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The Centre for Computational & Organisational Cognition (CORG) aims at pulling together research efforts on cognitive aspects *in* and *around* organisations. In so doing, it attempts to encourage a wide range of approaches and research methodologies, with particular emphasis—although not exclusively—on computational social science. The Research Centre aims to establish itself as an international point of reference for the study of organisational cognition as well as for advanced computational simulation techniques as they apply to organisational social and cognitive dynamics.

The core interests of the centre are on the cognitive aspects *in* and *around* organisations and organising. The preposition "in" refers to issues that involve human activities such as, for example, processes, practices, procedures, change, and behaviours taking place in organisations. The adverb "around" expands the range of activities to involve groups and individuals as external stakeholders, considered through their (latent or actual) influence.

CORG establishes itself as a point of reference for the study of cognition in organisations (Hodgkinson & Healey, 2008; Walsh, 1995). As recently noted (Secchi & Adamsen, 2017), most research in this area has moved very little away from cognitive science predicaments of the Eighties. In fact, there has been an almost univocal focus on cognition as information processing (Cannon-Bowers & Salas, 2001; Hodgkinson & Healey, 2008) as opposed to more advanced views, such as those typical of distributed cognition and 3rd generation cognitive science (Hutchins, 1995; Cowley & Vallee-Tourangeou, 2017). The centre does not live by the dogma that new approaches are necessarily better than more standard or established ones. Instead, its members approach the study of cognition with an open mind and without prejudice. This means that, in order to understand cognition in its multi-faceted nature, the centre encourages and welcomes research efforts based in either exploratory and pioneering as well as established approaches.

The centre is open to any research methodology and refrains from indicating an epistemological or ontological view on how organisational cognition should be studied. It also encourages innovative and promising approaches that have demonstrated potential to contribute to the

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study of this topic. Computational social science (Edmonds & Meyer, 2017) has shown extremely positive impacts on organisational research (Secchi & Neumann, 2016) because it combines and integrates micro and macro dynamics in complex adaptive systems. The word "computational" in CORG's name is intended as a suggestion or emphasis indicating an area of potential interest for some of the centre's members. Also, due to the potentials for hybrid or cross-methods (i.e. any mix of simulation-qualitative-quantitative), computational organisational cognition is a way to seek opportunities and co-operations.

Research topics

With the above in mind, it is easy to see that organisational cognition is thought of as the complex interaction of individual, group, departmental, and overall organisational dynamics. As such, the organisation is considered a dynamic social system that can be explained by its members' cognitive processes. Research streams and areas of enquiry help to understand, assess, diagnose, measure, and explain the antecedents, determinants, and impacts of organisational cognition. This sets the basis for a number of topics that constitute the core streams of CORG's research agenda. Here, they are succinctly described to outline the core research streams of the centre:

1. **Meso analyses**. The meso domain, also called *social organising*, is the starting point for studies on cognition in organisations. It is neither strictly centred on the individual nor on macro aspects (e.g., culture, strategy). Instead, it focuses on exploring the mechanisms with which cognition distributes among individuals (Secchi & Cowley, 2016; Gahrn-Andersen 2019). Some work has already been published on this aspect with reference to peer review and perceived scientific value (Secchi & Cowley, 2018; see also Secchi & Cowley's work in this RASK special issue). Another, more extensive, body of research has been published on aspects of rationality and decision making that are affected by the social interactions in organisations (e.g., docility; Secchi, 2011; Secchi & Bardone, 2009; Bardone & Secchi, 2017; Secchi, 2009). Finally, by studying a meeting and its dynamics, other members have developed an extensive matrix for the interpretation of distributed cognitive clues (Jensen, Secchi, & Jensen, 2015).
2. **Technology and organisation**. Technology has a long-lasting effect on the lives of workers in organisations, and it is a core aspect of how processes are construed. Some work from our members have already taken steps in this direction, especially with focus on knowledge (e.g., Bruni, Gherardi, & Parolin, 2007; Parolin & Mattozzi, 2013), and in relation to the cognitive and social impact of drones in organisational everyday operations (Gahrn-Andersen & Cowley's funded drones project).
3. **Organization-Cognition fit**. One of the elements that describe an emergent cognitive system is that it is situated. If one takes this assumption seriously, then he/she has to allow for a set of conditions that enable cognitive tuning between individuals, ideas, practices, norms, and artefacts. How exactly this "tuning" happens is unclear,

but examining how individuals in teams, for example, are able to quickly understand each other and use one another as cognitive resources may offer some hints. There is a "fit" between cognition and specific organisational conditions that may reveal to be crucial in terms of processes such as hiring or group problem solving. Gayanga Herath and Davide Secchi (e.g., Secchi & Herath, 2018) are working on this and other aspects of fluid (plastic) organisational environment and their effects on cognition.

4. **Institutional conformity**. When dealing with social influences on cognition, one such element is that of understanding how individuals (and sometimes entire organisations) happen to adopt an idea, process, product, or behaviour, with little or no thinking (i.e. mindlessly). These diffusion processes have been also called bandwagons, and research on cognitive mechanisms based on conformity are scarce (Secchi & Gullekson, 2016). In a recent cooperation, two members Siavash Farahbakhsh (U. of Bolzano, Italy) and Davide Secchi explore these elements using institutional theory and connecting micro with macro pressures.

Given the research streams outlined above, the centre's core interests develop around open research questions. Based on items 1, 2, and 3 in the list above, **line of enquiry #1** takes shape from the question: *What are the mechanisms through which cognitive processes are enhanced or hindered by organising?* Otherwise stated, one might ask how organisational activities, practices, processes—especially by means of other people—enable or disable meaningful cognition.

Line of enquiry #2 relates to items 1 and 4 by pursuing a line of research tends to point at specific application of cognition research. Given a specific setting and conditions, *which intervention, configuration of the environment, or strategy could improve cognitive processes?* What are the characteristics of a well-designed intervention that is set to make cognition develop, change rapidly, or stagnate?

Finally, **line of enquiry #3** is designed around computational social science and could potentially refer to all items in the list above. *How far can one "exploit" complexity in organisations?* If organisations are complex systems, this seems to point at the fact that cognitive processes are set to interface with complexity. A relatively unknown domain refers to the circumstances under which complexity is actively pursued or avoided, for example to solve a problem. And to what extent either of these strategies bear more or less costs to individuals, groups, or to the organisation as a whole. This line of enquiry focuses on *prima-facie* computationally-simulated social interactions as the basis to move our understanding forward.

Members

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