Preparation, structured deliberate practice and decision making in elite level football: The case study of Gary Neville (Manchester United FC and England)

Agenda
1. Presentation of the published Study [Academic Format]
2. Future direction and ongoing explorations in preparation and decision making
3. Note - This work considers the academic and applied audience

Academic Literature – What are we building on here

- Ericsson, Krampe and Tesch-Romer (1993). 10,000 hours, a theory of expertise
- Simon and Chase (1973). Memory, pattern recall and decision making in chess
- Williams and Davids (1995). Declarative knowledge in sport: A by-product of experience or a characteristic of expertise?
- Baker, Cote and Abernethy (2003). Sport-specific practice and the development of expert decision making in team ball sports

How / Why

- Gore, Ericsson and Law (2003). Tracing the development of athletes using retrospective interview methods
- Barker, McCarthy and James (2011). Single-case research in sport and exercise psychology
- Reid, Flowers and Larkin (2005). Exploring lived experience as intro to IPA

One definition of eliteness requires the collation of objective performance metrics, independent of cultural forces and salience factors, and free from biases linked to reputation. The synopsis of Gary Neville’s achievements highlights some of these attributes. Initially, Neville was part of the team that won the 1992 FA Youth Cup, the FA Amateur Cup and the FA Vase. Neville went on to accumulate 602 professional appearances over two decades. His playing career became synonymous with unparalleled domestic, European and global success for his team, Manchester United Football Club (MUFC). During his playing career, MUFC won more honours than any other professional English club. In total, Neville played in teams that won eight Premier League titles, three FA Cups, one European Champions League, one International Champions Cup, a FIFA Club World Cup and one League Cup. Beyond his success with the MUFC team, Neville was first-choice right-back for his national team for more than ten years, making 85 appearances.

Results
1. IPA Theory
2. Quotes
3. Two Models
My game mode started Sunday morning the minute you got to the airport before you travelled and thenceforward, the minute you got to that airport every moment is thinking about that game, you’re thinking who am I playing against? What should I do? What do I need to do? I need to watch a video of him, what do I need to practice in training.

I would understand what I needed to do to defeat an opponent, to get the better of an opponent, I would ask for a video (2.7), never fixed a selected clip or selected shots of training, I always saw half an hour of the first half of a match, cause (0.2) for me, half an hour is sort of pre-watching of something, now times but it’s not really understanding that to be honest (0.2), it’s probably the most obvious thing to look at. I’m looking at sort of non-linear, who gives him the ball, who do they give him the ball, what movements does he make to get on the ball, what weaknesses does he have? Is he lazy? Does he follow you?

What do I need to do in this training session tonight? Is he quick and jinky? So I’ll get somebody to run to me quick and jinky. Is he physical? So I practice my heading and that’s the sort of (0.2) what I call more specific preparation. You just want repetition in your routine in terms of specific preparation (2.9). It’s just mimicking that thing that you know that when it comes into that situation, you know you’ve done it before. The feeling that I’ve done it before is an important feeling.

Figure 3: Infographic of cognitive process for decision making in football.

Limitations
1. Academically – Single case however it is heavily supported anecdotally
2. Models – Are the component parts/activities efficient
Future Direction / Examples of the problem

1. Will training really mimic reality
2. Can you always get
   A) The eleven or unit you want
   B) The time / repetition levels you require
3. Are the conditions / environment recreated maximally
4. So where do we go from here, how does the work progress?

Academic Literature – What are we building on here

- Miles, Pop, Watt, Lawrence and John (2012). Ball Sports, sensory motor control and strategy
- Sui, Bext, Kim, Golyshin and Kitter (2016). Military Medicine
- Ruffaldi, Filippo and Avizzano (2011). Cognitive processing and strategy in Rowing
- Bowling, Khasawneh, Kowalewko, Jing and Gramopadhye (2008). Aircraft Maintenance
- Rieke, Kopko, Mr Viane, Fradet, Muto, Delorme and Arvati (2011). Handball Goalkeeper versus Handball Thrower

Current Status

Existing cognitive training mechanisms are traditionally non-context specific to football and there is little or no evidence to suggest improved football performance has been achieved to date.

Reason Why

We live in a world full of data, statistics and KPI’s for match performance, fitness, recovery, heart rates, power outputs, endurance, speed, flexibility and so on to the nearest 0.01 or nth of a degree.

The one thing that truly makes an elite decision making ability i.e., What they decide to do for the 87 minutes they do not have the ball on their feet and more importantly the 3 minutes that they do.

These decisions of anatomical movement, physical exertion or player ball actions are calculated and selected in the brain.

The very brain that carries 25% of our blood supply. That very brain which is the most important organ in the body (Marsh, 2017).

Time to do something about this …………………

So what’s happening?
How accurate is VR
linked to Tracab system
Real Time download, real time rendering

What can you do (A snapshot... The system is as limited as you are!)

Play against your next opponents (lets say Everton / Juventus)
Limitless system at the elite level

Play your own game
Play or study your past/next direct positional opponent's game
Measure up and coming players

Objective = Ultimate Preparation = Improved performance

Where Next ?

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