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A Framework for Situativity in Dialogue

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Mind

Minds are the conscious control systems that guide higher biological agents in their interactions with the world (Searle, 1992). Cognitive dynamics may be described as dynamics of mental states. Mental states with contents, i.e., intentional states, are subjective representations of part of the world as it is, was, or could be, entertained by an individual at a certain time. They exist against a nonrepresentational Background (Searle, 1983, 1992) that allows for their semantics and dynamics.

Since the subjective ontology an agent will impose on the world (and, therefore, her cognitive dynamics) is context-dependent, cognitive dynamics cannot be described as knowledge-rich sets of rules: something more abstract is needed. Following in part Pollock (1995), I view an agent as living in a *situation type* (i.e., in a subjective, open interpretation of the world), and striving to make it more to her likings. To act is to modify some characteristic of the situation, with the aim of improving it, at a comparatively reasonable cost.

Thus, an agent's cognitive dynamics may be described as a set of mental states whose contents are situation types with their characteristic, and actions in these situations; and as default chainings of such mental states.

Agency

The mental states needed for deliberative agency are at least the following:

Beliefs encode the knowledge present to the agent's consciousness at a given time; their contents are situations and their characteristics (a characteristic may define a whole situation, since the Background allows to take "the rest" of it for granted).

Situation-likings encode the agent's preferences within represented sets of situations, plans, or actions.

Desires encode the agent's potential goals; their contents are those situations which the agent thinks would be preferable to the current one.

Future-directed intentions encode the agent's actual goals, i.e., among the desired situations, those she commits to;

their contents are partial plans, i.e., possible situations plus activity paths, however ill-defined, which may realize them.

Present-directed intentions encode the agent's behavioral decisions; their contents are basic actions, i.e., actions that the agent may immediately execute in the current situation.

An agent's cognitive dynamics are tightly coupled to the partially unpredictable dynamics of her situation; i.e., changes in the situation (whether caused by the agent herself or not) reverberate on her mental states, so that these keep their adaptedness to the situation.

Social Agency

Social interactions are often conceived of as the joint execution of a multiagent plan, mutually known to the agents involved. The joint plan prescribes, to a variable degree of abstraction, a sequence of actions to be performed by each participant; its execution is initiated by one agent and possibly carried on, upon recognition, by each agent in her turn. Describing a social interaction amounts to describing this plan and its conditions of applicability.

Such script-based accounts of communication suffer from several problems. From a philosophical viewpoint, they fall into a map/territory fallacy (Searle, 1992), whereby behavioral regularities are unwarrantably explained by postulating *ad hoc* rules built in the agents' cognitive machinery. From a psychological viewpoint, they can neither account for situativity in dialogue, nor deal with non-benevolent instances of communication.

A better basis for sociality and communication may be provided by mindreading; i.e., by the agents' capability to understand and reason upon each other's mental states. Indeed, this is a prominent architectural feature of highly social Primates, whose disruption hampers the development of any social interaction but the simplest (Baron-Cohen, 1995; Frith, 1992).

References

- Baron-Cohen, S. (1995). *Mindblindness*. Cambridge, MA: MIT Press.
Frith, C.D. (1992). *The cognitive neuropsychology of schizophrenia*. Hove, UK: Lawrence Erlbaum.