CONTRIBUTION TO A COLLECTIVE BEHAVIOR IN TEAM SPORT
Exploratory Study of Informational Resources

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How do participants make to regulate their ongoing activity to contribute to the collective complex behavior?
Introduction

**Enactive Approach**

(Varela et al., 1993)  
(Araujo & Bourboursson, 2016)

Understand how a **human regulate his behavior** is associated to the description of consciousness (**self**).
Introduction

**WHAT DO WE KNOW ABOUT THE REGULATION?**

THEORETICALLY PRESUPPOSED RATHER THAN EMPIRICALLY INVESTIGATED
The study aims on analyzing the individual informational resources (i.e., regulation) which contribute to a collective behavior in team sports

**OBJECTIVES:**

- Identify the variety of the informational resources of human individual activity when they contribute to a collective behavior
- Identify to which extent informational resources are used by the team members
Participants

- 10 participants: national 5th French football

Self-confrontation interviews

Data treatment

- Meaningful Unit
- Infromational Resources
- Thematic Analysis
**Study**

- Perception of the interval size between players
- Perception of interpersonal distance
- Simultaneous perception of a double focusing

**RATIONAL METHOD**

**RESULTS**

- N=622 (informational resources)
  - 19 different I.R
  - 12 second-order themes
  - 6 third-order themes

**DISCUSSION**

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Study

- Informational resources relying on different proportion...

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Study

1- INFORMATIONAL RESOURCES SUPPORTING THE PLAYER’S ACTIVITIES...ALREADY WELL KNOWN

- Local regulation
  - Collective behaviour emerge from simple local adjustment and interaction

- Shared Knowledge
  - The collective behaviour improve when the players shared knowledge about the team and the task

(Perna et al., 2010)  (Blickensderfer et al., 2010)
2- INFORMATIONAL RESOURCES ILLUSTRATING A NEW WAY OF EMERGENCE

Extrapersonal Coordination

Individual coordinate their behavior from the physical environment

Global regulation

Interpersonal coordination has neglected that co-agents are able to grasp the global picture

(R’kiouak et al., 2016) (Bourbousson & Bourbousson, 2016)
3- **OTHER INFORMATIONAL RESOURCES ILLUSTRATING THE HUMAN COMPLEXITY**

- **Radar**
  - Special human ability to have an overall perception of the close surrounding behaviour

- **Simultaneous perception**
  - Complexity of the human behavior...not only one affordance
Perspective & Applications

- Coaching:
  - New knowledge about the individual regulation
  - Idea about how to create collective behavior

- Robotics:
  - Multi-agent system

- Future research:
  What are the spatiotemporal conditions that can explain why people tend to use different informational resources and switch to a specific one?

Thanks for your Attention