[1]Discourse, Complexity, Life: Elaborating the Possibilities of Foucault's Materialist Concept of Discourse

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I want to suggest that it is through the elaboration of the concept of discourse that the differences between Foucault and thinkers like Habermas, Hegel and Marx can best be understood. Foucault progressively develops a conception of discourse as a purely historical category that resists all reference to transcendental principles of unity – whether of substance or form – but sees the emergence of discursive frameworks as precarious and contested assemblages characterised by indeterminacy, complexity, openness, uncertainty and contingency. His approach thus enables a reconciliation of difference and commonality, or the particular and the general, in a distinctive and viable way.

1. From the early to the late Foucault

In his book *The Archaeology of Knowledge*, originally published in 1968 to encapsulate the methods used in his earlier works (*Madness and Civilisation; The Birth of the Clinic; The Order of Things*) Foucault distinguishes between the discursive and pre-discursive levels of reality, and seeks to present an account of the emergence and constitution of discourse as a purely historical assemblage. A discourse is defined in terms of statements (*énoncés*) of 'things said'. Statements are events of certain kinds at once tied to an historical context and capable of repetition. The position in discourse is defined as a consequence of their functional use. Hence, statements are not equivalent to propositions or sentences; neither are they phonemes, morphemes, or syntagms. Foucault is interested in serious statements comprising that sub-set that have some autonomy, which contain truth claims and which are differentiated and individuated according to a single system of formation. A 'discursive formation' comprises the regularity that obtains between 'objects, types of statement, concepts, or thematic choices' (Foucault, 1972: p. 38; p. 107). It is 'the general enunciative system that governs a group of verbal performances' (p. 117).

To understand Foucault's concept of discourse, it is important to understand his approach to methods. Methodologically Foucault's works utilise two approaches: that

of *archaeology*, concerned to describe the historical presuppositions of a given system of thought, and *genealogy*, concerned to trace the historical process of *descent* and *emergence* by which a given thought system or process comes into being and is subsequently transformed. Archaeological analysis is centrally concerned to uncover the rules of formation of discourses, or discursive systems. In a technical sense, proceeding at the level of statements (*énoncés*), it searches for rules that explain the appearance of phenomena under study. It examines the forms of regularity, i.e., the discursive conditions, which order the structure of a form of discourse and which determine how such orders come into being. In that archaeology examines the unconscious rules of formation which regulate the emergence of discourse, genealogical analysis focuses on the specific nature of the relations between discursive and non-discursive practices, and on the material conditions of emergence of practices and of discursive systems of knowledge. Genealogical analysis is thus essentially a method for looking at the historical emergence in the search for antecedents. While archaeology examines the structure of discourse, genealogy gives a greater weight to practices, power, and institutions.

As is now accepted, while Foucault's use of archaeology characterized his earlier works, up to the original publication of *The Archaeology of Knowledge* in 1968, the Nietzschean-inspired use of genealogy became of central importance after *The Archaeology*, and characterized the studies of the 1970s and 1980s. Most of those who have examined the issue of continuity of his work over time, from the early to the later periods, see this change in his treatment of discourse as representing more of 'change of emphasis' rather than marking an 'abrupt reversal,' or even a serious abandonment of his earlier positions, however. According to Mark Poster (1984), Dreyfus and Rabinow (1983), Barry Smart (1985) and Michelle Barrett (1988), while in his earlier archaeological investigations Foucault held that the deep structures of human life and culture were explicable in relation to the structures of language, after 1968 he carried out a reorientation and reclassification of his ideas that altered the direction of his work in important respects. As Poster puts it:

> [A]fter 1968 [the] structuralist concern with language and its autonomy that was paramount in *The Order of Things* (1966) gave way to an ill-defined but suggestive category of discourse/practice in which the reciprocal interplay of

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reason and action were presumed […]. This subtle yet ill-defined sense of the interplay of truth and power, theory and practice, became the central theme of Foucault's investigations (Poster, 1984: p. 9).

Dreyfus and Rabinow (1983) argued similarly that Foucault changed his emphasis over time, attempting to adopt a more realist position. They maintain that Foucault's continued dissatisfaction with the achievements of *The Archaeology of Knowledge* led him to shift emphasis from archaeology to Nietzsche's concept of genealogy as a dominant method. The idea of genealogy, claim Dreyfus and Rabinow, places a much greater emphasis on practices and social institutions and on the relations between discursive and extra-discursive dimensions of reality.

A similar thesis is maintained by Michèle Barrett (1988). According to Barrett, in his earlier works Foucault elaborated a view of the 'production of things by words' (Barrett, 1988: p. 130), and she claims that Foucault as archaeologist was phenomenologically and epistemologically detached from the discursive formations studied (p. 130). It is only Foucault's later works – *Discipline and Punish* and *The History of Sexuality* – where 'practice is favoured over theory' and where 'discourse is understood as a way of organising practices' (p. 134). The shift from archaeology to genealogy means essentially that Foucault no longer regards himself as detached from the social practices he studies. Indicative of the transition, says Barrett, is the fact that Foucault 'discovered the concept of power' (p. 135). In this she cites Foucault to support her case:

> When I think back now, I ask what else it was that I was talking about in *Madness and Civilization* or *The Birth of the Clinic* but power. Yet I am perfectly aware that I scarcely even used the word and never had such a field of analysis at my disposal. (cited in Barrett, 1988: p. 135)

Barry Smart also agrees with this highly qualified sense in which Foucault's work changed, seeing the methodological approach of *The Archaeology of Knowledge* as altered only as a matter of focus or topic area by Foucault's shift to genealogy. In the shift from archaeology to genealogy, the major emphasis of the latter constitutes an expressed commitment to realism, and to a form of historical materialism, and as Smart puts it, 'a change in Foucault's value relationship to his subject matter' from

the 'relative detachment' of archaeology to a 'commitment to critique characteristic of genealogy' (Foucault, 1985: p. 48). While for Smart this:

> represented a change of emphasis and the development of new concepts…such shifts and transformations as are evident do not signify a rapid change or 'break' between earlier and later writings, rather a re-ordering of analytic priorities from the structuralist-influenced preoccupation with discourse to a greater and more explicit consideration of institutions. (Smart, 1985: pp. 47-48)

Thus, while Foucault's later analysis adopts new methods and strategies, and explores new problems, there is no repudiation of the central theoretical insights of *The Archaeology of Knowledge*. There are shifts of emphasis as well as in the problems of interest, and he becomes more manifestly materialist in the sense that he elaborates a theory of power, but there is no fundamental disqualification of the epistemological or ontological insights of *The Archaeology* – only a putting them to use for different purposes (see Foucault, 1991: p. 11; 1989c: p. 296). It is in this sense that, while there is a clear shift at the level of method, of the types of issues investigated, and the abandonment of the use of certain concepts[2], the later methods should not be seen as excluding the earlier ones. Minson (1985: p. 115) argues that a full understanding of Foucault's later genealogies requires an understanding of archaeology. For Arnold Davidson, too, archaeology is quite compatible with genealogy and is in fact required to give genealogy its full expression. As Davidson states bluntly: 'Genealogy does not so much displace archaeology as widen the kind of analysis to be pursued. It is a question as Foucault put it in his last writings, of different axes whose "relative importance […] is not always the same for all forms of experience"' (Davidson, 1986: p. 227).

It is in the context of his later genealogical studies, and especially the later two volumes of *The History of Sexuality*, that Foucault represents the self in more active terms as something that makes and cares for itself. On this view, however, he is interested to theorize a more active self within a purely social constructionist frame of reference. As he comments in a lecture given at Dartmouth College in 1983, his interest in the governmentality of the self 'has been my obsession for years because it is one of the ways of getting rid of a traditional philosophy of the subject' (1997a: p.

199). In *Madness and Civilization*, it was a matter, he says, of how one governed 'the mad' (1989b: p. 296); in the later works on the care of the self, it is a matter of how one 'governs' oneself (1991, p. 11). In addition, as he states:

> If I am now interested […] in the way in which the subject constitutes himself in an active fashion, by the practices of the self, these practices are nevertheless not something that the individual invents by himself. They are patterns that he finds in his culture and which are proposed, suggested and imposed upon him by his culture, his society and his social group. (1991: p. 11)

Agency is protected and enabled for Foucault because subjects appropriate historically constituted discourses for their own ends in novel and contingent ways as they struggle to survive and be more.[3] It is in this sense that subjects are both the passive bearers and active creators of history. In terms of his tripartite ontology of labor, life and language, Foucault makes it clear that subjects appropriate and utilize actual historical practices, comprising both discursive and non-discursive, rather than simply systems of information or language:

> So it is not enough to say that the subject is constituted in a symbolic system. It is not just in the play of the symbolic that the subject is constituted. It is constituted in real practices – historically analyzable practices. There is a technology of the constitution of the self which cuts across symbolic systems while using them (Foucault, 1997b: p. 227)

2. Resisting Hegelian assumptions of unity

Notwithstanding the changes he made as he sought to adopt a more realist position, Foucault consistently conceptualized the discursive as an ontologically autonomous domain which interacts with the practices of the non-discursive. In this sense, he stresses the materiality of the discursive systems, both in themselves, and in their relations to the non-discursive, and characterizes the theoretical choices and forms of exclusion that constitute them as suggested by 'the function that the discourse […] must carry out in a field of non-discursive practices' (1972: p. 68). A diagrammatic model of the relationship between discursive and extra-discursive is set out in Figure

1. The importance of the non-discursive is emphasized in the *Archaeology* to reaffirm Foucault's commitment to a more materialist analysis. In this, but more notably in his later studies, Foucault allows for the duality of articulation between discourse and material forms as well as distinguishing between both the *discursive* and *pre-* or *extra-discursive* levels of reality. Mark Gottdiener cites Deleuze (1986: p. 124) who makes a similar point when he notes that:

> Foucault's general principle is that every form is a compound of relations between forces. Given these forces, our first question is with what forces from outside they enter into a relation, and then what form is created as a result (Gottdiener, 1995: p. 70).

In *Discipline and Punish* (1977), for example, Foucault observes how punishment cannot be derived solely from the force of the discourse, for torture, machines and dungeons are material things, and have meaning because of the discourse of punishment. But we cannot derive the resultant forms solely from the discourse, or the law, although they are clearly related. Rather the social forms of discipline and punishment represent a synthetic and relatively autonomous compound of knowledge and technique and material objects. The developments of the prison, the clinic, the mental asylum are thus the outcomes of this multiple articulation. Foucault can be distinguished in this from other poststructuralist and postmodern writers, such as Baudrillard and Derrida, who as Gottdiener (1995, p. 73) says 'have ignored the interrogation of material forms' in the same way as western sociologies like Symbolic Interactionism have done.

Although it was not until *Discipline and Punish* and *The History of Sexuality Volume 1* that he would examine the empirical interactions between discursive and non-discursive, and incorporate the dimension of power as an explicit category, in *The Archaeology* he was interested in formulating the theoretical dimensions of the relations between the two domains, and also in the iterative conditions for the repeatability of the statement. In a way similar to Derrida, as he formulated the conditions for iterability in the text, discourse for Foucault is both located in, and yet exceeds its context, at least in relation to its unrepeatability. Yet, for Foucault, it is *history*, and not merely *text*, which constitute the conditions for non-repeatability. In historical terms this helps understand novelty and creativity, and assists also with a

theory of agency, for every practice in time is new and irreversible. The statement is, says Foucault, 'an unrepeatable event'. It has 'a situated and dated uniqueness' (1972: p. 101).

Figure 1: Non-Linear System of Open Articulation

Discursive

(Language, discourse, culture, practices, states of affairs)

Configurations depend on time and place (therefore, infinite possibilities of configurative form)

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Pre-discursive

Life/non-life necessities   Labour

(Non-Discursive materialities: facts, things, regularities, e.g., birth, death – finite regularities, technologies, etc.)

For Foucault, then, language, discourse, and thought, are theorized as belonging to an autonomous realm, theoretically, and conceptually separate from the being of the world, but in practical senses embedded in and interacting with the world. As he tells us in *The Order of Things*, 'it would be necessary to dismiss as fantasy any anthropology in which there was any question of the being of language, or any conception of language or signification which attempted to connect with, manifest, and free being proper to man' (Foucault, 1970: p. 339). Hence, for Foucault, the object of knowledge, or the other person, while independent of the knower, is known only in relation to historically constituted discourse. This is to say that discourse, for Foucault, does not directly represent nature. Foucault presents the history of knowledge as a quest for representation from the Classical age to Modernity. The quest of Modernity was the production of a subject that would think itself as the fount of reason, and think thought as directly reflecting nature. Modernity, for Foucault was representational only in the sense that it patterned itself as a copy of nature. It thus sought to deny the being of language, which operated through power, but represented it as an inert reflection, or translucent medium.

The concern to represent the world faithfully became central to the Modernist Enlightenment's modality of the claim to know. Signification became represented as a copy of the world, rather than acknowledging its positivity as an autonomous domain. This led to a different understanding of discursive construction. Foucault's concept of discourse pertained, as he put it, neither to words or things, but to the regularities internal to discourse.[4] Language is part of discourse, but not equivalent to it. A discourse represents a particular regularity of language, with its own truth conditions, schemas of perception, hierarchy of practices, modes of institutionalized inclusion and exclusion, criteria of acceptability for speaking, and so on. Discourse circulates with power and thus is *active*. That is, it maintains its own *positivity*. It produces, limits, excludes, frames, hides, scars, cuts, distorts. As Foucault maintains in his article, 'Language to Infinity' (1998a), between language and being there is an infinite chasm. Language is perpetually inadequate to its task of representation and being is forever inaccessible, infinitely receding. Words as Faubion (2004: p. ix) states are 'bad actors which botch their roles.' They express not a perfect or even adequate correspondence with being but rather they distort being in a way that reflects the contingent imperatives of time, place, and power. Discourses therefore manifest the relativity of every system – institutional or theoretical, of structures, theories, concepts, and even practices of the self. The conditions which enable discourses, and define the limits for thought, constitute the historical a priori of an era. While not usually completely impenetrable, Foucault explains in the 'Preface' to *The Order of Things*, the 'stark impossibility of thinking *that*', in reference to the way animals are classified in Borges' 'Chinese encyclopaedia'.[5]

One of the advantages of Foucault's drawing of Heidegger and Nietzsche is that the conception of discourse and its constitution resists transcendental imputations of unity. Yet, many have difficulty in accounting from exactly where discursive relations of unity or coherence are achieved or constituted. Charles Larmore makes this point against Heidegger, accusing him of letting certain familiar resonances of Hegel in through the back door:

> Behind Heidegger's notion that all our background beliefs hang together systematically according to principles understood […] in advance, stands the old Hegelian idea that history divides into epochs, each epoch putting into

practice a single basic conception of man and the world. The Hegelian influence becomes manifest in the later writings, where Heidegger speaks of *Seinsepochen*, delimitable historical periods guided by a single thought (Larmore, 1981: p. 117).

This sounds similar to the concept of *episteme*, used by Foucault in *The Order of Things*, or to those of *discursive formation*, *historical a priori*, and *archive*, utilized in *The Archaeology of Knowledge*. For Larmore, clearly, the idea of *Seinsepochen,* as used by Heidegger, introduces the structure of unity (a "single thought"), which in his view, derives from Hegel, or at least reinstates the Hegelian idea of unity as a metaphysical postulate derived from his teleology. Without getting into an argument as to the correct interpretation of Heidegger on the point, as Foucault is very careful to elaborate in *The Archaeology*, the unity introduced by such conceptions as 'discursive formation', 'archive', or 'a priori', resists any sort of transcendentalism which could constitute the statements of a discourse as having any "formal unity" separate from their historical occurrence and use (1972, p. 117):

> Discourse, in this sense is not an ideal, timeless form that also possesses a history; the problem is not therefore to ask oneself how and why it was able to emerge and become embodied at this point in time; it is, from beginning to end, historical – a fragment of history, a unity and discontinuity in history itself, posing the problem of its own limits, its divisions, its transformations, the specific modes of its temporality rather than its sudden irruption in the midst of the complicities of time' (p. 117).

Hence, structures like the a priori and the archive 'must take account of statements in their diversity' (p. 127). In speaking of the a priori, Foucault claims:

> [I]t does not constitute, above events, and in an unmoving heaven, an atemporal structure; it is defined as the group of rules that characterize a discursive practice: but these rules are not imposed from the outside on the elements that they relate together; they are caught up in the very things that they connect […]. The a priori of positivities is not only the system of a temporal dispersion; it is itself a transformable group. (p. 127)

As for the earlier concept of episteme, the concepts of discursive formation, archive, and a priori, are historically synthetic relations and frames which anchor and make possible more immediate discourse in terms of its functioning. They do not express any pre-ordained plan or programme. As purely contingent and empirical phenomena, the unity they forge is always *a posteriori* – and as such, always precarious, contested, forever being made, lost, fought over, and (possibly) re-won.

It is not necessary, then, to draw conclusions as to the unity of such beliefs within a culture or period or that they delimit in advance its possible forms of expression or articulation in the way Larmore claims with regard to Heidegger. A frame of reference can itself arise historically and permit a great deal of diversity within it. While the idea of unity as a transcendental category which holds out against history might have been central to Hegel, it was not for Nietzsche, Heidegger and Foucault.

3. Foucault's post-structuralism

Foucault's historical analysis of discourse gives a further insight into his method and his difference to writers like Habermas. In his lecture notes from the Collège de France, published as the four volume *Dits et écrits* (1994a), Foucault presents a variety of statements on method which denote a rejection of, or departure from, either the dialectical methodologies of the Marxists, or of the types of causal analysis of the Modernist Enlightenment thinkers. His approach bares striking affinities, in various senses, to contemporary complexity theory approaches based on notions such as irreversibility, self-organisation, and emergence[6]. It was connected to such initiatives that Foucault reveals the importance of analytic method and the philosophy of language in relation to the analysis of discourse. In one essay, *La Philosophie analytique de la politique* (1994b), initially delivered in 1978 in Japan, Foucault spells out the superiority of analytical methods as used in Anglo-American philosophy compared to dialectical methodology. The particular dimension of analytic methods that caught his attention was its concern not with the 'deep structures' of language, or the 'being' of language, but with the 'everyday use' made of language in different types of discourse.

By extension, Foucault argues that philosophy can similarly analyse what occurs in 'everyday relations of power', and in all those other relations that 'traverse the social

body'. Such an approach can therefore be utilised in relation to his approach to discourse. Just as language can be seen to underlie thought, so there is a similar grammar underlying social relations and relations of power. Hence, Foucault argues for what he calls an 'analytico-political philosophy'. Similarly, rather than seeing language as revealing some eternal buried truth which 'deceives or reveals', the metaphorical method for understanding that Foucault utilises is that of a game: 'Language, it is played'. It is, thus, a 'strategic' metaphor, as well as a linguistic metaphor, that Foucault utilises to develop a critical approach to society freed from the theory of Marxism: 'Relations of power, also, they are played; it is these games of power (*jeux de pouvoir*) that one must study in terms of tactics and strategy, in terms of order and of chance, in terms of stakes and objectives' (Foucault, 1994b: pp. 541-542).[7]

Foucault's dependence on structural linguistics is also central to understanding the nature of his analysis and method. Traditionally, the rationality of analytic reason, he says, has been concerned with causality in a model that implied determinism. In structural linguistics, however, the concern is not with causality, but in revealing multiple relations that Foucault calls in his 1969 article 'Linguistique et sciences sociales' 'logical relations' While it is possible to formalise one's treatment of the analysis of relations, it is, says Foucault, in a grappling toward the themes of complexity analysis, the discovery of the 'presence of a logic that is not the logic of causal determinism that is currently at the heart of philosophical and theoretical debates' (see Foucault, 1994c: p. 824).

Foucault's reliance on the model of structural linguistics provides him with a method which avoids both methodological individualism and being trapped by a concern with causalism. Structural linguistics is concerned with 'the systematic sets of relations among elements' (Davidson, 1997: p. 8), and it functions for Foucault as a model to enable him to study social reality as a logical structure, or set of logical relations revealing relations that are not transparent to consciousness. The methods of structural linguistics also enable Foucault to analyse change. For just as structural linguistics undertakes synchronic analysis seeking to trace the necessary conditions for an element within the structure of language to undergo change, a similar synchronic analysis applied to social life asks the question in order for a change to

occur what other changes must also take place in the overall texture of the social configuration (Foucault, 1994c: p. 827). Hence, Foucault seeks to identify logical relations where none had previously been thought to exist or where previously one had searched for causal relations. This form of analysis becomes for Foucault a method of analysing previously invisible determinations (see Davidson, 1997: pp. 1-20).

The methodological strategies common to both archaeology and genealogy were also developed in response to Marxism, which is characterised by a specific narrow conception of causality (*un causalisme primaire*) and a dialectical logic that has very little in common with the logical relations that Foucault is interested in. Thus he maintains: 'what one is trying to recover in Marx is something that is neither the determinist ascription of causality, nor the logic of a Hegelian type but a logical analysis of reality' (Foucault, 1994c: pp. 824-825). Such a difference with Marxism foreshadows Foucault's greater commitment to insights from complexity and non-linear dynamics. For whereas Marxism echoed Modernist conceptions of a closed universe and conceptions of determination as based on traditional linear models of cause and effect, Foucault sees his own approach as premised on an open system of articulation, characterized by variable, or complex, forms of determination. Hence although archaeology functions to 'reveal […] relations between discursive and non-discursive domains' (Foucault, 1972: p. 162), its mode of analysis is quite different to the way that Marxism or any other form of causal analysis would analyze such relations:

> A causal analysis […] would try to discover to what extent political changes, or economic processes, could determine the consciousness of scientists – the horizon and direction of their interest, their system of values, their way of perceiving things, the style of their rationality […]. Archaeology situates its analysis at another level…It wishes to show not how political practice has determined the meaning and form of medical discourse, but how and in what form it takes part in its conditions of emergence, insertion and functioning. (1972: p. 163)

For archaeology, in comparison to Marxism, then, the aim is not to 'isolate mechanisms of causality', but to establish 'how the rules of formation that govern it

may be linked to non-discursive systems; it seeks to define specific forms of articulation' (1972: p. 162). Arnold Davidson points out that it is through such methodological strategies that Foucault proceeds to advance a non-reductive, holistic, analysis of social life

> This kind of analysis is characterised, first, by anti-atomism, by the idea that we should not analyse single or individual elements in isolation but that one must look at the systematic relations among elements; second, it is characterised by the idea that the relations between elements are coherent and transformable, that is, that the elements form a structure. (Davidson, 1997: p. 11)

Thus Foucault seeks to describe the relations among elements as structures which change as the component elements change, i.e., he endeavours to establish the systematic sets of relations and transformations that enable different forms of knowledge to emerge.

There is a similarity in terms of approach, here, to that of Ludwig Wittgenstein in that the central focus is on language. While Foucault focuses on serious formal statements in order to accurately chart the historically constituted discursive frame, Wittgenstein, at least in his later work, concentrated on ordinary language and common sense as a form of life[8]. As for Wittgenstein, Foucault does not see language as an expression of inner states, but as an historically constituted system, which is social in its origins as well as in its uses. In abandoning the phenomenological subject, the dualism of mind and world is surpassed, as well as the intractable difficulties as positing the world as a product of mind. The rules of language were themselves seen as a bundle of interactional and public norms. Meaning is generated within the context of the frame of reference (for Wittgenstein, a game; for Foucault a discourse). Hence to understand a particular individual we must understand the patterns of their socialisation, the nature of their concepts, as well as the operative norms and conventions that constitute the context for the activity and the origin of the concepts utilised. If mind operates, not as a self-enclosed entity, as Descartes held, attaching words to thoughts, as if they were markers, but rather operated in terms of publicly structured rule-systems, then meanings are in an important sense public.[9]

It is related to the discursive nature of meaning and the publicity of language that practices can be seen to be intelligible only in relation to existence as communal. Existence is communal in the sense that meanings are public. A communal context defines a group of beings collectively adapting public resources for their use. Yet, the implications of this are far reaching. If meanings are linguistic, and language is public, and being public relates to individuals together, i.e., in communities, then as Hacking (2002: p. 131) says, 'we are not talking only about language, but about high politics, about the person and the state, about individual rights, about the self, and much else'. The thesis here is that the social nature of practices defines a community context in one very important sense, a sense which is fundamentally inescapable. Such a theoretical revolution, which has largely developed in the twentieth century, has rendered the liberal conception of the autonomous self-interested individual as obsolete. Todd May, in his discussion of the work of Jean-Luc Nancy, expresses the sense in which a conception of the social nature of practices presupposes a conception of community:

> An instance of a single-practice community would be people working in a particular political campaign. They are engaged in a common task, recognize their compatriots as being so engaged, and are bound by this engagement, this recognition, and the norms of their practice. Everyday talk reflects the use of term 'community' in this way: we speak of political, religious, and even economic communities in referring to communities comprising specific practices (May, 1997: p. 57).

In most cases, however, May explains that it is multiple, or what he calls 'overlapping practices' that constitute a community. The central claim is that 'a community is defined by the practices that constitute it'. This defines, he says, what it means to be in community. Practice he defines as 'a regularity or regularities of behaviour, usually goal directed, that are socially and normatively governed' (p. 52). While, in this sense, practices are 'rule governed', such rules need not be formal, or even explicit. A second feature of practices is that their normative governance is social, which is to reject the idea of a private language. This is to say that not only is the *governance* of practices social, but the *practices* are also social. Even solitary practices, like diary writing are social in this sense. In this way, says May (p. 53), 'the concept of practice

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lies at the intersection of individuality and community'. Thirdly, he says, 'practice […] involves a regularity in behaviour. In order to be a practice, the various people engaged in it must be said to be "doing the same thing" under some reasonable description of their behaviour' (p. 54). As a consequence of these three definitions, says May, practices must be seen as discursive, meaning that they involve the use of language. This entails:

> some sort of communication between participants in order that they may either learn or coordinate the activities that the practice involves […]. Moreover, this communication must be potentially accessible to nonparticipants, since without such accessibility the practice would cease to exist when its current participants dropped out. The communication required by a practice, then, must be linguistic. The idea of linguistic communication can be broadly constructed here, needing only a set of public signs with assignable meanings. (May, 1997: p. 55)

Such a theory of practice, says May (p. 55) 'is akin to Wittgenstein's idea that language games are central components of forms of life'. The central theoretical point concerning practices is that they embody actions organized according to rules which are both linguistic and cultural. As Theodore R. Schatzki (2001a: p. 48) points out, 'practices are organized nexuses of activity', and constitute 'a set of actions […] constituted by doings and sayings'. In this sense, he says, (p. 45) 'the social order is instituted within practices'. Schatzki defines the social order as 'arrangements of people, and the organisms, artefacts, and things through which they coexist' (p. 43). They coexist within what Schatzki (2001b: p. 2) calls 'a field of practices' which constitutes 'the total nexus of interconnected human practices'. Such practices are 'embodied, materially mediated arrays of human activity centrally organized around shared practical understanding'. Referring to Foucault, Schatzki (p. 2) notes how 'bodies and activities are "constituted' within practices"'. It can be said, further, echoing Foucault in *The Archaeology of Knowledge*, that the practices that make up the social order comprise both 'discursive' and 'extra-discursive' elements. In this way, the idea of practices highlights 'how bundled activities interweave with ordered constellations of nonhuman entities' (p. 3). In this sense, says Schatzki, 'practice approaches promulgate a distinct social ontology: the social is a field of embodied,

materially interwoven practices centrally organized around shared practical understandings' (p. 3).

A similar thesis is made at the level of language by J.L. Austin (1962) and John Searle (1969, 1995), who note the 'performative' dimensions of language use within a community. As performative, language is also constitutive and derives its meaning in relation to a 'form of life'. It is in this sense that possible language usage is never constrained by the actual system of rules that operate. Such a model allows for the possibility of contingency and novelty. Building on Wittgenstein in the *Philosophical Investigations*, it can be argued that language does not have a 'fixed and unequivocal use' (1953: p. 37) at all times and places. Names, thus, do not have fixed meanings but depend on their *use*. This recalls the principle of contingency where things are not determined by prior causes, in the natures of things, but depend on context, and are historical, and hence, in Luhmann's terms, *could have been otherwise*. As Wittgenstein (1953) says:

> the application of a word is not everywhere bounded by rules […]. What does a game look like that is everywhere bounded by rules? Whose rules never let a doubt creep in, but stop up all the cracks where it might? (s. 4; p. 39)

Austin's speech act theory both drew on and further developed a broad system of philosophical pragmatism building on a tradition including William James, Charles Horton Cooley, John Dewey, George Herbert Mead, Charles Sanders Pierce, and Alfred Schutz, all who introduced in different but related ways notions of the relative autonomy of language and the interactional character of self and society.[10]

In this context, it is worth noting the parallel between Foucault's systemic conception of change in discursive and non-discursive assemblages, linked closely to a system of open possibilities or variations, and what is now known as complexity theory. Although having roots in ancient Chinese and Greek thought, such theories are not only compatible with materialism, but are systemic, or holistic, in that they account for diversity and unity in the context of a systemic field of complex interactional changes. Chaos theory is one version of complexity. Partly with origins in computing technology, and partly in the development of new non-Euclidean structures of fractal geometrical mathematics, chaos theory became concerned to explain 'the qualitative

study of unstable aperiodic behaviour in deterministic non-linear dynamical systems' (Sardar and Abrams, 1999: p. 9). It is complexity theory more broadly, however, that has drawn off post-structural methods, and establishes them as a form of critical realism.[11]

In the recent history of science, the work of Ilya Prigogine (1980, 1984, 1989, 1994, 1997, 2003) has advanced the field of post-Quantum complexity analysis at the macroscopic and microscopic levels, based in non-equilibrium physics, linked to the significant work of the Solvay Institutes for Physics and Chemistry. Like Nietzsche and others before him, he translated the effects of a theory of becoming, based on an Heraclitean idea of ceaseless change, providing a post-Quantum understanding of the universe in terms of dimensions of chance, bifurcation, self-organisation, unpredictability, uncertainty, chaos, non-equilibrium systems, and change. Prigogine's central contribution was to non-equilibrium statistical mechanics and thermodynamics and the probabilistic analysis of complex systems (2003: pp. 45, 82). His main ideas (expressed non-mathematically) were that 'nature leads to unexpected complexity' (2003: p. 8); that 'self-organization appears in nature far from equilibrium' (p. vii); that 'the universe is evolving'; that the messages of Parmenides (that nothing changes) must be replaced by those of Heraclitus (that everything always changes) (pp. 9, 56); that 'time is our existential dimension' (p. 9); that 'time is an invention' (p. 10); that 'the direction of time is the most fundamental property of the universe' (p. 64); that nothing is predetermined (p. 9); that non-equilibrium, time-irreversibility, and non-integration, are features of all systems, including evolution, which is to say that our universe is full of nonlinear, irreversible processes (p. 59); that life creates evolution (p. 61, 65), and that everything is historical (p. 64).[12] Writing at the same time as Foucault, but seemingly unaware of each others work,[13] he was concerned to analyse *irreversible processes* that generate successively higher levels of organisational complexity, where the complex phenomena are not reducible to the initial states from which they emerged. His work was especially important for understanding changes within open systems,[14] for theorizing time as a real dimension,[15] and for theorizing interconnectedness as a 'characteristic feature of nature' (2003: p. 54)[16]. Of especial relevance his work theorises the possibilities of chance as the outcome of system contingencies.[17]

In his book *Complexity and Postmodernism*, Paul Cilliers defines complexity in the following way:

> In a complex system [...] the interaction constituents of the system, and the interaction between the system and its environment, are of such a nature that the system as a whole cannot be fully understood simply by analysing its components. Moreover, these relationships are not fixed, but shift and change, often as a result of self-organisation. This can result in novel features, usually referred to in terms of emergent properties. The brain, natural language and social systems are complex (1998: p. viii).

Cilliers presents a useful contemporary summary and update of complexity research as it has emerged from the early works of Gregory Bateson, Heinz von Foerster, the Macy Conferences, as well as writings of Paul Watzlawick in the 1960s, and Niklas Luhmann in the 1970s and 1980s. The usefulness of Cilliers's approach is that he present a distinctly poststructuralist conception of complexity. Poststructuralism, according to Cilliers, has introduced a new conception of complexity based on 'distributed' or 'relational' representation, following Saussure.[18] Such a system is complex in relation to the fact that it has a large number of elements which interact dynamically in a non-linear and asymmetrical manner. Interactions take place in open systems through 'self-organisation' by adapting dynamically to changes in both the environment and the system. Self-organisation is an *emergent* property of the system as a whole. An emergent property is a property that is constituted due to the combination of elements in the system as a whole. As such it is a property possessed by the system but not by its components.[19] Cilliers (1998: p. 90) defines 'self-organisation' as "the capacity of complex systems which enables them to develop or change internal structure spontaneously and adaptively in order to cope with or manipulate the environment". Such systems are not in equilibrium because constantly changing as a consequence of interaction between system and environment, and as well as being influenced by external factors are influenced by the history of the system (1998: p. 66). Cilliers identifies social systems, the economy, the human brain, and language as complex systems.[20]

Hence one could characterise Foucault's conception of societies as 'non-equilibrium systems', where no general laws can predict the detailed behaviour of such systems.

As much that develops does so as a consequence of emergence, life is created as a consequence of the collective interactions of parts. This entails not only the limitless possibility of combinations that can occur in open environments, but also that as the collectivity possesses properties and energies not possessed by the parts, but through which change can take place, new forms and patterns can develop. Relatively small changes in initial conditions can trigger major changes throughout the system, in part or whole. The view of history as pluralist and not accounted for within a context of causal, 'iron-law' determinism was thus important in Foucault's debt to Nietzsche, and also contributes background to understanding the affinities with complexity theory. Whereas Marxists like Althusser adopted a totalistic programme of seeking to explain the whole by understanding the interrelations between its component parts, for Foucault the totality always eluded analysis or understanding in terms of structure, but rather was characterised by *incompleteness, indeterminacy, complexity* and *chance*. This was the core of his pluralism. As Foucault says:

> [T]hough it is true that these discontinuous discursive series each have within certain limits, their regularity, it is undoubtedly no longer possible to establish links of mechanical causality, or of ideal necessity between the elements which constitute them. We must accept the introduction of *aléa* (chance) as a category in the production of events (Foucault, 1981: p. 69).[21]

In seeking to characterise the nature of his 'pluralism' and how it effects the analysis of discourse as operating through complex laws, Foucault (1978: p. 11) explains how he 'substitutes the analysis of different types of transformation for the abstract, general, and monotonous form of "change" in which one so willingly thinks in terms of succession'. In this, he seeks to define with the greatest care the transformations which have constituted the change, replacing the general theme of *becoming* by the analysis of the transformations in their specificity, an examination of 'the diversity of *systems* and the play of discontinuities into the history of *discourse*' (1978: p. 15).

In this conception, there are many similarities between Foucault and systems theorists such as Niklas Luhmann. Although Foucault does not use the language of systems theory, like Luhmann he is committed to a conception of open systems where the parts comprise contingent assemblages of dynamic and contingent

relations. Like Luhmann, too, the rejection of foundationalism results in a conception which is 'observer-dependent' and 'self-referential', where elements and relations are mutually conditioned, where linear models of causality give way to dynamical models, and where complexity, contingency, risk, and multiple constitution, are central features of open environments (Grant, 2007: pp. 109-110). The importance of contingency is central to both theorists work, whether as non-repeatability, unpredictability, irreversibility, uncertainty, or relations of contingent dependence. For both too, as for Bergson, time is represented as a real dimension. 'Duration is irreversible […]. Each of its moments is something new added to what was before […]. It is no longer *thought*, it is something *lived*' (Bergson, 1998: pp. 6, 10); 'Life […] progresses and endures in time' (p. 51).

4. Foucault contra Habermas: overcoming relativism by adding the concept of life

In asserting the inseparability of power from knowledge or discourse, we must be sure to understand wherein the central differences between Foucault and Habermas reside. What power/knowledge signals, indeed, is that between these two thinkers is a difference in fundamental philosophical epistemology. Habermas, in seeing communicative action as based on the 'force of the better argument', 'commits himself to a view which sees reason and knowledge as potentially separable from power and history, and is thus, like Kant, an inheritor of the Cartesian tradition which sees the theoretical possibility of excluding distorting aspects, or the insidious affects of *Evil Genius*, from the process of knowledge acquisition. For Habermas, then, truth, or reason, serves as a ground or foundation which underpins communication, and which accounts for the coherence or unity of discourse. The model is thoroughly modern. Knowledge in this model is simply the product of 'clear and distinct' ideas where all distorting or ideological features are conveniently held at bay. Hence, the knowledge process for Habermas rests on the possibility of achieving truth derived through argumentation or communication, where all distorting effects can be conveniently bracketed or excluded from the process. This also reveals a commitment to certain Hegelian views concerning the possibility of progression in history culminating in the realisation of greater objectivity in knowledge as we go toward the Absolute, or in the Habermasian sense, of emancipation.

For Foucault, however, the interlinking of power/knowledge means that there is no assuredness that communication is not itself ideological, and that the so-called 'force of the better argument' does not win out based on epistemological criteria, but is rather justifiable only in relation to power. Not only does power trap truth, as in modernist formulations, through such practices as agenda setting, controlling processes of inclusion/exclusion, intimidation or bullying, or such similar practices, but even more, in one important additional sense, for Foucault, truth and ideology, communication and distortion, can co-exist, and circulate together. The truth can assume certain masks which are themselves ideological. Even worse, more often than not, the so-called truth fails to recognise itself as such, or be able to distinguish itself from ideology. If this is so, then it is impossible to know whether purely communicative action, which fulfils the conditions of the ideal speech situation, has truth as its outcome, or simply conforms to the 'fashion' of the day, the outcome that is 'preferred' by the most powerful interests, or the 'most respectable' view. Habermasians have to make believe in the very claim to distinguish the strategic from the communicative.[22]

In Foucault's view, in that it is possible to have the truth, it will be invariably be seen through various distorting lens. For in Foucault's view, Descartes' *Evil Genius* is not evacuated by the simple cognisance of what appear like 'clear and distinct ideas'. Truth and ideology circulate together, as Derrida has famously noted (2001: pp. 36-76). Moreover, truth sometimes appears *within* ideology. When this happens, it may be possible to work out the grain of some important truth within the mystifying shell of its ideological representation, but the evidence will be more in the way of 'judgement', than through experimental, or direct empirical test.[23] While life's immanent quest for survival and continuance to the future permit certain objective and cross-cultural assessments, the context-relatedness of discourse, and its irreducible contingency mean that the tasks of evaluation and privileging must be through 'weighing' or 'judging' in both an individual and collective sense.

How, then, is objectivity, or reason, possible? How can a pernicious relativism be avoided? It is only through the multiple voices of competing perspectives in relation to real life forces that objectivity is achieved and a pernicious relativism avoided. The extent and manner of such objectivity will be different in relations to different

domains, and different types of claims. In suggesting such an answer we must go beyond Foucault, of course, for he studiously avoided such questions concerning what should we do. As is well known, in his own work he actively dissented from undertaking normative types of enquiry, preferring to confine himself to genealogies of power investigating historical forms of rationality around sexuality, discipline, governmentality and morality. As he told Foulek Ringelheim in December of 1983: 'I have always insisted on not playing the role of the prophet intellectual who tells people in advance what they must do' (Foucault, 1989a: p. 282).

My own answer to the problem of normativity in Foucault seeks a basis for politics and communication by appeal to a philosophy of life. This is one of my concerns in *Toward A Global Thin Community: Nietzsche, Foucault, and the Cosmopolitan Commitment* (Olssen, 2009: Ch. 6) where I maintain that the problems associated with contextualism, such as relativism and solipsism, are overcome once one considers the immanent forces of life which work in and through discourse.[24] The concept of life, about which Foucault wrote on several occasions, generates immanent forces to survive and continue, and achieve well-being and introduces a normative force which can salvage a certain conception of objectivity and the good, and can thus function as a constructed and variable ground for a politics of hope and a politics of the future. It is life which 'endures in time', as Bergson (1998: p. 51) stated, and which modulates itself contingently in different times and places through a multiplicity of perspectives. Such forces, which vary in different combinations and contexts, express themselves, according to Grant (2008) in varying ways in semantic, semiotic, syntactical, and pragmatic terms[25].

The concept of life thus potentially helps resolve the impasse associated with normativity in Foucault. As is well known, in his own work he actively dissented from undertaking normative types of enquiry, preferring to confine himself to genealogies of power investigating historical forms of rationality around sexuality, discipline, governmentality and morality. This all makes it difficult for Foucault to make normative claims of the sort that Habermas does about truth, reason and the future. The Habermasian critic can quite rightly ask how Foucault can justify one set of choices or criteria, or practices of self, over others. If not through the 'force of the better argument', then what? It is on such a ground that many, including Habermas

(1987) himself, have criticised his epistemology, as a form of 'cryptonormativism', and claimed to see implicit normative assumptions subtending his approach. And, indeed, in relation to certain of his studies, this could be claimed to be the case. Although Foucault rejected the role of 'advice giver' and showed no interest in serious normative enquiry himself, there are evident normative assumptions that do operate within his work, and manifest themselves quite readily if one looks for them. Certainly, Foucault left these 'buried', as if the reader may not notice, but certain assumptions operate nevertheless. In his 'uncommon view of Michel Foucault', James Johnson (1999) notes how egalitarian assumptions about power reveal themselves through his major work *Discipline and Punish*. Foucault implicitly assumes throughout *Discipline and Punish*, for instance, that an absence of reciprocity and symmetry of power relations is what characterizes oppressive structures, or 'states of domination'. He talks about power relations that are 'asymmetrical' and 'non-reciprocal', and 'incapable of reversibility', in many of his works. He also speaks of 'states of domination', which might seem to imply that some state of liberation just might be possible.

The existence of latent normative assumptions in Foucault's work should not surprise us, as it is indeed epistemologically and ethically difficult to undertake critical historical enquiries, of the sort Foucault does, and not to presuppose, if even only as an absent presence, some sort of normative vision. In his political activism Foucault revealed his political and ethical commitments as recounted in nearly every interview he did. In a sense, it is because power factors are always co-present in knowledge processes that an equality of power could be seen as the best strategy normatively by implication, to ensure the 'best' outcome. Hence, the view that Foucault is committed to a rough equality of agonistic social and political relations clearly seems warranted by his thesis of the irremovability of power from epistemological processes. So, while Foucault may well support the communicative speech situation, he does not see the force of the better argument as the inevitable outcome, or that the advantages are in relation to truth. It may lead to a possible rapprochement over Habermas's concept of *Diskurs,* if interpreted pragmatically, i.e., not as a form of intersubjective communication subtended by norms of truth, but where consent is produced from differences and conflict through a mutual exchange of different viewpoints. Such an exchange, in that it facilitates the ongoing continuance and

survival of the project that is life, and hence is related to a conception of the good for mankind, could indeed be termed rational in that particular sense. For Foucault, the idea of consensus, although not a 'regulative principle', was a 'critical idea to maintain at all times' (Foucault, 1984: p. 379). For policymakers, in Foucault's view, the degree of 'nonconsensuality' is related to the broader issue of the distribution of power in terms of its symmetry and reciprocity.

Given this situation, the question that must be asked is whether there is any way out for Foucault? To postulate further is inevitably to go even further beyond Foucault, although I would claim that the seeds of his own alternative approach to Habermas are already latent within his general approach. For Foucault it would be necessary to ask, what the better argument was better *for*. The idea that there exists some 'pure rationality' independent of particular ends or goals, *pace* Habermas, is for Foucault akin to the positivist dream of a pure observation language. Reasons always have to be relative to an *end* or *goal* which must be specified. It can never be assumed in advance to define the process or outcome of a dialogic encounter, however. The 'best' outcome is perhaps one that 'suits' all parties, and gives them a stake in the future, enables them *to continue life*. Certainly this answer would be consistent with Nietzsche's emphasis on *life*. The outcome is not assured with relation to truth, but 'suitable' within the current configuration of life and discourse, in relation to life or survival.

Central to such a conception of the normative is, consistent with Foucault's analysis, an analysis that enquires into the minimal conditions for mutual co-existence, survival and well-being as a future strategy given the conditions of the present. It will involve an analysis that does not seek, as previous approaches have sought to do, timeless values or rules which constitute the truth of the human being. It does not assume an ideal communicative context either. Rather, starting from the present, it asks instead, given the impossibility of knowing any truth in any ultimate sense, or working out which the better argument is, how can human continuance be constructed in our present horizon under conditions that are fair to all. Consistent with Nietzsche, Heidegger, and Foucault, such a commitment *to continue*, *to survive*, *to achieve well-being*, would be seen not as grounded in nature [*conatus*], but represented simply as

a decision based upon a *will*. In this situation, the 'better argument' is simply that that best assures our future under the horizon of the present.

Endnotes

[2] The concept of 'episteme' which Foucault used in *The Order of Things*, was not used in his later studies, and it is noteworthy that it is not mentioned in *The Archaeology of Knowledge*. For Foucault, the episteme referred to deeper structures of thought that gave unity to the various discursive systems of a particular era. In his review of *The Archaeology*, Dominique Lecourt (1970) sees abandonment of the use of the concept as a positive step forward, consistent with Foucault's concern to become more materialist, for concepts such as 'historical a priori', 'discursive practice' and 'archive', which Foucault began to use instead, have a more direct empirical reference to the historicity and materiality of the discursive order, in that they imply links with institutions, as well as economic and political processes. However, the new concepts, like that of episteme, effectively performed a crucial similar function for Foucault in that they similarly resisted transcendental imputation.

[3] To consider how Foucault theorizes the agency of the subject would require a consideration of his writings on life, which is both parasitic on, and productive of discourse. See Olssen, 2009, especially Chapter 5.

[4] See Foucault (1989a: p. 52).

[5] The classification reads: '(a) belonging to the Emperor; (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) *et cetera*, (m) having just broken the water pitcher, (n) that from a long way off look like flies' (1970: xv). Foucault says, '[t]he fundamental codes of a culture – those governing its language, its schemas of perception, its exchanges, its techniques, its values, the hierarchy of its practices – establish for every man, from the very first, the empirical orders with which he will be dealing and within which he will be at home' (1970: p. xx).

[6] Complexity theory will be elaborated further below.

[7] Foucault was, of course, indebted to Wittgenstein, especially for his use of the concept of 'game'.

[8] I have in mind the *Philosophical Investigations*, and not the *Tractatus*, or the *Philosophical Grammar*.

[9] Although meaning systems are public, the agent can be seen as active and volitional in relation to the fact that life is independent of the discursive, and appropriates, utilizes, and manipulates existing discursive options specific to the concerns and purposes of life in particular times and places. Unlike the systems theorists, for Foucault the structures of life, labour and language operate in history as coterminous with the environment.

[10] The possible list could be extended, and could include systems theorists like Luhmann, as well as writers like Garfinkel (1989), Bakhtin (1998), Putnam (1997), and many more – as reported by Grant, 2007.

[11] Chaos theory and complexity theories are distinct although chaos theory can be seen as one type of complexity theory, which emphasizes the importance of sensitivity to initial conditions. This is not so important with complex systems in general, which stresses the interaction of a large number of components (see Cilliers, 1998: ix).

[12] Prigogine mostly applies these ideas to physical systems, but does sometimes demonstrate their applicability to the social and human world. Discussing his theories of time and irreversibility, he notes how all events (e.g., 'a marriage is an irreversible event' (2003: p. 67). The consequence of irreversibility is that 'it leads to probabilistic descriptions, which cannot be reduced to individual trajectories or wave functions corresponding to Newtonian or Quantum mechanics' (p. 75).

[13] Prigogine's publications date from 1964 until shortly before his death in 2003.

[14] This involves a different description at the level of physics of elementary processes and a reversal of classical physics which saw systems as integrable, leading to determinism, and premised on time reversibility and equilibrium (as from Newton to Poincaré). Prigogine's approach replaces classical and Quantum mechanics in a concern for thermodynamics and probability and emphasizes variables such as noise, stochasticity, irreversibility. Such an approach suggests distinct limits to reductionism. It amounts to a different conception of reality, giving a different account of the emergence of events.

[15] In this, he differs from Einstein who saw time as an illusion, as well as from classical mechanics. He acknowledges debts to Bergson (Prigogine, 2003: pp. 19-20); to Heidegger (Prigogine, 2003: p. 9), and to Heraclitus (Prigogine, 2003: p. 9, 10). Time is seen as a real dimension which endures, and the universe is evolving. Foucault's Nietzschean view of history is highly compatible with this.

[16] Interconnectedness means that 'individualities emerge from the global', and counters the idea that 'evolution is independent of environment' (2003: p. 54).

[17] Pomian (1990) discusses issues such as determinism and chance in relation to Prigogine's work. Also see Prigogine (1997).

[18] Meaning is conferred not by one to one correspondence with the world but by relationships between structural components of the system. See Cilliers, 1998: p. 81. His analysis of post-structural complexity is based on Saussure's well-known analysis in the *Course in General Linguistics* (1974). Having said this, it is interesting that Cilliers translates post-structural philosophy into western analytic schemas rather than elaborate his thesis in relation to difference theory as elaborated by Foucault or Deleuze. I have done the same here simply to convey something of the tenor of the post-structural innovation.

[19] Other forms of emergentist materialism in western thought, see Bunge (1977), Haken (1977, 1990), Rapp et al. (1986) or Skarda and Freeman (1990). Although such theories are broadly analogous to Foucault's materialism, the emphasis in post-structuralism on the open and incomplete character of the totality presents new insights into issues like determination and chance. Again, see Cilliers (1998).

[20] For another view of complexity theory, see Kauffman (1991, 1993, and 1995). Kauffman suggests that while events can be seen as having antecedent conditions which explain them, in open environments the possible combinations are unpredictable. Other characteristics of complex systems are that they do not operate near equilibrium; the relationships between components are non-linear

and dynamic; elements do not have fixed positions; the relationships between elements are not stable; and there are always more possibilities than can be actualized.

[21] In his review of two of Deleuze's books, Foucault (1998c: 366) reinforces the importance of chance: 'The present as the recurrence of difference, as repetition giving voice to difference, affirms at once the totality of chance. The univocity of being in Duns Scotus led to the immobility of an abstraction, in Spinoza it led to the necessity and eternity of substance; but here it leads to the single throw of chance in the fissure of the present. If being always declares itself in the same way, it is not because being is one but because the totality of chance is affirmed in the single dice throw of the present.'

[22] This can be applied to the traditional context of policy-making, of course. For example, how is it possible when seeking, for instance, to try to decide the case for humanitarian intervention in, say, Kosovo, for the Habermasian to differentiate communicative from political criteria over such issues as who shall be included and excluded from the negotiating process, or, what matters should be eligible for inclusion on the agenda for determination, and which will not, and so on?

[23] As in the model of a 'fable', when it is said, for instance, that there is a 'grain' of truth in it.

[24] The concept of 'Labor, Life and Language' famously denotes Foucault's tripartite ontology (See Foucault, 1970: ch. 8). For specific writings on the concept of life, see Foucault, 1980, 1998b.

[25] As Grant (2008) argues, there is no irreducible semantic core which operates consistently in all times and places, as for instance in the model advanced by Cappelen and Lapore (2007). However, common material necessities will undoubtedly be recognizable beyond the culturally specific forms of their articulation.

Bibliography

Austin, J. L., *How to do things with words*, Oxford: Clarendon Press, 1962.

Ayers, S., 'The application of chaos theory to psychology' in: *Theory and Psychology*, 7 (3): pp. 373-398, 1997.

Bakhtin, M.M., *The Dialogic Imagination: Four Essays,* Holquist, M. (ed.), Emerson, C. and Holquist, M. (trs), Austin, TX: University of Texas Press, 1998.

Barrett, M., *The Politics of Truth,* Cambridge: Polity Press, 1988.

Bergson, H., *Creative Evolution*, Mitchell, A. (tr.), New York: Dover Publications, 1998 [1911].

Bunge, M., 'Emergence and the mind: commentary' in: *Neuroscience*, 2: pp. 501-509, 1977.

Cilliers, P., *Complexity and Postmodernism: Understanding Complex Systems*, London: Routledge, 1998.

Davidson, A., 'Archaeology, genealogy, ethics' in: Couzens Hoy, D. (ed.), *Foucault: A Critical Reader*, Oxford: Blackwell: pp. 221-234, 1986.

Davidson, A., *Foucault and His Interlocutors*, Chicago & London: University of Chicago Press, 1997.

Deleuze, G., *Foucault*, Minneapolis, MN: University of Minnesota Press, 1986.

Derrida, J., 'Cogito and the History of Madness' in: Derrida, J., *Writing and Difference*, London: Routledge, 2001.

Dreyfus, H.L. and Rabinow, P., *Michel Foucault: Beyond Structuralism and Hermeneutics* (2nd edition, with an afterword and interview with Michel Foucault), Chicago: Chicago University Press, 1983.

Faubion, J.D., 'Introduction' in: Foucault, M., *Death and the Labyrinth:The World of Raymond Roussel*, London: Continuum: pp. vii – xxii, 2004.

Foucault, M., *The Order of Things*, New York: Random House, 1970.

Foucault, M., *The Archaeology of Knowledge*, Sheridan, A. (tr.), London: Tavistock, 1972.

Foucault, M., *Discipline and Punish: the Birth of the Prison*, Sheridan, A. (tr.), New York: Pantheon, 1977.

Foucault, M., 'Politics and the study of discourse' Gordon, C. (tr.) in: *Ideology and Consciousness* 3 (Spring): pp. 7-26, 1978.

Foucault, M., 'George Canguilhem: Philosopher of Error', Burchell, G. (tr.), in: *Ideology and Consciousness* 7 (Autumn): pp. 51–52, 1980.

Foucault, M., 'The order of discourse', McLeod, I. (tr.) in: Young, R. (ed.), *Untying the Text*, London: Routledge & Kegan Paul, 1981.

Foucault, M., 'Politics and ethics: an interview with Michel Foucault' in: Rabinow, P. (ed.), *The Foucault Reader*, New York: Pantheon, 1984.

Foucault, M., 'What calls for punishment' in: Lotringer, S. (ed.), *Foucault Live: Interviews, 1966–1984*, New York: Semiotext(e): pp. 275-292, 1989a.

Foucault, M., 'The concern for truth' in: Lotringer, S. (ed.), *Foucault Live: Interviews, 1966-1984*, New York: Semiotext(e): pp. 293-208, 1989b.

Foucault, M., 'The ethic of care for the self as a practice of freedom: an interview' in: Bernauer, J. and Rasmussen, D. (eds), Gauthier, J.D. (tr.), *The Final Foucault*, Cambridge, MA: MIT Press, 1991.

Foucault, M., *Dits et écrits: 1954-1988,* Defert, D. & Ewald, F. (eds) with Lagrange, J., 4 Vols., Paris: Éditions Gallimard, 1994a.

Foucault, M., 'La philosophie analytique de la politique' in: Defert, D. & Ewald, F. (eds) with Lagrange, J., *Dits et écrits, 1954-1988*, Paris: Éditions Gallimard, 4 Vols (Vol. 3, No. 232: pp. 534-551, 1994b.

Foucault, M., 'Linguistique et sciences sociales' in: Defert, D. & Ewald, F. (eds) with J. Lagrange, *Dits et écrits: 1954-1988*, Paris: Éditions Gallimard, 4 Vols, Vol. 1, No. 70: pp. 821-842: 1994c.

Foucault, M., *The Politics of Truth*, Lotringer, S. and Hochroth, L. (eds), New York: Semiotext(e), 1997a.

Foucault, M., 'On the genealogy of ethics: An overview of work in progress' in: Foucault, M., *Ethics, Subjectivity and Truth: The Essential Works*, Rabinow, P. (ed.), Hurley, R. (tr.), Allen Lane, London: Penguin Press: pp. 253-280, 1997b.

Foucault, M., 'Language to Infinity' in: Faubion, J.D. (ed.), *Michel Foucault: Aesthetics, Method, and Epistemology* (The Essential Works, volume 2, 1954-1984), Allen Lane: The Penguin Press: pp. 89-102, 1998a.

Foucault, M., 'Life, Experience, Science' in: Faubion, J.D. (ed.), *Michel Foucault: Aesthetics, Method, and Epistemology* (The Essential Works, volume 2, 1954-1984), Allen Lane: The Penguin Press: pp.465-478, 1998b.

Foucault, M., 'Theatrum Philosophicum' in: Faubion, J.D. (ed.), *Michel Foucault: Aesthetics, Method, and Epistemology* (The Essential Works, volume 2, 1954-1984), Allen Lane: The Penguin Press: pp.343-368, 1998c.

Garfinkel, H., *Studies in Ethnomethodogy*, Cambridge: Polity Press, 1989.

Gleick, J., *Chaos: Making a new science*, London: Abacus, 1987.

Gottdiener, M., *Postmodern Semiotics: material culture and forms of postmodern life*, Oxford: Basil Blackwell, 1995.

Grant, C.B., *Uncertain Communication*, Basingstoke: Palgrave/Macmillan, 2007.

Grant, C.B *Post-transcendental Communication. Contexts of Human Autonomy*, Oxford: Peter Lang, 2008.

Habermas, J., *The Philosophical Discourses of Modernity*, Lawrence, F. (tr.), Cambridge, MA: The MIT Press, 1987.

Haken, H., *Synergetics – An introduction. Springer Series of Synergetics 1*, Berlin: Springer, 1977.

Haken, H., 'Synergetics as a tool for the conceptualization and mathematization of cognition and behaviour – How far can we go?' in: Haken, H. & Stadler, M. (eds), *Synergetics of Cognition*, Berlin: Springer: pp. 2-31, 1990.

Hacking, I., *Historical Ontology*, Cambridge, MA: Harvard University Press, 2002.

Heims, S.J., *The Cybernetics Group*, Cambridge: MIT Press, 1991.

Holden, A., 'Chaos is no longer a dirty word' in: *New Scientist*: pp. 12-15, 25 April, 1985.

Johnson, J., 'Communication, criticism and the postmodern consensus: an unfashionable interpretation of Michel Foucault' in: *Political Theory*, 25 (4): pp. 559-583, 1999.

Kauffman, S.A., 'Antichaos and adaptation' in: *Scientific American*, August: pp. 64-70, 1991.

Kauffman, S.A., *The Origins of Order: Self-Organisation and Selection in Evolution*, New York: Oxford University Press, 1993.

Kauffman, S.A., *At Home in the Universe: The Search for Laws of Complexity*, London: Viking Press, 1995.

Larmore, C., 'The Concept of a Constitutive Subject' in: McCabe, C. (ed.), *The Talking Cure*, London: The Macmillan Press, 1981.

Lecourt, D. (1970) 'Sur L'Archaéology du Savoir,' *La Pensée*, No. 152, (August).

May, T., *Reconsidering Difference: Nancy, Derrida, Levinas, and Deleuze*, Pennsylvania: The Pennsylvania University Press, 1997.

Minson, J., *Genealogies of Moral,* New York: St Martin's Press, 1985.

Olssen, M. *Toward A Global Thin Community: Nietzsche, Foucault and the cosmopolitan commitment*, Boulder, CO: Paradigm Publishers, 2009.

Pomian, K. (ed.), *La querelle du determinisme. Philosophie de la science aujourd'hui*, Paris: Gallimard/Le Débat, 1990.

Poster, M., *Foucault, Marxism, History: Mode of Production vs. Mode of Information*, Cambridge: Polity Press, 1984.

Prigogne, I. and Stengers, I., *Order Out of Chaos*, New York: Bantam, 1984.

Prigogine, I. and Nicolis, G., *Exploring Complexity*, New York: W.H. Freeman, 1989.

Prigogine, I., *From Being to Becoming*, San Francisco: W.H. Freeman and Company, 1980.

Prigogine, I., *Time, Chaos and the Laws of Chaos,* Moscow: Ed. Progress, 1994.

Prigogine, I., *The End of Certainty: Time, chaos and the new laws of nature*, New York: The Free Press, 1997.

Prigogine, I., *Is Future Given?*, New Jersey: World Scientific, 2003.

Putnam, H., *Mind, Language, Reality*, vol. 2: *Philosophical Papers*, Cambridge: Cambridge University Press, 1997.

Rapp, P.E., Zimmerman, I.D., Albano, A.M., de Gusman, G.C, Grenbauri, M.N. & Bashmore, T.R., 'Experimental studies of chaotic neural behaviour: Cellular activity and electronencephalographic signals' in: Othmer, H.G. (ed.), *Nonlinear Oscillations in Biology and Chemistry*, Berlin: Springer, 1986.

Sappington, A.A., 'Recent psychological approaches to the free will versus determinism issue' in: *Psychological Bulletin,* 108: pp. 19-29, 1990.

Saussure, F. de, *Course in General Linguistics*, London: Fontana, 1974,

Sardar, Z., and Abrams, I, *Introducing Chaos*, Cambridge: Icon Books, 1999.

Searle, J.R., *Speech Acts: An essay in the philosophy of language*, Cambridge: Cambridge University Press, 1969.

Searle, J.R, *The Construction of Social Realty*. Hammondsworth: Penguin, 1995.

Schatzki, T.R., 'Practice Mind-ed Orders' in: Schatzki, T.R., Knorr Cetina, K. and von Savigny, E. (eds), *The Practice Turn in Contemporary Theory*, London and New York: Routledge, pp.42-55, 2001a.

Schatzki, T.R. 'Introduction: Practice theory' in: Schatzki, T.R., Knorr Cetina, K. and von Savigny, E. (eds), *The Practice Turn in Contemporary Theory*, London and New York: Routledge: pp. 1-14, 2001b.

Skarda, C.A. and Freeman, W.J., 'Chaos and the new science of the brain' in: *Concepts in Neuroscience*, 1: pp. 275-285, 1990.

Swinney, H.L., 'Observations of order and chaos in nonlinear systems' in: *Physica*, 7: pp. 3-16, 1983.

Smart, B., *Michel Foucault*, London: Routledge, 1985.

Wittgenstein, L., *Philosophical Investigations*, Anscombe, G.E.M. (tr.), Oxford: Blackwell, 1953.