

Action, Language and Social Semiotics – A Theoretical Contribution to Collaborative Work and Learning

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Abstract. The epistemic grounding of organisational and computing science thinking is highly relevant to a discussion of collaboration and coordination activity. The critical importance of semiotics, and of action and of language philosophy, has been explicitly recognised by scientific communities such as “Organisational Semiotics” (OS) and “Language and Action Perspective” (LAP). The importance of the recognition of the social embeddedness of organisational activity, and of phenomenological interpretations of knowledge and meaning, are often referred as a “social turn” in organisational theories, such as organisational learning, knowledge management and communities of practice. However, the full potential of such approaches needs to be supported by a renewed interest in philosophical perspectives able to sustain and disseminate their intrinsic value. Opposing a humanist paradigm, based on structuralism and cognitivism, the alternative perspective, grounded in social semiotics, Heidegger’s ontology, and Peircean pragmatism, enables an interpretation of organisations, information systems, collaboration and coordination, that radically shifts its focus towards their inner social dynamisms.

1 Introduction

Why is “collaboration” important? And how does it affect work and learning? The idea of the knowledge society and of the centrality of knowledge in today’s organisations shifts the attention from tangible and measurable assets to intangible, and difficult to measure, knowledge. Many authors have discussed and conceptualised this changing organisational context in different ways [4], [20]. And the answers that have been searched for are equally diverse. It is possible to identify three different trends in terms of the focus of attention of each theoretical contribution. Firstly, a focus on technology and on the technological revolution that has affected every sector of society. Secondly, a focus on the individual, the rational, independent and autonomous individual, which uses technology and that uses neurological brain processes in order to make the most of the available resources. Thirdly, there is a focus on social processes, on individuals and on technology together involved in social interactions. Knowledge management [28], organisational learning [1], [33] and communities of practice [22] are examples of theories which have been subject to the above referred

trends, and that have emerged with the need to search for answers to the question of «how best to deal with the knowledge society context?»).

2 Action, Language and Social Semiotics

Knowledge and meaning are closely related to action and language within an organisational context, and philosophy of action and of language have important contributions to make to the understanding of organisational reality. Organisations, action and learning are concepts that are mutually embedded and profoundly connected. Organisations, in order to survive, have to have effective mechanisms that allow them to learn and to incorporate their learning into their actions. Or better, organisations have to recognise and to acknowledge the learning that is already present in their actions. This permanent process is mainly automatic and unconscious, though it may be made explicit in various degrees and circumstances. The early works of Austin [2], on speech act theory, followed by the works of Searle [32] and of Habermas [15], have set on motion the field of language action theories that have influenced the study of information systems analysis within organisational contexts. The social constructive perspective of learning, the concept of situated learning, Kurt Lewin's 1930's work on social psychology and its relation with action research methodologies have been relevant to organisation studies [13].

The works of the scientific communities of Organisational Semiotics (OS) [9], [23], [34], [35], Language and Action Perspective (LAP) [12], and Action in Language, Organisations and Information Systems (ALOIS) [11] have been influential in the development of organisational and information systems analysis based on semiotics, speech-act theory and philosophy of language.

The development of American structuralism in linguistics derived from the foundational work of Bloomfield [3] and with Harris [17] the structuralist methodology reached its peak [29]. In opposition to previous historicism in linguistics, Bloomfield postulated a descriptive approach to language, i.e. an antimentalistic and behaviourist approach. No internal mental facts, such as ideas, concepts, or intentions, should be taken in consideration; only observable behaviour, of speech-acts in the context of human behaviour, was considered as valid to scientific studies. The consequence of this antimentalistic point of view was that questions of semantics were long neglected by American structuralists. According to Nöth [29], taxonomies and classifications as well as the interest in the study of speech-acts and of observable behaviour is still strong in late twentieth-century's analysis inspired by language philosophy. However, this emphasis has been developed towards mentalistic and cognitivist perspectives.

The importance of the social, the cultural, the historical, the ideological and the political has been relatively neglected in the field of organisation and other closely related studies that have been dominated by a cognitivist mainstream approach. As Child and Heavens [10] argue, current thinking has been affected by a reductionist approach to individual learning and by a reification of the organisation as a learning entity, so that there has been an adoption of an undersocialised conception of both. Though mainstream organisational theory and practice is largely influenced by this 'undersocialised' perspective there is an impressive array of approaches that work at

the margin and periphery of dominant thinking and that are increasingly making their presence noticed in the fields of organisational learning and knowledge management so that we could envision a ‘social turn’ in organisation theory. Among the vast array of approaches drawing on postmodernism theory, on social construction of reality and on a phenomenologist epistemology, the works of Gherardi and Nicolini [10], and of Elkjaer [8] that refer to the influence of Heidegger’s [18] ontology and to the influence of pragmatism are of particular relevance to the present paper.

Heidegger’s philosophy is centred on the question of being, and it develops a complex account of our *being-in-the-world* [18]. Heidegger’s phenomenology of everydayness works to counteract the tendency toward the displacement of meaning into subjectivity, that began with the rise of modern science [7]. Heidegger’s work *Being and Time* [18] influenced Maturana and Varela’s work [25] and through them the work of Winograd and Flores [36], thus setting a tradition in computing science and information systems design. Against a Cartesian view of human beings as purely autonomous and rational, perfectly in control of their “situatedness”, Heidegger’s perspective calls upon the importance of human’s relationships with our world and our surrounding environment. From this perspective, information systems designers may acknowledge the importance of their influence on work systems and, through these systems, their influence on the individual and on the collective users of the system.

Heidegger’s ontology and the American philosophical school of pragmatism are fundamental philosophical contributions because they represent non-dualistic and post-cognitivist perspectives of action and language. It is critical to stress the importance of these approaches to action and language, and how these enable an epistemological perspective that goes beyond individual and cognitivist trends. As referred above, at the beginning of the present section, Nöth [29] identifies these trends within philosophy of language itself. But philosophy of language and of action intrinsically have the capacity to explore other perspectives.

Peirce [30] is well known for his work on semiotics. Together with Saussure [31], they created two schools of semiotics that have been influential throughout the twentieth century. Pragmatism was one of Peirce’s [30] creations, later followed by James, Dewey, Popper, Morris, Sellars, Putman and others [19], [7]. Pragmatism derives from the Greek word ‘pragma’ that means action. It emphasises the concept of human beings as agents and focuses on their practical relation to the world. The concept of abduction and its relation to deduction and to induction was also developed by Peirce [30], [19], [7]. Abduction is the process by which a new concept is formed on the basis of an existing concept that is perceived as having something in common with it, thus it focuses on associations.

Ronald Stamper [34], coined the term “organisational semiotics” and his pioneer work centred on the use of norms as key organisational elements. Stamper extensively developed his theory of organisational semiotics as a method to help improve the quality of systems analysis and design. Organisational semiotics interprets organisations as information systems, independently of technology [34]. The social constructivist perspective of organisations, viewed as social constructs, is also relevant to organisational semiotics. Information is a central concept that may be analysed through diverse perspectives, and semiotics offers a framework that allows us to interpret information at syntactic, semantic, pragmatic and social levels [9]. Stamper

has added three fields to semiotics, besides the syntax, semantics, and pragmatics levels: empirics, physics and social world [35], [9], [23]. Most applications of Stamper's work on organisational semiotics [9], [23] consist on developments that focus on the socio-technical aspects of information systems and on the use of this method to improve information system's analysis and design.

Social semiotics holds a critical position in relation to the study of meaning creation and signification processes. Though semiotics, as a whole, considers the specific aspect of sense-making, social semiotics goes deeper in this analysis in the sense that it takes into account the dynamic, social, cultural, political, ideological and historical dimensions of social action, language use and meaning creation. Social semiotics [5], [16], consists on a theoretical approach to the study of social realities through the use of semiotic based approaches. Social semiotics developed out of the work of sociologists interested in language issues and of linguistics interested in the social influences within language use. Under this perspective, human development is as much the development of individuals, as that of the social communities to which they belong, and language is the working tool and enabler of this developmental process. Semiotics is commonly related to language though it covers all forms of communication or rather characterisation of a practice so that dressing, teenage gear, wrestling or cooking, have a semiotic content [7].

Social semiotics, developed by Halliday [16] and Kress [21] among others, raised out of the Saussurean school of thought. Saussure claimed that we use language not only to communicate but also to construct our world, and when he distinguished between *langue*, the abstract structure of a language, and *parole*, the way it was actually used in practice, he directed his attention to the former. Social semiotics explicitly takes a non-positivist approach as it focuses on the contexts, prerequisites, and conditions of possibility for meaning creation processes to occur. All meanings are made within a community. The analysis of sign systems and of sense-making processes cannot be separated from the social, historical, cultural and political dimensions of these communities. Social semiotics also takes a non-cognitivist approach: instead of referring to meaning-making as something that is done by minds, it points to the role of social practices within communities. Communities are thus interpreted not as a collection of interacting individuals but as a system of interdependent social practices. Social semiotics may be understood as a discourse on meaning making where the aim is to examine the functions and the effects of the meanings we make in every day life, within communities, organisations and society.

3 Discussion and Conclusions

The vitality of the scientific communities that use semiotics and language and action perspectives within organisational and information systems research, referred above, is a sign of the vast potential of the implicit theoretical and corresponding approaches. However, the argument of the present paper is that there is room for further exploration of such origins, in particular in terms of their epistemological grounding. Instead of focusing on structuralist approaches, it is possible to search for dynamic and post-structuralist standings that are richer in terms of addressing the social dimen-

sions of human interaction. Within the context of coordination activity, such approaches are particularly relevant. Coordination theory [24] has had a profound impact in the development of an interdisciplinary study of coordination, setting its basic principles and extending its applications to computer supported collaborative work and activity studies. However, such initiatives are often dominated by positivist, structuralist and cognitivist thinking.

The argument of the present paper is that particular developments within both semiotics and language and action philosophies enable the possibility to study collaboration and coordination in innovative ways that explore the social embeddedness and embodiedness of human meaning and knowledge creation. The idea of “Semiotic Learning” [26], [27], applies these principles to a practical methodology that facilitates organisational learning.

Some authors claim for the need to further explore the contributions from the scientific communities, already referred - Organisational Semiotics (OS), and Language and Action Perspective (LAP) – under the argument that they bring essential insights to the understanding of organisational contexts and information system design. The humanist paradigm is often referred as the common ground from which these complementary perspectives have developed [6]. However, it is critical to analyse the origins of the humanist paradigm and of its links with the rationality developed in modern times, from the fifteenth and sixteenth centuries onwards. The ideal of humanism is centred on individuals conceived as being autonomous and independent, following rational, formal and linear forms of rationality, and focusing on conscious and explicit pure mental and intellectual activity. The phenomenologist tradition, on the contrary, rejects such independence and autonomy of subjects, and focuses on non-linear forms of rationality. Heidegger’s ontology, Peircean pragmatism and social semiotics implicitly take this phenomenological standing. And the argument of the present paper is precisely that both OS and LAP origins and fundamental principles have strong links with this tradition and therefore it is critical to further explore their contributions under this phenomenological perspective.

In summary, the present paper discusses the importance of revisiting and reanalysing the dominant paradigms behind organisational and computing science mainstream thinking. There are three main arguments for the relevance of this course of action:

First, philosophy is always present, whether it is explicitly acknowledged or not. All action and every practical activity may be interpreted from a philosophical perspective. This perspective needs to be addressed in explicit terms whenever it is necessary to re-equate and re-consider its epistemological grounding, i.e. the underlying assumptions and basic principles which sustain a specific practice. This need occurs in times of change, turbulence, and increased levels of complexity as happen within current organisational contexts.

Second, philosophical reasoning is never merely philosophy or simply a bunch of ideas. There is an inherent and implicit practice which is being constructed and supported through philosophical reasoning. The practice is already present, and philosophy enables the questioning of such practice and the development of an inquiry which may lead to such practice’s improvement. Computing science has developed pioneer work related to the philosophical grounding of organisational practices. The high relevance of such work, unfortunately, is not matched by the dissemination of its rationale. There is a reductive, oversimplified, under-socialised and non-philosophical

informed generalised approach to organisational practices, and to the critical role of technology in improving such practices.

Third, the information systems scientific communities of “Organisational Semiotics” (OS), of “Language and Action Perspective” (LAP) and of “Action in Language, Organisations and Information Systems” (ALOIS), stand out for their interest and theoretical grounding in the philosophical traditions of semiotics, action and language. However, the argument of the present paper is that there is often a bias towards structuralist and cognitivist interpretations, supported by a humanist paradigm, even within such communities. Instead, this paper argues in favour of a post-structuralist and pos-cognitivist perspective, and claims that it is precisely from semiotics and from action and language philosophy that a sociosemiotics paradigm has emerged. The contributions of social semiotics, of Heidegger’s ontology and of Peircean pragmatism are referred as critical dimensions of a phenomenologic epistemology on organisations and on information systems design.

The issues of collaborative work and learning and of coordination activity are particular relevant within this context. The reason for this is that formal, explicit and procedural aspects of coordination and collaboration are but a fraction of that which is relevant in terms of promoting cooperation and collaboration at organisational level. The tacit, implicit and complex social aspects of organisational practices must unavoidably be addressed from a philosophically informed and mediated perspective.

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