the commentary to maintain fluency. He should also offer general opinions on performance as summaries.

Balance of power It is not really possible to balance the model so that the amount of floor time each commentator has is proportional to the real thing. Since the colour commentator is only going to speak at particular points, how much he gets to say depends on how many such incidents there are. Perhaps in order to prevent the balance from tipping too much the wrong way, if there are a large number of incidents in a game, the colour commentator could say less about each one, thus preventing him from taking over the commentary.

Naming one another The colour commentator talks directly to his partner more than his partner does to him, and this could be reflected in the number of phrases each commentator uses that could actually contain the other's name.

Speed Colour commentators talk faster it seems, but even if this is not the case, speed is an easy variable to adjust using a speech synthesiser. The units recorded for the speech synthesiser (see section 8.6 for detail) could be fast, and, if required, the synthesiser itself can speed the speech up.

Players' names The analysis of chapter 5 provided some interesting results with regard to the naming of players. More study would reveal when it is most likely that a commentator will use a player's full name, or just first name, as opposed to the more standard surname. Modelling this is again a case of probability. In some contexts, when a player's name is to be used, there could be a 10% chance that their full name will be used for example.

Other observations

Verb absence The utterance type which was discussed in this section of chapter 5 is quite common in football commentary, and this should be taken into account when creating the commentary for the model.

Driven by visuals The visuals which normally drive real commentary are mainly replays, but include close-up shots of particular players, or the team managers. With the exception of replays directly after a particular incident most of these occur in lulls in the action. As has already been stated, since the player of a computer game is involved at all times, there are no quiet moments, and so there are no occasions such as this, and so there is no need to include commentary for describing such scenes.

In the games today, replays are included after goals, and the colour commentator, as discussed earlier, should commentate on them. The player also has the option of invoking a replay themselves, at any point in the game, but since they have complete control over them, moving them forward and backward at will, these would be impossible to commentate on and so should not be.

History Including details from previous matches is something that, like giving player details, adds a certain amount of depth to the commentary. Analysis should reveal when and how often such details are given, but the difficulty arises in history's temporal nature.

Many references to previous matches are date specific, informing the listener exactly when a previous match took place. This causes problem for a computer game in two areas. If the game uses real world data, then a match that is being described as the previous meeting between two teams, may no longer be the last time they played one another. Also it will be an unspecified period of time since those teams met, so there can be no reference to when the teams actually played. Also with in the game, a player may chose to play more than one game between the same teams, but it could be minutes or months between each game.

In order to solve this problem, there should be no time specific commentary, only references to *previous meetings*. There should also be only a limited amount of previous data, as it would be a waste of memory to include exact details of every previous encounter between every team.

The reason for including real information is that it is what football fans want. The reason so many players buy each new version of the same game as they are released every year, is to have the game with the most up-to-date players and strips and team rankings. It would add an extra level of realism if the commentator were able to talk about the real teams performance in the year prior to the release of the game. It would be possible to keep these records, or replace them as a player guides a team through their own season. It would be up to the developer to decide exactly how much real world data they wanted to include, and the player could decide whether they wanted to use it, or just use the statistics they will amass themselves as they play. For further details on the information to be stored, see section 8.5.

Future References to the future, like the past, should not be time specific. Also, there cannot be too much detail. Talking about how many games a team has left in a league and how many points they might get from those games and what that might mean, as can be seen from examples 25 a. & b. in chapter 5, can take quite some time. In order to remove the need for complex utterances, and save the time that they take up,

references to the future should be limited to which team a player will face if they get through to the next round of an elimination competition, or the next couple of teams to be played in a league.

Player details As with heavy modifiers, it would be possible to study how often and in what context player details are given, and what sort of details are used. It is definitely a feature to include in any model.

Unique utterances For a computer to produce a genuinely unique utterance, it would need to have very many such utterances stored in its memory, and marked in such a way that they were only ever uttered once. Even though memory capacity of game machines is increasing, in order to be worthwhile there would need to be so many of these utterances stored that it may be considered a waste of space.

It is a fact that the more unique an utterance is, the more likely it is to be remembered if it is encountered more than once. Subsequently, the more it is encountered the more annoying it becomes. So the trade off has to be between many unique utterances that are only ever used once (or at least only once within a particular time frame), or slightly less interesting utterances that can be used more than once.

The other difficulty is that most unique moments of commentary occur spontaneously, they are not planned. With a computer game, they would somehow have to be encoded into the model beforehand, and so such utterances may not sound as unrehearsed.

Occasion specific language This is definitely something that should be reflected in language if not by tone of voice. The World Cup final is a far more important match than a friendly, and it would add a certain depth to the game if this were implied by the commentary. The tone of voice should only be changed, more excitement for a World Cup goal than a league one for example, if that is the commentators style.

One concern is that the real World Cup only happens every four years, is tough to get into, and is the most prestigious title in world football. In a computer game it can be won in less than an hour, and attempted as many times as possible, whereas to play in a league situation, it requires a great deal more time, and so could be considered in

achievement terms to be greater than winning a cup. However, the computer cannot really know how much importance is being placed on a particular game by the player, as they could be playing a friendly as a grudge match between players, which is important to them, but not to the computer. Also, as already mentioned football fans like realism in computer games, so this model should treat importance and prestige on a level equivalent with competitions in the real world.

Bias This is not something that has actually been encountered in the commentary used for this project, but it is highly likely that there are commentators who express their bias. This could be reflected in commentary that is more enthusiastic being reserved for particular teams. Similarly familiarity, which was encountered, means that some teams are spoken about more, and this could be reflected in the level of knowledge about certain teams.

There are two ways of dealing with bias. First is a strict adherence to the real commentator. When a game is bought, it is a particular version that is bought. The commentator is most likely of that nationality, is biased towards that country's national team and has his own personal favourite teams. The second is to have bias as a changeable option within the game. Players can not only turn it on and off, but they can select the teams which the commentator favours. This second option is preferable, as there are instances when one version is released in many countries. For example, the British version of FIFA 2001 features an English player on the cover, and English commentators, and if bias is to be included, Scots, for example, might like to change from the default bias.

Familiarity could also be made an alterable feature. The default is for a commentator to be familiar with teams in some sort of hierarchy, the familiarity decreasing the further down the hierarchy a team is. The most familiar is the home national squad, followed by the league teams of the country, top national teams, other big teams in the area (Europe for example) and so on. Familiarity would be defined in terms of the amount of knowledge the commentator has about the players in a team. There are of course also players within teams who are more well known than their team mates. It would be possible to change the home state of the commentator so that they are more familiar with the teams of another country. This would be possible because for

each version of the game produced, facts relating to local players would have to be included, and these facts could be included in all versions. This is a less desirable option however, and a static level of familiarity would be perfectly acceptable.

Interruption If a commentator is prone to interrupting himself should the action demand it, then it is a feature than one would include in a model. Or rather, in the technology that utilises the model. The system would need the ability to stop one utterance in order to give another one.

8.4.4 The Model

The above description suggests exactly what should be in the model. This section describes how that data should be represented. The model suggested here is template based, as opposed to going with full natural language generation which, as the developers of the Robocup systems found, was very difficult with the slang-like language of football commentary. That is, all commentary fragments are represented as templates, with variables to be filled, and can be used alone, or in sequences.

Templates should be divided by action. That is, there will be a set of templates for passing, a set for heading, and so on. There should also be unique sets for the two commentators based on the individual analysis of what they say in real commentary. In line with the use of tense given above, the play-by-play passing templates will be a mixture of simple present and present progressive and the colour's will be past tense.

Templates can also be subdivided to allow for context, such as where on the pitch, and when in the match an event occurs. This would allow for a much broader depth in the range of comments, along with greater accuracy. According to an expert, one of the most annoying moments of commentary is when a player accidentally hits the *shoot* button, nowhere near the goal, but the comment still reflects having a shot at goal. By using increased context, events like this can be either ignored, or treated more accurately. Using context can also provide added excitement. It would be good if passing comments were briefer and more excited if the score was level and the match was drawing to a close and one team was pushing an opponents goal, than if the passing were between defenders early in the match. This would make for more a realistic sce-

nario, and possibly help to increase the tension of an already important match perhaps. Bias could also result in a further subdivision, some of the more enthusiastic phrases being reserved for the commentators favourite teams.

A template consists of the words of the commentary fragment, variable slots to be filled by player or team names, and details of the basic intonation pattern for that utterance that the speech synthesiser will use. The intonation labelling depends very much on the synthesis system used, but one method might be to have the synthesis produce all utterance in a reasonably neutral tone by default, but label any special changes, such as a drop in pitch and speed for disappointment.

Templates can also be marked with random elements, that will have a probability associated with them. For example if the context is right, a template which identifies a player may have a 15% chance of including a descriptive heavy modifier.

Templates also allow for easy implementation of linguistic features such as it-clefts, and verb absences, as described earlier in the chapter. This is because the commentary fragments can be written in the style of such features. So rather than having to work out rules as to missing out pronouns plus copula, for simplification, for true text generation, one can just write a comment, that is missing these features.

Examples of the template types based on actions are, in no particular order: running with the ball; running without the ball; passing; heading; crossing; tackling; avoiding; shooting; saving; scoring; taking a freekick; taking a throw-in.

Examples of templates from the two main commentators of chapter 5 for describing passing manoeuvres can be found in table 8.1.

8.5 Selecting the Commentary

Now that the model is, at least theoretically, in place, the next stage is in the content selection. How does the computer decide what to talk about, and what to say about it? This section details a way this could be done, along with discussing the resources required.

Play-by-play Alan Parry	<PLAYER> for <TEAM> with the ball over the top <PLAYER1> turned it on for <PLAYER2> <PLAYER1> on to <PLAYER2> <PLAYER1> <PLAYER2>
Colour Dave Bennett	<PLAYER1> played <PLAYER2> through some fine passing there <PLAYER> just slipped an excellent ball there the ball was played through for <PLAYER>

Table 8.1: Examples of *passing* templates

8.5.1 Resources

The main resource for the generation of commentary is of course the template based model described in the last section. The next most obvious resource is the action of the game itself. As already discussed, the computer is aware of what is going on at all times as it controls most players, and the others are controlled through it. This allows all the information required, such as what every player is doing, what the ball is doing, etc., to be passed onto the commentary system. This mean that there does not need to be analysis similar to that of ROCCO, by which if one player has the ball, kicks it, and a team mate then has the ball it is considered a pass.

It is unknown exactly what form this data takes with in the code of the game, but it is most likely to be a predicate for each player detailing where they are, what they are doing, and if they have the ball. The actions also come with attributes and will include running, which direction they are heading and how fast, passing, who the ball is going to (for direct passing systems) or in which direction it is heading (for indirect) and how fast, and so on. The data may look like this:

player predicate: <Player, Location, Action<Attributes>, {Ball}>

action predicates: <running(Direction, Speed)>

<passing(Target/Direction, Power>

<slidingtackle(Direction)>

...

examples: <fowler_r_liverpool, (345,236), running(112,5)>

<heskey_e_liverpool, (231, 87),

passing(fowler_r_liverpool, 25), ball>

<ferguson_d_everton, (207, 110), sldingtackle(163)>

The final resource required is a database of facts about players and team history. As described above, details of previous matches along with goals scored by player are only kept from matches played in the game, rather than bases on any real world statistics which would go out of date. Player details however can be included with the game. This is not much to ask, because generally each player has their own record in the game anyway, which is concerned with their attributes such as speed and stamina, so to include more data is just a question of researching it.

Rather than having to search a massive database looking for player details to comment upon however, at the start of the game the records for just the twenty two players on the pitch can be loaded into the computer's memory. If a substitution is made, the records of the two players concerned can be switched. Likewise all the details of the two teams could be loaded before hand, the players details loaded from the squad list of the team.

The kind of information included depends entirely on what kind of information the commentator being modelled is prone to give about players and teams. For example, if a commentator talks about a previous match between two teams, does he give the score, or just the result? It also depends on how easy it might be to encode that information into the system.

Possible database

This section details the possible contents for player and team databases, and outlines their structure. At the highest level, teams and player records have static and dynamic

attributes. Those that remain the same include name, player position, nationality and ability attributes such as speed and stamina. Also included are any special details, such as if a team has a rivalry with any other teams. The details that are to be updated include previous results, statistics such as how many goals have been scored and conceded, and the team squad details, as players are allowed to transfer players between teams.

Within the dynamic records there are those that are permanent, and those which are only temporary. Permanent details include details of all previous results, and the previous season or cup competition statistics that the team was in. As mentioned above, the game would start with data from the real world, such as for each league in the game, the previous year's details would be included, and when a player completes a league, the current statistics over write the previous ones. Temporary details include the current match statistics, such as how many corners, foul, and shots each team has had, and also details from any league or cup competition that the player is currently involved in. These details are only kept for as long as the match or competition is in progress, and although they may contain more information than the permanent records, players are usually only involved in one league and one cup competition at any one time, so space is kept to a minimum.³

Details of the history between two teams are separate files. If each team were to have the details of all the teams it has played against, each of those details is effectively duplicated within those team's records. So, a more effective method of storing the details is by having them indexed by both teams, in alphabetical order. So rather than team A having records of encounters with teams B & C, team B with A & C, and team C with A & B, there will be records for the pairs of A & B, A & C, and C & B, halving the storage space required.

Tables 8.2, 8.3 and 8.4 contain details of all the information to be held and in what context.⁴

In addition, every fact in the database comes with a special marker to indicate when

³In discussing space it should perhaps be mentioned what space is available. Home console systems are currently the most popular format for football games, and they save their data onto relatively small units known as *memory cards*. Many of the latest generation of consoles however, are currently planning to utilise a hard drive memory system, similar to that of PCs, allowing for much greater save space.

⁴P, W, D, L, F, and A, stand for the number of games played, won, drawn, and lost, and how many goals for and against. Pts is how many points have been scores, and Pos is league position, or which round in a cup was reached.

Type	Situation	Attributes
Static		name, stadium, manager, strips, specials
Permanent Dynamic		Squad (links to relevant player files) Last league result, {P,W,D,L,F,A,Pts,Pos} Last cup result, {who beaten,F,A,Pos, if Pos not WIN who beat}
Temporary Dynamic	in a match in a cup in a league	goals, shots, corners, fouls, bookings who beaten, goals for and against, number of red and yellow cards for all teams P, W, D, L, F, A, Pts, Pos, Streak{what kind,number} for just human controlled teams, for every team they have played P, W, D, L, F, A, last match result

Table 8.2: The data kept for each team

Type	Attributes
Permanent Dynamic	for each pair of teams A and B {Total,Awins,Bwins,Draw,Agoals,Bgoals, LastResult(Result,Typeof Match), WinningStreak(Who,Howmany) }

Table 8.3: The data kept for each pair of teams

Type	Attributes
Static	name, age, position, nationality, ability attributes
Permanent	which team, international yes/no totals goals scored(international + domestic(league + cup)) details of each team scored against and how many
Dynamic	total number of red and yellow cards received for goalies details of goals let in, who and how many
Temporary Dynamic	similar details as above, but only for current league and cup

Table 8.4: The data kept for each player

it was last used to generate a comment, so that the system does not use the same fact too often, and also if it has changed since it was last used. This would allow the system to never use a fact within say, ten matches of already using it, unless it has changed in which case within five matches would be acceptable.

8.5.2 What to comment on

Once the resources are in place, the system must select which action it is going to comment upon. The method suggested here for the play-by-play commentator is most similar to that employed by the ROCCO commentator, but the colour commentator is more like an advanced version of what computer games use currently.

Play-by-play

1. At each time step, every action taking place is considered. There will be at most 23 actions, being what each player plus the ball is doing. Since many of these actions are predictable, such as the fact that a goalkeeper will be doing nothing if the ball is at the other end of the pitch, it may be possible to be more selective. If considerably better performance say could be achieved by having fewer actions to evaluate, it would be possible to limit the focus to say:

- The player with the ball, or the ball itself if it is in free play.
- The players nearest the ball.
- The players whose paths are likely to cross the path of the ball.
- Any human controlled players, because they are capable of doing interesting things when not on the ball.

2. Each action being considered is given an importance value based on a number of factors, given here with examples:

- Which action it is. A shot is a more important action than running without the ball.
- Where the action takes place. Passing near an opponent's goal is more important than passing in the middle of the field.
- How close it is to the ball. This normally only applies to human controlled players, as they can perform sliding tackles in the middle of the field, nowhere near the ball, and this should mean a decrease in the importance of the action.
- When the action takes place. All actions will increase in importance as the end of the match approaches. The rate of increase depends on the score, a larger increase will be used when the teams are level, and lesser if one is leading by quite a margin.
- How often that particular action has been referred to in the recent discourse history. A pass may be of some importance, but the fifth pass in a row from the same team will be much less so.
- How often the particular player has been referred to recently. If one player has had the ball for a long time, it is not of great importance that the commentator keeps identifying this state.

3. The action selected for comment is the most important one, but only if it is above a certain threshold value. This threshold value:

- begins at the level of importance of the last utterance.

- decreases slightly if there is nothing that reaches the threshold level.
 - increases at either end of the pitch, allowing the commentator to focus on the current attacking situation.
4. If nothing reaches the threshold, then the commentator can either say nothing until the next time step, or can use some background information. Depending on what the real commentator would say, a fact about the most recently topicalised player can be given, or details of previous fixtures between the two teams. Selection of a background fact is also controlled by a number of factors:
- How often a particular kind of information has been given. The more often it has been said how many goals certain players have scored in the current competition, the less likely it is to say something similar.
 - How recently a particular fact has been given. A fact should never be given more than once in the same match, even if it changes, and the greater the number of matches since it was last used, the more likely it is to be used again.
 - How often a particular player has been spoken about in any match. The commentator should not say everything about just one player, but there will of course be players that the commentator is more prone to talk about, such as the star strikers and big names in any team, because that may be their style, and there may be more information stored about those players.

Colour

As already mentioned, the colour commentator will be limited to commenting on particularly noteworthy actions. These can either be explicitly defined, such as all shots, goals, and bookings, or else the play-by-play commentator's importance ratings can be used, and whenever he comments on an action with a particularly high value, the colour commentator can add his thoughts after.

In either case, depending on what the action is, the colour commentator will either talk about that action alone, or those preceding it also. For example, for a booking, he can perhaps comment upon the tackle which led to the card being shown, and for a

goal he may want to describe the events leading up to it, perhaps the last four or five actions. To this end, a list of the actions that the play-by-play comments upon should always be kept. For a goal for example, the colour will comment on the same actions as the play-by-play, but using his style, past tense templates.

8.5.3 What to say about it

Once the action for comment has been selected, the appropriate comment must be chosen. As already mentioned, the system being proposed here is a template based system, and the templates are divided into the actions which they describe, along with when and where the action took place, or rather, how important it is. So the choice has already been narrowed to the right templates for the context of the action, it is just a matter of selecting one of these.

Each template has associated with it certain features which affect its use.

- **Constraints:** These can be used to define particular times when templates cannot be used. The best example is preventing the play-by-play commentator's use of a single name, if the player was the topic of the previous comment.

Another use might be to prevent strange commentary moments like example 6a. in chapter 6, where the play-by-play commentator agrees with the colour's agreement of something he said. The constraint could prevent the play-by-play's utterance depending on what the colour just said.

- **Rarity:** As discussed above, unique and interesting utterances are not one that should be used very often, and in order to distinguish such utterances, all templates will be marked with a degree of rarity, 10 being extremely rare, and 0 being very common.
- **History:** In order to further reduce the chances of a rare utterance being used too frequently, each template has details of how often it has been used, and how recently, and is penalised accordingly.

Notice that there are fewer factors than the ROCCO system which this is closest to, which affect the choice. This is because factors such as length, are already dealt with

by dividing the templates up into context specific groups. For example, when a team is attacking the opposition goal, things move faster, and ROCCO penalises templates for being too long. This system is choosing from templates that are selected for this particular context however, and they will tend to be shorter anyway.

Once any templates that are constrained are eliminated, along with too frequently or recently used templates, a preference value is calculated for those remaining, and the template with the highest value is chosen. Slots are filled, probabilistically if so required, and the completed utterance is ready for vocalisation.

8.6 Speech

In the real computer game, all the commentary chunks are recorded by the commentators, and played back in full when required. Those chunks are not particularly versatile however, they are fixed and cannot vary, and they sound the same each time they are said. The commentary templates being used here are more adaptable however, with many of them containing slots for variables, and others with elements that are inserted randomly.

It would be possible to record every possible combination of utterance, but looking at how many player and team teams there are that could go in each possible position, along with those random elements, this is simply too vast an amount of data. Too much both from a storage point of view, and for getting the commentators to record it.

The most obvious options available are speech synthesis, and speech concatenation. In speech synthesis, developers could develop their own system, or use an off-the-shelf text-to-speech (TTS). The best currently available systems use a database of 1300-1600 diphones, recorded in the desired speaker's voice, in order to build up the utterance desired. Prosody can be modified, and joins can be smoothed to produce the desired intonation pattern. However, current TTS speech systems have quite specific recording requirements with which to collect the diphones, can be computationally expensive, and on the whole, are far from perfect.

What is meant by speech concatenation on the other hand, is the pre-recording of all the phrases, more than one version if there is a random element in a template, and

all the names, and sticking them together at realisation time. Thus *Smicer knocks it through for Heskey* would be three separate utterances “*Smicer*”, “*knocks it through for*”, and “*Heskey*”. This is more space efficient than recording every phrase combination, but, as with the current game systems, each utterance will be said in exactly the same way every time it is used.

The solution suggested here combines the best of both worlds. The advantage of this situation over straight TTS is that everything to be said is already known. Perhaps not the exact combinations of phrases, but for the most part the domain is known. This means that a limited domain synthesiser can be built, which uses unit concatenation with units of different sizes from diphones to words to whole phrases.

This allows a phrase such as *Smicer knocks it through for Heskey* to be built from parts of phrases such as **Smicer**, **knocks it on**, **plays it through for**, and **Heskey**.

8.6.1 Recording the data

The first step is to record the data. As the example above shows, it is not necessary to record every phrase, but a minimum of phrases that spans the entire set. This set would need to be worked out so that not only was each phrase covered, but each desired intonation of such phrases. It should not be too difficult to devise such a set, at least for the coverage of intonation, since the templates described in the chapter are subdivided by context, so the recording sets can also be distinct between excited, and less excited tones. Care should be taken to record in a fairly level tone however, otherwise prosodic artefacts can occur at the unit joins.

One set-up for recording might be in a normal recording studio, but also using a laryngograph (or electroglottalgraph, EGG) to measure changes in the speakers vocal folds as they talk. This helps in the identification of pitchmarks when analysing the spoken data for building the synthesis system.

An issue worth considering is naming the players. In FIFA 2001 player names are recorded up to three times. Once in a neutral tone of voice, once in an expectant tone, and once in an excited tone.⁵ It may be possible to maintain this strategy, by recording

⁵FIFA 2001 is one of the first football games of the new generation of machines. Previous games only had names recorded twice, omitting the expectant tone of voice, and in fact many of the lesser

every player name with in the recording of the commentary phrases. That way names will be recorded in a tone appropriate with the phrases they are to be used with. This does however require every name to be recorded in each tonal context, and depending on the number of players in the game, and commentary templates in the model, this could greatly increase the size of the recording set.

The other option for players names is to go back to a diphone synthesis, but just for the names. The player records could contain a field detailing exactly how to pronounce the name, and this could be used to select the right units for synthesis. There would of course need to be a diphone set for each tone of voice in the system, and it could be time consuming to construct these. The advantage of this method would be that new names could be added to each new release of the game, without the need for the commentator to return to the studio.

8.6.2 How it works

Each template, it should be assumed, is to be spoken in a level tone, of which ever tone is appropriate, excited or neutral, unless it is marked up with special requirements, such as one word in the sentence louder than the rest. This makes sure that when the utterance is given to the synthesiser, it knows exactly what it is looking for.

It will have in its database, more than one example of most words or phrases, and it should pick the ones that closest match the desired intonation of the template, and that best fit together. If the data from the two tone sets was recorded in reasonably level tones, and the analysis was of a sufficiently accurate level, then there should be few noticeable joins between chunks. Those that are present can be smoothed by an algorithm such as time domain PSOLA. Also, the closer the recordings are to the desired output, the less the chunks will have to be modified.

The downside with this appears to be that each time a template is selected, the same chunks from the speech unit database will be selected, and so it will sound the same every time, which is exactly the problem this system was to avoid. This can be dealt with in the following ways:

known players in FIFA 2001 do not have this function either.

- Just as templates contain words that can be inserted or changed at random, so they can also contain prosodic instructions that can take effect randomly. For example, a template could be labelled so that one of its words has a lower speed, within a certain range, making it said more slowly a percentage of the times it is used.
- Once the utterance has been synthesised, a random mutation could be applied. The pitch and/or speed could be increased or decreased by a small amount, uniformly across the utterance. It would have to be small enough to still sound correct in the context and not sound stupid, but not so small that the listener cannot detect it.

8.7 Summary

The chapter has outlined a possible method of, starting with raw data from a pair of commentators, developing an event-driven, history-based, dynamic commentary system. It is just one possible method that could be used to model the commentators, and one suggestion for the technology that would use the model in generating in-game commentary. Of course, it is merely theoretical, but since the design of each part of the system is based on or is similar to existing technology, there is no reason why it should not work.

Some parts of this system would take a great deal of time to develop. The analysis of the commentary, the defining of the model, and the recording of data would perhaps take a great deal of time indeed. These tasks however are one-off operations, that would not need to be repeated for each new version of the game. Also, once the commentary system technology is working, the implementation of the model, the content selection and the speech synthesis, there is no reason why it cannot be applied to other sports, for other games. Electronic Arts, the company behind FIFA 2001, also produce yearly hockey, basketball, baseball, American football, and formula 1 games, so developing the technology for so many games could be a worthwhile investment.

Chapter 9

Commentary System Evaluation

9.1 Introduction

This project has been about designing a better commentary system for football computer games. If such a system were to be implemented, it could not be considered complete without undergoing some form of evaluation. This chapter presents how such an evaluation might be performed.

However, different situations call for different evaluation methods. The first part of this chapter describes how such a system would be evaluated in the scope of this project, within the frame of academic research. This involves carefully thought out experimental methodology, and statistical analysis to verify results.

A game developer would most likely not have the time or the resources to perform such an evaluation, nor would they have the need for such an in-depth analysis. The latter half of this chapter describes a much simpler process by which a developer could investigate the quality of a new commentary system.

9.2 Academic Study

For an academic evaluation, experiments can be performed, and for an experiment, one needs a hypothesis to be tested. The hypothesis here is that a football game that used a commentary system such as that described in the previous chapter, would be

considered better, both overall and specifically in terms of commentary, by players when compared to an identical game that used the original commentary generation method.

9.2.1 Methodology

Subjects

Subjects should be divided into groups of four, using the following two criteria for selection of subjects:

- The subjects must have previous experience of football games.

This is to allow for a fair evaluation of the game. Beginners unfamiliarity with the control interface will distract them from simply experiencing the game.

- The groups of four subjects must know one another.

This condition allows the evaluation to be carried out in a situation similar to that in which the game would be played normally, with friends.

Equipment

Most action football games are played on games consoles, but for the purposes of removing the original commentary and adding the new system, the game had to be PC based. So in order to best emulate the performance of a console, and not let the players be distracted by the different format, the machine should:

1. be very high spec (high processor speed, large amounts of memory, quality graphics and sound card, and running nothing but the operating system and the game).
2. be hidden from view, so as not to distract the players,
3. have a large (17-21”), television sized, high resolution monitor.
4. have two controllers that look and perform just like controllers of a console.

The same machine should be used in each trial, and the same game also, but half the time using the original commentary, and the other half using the new commentary system. To make sure that there is no bias caused by the voice of the commentary system, the speech synthesiser should use the voices of the original commentators. This renders the commentators, to the subject's ears at least, identical.

The only other equipment used would be the questionnaires used to evaluate the games. A questionnaire should be given out after each session to each subject, and they should be asked to rate a number of features of the game, on a scale of 1 to 9. (Interval data is used as opposed to ordinal data, eg. rubbish – alright – great, to allow for parametric analysis of results.) A sample from the proposed questionnaire looks like:

1. How would you rate the graphics of the match you just played?

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9

2. How would you rate the sound of the match you just played?

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9

3. How would you rate the commentary of the match you just played?

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9

4. How would you rate the playability of the match you just played?

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9

5. How would you rate the match you just played overall?

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9

The two important questions are how the subjects rate the commentary and the match overall. The other questions are to prevent biasing of the subjects towards paying more attention towards the commentary than they normally would in subsequent matches.

Procedure

Each trial consists of a group of four subjects, and a short tournament of two initial matches and a final, all three games being played with the same commentary system. The subjects each pick a (different) football team, and they are randomly paired off. A randomly chosen pair begins by playing the first ten minute (five minute halves) match, while the other pair watch. After that match, the pairs switch, and for the final match the two winning players face off against each other.

The reason for playing the games like this are as follows:

- It recreates the atmosphere in which football games are often played, with and against friends.
- it gives features of the new commentary system, such as the ability to make reference to previous matches, the opportunity to be included in the commentary.
- It gives each of the subjects a chance to be both player and spectator, thus eliminating the possibility of a biasing effect of these positions.¹

At the end of the session, each subject should fill in a short evaluation questionnaire like that detailed above. Each group of subjects only plays one of the systems, an equal number of groups playing each system, thus making this a between-subjects experiment. This is to eliminate the possibility of bias when evaluating the systems. On a second trial, subjects may be aware that there are differences between the two systems, and may begin to actively look for them, and no longer play as one would naturally.

¹There is a possibility that people watching their friends play notice the commentary more than those involved in the action, as they are less distracted by the actual playing of the game. This hypothesis is based on the personal experience of the author, and other players.

9.2.2 Results

The hypothesis is that the commentary of the new system, and therefore the game containing it, is better than the original game and commentary. To see if this is the case, we want to look at the results of the evaluations for both systems given by the subjects. This requires the mean of the answers to the commentary question, and the overall game question, for each system. The results would be presented as in table 9.1.

	System 1	System 2
Commentary	μ_{c1}	μ_{c2}
Overall	μ_{o1}	μ_{o2}

Table 9.1: The mean answers of the two questions, for the two systems

The results should hopefully show a difference in the means of the score obtained in the commentary, and game overall question, the values being higher for the new system. To see if the means are significantly different however, a *t*-test is needed.

Since the desired effect is known, as opposed to just looking for any effect, it is a one-tailed *t*-test, and because the two samples are independent, it should be an independent *t*-test. The results of such a test should tell us if the means are significantly different.

To be sure that this is a genuine effect, similar tests should be carried out on the means of the remaining questions also. For a significant result, we should get something like table 9.2:

Question	<i>t</i> score
1. Graphics	Not significant
2. Sound	Not significant
3. Commentary	Significant
4. Playability	Not significant
5. Overall	Significant

Table 9.2: One-tailed Independent *t*-test results

9.2.3 Discussion

Significant Results

To achieve significant results while testing the hypothesis would be the ultimate goal of this project. A significant result would mean that a game using the new commentary system has rated significantly higher than the exact same game with its original commentary. It means the system developed within this thesis has succeeded in bettering existing technology.

Since this hypothesis is really a glorified evaluation, it means the project has successfully led to the creation of the system it set out to, a better commentary system for computer football games. This does not really suggest a great deal of further work. The biggest field of work that would follow would be the marketing of what is potentially a very commercially viable system. Further research might be into what could make the system even better. Work could be done to make the commentary even more like real live commentary.

Non-significant Results

A non-significant result does not necessarily mean that the system is not a good commentator. It is possible that it is just as good as is used today, or the result may have arisen because people do not notice the commentary in football games all that much. Further study would be needed to see which of these is the case, although one thing that can be done immediately is test for a significant result in the other direction.

A negative significant result would definitely mean failure, since a game is being rated lower than it normally does, because it is using the new commentary system. This would prompt at the very least a re-think of the details of the system, at the very most, total abandonment of the whole project.

9.3 Commercial Evaluation

As already mentioned, game developers do not really have the time or the money to spend on research and analysis as detailed in the previous section. Even a company as

large as Electronic Arts do not really need the level of detail such a study can provide.

Games companies always test their games. They test code as they go along, as with any software development, but towards the end of a game's development, they employ people whose specific job it is to play the game and provide feedback.²

Getting a new commentary system into a game would not be too much of a problem since it is more than likely to be the same team that made the game as made the commentary system. This allows for direct comparison between two games that differ only in commentary, and this would be the best way to evaluate the new system. The companies should get their testers to just sit down and spend a bit of time with each game.

They could be told which specific feature they are to look at, the commentary, or they could just be asked to comment on the game overall. If a reasonable enough portion of the testers were to say that the game with the new system was better, or explicitly that the commentary itself was better, that should be enough to satisfy most developers, and indeed publishers.

9.4 Summary

This chapter has described two evaluation methods for the commentary system of this project, should it ever become a reality. The first satisfies academic levels of study, allowing the proving of the superiority, or inferiority of the system. The second method, is a much simpler, but no less helpful way of deciding whether or not the game is improved through the system's use, should there not be the resources for the first method.

²These *testers* are often called *QA (quality assurance) technicians*, though that is a misleading job title judging by many of the games that make it to the shops.

Chapter 10

Conclusion

Commentary in computer football games is, to be blunt, not very good, and the main aim of this project was to propose a system that could be used within a game to produce commentary much closer to that of real football. And this aim has been achieved.

By using features of commentary identified through a literature review, along with those that were observed first hand, and revealed by statistics, it has been possible to perform a relatively in-depth analysis of a sample of real football commentary. By performing a similar analysis on an example of artificial commentary, it has been possible to show quite how different it is to the ideal it aims towards.

The commentary analysis has helped in the development of a proposed model of real commentary. Study of previous real-time commentary generation systems has enabled the proposal of a system to utilise such a model to create life-like commentary for the artificial matches played in computer games.

The main area of future work that follows from this project, is the actual development of such a system. This would require a full analysis of a single pair of commentators, and the developing of models of those individuals. The technology would then have to be developed as has been described in these pages, and linked with the models, in order to generate game commentary. The successful development, and evaluation, of such a system would mean that it could be applied not only to different pairs of commentators, but also to the computer games of different sports. Success would also mean better commentary in computer football games, the area in which they are currently weakest.

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Appendix A

Motivation Questionnaire

This appendix describes the questionnaire that was used in chapter 2 to determine that players of football computer games thought the commentary was not very good. The address of the questionnaire was posted to the forums on EDGE magazine, and all members who play football games were invited to respond.

1. What football games do you play?

Checkboxes for:

- FIFA 2001
- FIFA 2000
- FIFA 1999
- ISS PRO Evolution 2
- ISS PRO Evolution
- This is football 2
- This is football
- Sega World Wide Soccer
- Other (Please specify...box provided)

2. And what do you play them on?

Checkboxes for:

- PS2
- PSX
- Dreamcast
- PC
- N64

- Other (please specify...box provided)

3. How much do or did you play your football game(s)?

Checkboxes for:

- Rarely
- Sometimes
- Often
- All the time

4. How do you play them?

Checkboxes for:

- Alone
- With friends
- Both

5. Do watch football on TV?

checkboxes for:

- Yes
- no

6. What was the **most recently released** football game that you played?

- Box provided for answer

7. What do you think of the graphics of the most recently released football game you have played?

- Box provided for answer

8. What do you think of the playability of the most recently released football game you have played?

- Box provided for answer

9. What do you think of the commentary of the most recently released football game you have played?

- Box provided for answer

10. What do you think of the range of options of the most recently released football game you have played?

- Box provided for answer

11. What do you think of the realism of the most recently released football game you have played?

- Box provided for answer

Appendix B

Transcript of Real Commentary

This is the transcription of the Everton Liverpool match broadcast on Sky Sports on April 16 2001, that was analysed in chapter 5. AP is the play-by-play commentator Alan Parry, and DB the colour, Dave Bassett.

Pre-match Introduction

Handover - it's back to Goodison Park then to join our match commentators Dave Bassett tonight sitting alongside Alan Parry

AP - Everton's top scorer Kevin Campbell scored the winning goal the last time they beat Liverpool 18 months ago and in fact he scored twice in three appearances in the Merseyside derby. Emille Heskey returns to the starting line up for Liverpool he's their top scorer with a career best twenty goals and Heskey has ended his recent lean spell by scoring twice in the last three games Jeff Winters the referee for a fixture that's always volatile and history suggests he's likely to be a busy man tonight with his first duty as a solemn one to mark the twelfth anniversary of the Hillsborough tragedy and also in memory of those who died in the recent football disaster in South Africa the players and fans will shortly be asked to stand in silence for one minute in memory of those who passed away Well I have to say it wasn't quite as immaculately observed as we were all hoping for what a shame I need hardly remind you that Everton are in blue Liverpool in red traditions are good and Liverpool as ever in that team bonding huddle before kick-off Subject of our first player cam for Sky digital viewers on channel four oh four will be Everton's Duncan Ferguson who's never been on the losing team in eight previous Merseyside derbys Ferguson one of three players returning to the Everton starting line-up tonight after injury, Walter Smith admitting he's taking a little bit of a risk with the selection of him, Gough and Xavier.

First Half

0:00

AP - But this is a game (.) worth taking risks for (3) and the first tackle (.) from Gemmill (.) underlines (.) I think (.) what we're in for here (.) every Merseyside derby is fiercely fought (.) Fowler caught offside here (.) but with the real importance of the three points at stake here for both teams (.) I think we can expect Dave to see a few more challenges like that one (.)

0:24

DB - Yeah this has started excellently from the kick off they knew what ah Liverpool were gonna do Kevin Campbell was off 'is blocks very quickly to close down a man (.) and 'e got a block and it went out to Gerrard and er Campbell's gone in with a fierce challenge but er it wasn't vindictive but er as you rightly say I think there's gonna be plenty of early challenges (1)

0:43

AP - Hyypia against Ferguson's gotta be one of the eh real fascinating battles a flick on to Campbell has earned Everton the first corner of the game (2)

0:53

DB - Yeah I think we're gonna see that ball played up to Ferguson quite a lot tonight while 'e's on the field (.) as long as they don't overdo it but Kevin Campbell's made an excellent run in behind (1)

1:03

AP - Gough coming to the near post and it's a poor corner (.) comfortably cleared (.) Nyarko knocks it back in Campbell (.) onside (.) but couldn't make contact (6) Marcus Babel (.) can take Liverpool forward (2) Hamann (1) Biscan (.) returning to the starting line up feeling he might have had a free kick there he better get used to the fact that er tackles that earn you free kicks in ordinary games (.) don't always in this type of atmosphere (3) Campbell's flick on (.) Hyypia there ahead of Ferguson (2) and a nervy clearance from Westerveld (.) kicking usually one of the (.) better parts of his game (.) Unsworth goes in hard (2)

1:52

DB - Yes again you say that er that the challenge is forthcoming I mean (.) normally eh eh Westerveld is very good at 'is kicking but in fairness to him I don't think the ball back by Hyypia was a particularly good one it was a difficult one (.) but it wasn't er the type of sort of clearance that you want to give cos that gives the impression that you're a little more nervous even if you're not (.)

2:10

AP - Everton unbeaten in their last six games at Goodison four of them drawn while they've only won five times (.) in sixteen home matches in the Premiership this season (4) Xavier gets there ahead of McAllister (.) Sammy Hyypia for Liverpool with the ball over the top (4) Watson (.) did the right thing against the speedy (.) Vladimir Smicer (.)

2:36

DB - It looks like er Walter's decided to go with the back four Alan with Steve Watson there not the back three we thought possibly as er Xavier's gone on to the right hand side (.) midfield and Unsworth's on that left side and they're both matching one another up (1)

2:50

AP - Yes the Everton manager picking a team that had the flexibility to change the system (.) as soon as he saw how exactly Liverpool are playing and who exactly (.) Gerald Houlier would select (3) only four matches left after tonight for Everton (.) two tough away games at Arsenal (.) and Chelsea (.) and home matches against Bradford and Sunderland won't exactly be simple either (2) and on thirty eight points Everton will feel (.) another three (.) should see them home and dry (3) Hyypia (.) Carragher (.) and many Liverpool ball players in this contest (.) tackle there by Ferguson Smicer turned it on for Fowler (.) the clearance by Weir (.) then Watson's header (.) a frantic early pace exactly as we expected (4) Fowler (4) Hyypia (3) in came Ball to win it back and find Unsworth (1) the ball over top was a good one (2) that looks suspiciously like hand ball (.) there was a very loud shout (.) from the fans (.) Mr Winter was a long way away (1) but there's Heskey's broken clear and he's onside (3)

4:03

and scores (2) Everton will be furious (.) at one end they appealed for a penalty (.) within seconds they conceded a goal at the other end (.) Emille Heskey

4:14

DB - Well that's amazing Alan I was in the opinion it was a penalty (.) when the diving ball was hit by Unsworth (1) we're now just seeing Heskey to 'is credit played through 'e's showed 'is pace and power and 'e's powered that past the keeper (1) er an extreme good power there (.) you can see 'e's taken a good first touch Watson's recovering there (.) 'e's got 'is 'ead up and that's a powerful shot (.) round the keepers legs giving 'im no chance (2) there's the ball that er has hit Carragher on the hand I think obviously Jeff Winter's decided it was er ball to hand and not er er an intentional one but obviously Ferguson's appealed for it (2)

4:44

AP - Well though the referee was a long way away from that replay he seemed to have a pretty clear and unobstructed view of the incident (.) and decided (.) to let play go on (4)

4:59

DB - Well I think Jeff Winter's decided here (.) that he's gonna put 'is foot down and er Unsworth pushed Biscan away nothing particularly er violent er something you'd expect in a local derby (3)

5:12

AP - What a start (2) just over five minutes gone Liverpool in front already and a major talking point already (1) here's Heskey also scored in Liverpool's three one

victory against Everton (.) at Anfield in October (1) and that incidentally was his twenty first goal of the season (2) Babel (1) Fowler (1) Ball for Everton (2) time for Nyarko to take it on the chest (2) Unsworth (5) hesitation there between Hyypia and Westerveld (3)

5:50

DB - Well it's amazing how one incident can happen and then (.) within less than thirty seconds you get another (.) incident which results in a goal but it was a fine (.) goal by Heskey er he struck it with power and er that was excellent finishing (2)

6:04

AP - Campbell involved in that scramble (.) for possession on the edge of the Liverpool box which resulted (.) in a Liverpool free kick (2)

6:13

DB - I think we can see one or two aerial confrontations there with Ferguson up and er (.) a lots gonna depend how the referee sees those situations sometimes referees give a lot of free kicks for aerial (.) er confrontations which are not because er the balls in the air and there's always arms and legs going (1)

6:31

AP - That incidentally is Liverpool's one hundred and first goal of the season in all competition and Heskey almost presented number one hundred and two (.) on a plate (.) for Robbie Fowler (2) well Everton have Duncan Ferguson but Liverpool have their own powerhouse focal point in attack (.) in the shape of Emille Heskey

6:52

DB - I think it's amazing how 'e's improved since 'e's gone to Liverpool he doesn't seem to be falling over as much as 'e was at Leicester etc (.) whether they've got that out of his playing I think its has an affect because he is a handful he's so powerful and strong (.)

7:06

AP - Fowler (.) showing great skill (.) and winning Liverpool (.) the throw (6)

7:15

DB - Alan just a point did you notice who er played Heskey through cos I was sort of just looking at the reaction of one or two of the Everton players at the goal

AP - Yeah me too (DB cos that)

DB - Cos that was a good ball (4)

7:26

AP - There's Heskey again (1) Smicer (4) Carragher (.) McAllister (1) just beaten to it by the pace of the ball off the surface (13) and its the worst possible start (.) for Everton (.) against a Liverpool team who've only conceded thirty four goals in thirty one league games (.) this season (.) only Manchester United and Arsenal have a better defensive record than that (3) here's Ferguson (4) Hamann has it back for Liverpool the (.) challenge was little late the referee having a word with Ball (4)

8:21

DB - Well I think er Jeff Winter (.) is thinking whether to make the er booking here I think he's er making the decision whether to have a word with the linesman I really don't know why 'e's gone to see the linesman 'e's standing there or 'e's got his back (3) yes 'e's decided on the linesman's decision to give the booking there (2) I think we have to accept sometimes Alan in local derbys and things like this there's gonna be quite a few to tackles it's whether (.) it's particularly vindictive (1)

8:48

AP - Yellow card for Michael Ball who (.) curiously is the only locally born player (.) in Everton's team tonight (13) Westerveld's kick (.) onto the chest of Heskey (.) McAllister Smicer (.) found the ball under the chin but he controlled it well (4) Babbel turns it forward (.) Biscan (2) and that looks suspiciously like (1) an arm in the face of the Everton defender (2) certainly a free kick (1) will there be further retribution (.) for Igor Biscan here (3)

9:36

DB - Well we see the ball's played up for Biscan 'e puts 'is arm out 'e's goes to screen the ball and 'e's definitely got 'is hand up there (.) really and er you could argue that that er warrants a booking and Jeff Winter's gonna dish that out (4)

9:50

AP - So Michael Ball having just been yellow carded himself is the er (.) subject of an attack by Biscan (.) that earns the Liverpool man a caution

10:00

DB - I mean yeah I think you get problems I mean it wasn't that bad a challenge on Michael Ball but I suppose he's gonna ah actually you know take er (.) 'is own idea of er getting a booking done

10:11

AP - Ten minutes gone (.) penalty turned down (.) a goal scored (.) and a yellow card for each side (.) typical Merseyside derby (3) Ferguson (.) hustled out of it (.) by Sammy Hyypia (.) the crowd roar with every (.) contentious decision here it's never an easy game to referee (1) Watson (3) Heskey (.) tracked the route back to his goalkeeper but Weir was there to help out (3) Now Xavier (1) given away to Babbel (6) Weir's clearance (2) Babbel on to Fowler good ball by McAllister given away (.) to Scott Gemmill (.) two players who used to be Scotland team mates of course (3) Watson (2) slide by Smicer (7)

11:14

DB - It's certainly an excellent night for football the pitch is terrific there's no wind (1) and er it looks like it's got the ingredients for a few goals 'ere Alan

11:21

AP - And unbelievably we're having the shield our eyes from the sun (3) well lets look back at that few seconds of football that was the defining moment in the early stages of this game (1)

11:34

DB - Well there's the er (.) diagonal ball and you can see er (.) Carragher gets 'is arm there (.) it's now cleared up the field (.) this is a challenge here an 'it drops down and it's Hamann a great first time ball (.) Watson's keeping Heskey offside he's now striding out and there's that powerful finish (6)

11:55

AP - Campbell (2) Xavier (1) Duncan Ferguson (.) furthest forward but just showing up the ball (.) to Neville Carragher (1) to make the interception (9)

12:13

DB - I think this is going to be a long throw for Ferguson to go to where as Xavier's there going into the box

12:17

AP - Well he finds Campbell (.) played off him by McAllister (.) Carragher's clearance (.) Heskey to Fowler excellent football by Liverpool (.) Biscan takes it on (.) and will er try and run at the ball down the touch-line (.) and is brought down by Unsworth (6)

12:37

DB - Good the referee's being sensible now (.) 'e's not booking Unsworth there was a challenge there (.) Biscan again' doing some histrionics but er the referees been sensible not to get 'is book out (8)

12:53

AP - Another (.) clear threat for Everton from this set piece (.) Emille Heskey and Hyypia are two to be most concerned about perhaps (2) Hyypia coming round the back (.) beaten to it (.) shot by Smicer through the crowd (7) and Walter Smith of course has sampled well the atmosphere (.) in Glasgow (.) which is even more intense than this (1) his third season here now (.) since he came down from Rangers (2) and in difficult circumstances (.) has done a decent job (6) Everton certainly have flirted with danger (2) they've er been close to going down in five of the eight seasons since the (.) Premiership was formed (.) that even included two last day escapes (3) Hyypia's freekick (2) Heskey beaten to it by Gough (1) Hamann for Liverpool (1) now Smicer (1) plenty in the box to aim at here (1) Heskey is following (.) and just a shade too high (5)

14:08

DB - That's good play by Liverpool there (1) they worked to get the ball wide in a circle (.) decent cross into the box (.) if Heskey just pulled off a little bit further he may 'ave been able to adjust is run to come in (10) **14:29**

AP - Referee's given a freekick for the second challenge the er Everton fans thought the first by Babbel (.) was worthy of one as well (6) ;someone; 'll leave it to Michael Ball (6) floated in towards Ferguson (.) cleared by Hyypia none too convincingly (5) Gough for Everton Ball (.) I'm sure that's not what he intended but Weir clears it up (13) Ferguson's header on Campbell almost to it (1) an important clearance by Henchoz (.)

15:21

DB - I mean that was another incident a good delivery up to Ferguson (.) a (.) deft touch on and Kevin Campbell was stretching in between (.) the Liverpool defenders and they've 'ad to be more than happy to clear that away (.) again I think we're gonna get another long throw hurtled in Ferguson's direction (4)

15:38

AP - Watson just in front of him (.) it's Ferguson who wins it Campbell with the flick on (.) easy (.) for Westerveld (14) Hamann in strongly with Nyarko McAllister finds Babel (2) ;mumble; in the outside right position here 'e is (2) showed too much of it too Michael Ball (2) Heskey using his strength (.) and Unsworth disappointingly for Everton gives it away Carragher (.) McAllister aw it's a great little dummy by McAllister (1) the ball for Biscan superb (1) Unsworth (1) played it against Biscan and er (.) obviously took a double deflection cos it's a corner (1)

16:35

DB - Excellent play by Liverpool (.) some fine passing there McAllister good work (.) and er I'm inclined to agree with the crowd and I thought it was a goal kick (6) evert (.) Everton are pulled all eleven back in support they don't concede a second goal from any set play at this stage of the game (3)

17:02

AP - ;good degree of something?; at the near post Xavier (.) did well (.) to clear (1) it's gone back to McAllister (2) clever ball (1) Heskey (.) McAllister again (2) Nyarko taking a risk (.) but er confidence in his own ability so did Unsworth (2) and it's Gough (10)

17:29

DB - I think Liverpool will be pleased with their start er Alan the goals obviously helped but they're looking (.) very confident (.) their passing looks good (1) although Everton are not playing poorly they're well in the game but er (.) with the away side they gotta be (.) more than satisfied to've quelled the early (.) enthusiasm of Everton (2)

17:46

AP - Campbell (.) lays it on for Xavier (.) Duncan Ferguson far post he's not able to make the cross (.) but Smicer's challenge (.) has given them (.) a free kick (1)

17:56

DB - Well not exactly the place you wanna give free kicks away (.) cos they've got one or two large er lumps er in the Everton team that'll go up there with er Kevin Campbell Xavier and Ferguson and no doubt Gough 'n' Weir'll come up so (.) they've got some aerial threat here (.) also Unsworth's got a fair old thump (.) with 'is left foot so 'e may go direct for goal (1)

18:15

AP - Large lumps is that a technical phrase (2) Unsworth going for the free kick

18:21

DB - I could've called 'em pineapple chunks (2)

18:24

AP - Ferguson (.) on the far post (.) it's gone in his direction (.) what can he do with it (3) Ball (2) good clearance by Carragher but Weir's there to pick it up for Everton and find Campbell (.) and that's an excellent ball Ferguson missed kick (2) that has to go down as a chance (2)

18:50

DB - Yes that was a good chance (.) there was good play (.) er with Campbell linking up Campbell made a good run off the ball just slipped an excellent ball there and er unfortunately for Duncan Ferguson (.) er who was expecting it but wasn't quite balanced correctly (1)

19:05

AP - Heskey leads another Liverpool counter attack (.) this is Biscan (.) the young Croatian player (1) holding on from Nyarko Ball took it from him brilliantly (4) Campbell (1) brought down by Hyypia referee doesn't want to know about it no free kick (1) Fowler (2) Carragher (5) now Stefan Henchoz for Liverpool (.) they lead one nil (6) Ferguson (.) Nyarko (3) now Watson (7)

19:54

DB - Yeah we got this play here the balls played in (.) it's a nice little knock down by Kevin Campbell off the er his head (.) Gemmill plays it across and er (.) unfortunately for Duncan Ferguson he isn't quite (.) balanced you can see it's with 'is right foot 'e's got there just a fraction too early that's a good chance for Everton (6)

20:14

AP - Hamann misdirects his header to Watson (.) now Gemmill (.) Unsworth (2) Ferguson (1) beaten to it this time it drops for Xavier (.) almost for Campbell (.) Henchoz just gets through so much important defensive work in a quiet unobtrusive manner (.) does so again for Liverpool (1) seems to be the perfect foil (.) for Sammy Hyypia (8) Smicer (2) Campbell wins it back (.) Xavier dispossessed by McAllister (.) Emille Heskey in a forward position but he's found him and now Biscan joining in down the right (4) Ball (1) defended well but Liverpool win it back (.) McAllister (2) Marcus Babel (7) and that's good play by Everton (.) Alexi?; Nyarko (1) Ferguson (1) lay off seems straight to Fowler (6) McAllister (.) Smicer and Heskey in the box (.) Gough's clearance (1) he was thirty nine (.) a couple of weeks ago Richard Gough what an amazing (.) tribute to his fitness (.) to be playing in a top Premiership match at that age (4)

21:48

DB - Gary McAllister seems to be (.) in my opinion doing well in midfield (.) he's er doing some very good work for Liverpool he looks very sharp tonight and 'is passing's been excellent so far (2)

22:00

AP - Goalkeeper punches it only as far as Heskey and needed Gough (.) to help out again (3) they did have two men on the line there Everton so er I'm surprised if (.) it would go in but you never know (.) certainly Gough couldn't take that risk (.)

22:15

DB - Though the keeper's taking a bit of a chance coming out amongst all the bodies he's gotta make sure he gets it if 'e does that (2)

22:22

AP - Same problem here again here (2) Unsworth clears his line for Everton (2) he's never finished in the winning team (.) in the last six derby games he's played in David Unsworth (2) the kind of statistic to keep quiet from the manager there (2)

22:43

DB - And the fans

22:44

AP - Yeah (2) if we know it they probably know it (.) nothing escapes their notice (3) there's Ball (2) Gemmill (.) closed down by Smicer Gough helps it on (4) Carragher (.) and Watson (.) collide (2) the linesman actually seems to indicate a throw (.) to Everton the referee I think has given Liverpool a freekick (8) Igor Biscan with be the subject of our player cam for Sky Digital viewers (.) on channel four oh four (.) for the next fifteen minutes (4) Hamann (.) Babel (.) Here is Biscan (2) and that's the kind of challenge the fans love to see (9) and Babel got the throw all wrong (.) Paul Gerrard very grateful (2)

23:58

DB - Yeah in actual fact (.) Hamann (.) was completely unmarked in twenty yards of space nobody knew all he had to do was throw it to 'is feet and er I think he had a little bit of frustration in shaking his head (5)

24:13

AP - Belated offside flag (.) in Liverpool's favour (2)

24:18

DB - It's interesting er (.) Hyypia and Henchoz when they're (.) they're split up they're allowing Campbell to get amongst the two of them (.) whether they're looking for the offside but er (.) if Ferguson wins one of those flickons it could be completely dangerous cos er (.) Henchoz is the wrong side of Campbell and if 'e could get onto that (.) and it could cause problems but on that occasion they got the offside flag (2)

24:40

AP - Well with Ipswich winning up at Middlesborough today (.) and of course with Ipswich holding Liverpool to a draw (.) in the previous league game on Tuesday (.) this is a match that Liverpool are very keen to win to (.) reinforce their champions league ambitions Heskey (.) stays down injured here (8) well the fans not (.) too (.) convinced of the er authenticity of his knock (.) I'm pretty sure that was painful (1)

25:13

DB - Well I think they're the hardest decisions (.) the aerial the (.) challenges and (.) combinations there Alan cause you can't always tell (.) whether a players actually been (.) headed or whether he's got a whack (.) or not and sometimes they can go down when they're not hurt not suggesting Heskey is here in the incidence (.) but as I said earlier with Ferguson and the aerial challenges (.) its not easy for referee (.)

25:33

AP - Well while we've got a short break (.) lets go back again (.) on the (.) was it or wasn't it a penalty

25:40

(AP - Keep you eye on Carragh)

DB - We can see that diagonal ball (.) Carragher's got 'is 'ands across there (.) and it's definitely hit 'is arm there's no doubt about it this is the goal as you can see Watson's chasing (.) Heskey keeps a nice steady body and he's hit it low and hard past Gerrard (11)

26:03

AP - Campbell (2) Hyypia clears straight back to Kevin Campbell (1) Watson (.) good ball Ferguson came to meet it oh what a mistake (.) both by the goalkeeper then by Gemmill (1)

26:17

DB - Well this is a chance this is a let off for Liverpool (.) the balls gone wide (.) this is Watson he hits a good cross in it's dangerous there (.) they don't deal with it and just Scott Gemmill comes in and er (.) not so great er strength heading but 'e's got a chance there if he can hit the target it's a goal but it's just the wrong side of the post (1)

26:37

AP - Made his Everton debut against Liverpool a couple of years ago Scott Gemmill (3) here's Biscan at the other end (.) good tackle by Unsworth Ball's clearance (3) Nyarko (.) Campbell (3) Smicer first to react (1) Heskey returns it (.) Weir (.) did well (.) now McAllister for Liverpool (.) onto Fowler (2) Unsworth (.) never an easy time on the ball (.) you just don't get that in these Merseyside derbys (1) It's Hamann and Babbel now and Gemmill closes him down and then Carragher (.) that forces the error (2) Watson (.) Xavier (4) Biscan (.) oof (.) he ran full tilt into Ball there who's still lying injured as Smicer takes it on (.) and that was excellent work by Unsworth (1) Ball (.) still feeling the er (.) effects of that full force collision in his face (.) I'm sure it was a complete accident (.)

27:43

DB - Well I feel it was I mean Biscans in full flight here (.) he's played the ball he gets the touch before Ball doesn' 'e (.) 'e carries on and yes 'e's 'e's hit 'im but if you go into challenges like that it's brave by Ball it's gonna happen but there's no (.) er vindictiveness about it (9)

28:07

AP - Manchester United (.) against Manchester City (.) is our (.) Saturday special starting at eleven thirty (.) Sky Sports one and Sky Sports Extra (.) Manchester United champions of course Manchester City certainly still need the points and then another massive local derby in the evening same day Saturday (.) same channels Sky Sports one and Sky Sports Extra (.) Sunderland versus Newcastle our show starts (.) at ten minutes (.) after five (3) Gough's clearance to Campbell (1) Nyarko (1) Referees given Everton a free kick (1) it wouldn't (1) be allowed to be taken from

there though (4) Heskey's goal was the twenty second that Everton have let in (.) in er seventeen home games this season only those clubs in the (.) relegation places have (.) conceded more in their home games (.) it's been an ongoing problem (.) for the home team here this season (3)

29:05

DB - I've noticed Walter Smith's changed Watson and Xavier (.) round Xavier's gone to full back and Watson's gone wide right it doesn't surprise me because (.) there's no real (.) pace on the wide places for (.) Everton with Unsworth and er Xavier there and they need to get people forward and they've gotta get crosses into the box for (.) Ferguson and Campbell (.) otherwise there's (.) they're not gonna be as effective so I'm not surprised that decision's been made (2)

29:29

AP - Unsworth's clearance (.) is useful (1) Hyypia got there ahead of Campbell (.) Hamann (.) to Vladimir Smicer (2) prefer to run with the ball on a day when er (.) a lot of players treat it like a (.) hot potato (1) Hamann slows it down (1) Henchoz (3) Heskey (2) Liverpool fans getting frustrated they want to see a few tackles flying in here (5) in the end Henchoz gives it away (.) Watson (2) Biscan got in front of him (2) well that's a lovely little lay on by Smicer (1) Babbel's tackle (.)

30:19

DB - I think they're showing us some good rotation in the midfield with er Liverpool you saw Biscan on the left hand side (.) earlier (.) some good play by McAllister where 'e ran off (.) and took the ball back (.) ball off and allowed Biscan to come off the line (.) and link up and er (.) in midfield they perform far more inventive at this stage of the game than Everton (2)

30:39

AP - Liverpool incidentally are looking for their first (.) league double against Everton for ten years (.) having beaten them three one back at Anfield in October (3) all the previous meetings between these two famous clubs have been in the top division of English football (6) Hyypia (1) Heskey (2) Gough's clearance (.) reaches Campbell (.) Ferguson alongside (.) here he is (.) he finds Gemmill (1) Henchoz just er (.) quietly reads the play (1) Fowler (2) Weir with an excellent ball for Watson (1) Gemmill (2) this is Gough (1) Michael Ball (8) the throws gone Liverpool's way (4) Liverpool have never won here since the Premiership was formed in their previous nine visits (.) Everton have won four (.) and the other five (.) have ended (.) as draws (4) flick on by Biscan (.) Gough's clearance to Gemmill (1) and that could prove dangerous (1) Hyypia's strong and you gotta be against Ferguson (4) Biscan (1) in steps Weir but its gone to McAllister (3) Babbel (.) switches the play intelligently to Carragher (7) Hyypia (6) and Liverpool seem more able at the moment than Everton to slow the pace down and keep possession (.)

32:41

DB - Well I think that's due to a lot of their (.) work off the ball the movement and them finding the spaces they're (.) they're not just playing in straight lines (.) they're

making good angles for one another (2)

32:52

AP - Like the old (.) Liverpool principle if you play a good ball (.) don't stand and admire it (.) go and make yourself available for the next one (1) it's been preached there (.) since the days of Bill Shankly (4)

33:05

DB - Now they've decided to go route one (2)

33:08

AP - McAllister (2) Smicer (2) ambitious (6) for the (.) final stages of the first half sky digital viewers (.) on channel four oh four (.) can watch on player cam (.) Everton's (.) Richard Gough (8) Campbell (4) Gough (.) with an important interception from Heskey (.) the balls not back either for Campbell (.) Henchoz's there again (1) he reads the game so well (2) Carragher (8) Gemmill (.) Xavier (3) that could be interesting (.) Campbell's lay off (.) Ferguson wasn't expecting it (.) Fowler (.) nips it ahead of Nyarko (.) now Babel (6) still a problem here for Gough and Weir (1) and it's (.) almost broken for Fowler (1) Xavier very grateful (.) for that header (.) just fell short of the Liverpool striker and Heskey's down injured (.) as Biscan wins it back (2) and sportingly (.) Nyarko knocks it out of play (4)

34:39

DB - Well that er earlier there was a good move when that ball was played through for Kevin Campbell (.) er Kevin's dangerous when he's (.) attacking defenders and (.) getting on the last man and er that was nearly a problem cos Westerveld was coming out of his goal (.) had there been any error (.) he would have been nuhin no position to defend that goal (.) fortunately the ball went wide and ;someone; was able to clear the ball (2) this is the challenge here (1) I think Xavier's (2) caught Heskey here he's come in just and his legs come up or his knee (.) and caught 'im there (.) and 'e seems to be back on 'is feet to recover 'imself (1)

35:15

AP - Well that brought tears to the eyes just looking at again in slow motion (3) ;somebody; the Liverpool physio will have to take Heskey off (.) if he requires further treatment of even if he doesn't (4) so the team (.) that's had a player injured (.) is disadvantaged (.) by temporarily by having ten men (2) well Liverpool's possession in the last few minutes (.) underlines their stranglehold on the game at the moment although (.) if the score remains one nil (.) you could hardly call it decisive (14) here's Babel (13)

36:18

DB - I think what's important Alan is that Liverpool have got a certain eh Everton have gotta get some crosses into the box we saw (.) what happened when Watson got wide a put a ball into the box it caused a lot of problems to Liverpool (.) and er (.) Everton have got to get some midfield players forward as well (.) as only Gemmill looks to be getting forward (.) the wide players are not really getting the ball sufficiently (.) er n nys ns Nyarko as well (2)

36:42

AP - Fowler (.) continues to get forward here but (.) Everton have won the throw (2) crucial er (.) ten minutes this for Everton really (.) they they've been in the game (.) erm certainly Liverpool (.) aren't comfortable (.) with their one nil lead (1) however a second Liverpool goal before half time would make it very difficult (.) for a side who've had difficulty scoring goals this season (3)

37:08

DB - I think also the three players like Gough (.) Xavier and er Ferguson who haven't played for a while (.) er they'll probably be getting their second wind now as well af (.) after the intense start that's important to them (.) and er as the game goes on it'll be interesting to see how their fitness stands up to it also (2)

37:25

AP - Hyypia's freekick (2) Heskey on the header but no power easy (.) for Paul Gerrard (.) Everton have scored just thirty seven goals in the league so far that's twenty two short of last seasons total with only five games remaining including tonight (.) they're probably not going to catch up on their tally of the previous campaign (7) Everton finishing thirteenth last season fourteenth the season before (9) Carragher (2) straight to Xavier (2) Ferguson (1) mmm the challenge (.) by Hyypia was enough (.) it came off the shin of Duncan Ferguson who (.) clearly doesn't look really sharp or match fit there (.)

38:17

DB - No er one would er probably expect that cos Duncan hasn't played that many games this year (.) it may well be that er Walter and him have put himself out for this game important so (.) one wouldn't expect 'im to be on top of 'is game (2)

38:31

AP - It's only the eighth match in the Premiership he's started all season Ferguson (3) Hyypia gets it clear (1) so does Gough on the half way line (.) McAllister finding (.) Emille Heskey (2) this is Carragher (3) Heskey (3) Hamann (1) Liverpool again prove (.) how good they can be (.) by keeping possession (9) cheeky skill there by Carragher (.) Watson diving in (.) but the ball given away to Xavier (3) Campbell (6) and there (.) is Ball (1) and Gough for Everton (2) only a few goal scoring opportunities so far but Everton've certainly had a couple (2) definitely the er one that fell to Gemmill (.) a header that went wide (7) Ball tries right over the top for Ferguson (3) Campbell (4) and Ball again (1) three players in the Liverpool penalty area here Everton (1) Weir on the ball (1) here is Ball again (4) headed back to Ferguson (2) well (.) just wouldn't come down quickly enough (.) and er there was Hyypia to intercept and find Fowler (.) this is where Liverpool could be so dangerous (2) but the ball (.) in front of Heskey (.) completely misjudged (.)

40:25

DB - Yeah that would've been a good counter attack by Liverpool it's er (.) disappointing play by Heskey (.) he looks like 'e should 'ave got the ball (1) but again (.) er (.) I think that showed up Duncan Ferguson's sharpness a little bit there Alan

when it came back to him (.) er he just wasn't able to get 'imself moving quickly and er that happens when you're only playing irregular (.) when you're on top of your game you just got that little bit of sharpness (6)

40:51

AP - Carragher (2) Nyarko now for Everton (.) McAllister (1) closes him down (.) Xavier (.) Watson (3) and Liverpool denying Everton a chance to make those crosses (.) to the danger men Ferguson and Campbell (5) Watson (.) cleared by Biscan (12) having er given the possession to Liverpool in the last few minutes Everton are enjoying it a lot themselves now can they make something of it with Campbell (.) or with Ferguson

41:37

(5) you might get a yellow card for that Duncan but I doubt (.) if you'll care (10)

41:57

DB - Well this is the long ball the diagonal (.) Ferguson wins that ball (.) Campbell gets between the two (.) and Ferguson's able to follow up (.) it's their main target as we said (.) I made the point Alan about Campbell getting the wrong side of the centre half (.) Henchoz allows 'im to do that (.) and it's been a problem (.) we now see that Ferguson's there (.) and 'e's more than 'appy he's getting booked but I don't think he's too (.) happy about that (4) you see Duncan 'e's more than happy he's swirling his shirt around and er (.) quite why we have to have a booking in this day and age (.) I thought football was about excitement and enjoying yourself (1) people wanna do things like that they're delighted it's well played (.) and 'e ends up with a yellow card and there we are (.) these are the ridiculous things we 'ave to put up with in this day and age (.)

42:42

AP - Yes I totally agree with you fortunately of course (.) as of next season (.) that will no longer be a mandatory yellow card (1) So (.) Duncan Ferguson (.) within a few seconds gets a goal (.) and gets a caution (2)

42:57

DB - Well I'd just be interested if Andy looks at the (.) er (.) position of Henchoz I've not been happy with 'is position (.) all night he seems to mark on the outside shoulder and let the centre forward get in (.) get inside and er (.) I was concerned about that early on (.) and it's proved fatal on that flick on header by Ferguson (.) Campbell's gone in and eh (.) the centre half's come in from the other side and er (.) they've got the little knock down that's fallen to them (.)

43:21

AP - Just what Everton wanted (1) and Duncan Ferguson having just been yellow carded (.) would do well to er (.) calm down a little (1)

43:31

DB - Yes don't want Duncan er getting carried away so that Jeff Winter ends up having to give him another er yellow card for any reason or other (3) there's the challenge there (2) oh there's nothing wrong with that

43:46

AP - No (1) I think if anything (.) Carragher's challenge on him (.) was arguably (.) the worse

43:53

DB - There's nothing again the refs don't 'ave to make anything of that just say right get on with the game (5)

44:01

AP - Two Everton players going for the same ball there over Heskey (.) and Xavier has accidentally injured his own player Watson (8)

44:15

DB - Well I don't suppose Ste Steve Watson wants er Heskey or er Xavier climbing all over his head (2)

44:23

AP - Well (.) as I said just what Everton wanted (.) and if you're a neutral (.) just what the game wanted (1) an Everton equaliser (.) just before half time (4) Duncan Ferguson's fifth goal (1) in eleven Premiership appearances this season if only (.) they could keep him fit if that's the kind of (.) ratio he can come up with (1)

44:44

DB - Yeah just imagine if 'e'd kept that ratio up through the season and played thirty four (.) games of something like that (.) would alter the league position enormously (6)

44:58

AP - The interval approaches (.) and Ferguson sees a free kick go against him (3) as you may hear (.) on the public address announcement (.) two minutes of stoppage time (6) McAllister on to Heskey (.) put that well (1) Biscan (1) Babel (3) on it goes to Hamann (.) he can hit them they don't want to give him a sight of goal (.) Fowler (2) free kick to Liverpool (3) and this is where Hamann or indeed Robbie Fowler who scored that brilliant free kick of course against Wycombe in the FA cup semi-final (.) could come into their own here (1) Fowler's (.) walked away from the ball (2) so uh I guess it will be Hamann (.) or possibly McAllister (1) threatening damage (3)

45:57

DB - Certainly Everton won't want to concede a goal having fought their way back in (.) just before half time they wanna go in level (.) er so they can start the second half fresh (5)

46:10

AP - It is McAllister (.) it's on target (.) and the goal keeper found it a little bit hot to handle (14) Fowler (2) foul by Biscan (17)

46:48

DB - I think it's interesting Alan I don't think either keeper's had well a proper save to make I mean that's the first shot (.) that a keeper's had to save (.) in terms of an effort (.)

46:56

AP - Well he had one to save there alright and he's still struggling with the ball on the ground Westerveld (1) and in the end (.) he's very relieved to (.) see that Mr Winter's given him a free kick (.)

47:06

DB - That's strange (.) I don't think Jeff Winter was initially gonna give a free kick then (.) I think when this one lands it's a long time coming (.) and that is only when it's after the balls gone out (6) I don't think there's anything wrong with challenges like that the players going for the ball the keepers got to expect that there's a that the forwards entitled to go for the ball 'e's got no right just to come and collect it in it's entirety (4)

47:33

AP - The end (.) of a very lively first half (.) in the one hundred and sixty fourth Merseyside league derby (1) the crowd enjoyed that (1) the tackling was intense (.) the atmosphere excellent (.) Liverpool made a wonderful start with Heskey's goal (.) Everton fans still arguing that they should've had (.) a penalty (.) themselves (.) immediately before Gerald Houlier's team took the lead (.) but Duncan Ferguson has brought them level just before half time (.) and it's set up brilliantly for the second half here (.) Everton one (.) Liverpool one

48:04

Second Half

Handover - Our match commentators at Goodison park Dave Bassett and Alan Parry
(44:14)

AP - Thank you Richard (.) welcome back (2) and Duncan Ferguson's goal (.) has really set up this second half surprisingly Liverpool have only won twice in their last thirteen games (.) against Everton and they haven't won here at Goodison for eleven years (1) Emille Heskey is the subject of our player cam (.) for the first quarter of an hour of the second half that's for Sky Digital viewers (.) on Channel four oh four (4) Hard to call the winner at this stage Dave (.)

(44:44)

DB - Yeah very tight now um (.) er Everton have been delighted to 'ave gone in level and er (.) they'd be feeling that now if they can get their game going they can put er evert Liverpool under sustained pressure (.) and er obviously the fitness of one or two of the players is being called into question and er it may well be that they might have to use a sub or two (.)

45:00

But er again we know that Liverpool are very dangerous on the counter attack and er (.) they've got people like Michael Owen who can come on as well (.) with his pace can cause problems so it's a finely balanced game (1)

45:10

AP - If Everton win they'll go up above West Ham into fourteenth (1) Liverpool are also looking to move up a place up the table (.) with their sites set on a champions league place (2) six Premiership games left after tonight for Liverpool they're at home to Tottenham (.) Newcastle (.) and Chelsea (.) and then away to Coventry (.) Bradford (.) and Charlton (6) Hyypia's freekick aimed in the direction of Heskey (1) Gough's clearance (.) Biscan hits it first time (1) still on one goal (.) for Liverpool (.) and that came in a Worthington cup tie (4) Michael Owen amongst the star-studded Liverpool bench and incidentally neither (.) Walter Smith (.) nor Gerald Houlier made any changes during the half time interval (8) Xavier's clearance (.) gone straight to Henchoz (3)

46:17

DB - Well it's interesting again (.) er Alan I think er liverp Everton may have changed their tactics and gone three at the back with Weir Gough and Ball (.) and they've pushed Unsworth and Watson on and er (.) Xavier into midfield so I think it's gone in to the formation we thought that they'd mighta started with so er (.) perhaps er (.) Walter feels that's gonna serve 'im better (17)

46:52

AP - Carragher (.) the central figure in that er (.) was it or wasn't it a handball incident in the first half and I must say both Dave and I thought initially (.) it had taken place inside the penalty area but the replays prove it was just outside anyway (1) but it was still significant because if the free kick'd been given (.) Liverpool obviously wouldn't've gone down to the other end and scored (4) Nyarko's cross is dangerous Westerveld (.) put to the ground by the challenge from Scott Gemmill (.) who will feel (.) that he's entitled to go for that ball (2)

47:44

DB - Well that was good play by Everton (.) uh Nyarko's low cross was excellently played in (.) you see 'ere 'e attaches Gerrard uh Gerra um Carra Carragher on the outside you go in (.) and Scott Gemmill's gone in there isn't time to go for that ball but Scott Gemmill isn't a dirty player by any stretch of the imagination he's a very very fair player (.) and er (.) the keepers gonna have to accept challenges like that (.) that was a good attack and a good low cross that causes problems (.) 'n' also ones gotta say it's good goal keeping as well (4)

47:56

AP - Sander Westerveld was sent off in his first Merseyside derby eighteen months ago had a little scrap towards the end of that match at Anfield with Francis Jaffers (11) Smicer's header (2) on by Biscan on Gemmill (.) and er Smicer still lying injured (8) came on at half time in the match against Leeds on good Friday (.) Vladimir Smicer (3) he's been in and out of the starting line up all season as indeed almost everyone in the Liverpool side has been (.) apart from the defence which uh (.) has been unchanged in most games (16) Watson up well (.) Ferguson (.) can't find Campbell (1) big shout from the crowd for a (.) free kick in there somewhere in that er (.) Everton attack here's Heskey (1) Xavier takes it off him (1) turned forward by

Weir and Campbell is caught offside (2)

49:21

DB - That looked a close call I'm not sure if the er (.) linesman er (.) reacted to the er Liverpool call for offside then (9)

49:39

AP - And Weir did really well first against Heskey then against Fowler (4) well I must say from where I'm standing it looked like a nudge by Hamann (.) but (.) if it was Liverpool got away with it (3) Liverpool've actually got a disappointing away record they've only won three in fifteen (.) Premiership matches on the road before tonight Derby (.) Manchester United and Aston Villa (.) their three wins and that last one came (.) over three months ago contrast that with their (.) away form in Europe where they've been magnificent (1) and included the goal-less draw of course (.) against Barcelona (1) and the second leg at Anfield on Thursday evening (.) here's Smicer (4) good ball (.) just too far ahead of McAllister (12) not the best kick from the Everton keepers it's gone straight to Babel (.) now Biscan (27) Carragher (1) McAllister (3) takes on Watson and beats him (3) aw that's good defending (1) such a consistent figure Weir (1) great signing he's been (7)

51:37

DB - It's a good start to the second half for Everton (.) er (.) they've upped their tempo their not giving Liverpool any time on the ball and er (.) they're not allowing Liverpool to get their passing going (.) so it's an important time for them and er (.) Liverpool are if they're going to get back into the (.) control of the game they're going to have to get their passing going because otherwise (.) they're not particularly good at lumping the ball forward at all (8)

52:05

AP - Foul by Smicer Everton get the free kick (11) Babel keeps a (.) careful eye on Unsworth (2) and it's a chip forward by ball (.) and although he (.) slightly miscued that clearance Carragher got it away from danger (.) and that was his header (.) back in by Ball by er Watson rather to Campbell (2) and it's got quite a steep camber on the pitch here at Goodison (.) seems it runs away to that touch-line er (.) you'd do well to catch it (16) Xavier wins it back (.) Hyypia (.) with the clearance (1) Gemmill touches it back to Gough (.) good start half by the home team (1) Unsworth (2) Carragher wouldn't let him turn (6) I wonder who that's aimed at (1) and Ferguson duly wins it (2) Watson (3) Xavier (1) took his eye off the ball (.) Hamann didn't (1) where's he gonna go now he's got to beat the referee (4) where's the cavalry he needs some help here Hamann (.) and he got it in the end from Babel the two (.) German players on the same wavelength (4) Unsworth (2) knew what he was doing (1) he'll get the throw (3)

54:00

DB - At the moment Liverpool can't move the ball quickly enough er (.) they're getting caught with the ball (.) with extra touches they need to move the ball quickly because at the moment they're hanging on to it and Everton are being (.) more than

encouraged and their hunting them down very very quickly at this stage (3)

54:16

AP - And the referees seen er a bit of er jostling shall we call it here (.) before the throw comes in (5) he'll be keeping a careful eye on those two (5) down to Campbell (2) Watson's onside (1) Ferguson's on the far post (.) now Unsworth turned back into the danger area Liverpool get away with it Balls (.) miss-hit shot high into the crowd (2)

54:49

DB - Well that was a dangerous attack it came from the long throw by Ball (.) er which is a prodigious long through and it went beyond er Ferguson (.) and er to the back there and towards Kevin Campbell you can see the situation Campbell does well (.) sets it out wide here this isn't the best cross by Watson he could've done a better cross there (.) Ferguson's under pressure at the back post there (.) and he comes back in again and now we comes to Ball and all of a sudden gets carried away (4)

55:16

AP - Emille Heskey with a touch on (.) Fowler (.) just a (.) yard or two off the pace of the header (5) ;mumble; kick by the Everton keeper Paul Gerrard but they've kept possession (1) Gemmill (3) Watson (8) Smicer looks on (.) with innocence (.) but er (.) the referee's made his decision (2)

55:52

DB - Well again it's one of those dangerous situations where Unsworth with 'is left foot and er (.) again (1) Everton can send up the big heavy arsenal to get into the box and er (.) although Liverpool are not small as well they're gonna have to make sure they defend these set plays well (4)

56:10

AP - Unsworth delivers into the danger area (1) and it's Watson who won it Liverpool could break here with Hamann (.) Fowlers unmarked (.) he's the target (1) and Smicer is flying forward in support and he's unmarked an here he his but it didn't quite reach him it could still reach Babbel (4)

56:25

a classic counter attack (.) and Liverpool are back in the lead (.)

56:35

DB - I think that's right Alan with corners and free kicks you gotta make sure your organisations right because you're open to the counter attack and they got the break (.) in their own box we see the (.) kick coming in Liverpool get it away (.) it breaks out to Hamann he quickly pips down 'e's aware of Fowler (.) it's a good diagonal ball you could've argued p'raps the keepers starting position could've been further up the field I'd 'ave liked that preferably (.) it's not the greatest cross they get a bit of break and it drops to Babbel and that's er a (.) a fine finish (.) a centre forward anybody'd be happy with that finish (.) there's a mix up with Gemmill there and that's an excellent finish (3)

57:11

AP - Well it brought delight (.) to the Liverpool bench (2) it was Marcus Babbel's fifth goal as a Liverpool player (.) and incidentally (.) whenever he's scored before (.) Liverpool have never lost (3)

57:25

DB - I certainly think the goal keepers starting position could've been infinitely further up the field (.) on the start of that movement (1) but also one's gonna ask questions er (.) those defenders who were marking (.) Fowler whether they's positional play was good enough (.) to stop that (2)

57:41

AP - Well it is amazing how many times (.) teams concede a goal from their own corner or free kick and er (.) Everton found themselves with just too many men forward there (.)

57:50

DB - Well that's a classic counter (.) attacking position (.) when you're defending balls and free kicks and you gonna get your opportunities (.) and breaks and goalkeepers and er it's important (.) to be able to deal with that and again defensively (.) cos Hamann was on the edge of the box by himself with no Everton player (.) within any distance (4)

58:10

AP - Here is Babbel who incidentally is the only Liverpool player apart from goalkeeper Westerveld who's played in every Premiership game this season (1) Smicer takes it on (.) Fowler (1) the referee points to the spot (.) Gough's (.) challenge (1) and it's a penalty for Liverpool (3) the game has turned on it's head (.) in the space of a couple of minutes (3)

58:34

DB - I think Gerrard might be getting booked here for going over the top the balls played in (.) Fowler comes in there (2) it's a little harsh (1) to me (.) it looks as if Gough misses the b challenge (.) he cuts across there (.) I think that's a harsh penalty personally (1)

58:50

AP - I think a lot of people would agree with you (2)

58:54

DB - I think the thirty nine years have caught up with Richard Gough a few years ago he might 'ave caught 'im (3)

59:00

(AP - and it looks as though)

DB - You can understand players emotions when they (.) feel like those it's er not a clear cut penalty (.) erm you gotta be certain Jeff Winter obviously from were 'e was 'as decided that it was a penalty but er (.) we can see that Gough misses there (.) Robbie Fowler (.) wasn't fouled at all (.)

59:18

AP - Both Gough and Gerrard were yellow carded in the aftermath (.) Robbie Fowler (.) with a very very important penalty kick now (.) that could (.) be so crucial (.) in Liverpool's season (8) oof (.) it's hit the post (.) come out again (1) Goodison Park (.) or at least seven eighths of it celebrate (.) and the match is still in the balance (.)

59:46

DB - He looked just a wee bit hesitant Robbie there (.) and 'e's hooked it in it looks like it's gonna hit the inside of the post and go in but er (.) Everton've had a little bit of luck there it's hit the post and gone out and as given them a life line (.) to get back (1)

59:59

AP - And he's got a very good scoring record against Everton (.) six in his previous (.) fourteen Merseyside derbys (.) and it should have been a nice (.) seven in fifteen then (.) for Robbie Fowler (3) if it'd gone to three one there (.) with an hour completed (.) surely there would have been no way back for Everton (.) now (.) they're lifted (4) a flick on by Ferguson (1) taken by Westerveld (4) Babel finds Heskey (2) Biscan (2) good tackle by Unsworth (8) well (.) there's obviously going to be a change here (.) with the young Italian Alessandro Pistone (.) ready to come on (3) and the man who's place he will take is Steve (.) Watson (2) Pistone who (.) had seven months out suffering from (.) a crucial knee injury (1) came back for his return game against Manchester City (.) and got sent off (.) and will suffer a two match ban accordingly before the end of the season so he's recorded a bit of a wasted campaign for him but at least he gets involved now (.) in his first ever Merseyside derby (4) a player who's er (.) spent most of his career on the left has gone in to replace Watson up flank on the right (4) and this his first touch now (4) and eh heh heh (.) he looked like a right footed player then (1)

61:47

DB - Yeah I'm sure he's er (.) feeling he hasn't warmed up correctly (.) not the best first touch when you come on as sub (15)

62:07

AP - Carragher's throw over (.) the head of Heskey clear (.) by Weir (7) Pistone (1) not the best ball again (.) third time lucky let's see (2) no

67:25

DB - No heh heh heh (3) the subs (.) number might come up again (.)

62:31

AP - Weir wins it back (1) Heskey has stayed down injured (.) in the centre circle (5) back on his feet now but er (1) again the (.) Goodison crowd not too convinced that he's genuinely hurt (3) and Xavier really meant that tackle (3)

62:58

DB - It's surprising what can happen if like a penalty miss like that happens Alan (.) it can lift a side (.) completely and er (.) all of a sudden you think it's your day and er (.) I think Everton are thinking that er (.) if they keep the tempo they may get a break a free kick or a penalty themselves (1)

63:13

AP - Here goes Fowler again (4) Biscan will reach that (2) and then it goes immediately towards Smicer (2) Heskey (.) McAllister (.) clearance by Nyarko Hamann (.) wins it back (.) and then loses it just as quickly but another good challenge (2) it's lively again now (.) the past is boiling again at Goodison (4) incidentally just to confirm for Sky digital viewers channel four oh four Kevin Campbell (.) is our player cam (.) at the moment (10) ooh Weirs made a terrible mistake (.) and Gerrard digs him out of a big hole (1)

64:04

DB - Ooh there was apprehension there that was a chance Robbie Fowler was onto that like grease lightening (.) it's a bit of sloppy play by Weir (.) and it leaves Gerrard short and Gerrard does well and comes and hits that away (7)

64:22

AP - Nyarko (3) Ball's clearance (.) good play by Duncan Ferguson (2) indeed the whistles gone (2) a throw (.) rather than a free kick is it (1) we're not er sure it is a throw (10) Ferguson wins that header (.) onto Campbell (1) he's done well Campbell (.) just needed somebody with him in support (2) Pistone arrived too late (2)

65:01

DB - That's amazing Alan that's a great (.) throw by (.) Ball who's who gets away and you've got a situation where (.) as Kevin Campbell's read it (.) 'e's gone onto it and not one Everton player's made a (.) an effort to try and get in the box I mean its er they just watched the game there (.) his midfield player could've gone in Pistone could've gone wide that was a good cross by Campbell (.) and er it's a let off for Liverpool cos no Everton players in the box (.) nobody's taken a chance to try and get in the box (1) at this stage when your two one down people have gotta take chances you've gotta take gambles on (.) whether Ferguson's gonna win the header (.) and if he does then what's the next the next ball is it gonna be a knock down that you've gotta pick up or do you get a chance on goal (2)

65:40

AP - Meanwhile there Hamann was cautioned for kicking the ball away when the referee had already whistled for a free quick against Liverpool so that's (.) err (.) five cautions (.) we've had now (.) two for Liverpool three for Everton (9) well the distance and the angle (.) a little kinder (.) for Ball (2) though it'll take some effort to score direct from here (1)

66:13

DB - Yeah I think it's gonna be little chip up or change of the angle here (1) and go for the knockdown (1)

66:23

AP - Spot on (1) and Xavier comes round the back (1) and somehow Westerveld scrambled it away (2)

66:30

DB - Well that was a good free kick but I'm not sure whether it was Biscan or s Smicer that was marking Xavier but he's just let 'im go (.) we can see that's a let off

for Liverpool (8)

66:46

AP - Gough on the far post (.) but he couldn't get it high enough (.) to direct the header goalwards (6)

66:58

DB - Well we got the free kick which is angled by Ball (.) it goes over there and we see Xavier coming in (.) I'm not sure if it's Emille Heskey who's marking him but he's gone in and that's a good effort it's low and er (.) Westerveld does well to get down there (.)

67:10

AP - The Portugese international has yet to score his first goal for Everton (4) Robbie Fowler (7) and I wonder how long it will be before we see Michael Owen introduced to the action (.) Liverpool have that wonderful option (8) Henchoz (.) climbing all over Ferguson and Everton get another free kick (.)

67:46

DB - An unnecessary free kick to give there away Ferguson's (.) forty (.) forty yards from goal (.) and it's put them under pressure again Liverpool (.) 'e was going nowhere and just to let Ferguson 'ave 'is touch and then (.) 'e's gotta play it back into midfield (1) the more times you give away unnecessary free kicks it puts you under pressure (6)

68:09

AP - Ball takes it again (.) similar to the one before this time (.) Liverpool deal with it (.) Gemmill knocks it back in (1) away by Carragher and should be cleared by Heskey (7) three quarters of the way (.) through this (1) Merseyside derby (2) Liverpool could've gone into a three one lead (.) Fowler's missed penalty (.) keeps Everton's hopes alive (3) Gemmill (.) it was a good strike a good block by McAllister I think (.) and it comes out to Unsworth (1) chip up (.) for Ferguson (.) and now a little header Campbell goes down (.) Gemmill's there again (.) comes back to Duncan Ferguson (1) and still dangerous Gemmill hits it in there's a big shout for handball Unsworth hits it over (1) what an incredible few seconds that was (.)

69:03

DB - Well they survived they got bodies in the way a little bit of luck and Scott Gemmill felt that it should've been a (.) penalty (.) this is the ball that comes down here Kevin Campbell does well here Gemmill has a shot which is blocked (.) Duncan Ferguson does again (.) and this is the opportunity where Gemmill (.) hits at it (.) it looks like one of those that er possibly could've been but it happened so very quickly (.) we see it again here (.) I think it's Hamann (1) yes you coulda certainly given them a handball for a penalty for that (2)

69:33

AP - And you probably heard the crowds reaction there rather surprisingly on the giant (.) scoreboards (.) inside Goodison they showed that incident I thought the rule

was that er anything contentious like that (.) wasn't supposed to be shown during the game (.)

69:45

DB - Oh I didn't realise that er I was obviously looking at the replay myself and er (.) I think that's a justification that er (.) that could be regarded as a penalty equally as er (.) the challenge Gough made on Robbie Fowler (4)

70:02

AP - Fowler (1) Carragher (8) no shortage of goal attempts (.) and an equal number on target (12) here's Fowler (.) and the clearance (.) by Gemmill (.) has given Liverpool a corner (3) twenty minutes to go (16) Fowler tried to get the flick on (1) and it wouldn't sit down for Heskey (2) Smicer did well to win it back here's Babbal again (.) an important header away by Weir (1) Pistone (1) Campbell (5) a little lift for Everton here (.) they need to er (.) get it out of that (.) midfield (1) and Weir does just that (2) Ferguson goes tumbling but no er hint of a foul this time I think (2)

71:24

DB - I think Scott Gemmill's chasing the rest there I think he's er (.) trying to put them under a little bit of pressure (6)

71:35

AP - Foul by Heskey (6) there's going to be another Everton change in a moment by the looks of things Nicklas (.) Alexandersson the Swedish international (.) ready to come on went off injured (.) against Aston Villa in the previous game (1)

71:57

(AP - and the referee laying down the law here)

DB - What 'ave we got 'ere now (1) I really can't understand what all this chatting is about I mean really (.) unless you wanna get noticed on telly (9)

72:12

AP - Campbell (2) it was a difficult clearance for Carragher and Smicer made a mess of his (10) before Pistone takes this throw in (.) Everton will make their change (4) it'll be Richard Gough (.) the captain who goes off (.) and before he leaves he'll hand the armband (.) to Weir (12) on come Nicklas Alexandersson for his first ever (.) Merseyside derby just come back to the side after two months out injured (3) and the other substitute (.) Pistone (.) will take the throw (2) short to Gemmill (1) Fowler read that (.) an clears right into the stand (10) Pistone again (.) this time Xavier was the target (1) Smicer's clearance (.) Everton could be vulnerable to the break again here Liverpool have a free kick they'll want to take quickly (2) but weren't allowed to though time of course is on their side (3) if they do hold on to win here Liverpool will go up above Chelsea into fifth place (6) Hyypia's free kick (3) come back to Heskey (.) Xavier was there to clear (2) Ferguson (1) Alexandersson gets his first touch of the ball (23) Campbell (2) did well Campbell very well (.) Gemmill turns it on it was intended (.) to go to Ferguson (3) Everton enjoying a lot of possession at the moment (4)

74:48

DB - I think it was a little bit of unlucky there when the (.) final ball come to Scott Gemmill he knew what he was looking for 'e was looking to play it to a front player (.) he was just off the mark but er (.) when situations like that are very tight (.) it can be difficult to pass through the fair pass but 'e knew exactly what he wanted to do (2)

75:05

AP - And I suppose with all Liverpool's fixtures of late if there's a time in the game when they are likely to be vulnerable (.) it's the final quarter of an hour (4) ;bert thomson?; won't allow anyone to slacken in effort or concentration (4) Marcus Babel (.) who got Liverpool's second goal of course is the subject (.) for Sky Digital viewers on channel four oh four of player cam (.) for the final quarter of an hour (1) Hyypia's freekick (3) drops to Biscan (2) and he's carried that over the line (6) Ball (1) easy for Hamann (.) and he finds Fowler (.) and that's a decent ball for Biscan though Weir has read it well (.) very well (2)

75:58

DB - I just wonder (.) whether Everton with the three at the back which they've changed at half time whether they'll go to four now with Alexandersson wide (.) and er leave er (.) the two centre halves to deal with er (.) the two Liverpool forward cos I think they need to put exert some pressure and again try and get some crosses into the box (.) and Alexandersson being a natural wide right (.) er may be able to give them that width and crosses (4)

76:24

AP - Ball takes over the whistles gone any way (.) for the foul on Unsworth (1) Biscan of course has already been yellow carded (.) and he's in trouble (1) big trouble (11) he knows his fate (5)

76:52

DB - Well Biscan's been sent off by Mr Winter (1) Liverpool'll have to think whether they're gonna (.) change their (.) system now (.) which the have to obviously with the ten or whether they bring somebody on (2) 'e actually 'asn't made contact with it (2) 'e actually 'asn't made you could say 'e's come in dangerously but 'e (.) Unsworth 'as jumped up whether you look at it from the point of view that er (.) Unsworth was taking protective (1) remedies (.) is a matter of opinion (1)

77:20

AP - Well (.) it was a harsh (.) second yellow that has led (.) to red (.) and Liverpool (.) now (1) as I said before (.) could be vulnerable (.) in the latter stages of the game (.) when fatigue will play a part (.) it's even harder for them now with only ten men (1) and they're going to make (.) obviously (.) a tactical substitution looks as though Christian Zilge (.) is going to come on (.)

77:44

DB - Yeah it'll be interesting Robbie Fowler's gone wide left (2) and Emille's up front by himself and now it'll be interesting to see if Everton change their tactics and go for it (2)

77:55

AP - Smicer goes down immediately gets to his feet and claims another Liverpool penalty (1) Mr Winter's not interested this time (6) huge kick (1) Campbell underneath it (.) Ferguson's lay off (.) McAllister just got there ahead of Nyarko (.) now Vladimir Smicer for Liverpool (.) Heskey stayed onside but Ball (.) with an important interception (.) now Unsworth (4) Nyarko (4) and again (.) Alexandersson (11) a terrific throw out by Westerveld to (.) pick out (.) Smicer (1) free kick (.)

78:53

DB - It is but this is poor defending by Everton (.) with the extra man (1) you'd 'ave thought 'e could've been booked (.) and it looks like Unsworth's been booked before so 'e's gonna (1)

79:03

AP - No he's er not one of those

79:05

DB - No I've got my mistakes there Alan I think it's Michael Ball who was

79:10

AP - Yeah the Everton players er for the record who are on the yellow card (.) are Gerrard (.) Gough (1) who's gone off of course (.) Ball (.) and Ferguson (1) here's another one now (.) David Unsworth (8) Babel's free kick (1) Heskey goes up for it almost unchallenged Weir got it away McAllister's header (4) and remember (.) with Coventry and Derby winning earlier today (.) Everton will be looking anxiously at that league table if they do lose here tonight (2) most people I'm sure would think that er (1) they're likely to be safe but er (.) it's all very well people reassuring you when you're in that position (.) as er you know only to well Dave you look very (.) concerned over your shoulder but we'll come back to that (.) as Pistone pumps one in towards Ferguson (1) who has to set it up (.) and Nyarko's shot straight at the keeper (2)

80:11

DB - yeah again I th I think now they're gonna pepper the goal (.) we've seen the ball played in again to Ferguson on the far post he gets a good knock down (.) and Nyarko hits a decent shot he coulda done with a little more power (4)

80:27

AP - Heskey (1) couldn't keep it in (1) but there will be anxiety around Goodison until they at least hit that forty point barrier won't there (.)

80:34

DB - Oh there's bound to be with the results that've gone today (.) they're be looking (.) that er Coventry are thirty three (.) Middlesbrough are thirty five (.) Derby thirty eight (.) so there's gonna be some apprehension because (.) it's quite possible that those teams now below them can win a game or two and it tighten up so (.) I think someone said at the weekend he wants one more win (.) I think that one win'd be impor'd be ok (.) they've got er other games against er for example at home I think it's er Sunderland 'n' (.) those games are important but they'll try and wanna win the game tonight really (.) or certainly come out with the point (.)

81:06

AP - Yeah they've got Bradford and Sunderland at home (.) Arsenal and Chelsea away (3) he's pointed to the spot (1) Liverpool (.) can't believe it (.) the players (.) argue (.) but for the second time in the game (.) referee Winter (.) has pointed to the spot (1) now Everton have a wonderful opportunity (.) to save a point here (1)

81:32

DB - Well it doesn't surprise me that the penalty's been given there (.) Hyypia's got 'is arm on Ferguson's shoulder but I wouldn't have given the penalty (.) equally as I wouldn't have given the penalty before (1)

81:42

(DB - that's a harsh decision)

AP - And I think that (.) sorry Dave (.) McAllister (.) seemed to be yellow carded for his protests (1)

81:47

DB - Well I'm not surprised those decisions are going to have a (1)

81:50 AP - And it's all going on off the ball now the referee has got to step in again here (2) well I must say (.) some of the big decisions Mr Winter has had to make tonight (.) I think a lot of people (1) will disagree (.) with the way he's read them (3)

82:08

DB - Well it's certainly livened the game up it's good entertainment (2) for the neutrals (1)

82:13

AP - David Unsworth (2) I said before (.) Fowlers penalty (.) could be a crucial one in Liverpool's season (.) but the same applies here (.) to Everton's season (.) and Unsworth now there's going to be another yellow card (1) for Carragher this time (4)

82:37

DB - Common sense amid seems to be missing these days (5) your not allowed to show emotion you can get booked for taking your shirt off and showing emotion you can get booked for (.) protesting about a penalty that's very very (.) dodgy to say the least (.) mind you I fancy Unsworth to score (1)

82:57

AP - Yes (2) Everton are level (2) game on now (1) seven minutes to go (.) Liverpool are down to ten men (.) it could go either way (3)

83:11

DB - There we are the penalty's well struck (.) I fancied Unsworth to score (.) he's power gone for power (.) kept it low (.) Westerveld's gone the wrong way (.) and this 'as really tied the game up (.) for the last ten minutes now (1) Walter Smith you can see is delighted etc (2) as you rightly pointed out (.) Robbie Fowler scores the third goal (.) this game would've been over (3)

83:37

AP - And Robbie Fowler (.) is going to (.) leave to action now (1) and the (.) second prize (.) because Liverpool only have ten men of course (1) and really it's all

happening here (.) late on (.) as er (1) Liverpool now (.) quite possibly (.) see the game quite possibly sliding away from them (1) Gregory Vignal (.) the man who's come on in Fowler place (4) Here's Heskey (.) Vignal gets his first touch which was not a successful one (1)

84:14

DB - I think 'e was watching Pistone when 'e came on (2)

84:18

AP - Only nineteen (.) Vignal (.) and obviously his first taste (.) of a Merseyside derby (.) even though it's gonna be a short one it could be eventful (7) and I guess if you'd been (1) er (2) trying to predict this one before the match you might have forecast a draw you certainly wouldn't have forecast it to (.) turn out the way it has though (1) Liverpool have a free kick (.) fouls by Xavier (.) on McAllister (2)

84:53

DB - Well you wouldn't be surprised by any decisions given in this last six or seven minutes would you Alan (7)

85:06

AP - Liverpool have got to make the most of this set piece (2) McAllister (.) Hyypia's header (.) wonderful save by Gerrard (1)

85:16

DB - Yes an excellently struck free kick (.) Hyypia gets up and 'e heads it well (.) you can see it's fighting in a beautifully ball 'e gets it down and Gerrard makes an eh important vital save (6)

85:31

AP - Hold onto your hats (1) there could be quite a finish here (4) Babbel (3) Everton have it back (.) with Nyarko (1) challenge from behind by Henchoz on Ball and he's sent spinning (1) back on his feet now (.) as play continues (.) with Pistone (3) Alexandersson (1) and he's lost the ball in an important position there to Vignal (1) Heskey one side (.) Smicer the other (10) well that was a fantastic save (.) by Paul Gerrard (2) that was headed for the bottom corner (4)

86:29

DB - The referee's just booking (.) Henchoz I think for the challenge on (.) Duncan Ferguson (1) it'd be interesting (.) at least Duncan lay down on the field er tried to anyway (5)

86:45

AP - eleven yellow cards and of course one red (1)

86:50

DB - Is the six bookings a er automatic fine Alan (.)

86:52

AP - If it's er (.) six different players but as it happens er (.) Biscan (.) obviously effectively had two yellow cards so Liverpool escape a fine or at least they have (.) up to now (.) but with Mr Winter in this mood (1) still three minutes to go (21) Heskey (1) cleared by Ball (12) Babbel will look to launch this towards Heskey again (1) and

he wins the header (.) here's McAllister (.) Unsworth's tackle (3) Unsworth who of course scored a (.) fine goal against Aston Villa (.) in Everton's previous game (.) has got the ball from the penalty spot (.) that looks like giving his team a crucial point here (.) or have Liverpool got something left in their locker (1) Heskey's flick on (.) and Vignall goes in (.) does well and goes down (.) Liverpool players protest again (1) Mr Winter (.) waves play on (1)

88:18

DB - Well there's been a shout for a penalty there (2) a difficult one to see (.) from where we were are Alan (.) I'd like to see the replay of that one (1) at this stage your not sure whether the players are diving or whether they are in actual fact penalties and free kicks (3)

88:34

AP - Well I started by saying (.) it could be a busy night for the referee (1) it certainly has been (2) Alexandersson (1) Carragher wins it back (2) Vignall goes in on Alexandersson Liverpool (.) get the throw (6) w (1) well we're gonna have another look here (.) at the challenge (.) by Unsworth (.) on Vignall (.)

89:02

DB - Well we see the penalty situation here it's Unsworth (.) you could see that's a penalty (.) I think that's more a penalty than the first one that was given against er (.) Richard Gough because Gough didn't make contact but er (.) as I say I don't think at this late stage that Mr Winter's gonna be brave enough to give another penalty (1)

89:18

AP - Well somehow or other (1) I think in the er (.) post match interviews (1) the referee (.) will figure prominently (3) he's certainly played a very significant part (.) in this football match (3) Ferguson (.) Gemmill (1) Alexandersson (.) in towards Campbell (2) well I imagine there would be a fair amount of stoppage time we've had substitutions a host of yellow cards (1) a couple of injuries (9) there's going to be three minutes of stoppage time (3) and it's been given away to Campbell here (.) confusion in the Liverpool ranks (1) good tackle there by Carragher on Alexandersson (2) well amidst all this mayhem Dave you've gotta select your man of the match (.)

90:23

DB - Well I'm going for Duncan Ferguson there's a lot of people there (.) the fact that 'e's come back from such a long time (.) 'e's got the first goal 'e's been er got the penalty for Everton he's (.) done really well 'e must be on 'is feet er having been out so long and he's epitomised (.) Everton's determination to get back into the game (4)

90:45

AP - Alexandersson's slipped at the vital moment (4) Weir (.) onto ball (2) Carragher's clearance (.) Gemmill (.) Pistone (2) ooooh (.) the clearance by Hyypia was far from convincing (3) Liverpool hanging on at the moment (2) that ball was strong then against Unsworth and needed to be (2) Ball pumped from back in to Campbell (1) ooh he got the header alright but there was no Everton player (.) in the right position(.)

91:27

DB - Yeah I don't think Duncan Ferguson quite had the legs to go after Kevin Campbell it probably would've been better the other way round had he been heading it down for Kevin to get after (3) I think Everton'll settle for a point not (.) cos they'll regard it as a point gained but Liverpool'll be very disgruntled because they'll look at it as two points lost (.)

91:46

AP - Especially when you that think they missed a penalty (4) Nyarko (3) it's a Liverpool throw (1) they're off the Everton bench absolutely furious at the decision (9) Babel does a little double shuffle (1) and back it goes to Hyypia (2) and the referee's glancing at his watch (.) as Carragher punts it forwards it could be Liverpool's last opportunity (.) to score (2) in fact (.) the free kick has gone against them (1) so (.) equally (.) this might be Everton's last chance (5)

92:35

DB - Yeah I think we can say that Gerrard's gonna pump this right down the Liverpool defence and say to (.) Ferguson can you get one more blinding header for us (2)

92:45

AP - He doesn't (.) but there's one instead by Sammy Hyypia but it still comes to Alexandersson (.) Ferguson still well placed (2) now Vignal can break clear (2) and does (2) and Liverpool do have one last opportunity to get the ball into Everton's box (.) the foul by Alexandersson (1) and I think he's going to get er a yellow card (.) surprise surprise (2)

93:16

DB - Mr Winter must like writing 'is match reports out 'e'll spend all day tomorrow doing 'is bookings and 'is sending offs (4)

93:27

AP - That's err (.) twelve (.) yellow cards so Everton are in line for a fine (.) six individual (.) players on their team have been cautioned (.) and it could be in line for even worse (.) if Liverpool make something (.) of this surely final opportunity (.) McAllister takes it

93:47

oh yes (.) what a goal by Gary McAllister (.) with seconds remaining (.) Liverpool have surely snatched victory (.) and what a crucial free kick that was (.) for Everton to concede (.) Gary McAllister (.) only his second goal as a Liverpool player (.) and Liverpool

94:06

DB - Well 'ere's the free kick that's brilliant (.) brilliant vision (.) great free kick taken there really (.) superb th the wall could've done better to block it (.) Gerrard 'as a difficulty there everybody thought 'e was going to play it into the box (.) really put it I was saying McAllister should be man of the match cos 'e played well but er (.) it's a (.) drawn term and er (.) Liverpool will probably feel that's a wonderful opportunity for them to've actually got the three points now (.)

94:30 WHISTLE

AP - There's the final whistle (.) there's the look of delight on the face of Gerald Houlier (.) and the goal scorer Gary McAllister (.) another dramatic eventful Merseyside derby (.) full of yellow cards (.) a red card (.) a distraught goal keeper (.) a delighted goal scores in Gary McAllister (.) five goals (.) a couple of penalties (.) endless talking points (.) what a dramatic (.) afternoon and evening this has been (.) on Merseyside well at the end of it all (.) the facts (.) are clear (1) Liverpool have got three points (.) that nudge them up into fifth place (.) in the Premiership table (.) and keep alive (.) their champions league ambitions (.) Everton are still waiting for the three points (.) they need (.) they feel (.) for safety (.) and another season in the Premiership (1) well where do you start

95:26

Appendix C

Name Calling Statistics

The table on the next page contains the frequencies for each player of how often they were called by their surname, first name, or both, by the colour commentator, the play-by-play, and the total, as referred to in chapter 5. The players highlighted in grey are the players with foreign names.

	Both			Play-by-play			Colour					
	Surname	Both	First name	%	Surname	Both	First name	%	Surname	Both	First name	%
EVERTON												
Paul Gerrard	13	4	0	23.53	4	4	0	50.00	9	0	0	0.00
Steve Watson	33	3	0	8.33	24	1	0	4.00	9	2	0	18.18
Richard Gough	30	5	0	14.29	22	4	0	15.38	8	1	0	11.11
Weir	25	0	0	0.00	22	0	0	0.00	3	0	0	0.00
Michael Ball	34	7	0	17.07	28	4	0	12.50	6	3	0	33.33
David Unsworth	43	3	0	6.52	29	3	0	9.38	14	0	0	0.00
Xavier	36	0	0	0.00	24	0	0	0.00	12	0	0	0.00
Scott Gemmill	26	9	0	25.71	22	3	0	12.00	4	6	0	60.00
Myrland	22	1	0	4.55	19	1	0	5.00	8	0	0	0.00
Duncan Ferguson	63	19	5	21.84	40	12	1	22.64	23	7	4	20.59
Kevin Campbell	51	13	2	19.70	40	3	0	6.98	11	10	2	43.48
Alessandro Pistone (sub)	12	1	0	7.69	10	1	0	9.09	2	0	0	0.00
Nicklas Alexandersson (sub)	14	2	0	12.50	10	2	0	16.67	4	0	0	0.00
Walter Smith (manager)	0	5	3	62.50	0	3	0	100.00	0	2	3	40.00
LIVERPOOL												
Stander Westwood	14	1	0	6.67	10	1	0	9.09	4	0	0	0.00
Malcolm Elliott	28	4	0	13.33	25	4	0	13.79	1	0	0	0.00
Stuart Pearce	14	1	0	6.67	9	1	0	10.00	6	0	0	0.00
Sammy Hyypiä	30	4	0	11.26	26	4	0	13.33	4	0	0	0.00
Neville Carragher	32	1	0	3.03	28	1	0	3.45	4	0	0	0.00
Igor Biscan	35	2	0	5.41	27	2	0	6.90	5	0	0	0.00
Kanarun	25	0	0	0.00	20	0	0	0.00	6	0	0	0.00
Gary McAllister	35	5	0	12.50	32	4	0	11.11	3	1	0	25.00
Wendie Renard	29	4	0	12.12	24	4	0	12.50	1	0	0	0.00
Robbie Fowler	34	11	1	23.91	31	6	0	16.22	3	5	1	55.56
Emille Heskey	67	9	1	11.69	48	8	0	14.29	19	1	1	4.76
Gregory Vignal (sub)	7	1	0	12.50	7	1	0	12.50	0	0	0	0.00
Gerald Houlier (manager)	0	4	0	100.00	0	4	0	100.00	0	0	0	0.00
Michael Owen (reserve)	0	3	0	100.00	0	2	0	100.00	0	1	0	0.00
Christian Zilge (reserve)	0	1	0	100.00	0	1	0	100.00	0	0	0	0.00

Figure C.1: Frequency of player references from each commentator, for chapter 5

Appendix D

Transcript of Commentary from Computer Game

This is the transcription of England against Germany as played on FIFA 2001, as used in chapter 6. JM is John Motson, and ML Mark Lawrenson.

JM - Welcome to this exhibition match between (.) England (.) and Germany (.) and twiddling his thumbs waiting to get started here with me (.) Mark Lawrenson (.)

ML - We're in for a good one here John (.) can't see either side running away with it really they're very evenly matched (.) at least on paper

0:00

JM - We're underway then (3) nice work there in midfield (1) McManaman (2) Neville (2) Scholl (2) Nowotny (.) hit him low and hard (1) Owen (.) a cross here (1) the ball cleared by the keeper (1) Beckham (1) loses it (6) Zeige (1) no freekick but he definitely hit him there (1) a brief respite here then now for a throw (1) Owen (2) Owen (1) good control (1) the cross in from the left and no one able to get on the end of it other than the keeper (1) and cleared up the pitch (1) good tackle (2) Jeremies (1) Babbel (2) Adams (1) good control (3) Scholes (.) to oh yes terrific stop from the keeper (.)

1:18

ML - It's the first shot they've had John (2)

1:21

JM - Played up the park by the keeper (1) he was robbed there (1) Rehmer (2) -Rehmer- (1) never got near him with the tackle (.)

1:34

ML - That's the first time the keepers had the ball John (.)

1:37

JM - That's back off the keeper (2) and the manager spotting the injury and replacing the player (9) McManaman (2) good tackling in the middle (2) Campbell (1) ball played away (1) Jeremies (1) Neville (2) Scholes (2) Jeremies (2) McManaman (2)

brings it down (2) Linke (4) Jancker (1) no foul just shoulders say the referee (3) Owen (1) out for a throw (6) did well there good header (3) the keeper clearing his lines then (1) and he put it away (.) unlucky for the goal keeper (.)

2:59

ML - Good stuff (6)

3:06

JM - Lets check that out again then (15) the dead lock broken then the score here one nil (3) no foul given (.) flew in hard and low there (2) Nowotny (2) couldn't hold onto it (3) Owen (2) well the keeper handled that superbly not an easy one to stop (.)

3:52

ML - Yes he did well there (.) good goalkeeping (2)

3:56

JM - The ball cleared up field (2) McManaman (1) nearly half-time here and not a lot in this (2) nice stop from the keeper (.)

4:05

ML - Yes that's nice work by the keeper (.)

4:08

JM - Yes too true (1) didn't allow the ball to bounce there (2) Owen (2) went in low and hard there (1) a pause here then for a throw in (4) oh that's a good save he'll be pleased with that (.)

4:29

ML - That's a lesson in how to hold on to a shot (.)

4:31

JM - Right (.) caught it on the volley (1) brought down on the chest (.) offside called by the referee (4) Beckham (.) that's the whistle the for the end of the first half

4:44

4:00

JM - and the score one nil here (1) how do you see this one so far Mark (.)

4:03

ML - They've been pretty close throughout the half but more obvious chances at one end than the other (1)

4:07

JM - Dispossessed (4) Matthous (2) Ince (3) Neville (1) Rehmer (8) Jeremies (2) Ince (1) Scholl (2) Owen (3) Matthous (1) Linke (2) Hamann (2) Linke (2) McManaman (1) Hamann (4) safely out of the box (2) Rehmer (1) Jeremies (4) goal (.) the header beats the keeper he enjoyed that (.)

5:21

ML - Scored (.) with his first shot John (.)

5:23

JM - Indeed (.) he took it very well (1) the managers pleased with that lets look at the replay (4) and that brings us level again here at one all (.) superb challenge (3)

Beirhoff (1) that's a foul says the referee not the best sliding tackle (.)

5:50

ML - They could get one here (1)

5:52

JM - Jancker (.) it's a goal (.) the shot ending up at the back of the net nudging inside the right post (.)

5:58

ML - That's a well played freekick to set it up (.)

6:00

JM - Yeah (.) it looked well rehearsed didn't it (1) they're in front now then (3) Heskey (2) Babbel (.) the ball crosses the line and out for a throw (3) and nothing phasing the keeper there a good stop and a good piece of football (.)

6:23

ML - He's doing well in goal John he's been under pressure more than his opposite number (.)

6:27

JM - Yep (2) and that'll be offside (4) Ince (2) Scholes (2)

6:43

ML - It's a pretty physical game this John (4)

6:49

JM - Hamann (.) this is a good run (3) Jancker (.) oh yes (.) a great strike into the top corner (.) the keeper unable to do anything about it (.)

7:02

ML - He's got the measure of this keeper three shots (.) three goals so far (.)

7:05

JM - Yes you're right Mark he doesn't look like he could miss does he (3) and that's increased the lead of course (2) McManaman (3) Heskey (.) gets it away (1) cleared away safely (7) Ince (1) Babbel (2) Nowotny (1) slid in hard to dispossess him there (4) Linke (2) knocks the ball away with the sliding tackle (.) good touch (1) Matthous (1) Scholl (1) just a couple of minutes of stoppage time being added on here (1) pass forward (1) couldn't keep it (1) McManaman (1) Hamann (2)

8:16

JM - Not good enough (.) that'll be recorded in the papers tomorrow (.) the match ends in defeat and they can't play like that again (.)

ML - They just didn't make the shots count in front of goal John (.) they had more shots but still lost the game (1)

JM - All right then full time here for us as well (.) we thank you for being here with us today (.) we'll see you again