



Practice, Communication and Space

A reflection on the materiality of social structures

A thesis submitted for the degree of Doctor of Philosophy

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...symbols are required to make traces of what is not given apparent in what is given.

Jürgen Habermas [on Cassirer],
On the Logic of the Social Sciences, 1988

The imageries of space are the dream of society. Wherever the hieroglyph of space lies
deciphered, there is offered the grounds of social reality.¹

Siegfried Kracauer, *Über Arbeitsnachweise*, 1929

¹ “Die Raumbilder sind die Träume der Gesellschaft. Wo immer die Hieroglyphe irgendeines Raumbildes entziffert ist, dort bietet sich der Grund der sozialen Wirklichkeit dar” – personal translation. I would like to thank Marion Röhrig.

Abstract

The general issue of relations between sociality and spatiality, until recently profoundly ignored outside spatial studies, has become a focus of great theoretical attention in a number of disciplines – what has been called, remarkably, the “spatial turn” in social and cultural theory. The thesis wishes to address a central problem in that debate: the connection of practice and space. It does so emphasising a dimension that has not been previously explored to a significant degree: the conditions of *sociation of practice*, or a *material account of how action becomes social action and practice social practice*. In other words, it investigates the place of space in semantically mediated interactions that constitute the knots in (spatialised) networks of sociation – or *communication*. The thesis explores the spatiality of practice and communication as a problem worth of theoretical attention, suggesting that precisely the absence of this dimension has led theory to fail to spot the spatial traces of relations between our daily acts – traces active in the very moment of sociation of practice, indeed constitutive of the very possibility of any sociation; traces produced and performed through the interpenetration of communication and space. The question the thesis addresses is the possibility of space not just as contingent location but also in itself encapsulating an essential constituent of the communicative condition of the social.

The aim of this thesis is to focus on this theoretical deficit in a number of ways. First, existing theories of society and space relations as found in social theory, architecture and human geography are reviewed in order to assess how far they provide compelling answers to the problem of the communicative constitution of practice, and from this analysis, to set areas where further progress is needed. Second, an attempt is made to build an alternative frame to the sociality-spatiality relation as a *relation between practice, communication and space*, drawing on a number of diverse sources, mainly the theory of self-referentiality of Niklas Luhmann, the theory of communicative action of Jürgen Habermas, the post-modern questioning of notions like “meaning” and “structure,” and new approaches in human geography and architecture. Thirdly, the implications of this unconventional approach to the spatiality of the social world are discussed, and a concept, the *duality of meaning* is proposed as a means to address the multiple relations between space and social practice. Fourth, the thesis suggests the possibility that the spatial emergence of practice as a communicative process requires, in order to come into being, some structuring of the space in which it occurs – a mutual, referential structuration beyond the contingency of practice and space.

Developing the idea of *space as referential to communication*, the thesis shows how space becomes the unconscious but referential substrate which provides a certain form of available organisation to the semantic field where communication networks are performed, and social structures constantly emerge and fade away in connections of linguistic acts and spaces. It suggests that a new and active role for space may be identified in the sociality-spatiality relation: a “semanticised space” as a key dimension of (1) the “communicability of practice,” i.e. the informational connections that mediate the passage from the individual act into the socialised act that takes part in unfolding social events; and (2) the very possibility of ontological relatedness,

seeing space as a dimension of the “strings of reference” that produce the sense of “world-relationality” or structure, inform socialities of possibilities of acts, and constitute the very possibility of actualisation of acts through the referentiality of practice, communication and space. Disclosing a “material referentiality” at the heart of practice, as the crisscrossing of communication, language, and space, it finally suggests the possibility of space as a counterpart to the elusiveness of forms of communication and relationality in the social world, such as those semiotic fluxes based on spoken and written language, and electronic and visual media. In building such a conceptual scheme, the thesis lays down the aims of a “referential approach” to the materiality of the social world: clarifying space itself in the communicability of practice; clarifying its role for socialities by showing a referential space as a means to the sociation of acts; and clarifying socialities themselves by showing how profoundly and pervasively they rely on the referentiality of space.

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This work is dedicated to the memory of Marcelo de Araújo.

Introduction:

Space and the communicative constitution of social practice

We must relate social behavior to the way in which the city assumes a certain geography, a certain spatial form. We must recognize that, once a particular spatial form is created it tends to institutionalize and, in some respects, to determine the future development of social processes.

David Harvey, *Social Justice and the City*, 1973:27

Sociality is not a special case of action; instead, action is constituted in social systems by means of communication... ‘action’ can be generated only in such a network of communication...For not action, but communication is an unavoidably social operation and at the same time an operation that is necessarily set in motion whenever social situations are formed.

Niklas Luhmann, *Social Systems*, 1995:137; *Theories of Distinction*, 2002:156-7

1. From “practice” to “the sociation of practice”

The problem of society-space relations has recently become a focus of great theoretical attention in a number of different disciplines, from sociology and cultural studies to human geography and architectural theory. From Marxist relations between space and relations of production, the role of space in capitalist crises (Lefebvre, Harvey), and societies as interaction systems “stretched in space-time” (Giddens), to recent emphases on embodied performances in non-representational approaches (Thrift), certainly a number of possibilities of how “particular spatial forms” may relate to the institutionalisation and reproduction of social processes has been prolifically explored. Harvey’s words cited above were surely intended to assert such a connection, a deep relation between spatiality and sociality – and an active role for space in social production *and* reproduction.

On the other hand, key approaches in social theory have been affirming a central role to communication in social reproduction. Namely, Jürgen Habermas’ *theory of communicative action* and Niklas Luhmann’s *theory of self-referentiality and structuration* have shed light on problems of societal integration and change as deeply constituted by semantic and linguistic processes. Accordingly, these theorists seem to avoid the idea of “practice” as an ontological given – that is,

performances whose processes of actualisation and sociation are not brought to the forefront and are thereby rendered unproblematic. Instead, and in their own individual manner, they seem to replace it with differentiated emphases on the process of *social production and sociation of practice* itself. They connect substantively the possibility of practice to the construction of the “social” through distinct and renewed versions of the traditional Weberian concept of “action” and through an innovative interest on concepts of “communication.” In short, these theorists seem to place, certainly in different directions, the problem of the *social constitution of practice essentially as a problem of communication* – the utterance and understanding of meaning and information.

However, if communication is truly central to social reproduction as asserted by Habermas and Luhmann among others, *and* if Harvey among others is right in pointing out a deep relation between spatial forms and social processes, *then*, on logical grounds alone, the possibility of a role for space in the communicative sociation of practice becomes an interesting, if underestimated, possibility worth of theoretical examination. This work is going to suggest that a key aspect of the spatial constitution of the social (and conversely, the social constitution of the spatial) has still been overlooked. It hopes to demonstrate that, although it has progressively become a key subject in sociological theory, a systematic *spatial* account of how practice is constituted as social practice seems to be lacking – that is, a description of the *spatial sociation of practice as an accomplishment of communication* starting with the intersubjectivity of situated interactions and mutual interpretations constituted in language and including the interactive formation of the complex matrix of human actions performed through semantic exchanges.

In other words, and despite the fact that the problem of practice has come to the forefront particularly in current geographical approaches to society-space, it will be first argued that these theories either have tended to quickly assume practice as “social practice” – without clarifying spatially the passage from the experience of doing to the social construction of interacting agencies – or tended to suppress the problem underneath spatialised notions of institutional organisation, taking that connection as a given and rendering it once again unclear. *The thesis will propose that the social constitution of practice as a communicative process is a key problem also in the society-space relation – a problem that spatial approaches to the social hardly have addressed as such.*

Of course we find in geographical approaches ideas more closely related to sociation as a condition of social organisation – namely the spatialisation of action theories originally found in sociology. However, I shall argue that even the spatialisation of such theories in human geography (e.g.

Simonsen 1991; Werlen 1993; 2005; Ernste 2004) have not included explicitly the role of communication in social life and material reproduction. They have mostly ignored the forms through which practice is produced through acts of speech and the flux of language as a fundamental societal infrastructure, and its crisscrossing with space; (the spatiality of) the utterance and understanding of information (Luhmann 2002); and the illocutionary forces and semiotically mediated exchanges that constitute the (spatialised) knots in networks of sociation (Habermas 1984). In short, the *communicative* emergence of social practice has been underestimated as a *spatial* problem; *communication has been omitted in spatial theories of the social*. This is what the thesis is going to introduce – and with it perhaps point in the direction of a further possible clarification of the sociation process itself. Certainly, if the social comes into being through processes of communication (Habermas 1987; Luhmann 1990; 1995; 2002) and meaningful relations to context (Giddens 1984; Habermas 1984), spatial studies of the social must explicitly address the problem of communication.

By the same token, the thesis also hopes to show that approaches in sociological theory which explain the passage from practice to social practice as a problem of communication have not emphasised enough space as an effective part of the process. It will be argued that action and communication theories tend to overlook the role of space in the communicative dimension of social reproduction. Put another way, they tend to overlook how real space and the spatiality of practice may consist of material aspects actively involved in sociation processes – from the material condition of mutual interpretation and the contextual use of language (as opposed to the idea of an immaterial communication not embedded in time-space or without connections to space) to the (spatiality) of linguistically-mediated interaction and the (spatial) unfolding of those communicative flows that constitute multiple courses of action and sequences of social situations. Theories such as Habermas' and Luhmann's consist, to a significant extent, of relatively non-spatial (some may say not spatial at all) accounts of the emergence of social action through communication. In turn, Giddens' theory, one of the most explicitly spatial sociological approaches to date, certainly claims that society is reproduced through situated practices in space-time. He argues that society's reproduction is deeply embedded in space; in temporal and spatial processes. However, the thesis hopes to show that even his approach seems to fail in both social and spatial grounds: although the spatiality of practice as "situated practice" is appropriately discussed as a condition of social reproduction, and social systems are correctly seen as practices channelled in time-space, neither the communicative constitution of these channels is sufficiently explored, nor is its spatial condition brought to the forefront in detail. It is precisely these dimensions of the society-space relation that

the thesis searches to grasp spatially: *the intertwining of practice, communication, meaning, and space*. Put more simply, the thesis hopes to address the *spatiality of communicative practice*, and intends to start filling in the gap regarding the incompleteness of the account of the passage from practice to social practice in spatial theory, and the “spatial gap” left in social theories of social reproduction through communication. The main aim of the thesis is to *introduce communication into the problem of the spatiality of practice, and spatiality into communication processes*, first discussing the limits of current theories of society-space relations, and also discussing key communicative practice approaches – bringing concepts of practice and communication into a spatial approach, and connecting these distinct sets of ideas as a way to develop a single socio-spatial framework geared to shed light on the problem of practice, communication, and space relations.

However, how could space clarify the way social practice is produced through networks of communication? In what sense are existing accounts of the sociation of practice through communication inadequate, and in such a way as to suggest that space may be worth exploring? What would a spatial account add to the understanding of communication as the fundamental operation in social reproduction? Finally, what is the link between communication and space? These questions clearly lead into the conditions of social reproduction – in fact a key condition: those processes through which our practices unfold in complexes of interaction, i.e. when social beings engage in reciprocal performances through those practical and informational exchanges that constitute interaction, and through the spaces of their everyday lives. The thesis is going to argue that the answer to such questions could perhaps be found if one takes another viewpoint to the problem – to be sure, one able to show a possible inadequacy of usual explanations to the sociation of practice as found in social theory as far as the conditions of material reproduction are concerned. A critique of social theories of communication – such as Luhmann’s remarkably counterfactual approach to the social – may allow questions such as *how could the vanishing structures of communication be enough to keep society reproducing itself?* That question would be in fact the *prima facie* reason why we need to look at the material world. Accordingly, Giddens clearly sustains that time-space relations are rather fundamental to the integration of social systems. Certainly, one may say that the problem of the role of space in the sociation of practice emerges from the problem of the material condition of social reproduction – and vice-versa.

This work will suggest that it is exactly the systematic absence of the communicative dimension that has led both social and spatial theories to fail to spot the spatial traces of relations between our

daily acts – material traces active at the very moment of sociation of practice, indeed constitutive of the very possibility of any sociation; traces, I shall argue, produced and performed through the interpenetrations of communication and space. Thus, a spatial approach to communicative practice may pursue *the possibility of a place for the durability of space as a fundamental counterpart to the elusiveness of purely semiotic exchanges* (i.e. based on language and other sonic and visual media of communication) possibly essential in social reproduction. Or more precisely, it may add the possibility of a role for urbanised space as active – visible, durable, institutionalised – “knots” in networks of communication and social exchange. The thesis shall surely search for the place of space as a form of accessing realms of agency, relating to ongoing practices, joining courses of action and their connections to social events and agencies performed in other places and times.

But how do we tie “communication” to “space” or place space as central to communication – and therefore to social reproduction – in an unseen way? How do we get from communication to space and back? These initial possibilities, among others that shall be disclosed as this follows, will be discussed in four stages. *First*, the thesis will explore exactly how the passage from practice to social practice is a problem worth exploring also in spatial terms. *Second*, it will assert that such a dimension is constituted rather through processes of communication, i.e. through the practice of interaction as transactions of signs, meanings, and information as a key process in material reproduction. *Thirdly*, it will attempt to demonstrate how the social constitution of practice through communication is a fundamental dimension of the society-space relation, and in addition, demonstrate how it may consist of a theoretically productive way of framing the relation in order to deepen our understanding. And, *finally*, it will propose, exploring the works of Jürgen Habermas and mainly Niklas Luhmann on action and communication, that the sociation of practice is a process actively implicated with *space*. Certainly, the question the thesis searches to address is *the possibility of space being not just contingent location but also in itself encapsulating an essential constituent of the condition of the emergence of social action*. This work will suggest that the passage from practice to social practice, which occurs through communication, would also involve a spatial component if it is to reproduce itself: it seems to require, in order to come into being, some structuring of the space in which it occurs. It will propose to address and reinterpret the society-space relation as a relation of communicative practice to space, a way to throw light on the spatiality of sociation processes, or communication, as a basal process of social systems. It will place space in what Luhmann (2002) called “the ultimate social and material operation that constitutes every other social operation” – seeing the social fundamentally constituted (among other things) as meaning-processing, spatialised networks of communication that constitute social

practice (beyond conscious and intelligible meanings). It indeed hopes to introduce *a spatial turn to the communicative condition of social practice* – or, to use Luhmann’s words rather in a different (material) context, as “the elementary process constituting the social domain” – looking for space in the ways that socialities come into being, and moving from a general notion of practice to a critical dimension: that of the production of *social practice through differentiated networks of communication*. Such an intention clearly implies a long theoretical path – in fact a propaedeutic form of objectifying complex informational and spatial formations that constitute the possibility of social life. Let me anticipate the shape that such a theoretical construction shall take.

2. The path into the spatial constitution of communicative practice

As I have stated above, the approach to be developed takes communication as the elementary process in the production of whatever we call “social” and relates it to space. The thesis shall therefore first of all search for what exactly is the social objectified in previous socio-spatial theories (and by extension what is the “spatial” related to their particular views of the social), in a way to assess how far they provide compelling accounts of the problem of the emergence of practice through relations between communication and space, and identify possible areas for theoretical development. Let me describe now the path into these broad theories of society-space, and outline a framework able to grasp such a problem – in the form of stages of argumentation that shall organise the thesis. Of course, explanations of socio-spatial relations may be found in works in social theory, human geography, economy, and anthropology; cultural, urban and architectural studies, ranging from specific aspects of that relation to broad and ambitious descriptions of the problematic as a whole.

Chapter 1 “Relations of the Social and the Material” analyses three of the most encompassing ones: firstly, the Marxist approaches of Henri Lefebvre, David Harvey, and Edward Soja as theories of space – a space ideologically and politically embedded in social relations of production. David Harvey, the most influential geographer of a generation, studies with great theoretical care a wide range of issues, from environmental to political, cultural to epistemological. Some of his most innovative studies involve a theory of the production of urban space as the reproduction of certain social processes and contradictions (as well as the overcoming of contradictions through space) including both the production of social and spatial inequalities and the survival of capitalism. In his turn, the philosopher Lefebvre sees space as *social space*, an ontological category embedded in social relations in multiple dimensions, all coming together in a “science of space.” Lefebvre’s

spatialology tells of conceived-lived-perceived spaces containing in themselves social relations of production and reproduction, accumulation and domination: the oppressive objective abstraction of instrumental spaces that renders the space of everyday life. He moves from Marx's abstract labour to abstract space, from "things in exchange" (the relations of production behind fetishised products) to "social relations of production in space" (the relations of production behind fetishised space), from "things in space" to "the production of space." Lefebvre reconstructs Marx's historical materialism as histories of the colonisation of space and urbanised social life, and the primacy and urgency of the body and perceived-lived space in the ontological integration of a contradictory social reality. In his turn, Soja will play the role of a great polemicist rather than a systematic thinker: he will synthesise and reinterpret the premises of a socio-spatial dialectics, reasserting and eventually expanding Lefebvre's views into other geographies of contradiction, gender, and the Otherness – into what he calls after Lefebvre "thirdspaces." I shall revisit the seminal Marxist works of Lefebvre, Harvey, and Soja on the spatiality of human life under capitalism and discuss their main contributions to the study of the socio-spatial, while verifying the potential of such approaches (indeed designed to grasp social contradictions through relations of production) to address the reproductive level of practice-space relations.

A completely different theory would be a Durkheimian theory of society founded on conditions of different social solidarities and their relations to space. Hillier and Hanson call these relations *the social logic of space*. Analysing extensively spatial formations produced by different societies, they found consistent similarities and differences in space:

why should these patterns [of space] be different in different societies? Here we found the general sociology of Durkheim... profoundly suggestive. Durkheim had distinguished between two fundamentally different principles of social solidarity or cohesion: an 'organic' solidarity based on interdependence through differences, such as those resulting from the division of labour; and a 'mechanical' solidarity based on integration through similarities of belief and group structure. This theory was profoundly spatial: organic solidarity required an integrated and dense space, whereas mechanical solidarity preferred a segregated and dispersed space... In the work of Durkheim, we found the missing component of a theory of space... (Hillier and Hanson 1984:18)

That is a theory deeply rooted in a key socio-spatial link involving three basic conditions of human interaction: *interfaces* between different social groups, *co-presence*, and the actual *form of space*. The reasoning is unexpectedly simple, apparently possible only to a Durkheimian perspective: societies' solidarities bring in themselves different patterns of interaction and co-presence which

produce and are reproduced by different structures of space. Such an insight, not enough emphasised in most of the numerous empirical studies carried on in space syntax, as the theory came to be known, is the basis of a theory of socio-spatial reproduction fundamentally based on co-presence. Of course a question to be posed in the thesis will be whether an approach geared to identify relations between spatial structures, patterns of encounter and potential interaction embedding distinct social solidarities could be able to grasp the complexes of practice that, however emerging through encounter, take the form of communication; or still, what processes could motivate encounters beyond the (apparent or not) contingencies of bodily movement. In short, it will discuss whether such an approach could explicitly address the reproduction of social solidarities as *actual interaction processes* and the mediation of space as theoretical problems.

A very distinct theory involving co-presence and space is Anthony Giddens' *Structuration theory*. Although of course not attempting to produce a "theory of society-space relations," Giddens accounts for the temporal and spatial constitution of society, and certainly searches to include the dimension of interaction and agency. He understands social systems fundamentally immersed in "time-space distanciation:" they stretch across time-space through processes of social and system integration; the condition of social systems is deeply spatial. Social integration is the "reciprocity of practices between actors in circumstances of co-presence, understood as continuities and disjunctions of encounters." System integration involves collectivities "across extended time-space, outside conditions of co-presence." Giddens shows that space is simultaneously part of the constitution of daily systems of interaction and the long-term production/reproduction of institutionalised structures.

Space is not an empty dimension along which social groupings become structured, but it has to be considered in terms of its involvement in the constitution of systems of interaction. (Giddens 1984:368)

I shall discuss Giddens' emphases on a general notion of systems of interaction bounded by intersections of presence and absence across time-space as structural properties of social systems, as opposed to a description of the actual means of these unfolding systems of interaction – in other words, in direction of a more precise conceptualisation of the paths or connections traced in the "reciprocity of actions in time-space" constituted by communication.

I shall review these distinct approaches identifying their specific object domains and theoretical limitations with respect to the spatial emergence of practice as a meaningfully-mediated process. I will argue that in Marxist formulations, human activity is reduced to a notion of work (Habermas

1972), in a dialectic of social relations of production and capitalist space; or to a Lefebvrian dialectics of spatial unity only possible through the perceptual body. The dialectics nevertheless seems to remain little clarified as long as social reproduction is restricted to the socio-economic framework of production. It ignores that the practice of interaction must *also* be seen as a key dimension of material reproduction (Habermas 1972; 1984). In other words, Marxist approaches seem not geared to shed light on the complex matrix of knowledgeable and non-knowledgeable practices as informational, communicative, and meaningfully-mediated action (work-related and symbolic, instrumental and non-utilitarian, revolutionary and embedded in tradition). This is a fundamental problem, since understanding what societies are and how they are produced includes understanding how the fabric of interaction seen by Giddens and others is produced through the transmission of information in social acts. In turn, Giddens, perhaps the social theorist closest to the problem of space, seem to have merely outlined such an idea. The thesis shall discuss his powerful notion of structuration as routines performed in space-time embedding long-term, spatially discontinuous processes of institutionalisation – and hopes to show that such a notion seems too general to offer a detailed understanding of space in the constitution of society.

On the other hand, the thesis also hopes to show that his notion of *space* as intersections or stretched channels connecting the contextuality of practice is too imprecise to clarify the actual role of space in the practical and informational processes that also seem to produce and reproduce the social. These concepts will prove unable to objectify the informational exchanges that constitute social practice, lacking the conceptual apparatus to address the possibility of social structuration as an overtly communicative process embedded in and mediated by space. I also hope to show that the idea of a socio-spatial dialectics – i.e. a deep relation between apparently distinct realms that we call the “social” and the “spatial;” to be sure, a relation constituted at the levels of social production *and* reproduction – is not evident in Giddens’ conceptualisation. His theory will overlook the recursive emergence of practice as a process embedded in the concrete spatiality of cities.

I will also argue that the deep connections of space and co-presence produced and reproduced through mutually structured Durkheimian principles of social aggregation and spatial structures, revealed by Hillier and Hanson, reduce social reproduction to social interfaces, bodily interaction and the occupation of space, and to forms of social relationship expressed in or colliding with architectural and urban spaces. Such an understanding seems to ignore the contents of human practices, the deeply relational, meaningful (and non-meaningful) nature of our actions, and their embodiment and disembodiment in space. The communicative formation and reproduction of social

systems certainly cannot be explained exclusively through the fundamental condition of co-presence in systems of occupied spaces, even if it is considered an essential part of social solidarity.

Indeed, *other* dimensions of the society-space relation must be explored, and connected. In that sense, incursions into classical social theorists in previous socio-spatial theories proved extremely fruitful to elucidate certain aspects of that relation. However, the complexities of the communicative dimension of human practice (i.e. the production, transmission and exchange of information in spoken words and gestures, text and images, and other effects of practice) will prove not explicitly represented in those incursions. In turn, I wish to explore a particular property of the social (and by extension, of the relation of the social to the spatial) – as a matter of fact, an ontological condition consciously jettisoned in recent approaches in human geography (see Thrift 1996) and in post-structuralist epistemologies: the profoundly informational nature of human interaction, and the differentiation of information produced in communication – a condition of social practice that cannot be circumscribed to the intersubjectively bequeathed world of a social group, if the tasks of material reproduction are to be socially mastered (Habermas 1984; see also Luhmann 1995). The construction of sociality is frequently and diversely addressed in social theory through terms like *social action*, *communicative action* or *communication*, namely in approaches stemming from Weber's pioneering work, including Habermas' and Luhmann's. My aim is to suggest the need to focus precisely on the mutual constitution of the fabric of socialised practice and space – a turn to emphasise *the precise moment when practice becomes social* through the production and transmission of information. That is a theory that would include the spatialisation of information, utterance and understanding (Luhmann 2002) as constitutive both of experience and of the processes that go beyond the horizon of experience of the agent; a theory of practice constituted through the communication of meaning, and through meaningful space. In that sense, the inclusion of space in a perspective of practice stemming from Max Weber seems yet to be fully explored. By extension, later developments of theories of practice centred on meaning (such as Habermas' and Luhmann's) have been overlooked in spatial studies of the social.

I will propose that an approach that begins with the idea of practice as communicative practice may be a way to fill the theoretical gap left by Marxist, Durkheimian, Giddens, non-representational and post-structuralist approaches. In order to arrive at such a formulation of practice, one may start with a concept still underestimated in spatial studies: *social action* – provisionally, the things that one does that affect interacting subjects, and do so reciprocally because they are meaningful, i.e. communicable and understandable by other persons. Of course the relation of action and space is

not unexplored. Nevertheless, in previous hermeneutic, epistemological, and (eventually) systematic explorations (Tuan 1977; Ley 1978; Gregory 1978, 1993; Thrift 1983, 1996; Simonsen 1991; Werlen 1993; Ernste 2004), there seems still to be missing *what is action as a network of spaces and communications, of urban spaces as part of those semantic and practical exchanges*. I wish to revisit such a problem, this time searching to throw light on the very condition of how social practice emerges through space: that is, how practices may reproduce themselves through space in order to become social, and how space may be produced and appropriated by practice as a way to be part of the sociation of practice itself, or the continuity and connectivity between practices of different agents. Chapter 2 “Meaningfully Mediated Reproductions of the Social” starts such an attempt concentrating first on the problem of action. It analyses how Weber introduces a concept of social action centred on meaning and mutual interpretation, and how Habermas develops the Weberian concept into linguistic, communicative action. Such notions will pave the way to the introduction of a theoretical framework of the relation of communicative practice to space. A number of concepts shall be employed and developed, such as a renewed perspective on concepts like meaning, structuration, and on the relation between the sensuous and the interpretive subject. A reintroduction of these concepts, now from the vantage point of communication, will prove essential to the attempt of revealing space into the social constitution of practice – through, and beyond linguistic and representational meanings.

Having introduced my initial approach to the social, it is necessary to introduce my initial approach to the spatial. Embedded in my analysis of the socio-spatial world is a spatial concept appropriate for understanding space in social action. Weber, Schutz, Habermas and others² affirm that to access action, a symbolically pre-structured realm constituted by interpretive activities, it is necessary to access the content or meaning of action. Action would have a fundamental ambiguity in its nature: it constitutes the personal horizon of intentionality and experience in the universe of the acting subject, and has practical consequences that intermesh with other agencies even *beyond* her horizon in time and space (Habermas 1984, 1987a). It constitutes the very condition of social experience *and* material reproduction. Chapter 3 “The Grounds of Social Reality” will suggest that such an ambiguity is fundamentally connected to space. It will propose that *the importance of space lies precisely in the production of such dimensions, and in the empirical passage between them*: in defining the (at the same time bodily and interpretive) context of the individual experience, and in relating it to broader social landscapes; from situating the nature of experiences to articulating

² There are different traditions stemming from Weber (1968), e.g. Schutz (1967); Schutz and Luckmann (1973, 1989), Parsons (1937), Wilson (1971), Zimmerman and Power (1971), Habermas (1984, 1987a, 1988), and Luhmann (1995).

action across time-space – that is, from the interactions performed within a social situation and a particular place to its unfolding relations to other social situations, agencies, and places.

The thesis will fundamentally propose that such an idea could only be the case if space would, as action itself, be semantically and practically produced and appropriated by agents. I wish to show that the role of space in the contextualisation of social experience and action and in processes of communication (beyond linguistic communication) is only consistent if space could actually support social meanings (beyond intelligible meaning); or if space were meaningful (beyond representational meaning). What this means concretely is that *space is able to be actively part of the construction of practical networks of communication* – due to the meaning it assumes when it becomes part of the context of practice. Through a critique of architectural theories of relations between spatial form and social function, and through an analysis of the limits of purely physical space in supporting social contents, I hope to demonstrate the importance of meanings embodied in space to social reproduction, in a way that is not only substantively legitimate to extend the action perspective to space, but – if we are to objectify overlooked aspects of the spatial constitution of social processes – that is also a methodological requirement. Chapter 3 searches the place of built space in situating human practice, and identifies three dimensions of space starting at the architectural level of our practices: first, taking the form-function dilemma in architectural theory as a starting point, it discusses the physical space of bodily action, the *syntax* of spatial structures; second, it includes the *semiotic* space of architectural typologies in visual perception; third, it introduces a broader concept of *semantic* space as context to communication (i.e. a space turned meaningful through the context-dependent practice of interaction). Considering current assertions of the exteriority of the sign, the bodily and the emotional in human geography, my aim is to propose that the relation between sociality and spatiality implies *other* aspects of practice, approached in two stages.

First, there is the level of the locus of practice and communication – the spatially and temporally bounded condition of social situations and events. Here, one may start with the question whether distinct theories were correct in asserting that contexts are fundamental in making sense of the meaning of practices and utterances, in setting up interaction. If hermeneutic, cognitive, and communication theories are correct – and we shall visit them in Chapter 3 – then, in a truly dialectical form, we may well consider a contextual role of space produced through the practices space supports and expresses at the level of factual experience. This of course relates to the concept of “contextual space” or space as part of the contextuality of actions, found diversely in socio-

spatial theory (e.g. Giddens 1984; Simonsen 1991; Lefebvre 1991; Thrift 1996). Space would be constitutive of the situational character of one's cognitive horizon. However, the simultaneously interpretive, communicative and practical interpenetration of these two spaces – the actual physical space of practice and those spaces of language and semiotic transmissions – seem little explained even in contextual approaches. The thesis will propose a more complete picture of the pervasiveness of space in our practices and experiences, discussing what certainly appears as improbable roles of space in social practice:

- i. a role for space as a trigger to the awareness of situation contexts, and in the immediate setting up of conditions of interaction as expected behaviour by the crossing of spatial boundaries, i.e. in setting up common backgrounds for mutual interpretations and establishing the condition for the production of communication;
- ii. a role for space as an active hermeneutic background in minimising risks of misunderstanding, relieving the cognitive burden of asserting over and over a common background assumed by participants to be space itself, thus ensuring *the fluidity of interaction* – say, as a structural support for communication;
- iii. space as an active interpretive resource in the definition of communication contents, i.e. as part of the definition of contents of illocutionary acts, and informational exchange. Practice would require the semantic dimension of space just like it requires the sensual dimension;
- iv. space as part of the unfolding of networks of communication and action *beyond* the initial boundaries of the event, being part of the construction of meaningful connections between practices performed in other places and times, and by other agencies.

My intention is to drive arguments of a contextual space farther, by connecting space as context to the production of communication. Beyond bounded conceptions of contextual space (one exception being Thrift's [1996], which nevertheless unveils a different form of boundlessness, as we shall see below), I wish to explore in Chapters 3, 4 and 5 how spatial meanings are active at the moment of the transmission of interpretive meanings and social information, in the communicative production of vast systems of practice across time-space. This brings us to a second aspect, the practical dimension to action. It is well known that performances brought together in social events intermesh in networks of interaction and have effects that go beyond the apparent boundaries of the event and the immediate spatial context. They go directly into the counterintuitive level of what Giddens (1984) redefined as "system integration." In a rather Habermasian fashion, I will suggest that it is

legitimate to expand the role of space in the constitution of action from the hermeneutic level where social contexts are related to properties of urban spaces to the systemic level of institutionalisation and social structuration through the structuring of space in the form of cities. What I mean by this is the possibility of seeing space beyond the contextual role for communication, in order to see the city as a means to relate actions – both as a system of information about practices and as a means to actualise the connections of practice we call “communication” mediated by the body and by language. Accounting for meaning as constitutive of both action and space will advance a central idea to this work: the idea that space is produced and pre-structured semantically and physically by agencies in a way to be part of their practices and their interactions. My argument will be that, *with a concept of space as inherently meaningful, one is able to demonstrate, in a deep epistemological sense, that space is endogenous to practice, and practice is constantly embodied, semantically and practically, in space.*

The thesis aims at developing an approach to the communicative emergence of practice. Accordingly, the relation between practice, communication, (social and spatial) structures and meaning shall be investigated as a key issue. Here, and consciously against current trends in socio-spatial theory, *meaning* (the informational contents we produce in order to communicate, i.e. that constitute oral and written language, visual and bodily communication) will be shown as central to the relation of social practice to space. However, a renewed emphasis on a centrality of meaning clearly requires a renewed concept of meaning. Such a concept developed below, places *meaning as a fundamental connection between the social and the spatial* – and does so in two directions.

On the one hand, this connection between act, things, and space will prove useful to reach the structures of the communicative emergence of practice, the structure of interaction itself: the networks of connections between volatile practices produced as exchanges of informational contents filtered, mediated, connected through (the meanings of) space. Two major aims of this thesis are in fact the proposition of the centrality of this process to the relation of society and space, and the description of the process itself. This will of course lead to a renewed conception of structure, now including the elusive, the recursive and the unpredictable: the idea of *social structure as a communicative accomplishment*. It shall lead to a view of the society-space relation as networks of convergences/divergences between vanishing structures of communicative practice and the stable and (partly) rigid structures of urban space – as we shall see in Chapter 5, a subject still little explored in theory. On the other hand, the renewed concepts of meaning and structure will allow the expansion of the framework into an overtly ontological problem: the description of

structures of social and material reality itself, clearly an ambitious aim. The approach to be developed intends to contribute to current research on society-space relations and on an inherent relatedness in social and material reality through what I shall call *the referential constitution of practice through space – i.e. the production of networks of communicative relations through meanings shared by space and practice.*

In other words, the bounded conception of meaningful action in Weber and Habermas, and its extension to space will be questioned and expanded in Chapter 4 “The Duality of Meaning.” The chapter will bring the ontological discussion on meaning as a deep relation between practice and space – essentially proposing a concept able to bring to light the role of space in the (meaningfully mediated) relations between actions – through a dialogue with post-structuralism (namely in Deleuze, Serres and Derrida) and post-structuralist geography (e.g. Thrift 1996), and mainly Niklas Luhmann’s theory of self-referentiality and communication. For in these perspectives, there are ontological concerns with the decentering of the subject, going beyond the stability of presences entailed by the bounded conception of meaning – i.e. a means to disclose presences in the world as stable entities in themselves, based on the centrality of the knowing subject. In addition, a particular idea of practice has been recently proposed in human geography. Thrift (1996; 2000) and others (e.g. Law and Urry 2002) have proposed the need for a relational conception of practice as “performance,” emphasising the “in-between” in social and material reality. However acknowledging and incorporating such contributions, Chapter 4 searches to show the need to go beyond ontologies where the universe of the subject, the social and the spatial “merge together” into semiotic flux. It proposes that the study of the spatiality of the social world requires balance: a view able to handle both the inherent relatedness of materially different things (such as practice and space), and the distinctiveness of phenomena to our senses, cognition, and language-games. It proposes that the place of space in praxis is a possibility more accessible to concepts of meaning and action capable of finding such a balance. It does so transforming “meaning” from a bounded conception into a notion able to grasp *relatedness* between our practices, events, objects – and the spaces of our practices. That means the possibility of a conception of meaning as “connection” able to objectify the interpenetrations between space and practice – interpenetrations built through meaning *itself* (i.e. through our cognitive relation to the world, our linguistic relation to others, and our practical relation to space) not only at the level of the social situation, but also between an action and its enaction in another space. Such a conception searches to objectify the possibility of space being part of the networks of relations between ongoing and future actions – into different and particular paths of action, performed in different and particular places – a role for space in the

choice and in the contingency of the unfolding course of an action.

I shall seek elements of the communicative practice-space relation through an argument centred on my proposition of a particular property of meaning: the *duality of meaning* as “identity” and “reference.” The former aspect means the (frequently seen) possibility of addressing the “presence” of some thing (or someone, or some place) as an irruption in one’s perceptual field, and its interpretive effects over the subject. The latter aspect means the property of such an irruption and effect as what Husserl (1976) called “indication” to other meanings and things. As Luhmann insightfully reinterprets it, every meaning (and by extension, every meaningful thing or act) brings in itself references to a multiplicity of meanings (and meaningful – linguistic, textual or visual – things, acts, and signs). This second property of meaning, virtually overlooked, is precisely what will allow the framework to be proposed below to deeply connect space to the relatedness of practice produced via communication. I will propose *the duality of meaning as reference and event as a key element in the ontological relatedness of the social and material world – in fact an “ultimate connection” between the social and the spatial*, a mutual reference ensured by meaning and built through meaning. Let me qualify meaning once more and still provisionally as a form of cognitive information produced to address the presence of some thing, of realising “what the thing is” or what the signal addresses; a unit of information that is processed by the acting subject as a connection to the thing, a bridge produced when we perceive and connect to things cognitively and practically – following Luhmann, indeed a connection to a multiplicity of things that are active in the definition of the particular meaning itself. Accordingly, I wish to propose below that the ontological duality of meanings to be found both in our communication and in our relations to space (and indeed in the relations between our communication and acts to space) will be crucial for a socio-spatial reconstruction able to replace a dualism usual in current theories in human geography and in pos-structuralist ontologies. I shall discuss in Chapter 4 that in such perspectives the centrality of the subject as a subject of meaning has been (mostly appropriately) replaced by the notion of traces of a subject immersed in the relatedness between everything – an idea which easily dismisses the subject as active in the production of relations between things in social and material reality, along with the importance of identities and the boundaries of entities. Instead, the duality of meaning will allow us to couple rather symmetrically “entity” and “inherent relations” through the idea of meaning as identity and reference – combining aspects of a neo-Kantian conception of meaning in the sense of addressing the presence of entities in relation to experience (latent in Weber), a Wittgensteinian notion of meaning as a property of things in use (reworked in Habermas), and a Husserlian understanding of meaning as referentiality and boundlessness between

things and subjects (developed in Luhmann). This reflection will indeed operate at the level of a fundamental ontology: an ontology of the structural conditions of the social and material world.

Such an ontological argument is nevertheless put to use into an overtly socio-spatial problem: the poorly explored dimension of simultaneously linguistically and spatially mediated interactions that make up the fabric of social life. Chapter 5 “Desperately Seeking Structure” will finally explore the fundamental ontological bridge between the social and the spatial – supposed to be meaning itself – into a more detailed description of production, reproduction and structuration of social action. It intends to bring to light *how structures of action and communication emerge through the spatiality of cities*, searching for new roles for urban space in social processes: i) how space and the spatial structure of cities is vital to the event of meaningfully-mediated practices, the first level of a mutual relation between communicative practice and space; and ii) searching the effects of action and communication in structuring the internal geographies of cities (to be developed in Chapter 6). Essentially, Chapter 5 will propose that an “inherent relation of practice and space” could only be possible, at the level of *social reproduction*, through meanings shared in space and practice. It finds in Habermas and even more so in Luhmann elements that allow such a connection.

Chapter 6 “The Improbable Relation of Materiality to Immateriality” in turn will discuss the moment of *social production* in relation to space. Its starting point is Soja’s concepts of synekism, the social stimulus to agglomeration, an important plea for a broader social and historical assessment of the importance of cities, along with his notion of intra-urban structures, addressing the still poorly understood internal geography of cities. The internal structures of cities have been indeed a subject underestimated in human geography and to a certain extent even in economic geography, what has recently started to change (see Latham and McCormack 2004). Essentially, I will suggest that in these accounts, the mutual structuration of social action and space is still not visible – for the condition of the communicative emergence of action does not imply merely generic notions of spatial agglomeration and its importance in “sparking” human activity. *The production of social action would imply the shaping of space and the structuring of its fabric* – beyond structures usually seen in urban and economic geographies such as centralities and segregation patterns. Supported by different theories, I will argue that both human and economic geographies have not come to grips with the importance of the internal spatialities of cities as the articulation of agencies and physical communication. I will explore Luhmann’s work on social structuration and add to it a missing spatial dimension, analysing and connecting economic insights on cities and regions to concepts of space as information found in cognitive geography, and to Hillier’s concepts of

“intelligibility” and the “movement economy” in urbanised space. I will thereby propose to expand the understanding of space as activity, information and movement into the realm of the elusive structuration of action, in order to reinterpret socially the production of spatial structures we call “cities.” I shall finally term my description of such processes of reproduction and production *the referentiality between practice and space*, suggesting that space is a fundamental part in the solution of a crucial problem pointed out by Luhmann and dealt with in Habermas’ theory: the reproductive need of action structures to emerge from all possibilities of action.

The sequence of incursions into architectural and urban spaces, into the ontology of meaning and the sociology of language and communication outlined above is intended to define the foundations to an alternative theoretical framework to understand a particular level of social production and reproduction, and of the interpenetration between society and space. Clearly, such an alternative framework shall be produced through a progressive construction involving different theories and eventually different epistemologies. Chapter 7 “The Referential Approach to Society and Space” will carefully reconstruct the main arguments of the thesis, highlighting the main propositions and contributions – along with a discussion of possibilities of the alternative framework to be introduced for future theoretical research, especially regarding necessary connections to research on empirical formations of practice as communicative networks differentiated substantively in institutionalised frameworks of social organisations – or in Luhmann’s terms, into functionally differentiated systems such as the state or the economy. It also shall discuss possibilities for further empirical studies, involving relations between actual configurations of space and their role in the recursive and in the contingent emergence of communicative practice, from the level of spatial contexts to the structuration of complexes of practice – which might well be focused on practices within a particular realm of action and communication.

A further clarification is also required regarding possibilities of a communicative practice approach to the socio-spatial. Indeed, this thesis consciously chooses not to address the social through broad notions like social systems or institutional formations (say the organisation of the economy, the state and so on), but rather as communicative processes (beyond language) that constitute such formations – i.e. spatial courses of practice differentiated at the level of cognition and bodily-mediated communication as differences of information, speech and interaction. Nevertheless, the framework developed below will not expand the differentiation of communication into historical processes of social organisation, or into empirical forms of institutionalisation of functionally differentiated practices. The actual contents and flows of communication will not be turned explicit

as an element of system organisation. Surely, communication constitutes the emergence of systematically organised spheres of action as much as institutional processes of social organisation are produced as differentiated networks of communicative practice – and indeed the latter may shape the former under specific normative conditions in accordance with distinct institutionalised frameworks.

There are two reasons for this particular theoretical path – one of a substantive nature, and the second, a purely methodological decision. Substantively, the work follows recent emphases on agency, communication and action when it accords a certain ontological primacy of communication and agency over institutionalised social structures (see Luhmann 1990; 1995; Habermas 1984; 1987; see also Giddens 1984; Bauman 1992; cf. Thrift 1996). Second, and more pragmatically, the exclusive approach to the communicative infrastructure of social practice becomes a necessary methodological decision if we consider that the general relation between practice, communication and space is still strongly underestimated in socio-spatial theory, and considerable work is necessary in order to build the theoretical conditions to objectify and treat this particular domain in all its substantive dimensions. This work therefore chooses to explain how networks of communicative practice seen as relatively differentiated flows at the level of information and interaction are produced through space, and produce space in turn. Its extremely relevant relation to the unfolding of institutionally organised complexes of practice is thereby left as a subject for future research.

Certainly, the work shall focus on linguistic and other symbolically mediated spatial exchanges that go beyond language and are cognised and produced by interacting subjects in spatial situations of co-presence (i.e. that immediately involve the corporeity of bodies engaged in spatially mediated communication). On the other hand, it will take into account (in fact, rather implicitly) those social transactions produced across distance via technological means (like electronic exchanges) that nevertheless involve the simultaneous utterance of information between interacting, absent subjects – utterances and media that nevertheless must be accessed in and through urban and architectural spaces. Additional forms of establishing social connections, especially at a distance, will not be included – namely certain communication systems that go beyond social exchanges simultaneously situated, performed or accessed in actual space. Let me clarify this question with examples. The information contained in printed texts – thus rendered fixed in the form of an object, say a book – and the circulation of printed texts do not depend on an uttering subject co-present with participants in a social event in order to be exchanged; texts travel in space and time with paths of their own. By

the same token, complex webs of circulation of artefacts or other objects produced by human agency (say machines), along with *money* and *power* as a “steering media” present in these exchanges also will not be discussed. However addressable indirectly through the communicative infrastructure that embeds or expresses (before, during and after) these exchanges, a description of these circulation systems and their connections to bodily-mediated communication and space cannot, unfortunately, be achieved in this work. They could hardly be tracked, although they converge and diverge into urbanised spaces, and surely are in themselves forms of system integration. Considering the difficulties to be faced by a project that intends to relate communicative practice as bodily and informational exchange to space, the connections to these highly complex, volatile, independent webs of circulation and transaction must be left as a subject for further investigation. In the particular scope of this work, only the foundations of these connections *in space* shall be rendered explicit – as they converge into and diverge from urbanised spaces, and connect to flows of communication via space itself. The work will keep its focus on the materiality of interacting subjects co-present and uttering information in space.

Chapter 1

Relations of the Social and the Material

The first chapter discusses some paradigmatic theories and their distinct conceptualisations of the relation of space to social life and experience – conceptualisations indeed geared to grasp specific aspects of social and material reality. The chapter comes back to such classical approaches in order to demonstrate, first, how systematic socio-spatial theories operate; second, what are their distinctive object domains; third, what is ontologically missing in such frameworks and in the epistemologies that guided them; and fourth, what paths into missing dimensions of the relations between the social and the spatial an alternative framework could take.

Introduction

Space was treated as the dead, the fixed, the undialectical, the immobile. Time, on the contrary was richness, fecundity, life, dialectic.

Michel Foucault, *Power/Knowledge*, 1980

From Marx to Mills, social theory was mostly concerned with the historic changes of contemporary Western societies. Time was the object of interest; it was credited to be, if not an inexorable way into social transformation, the core of the social problematic. Many scholars have been observing the virtual absence of space in social theory and disciplinary divisions between social and spatial sciences. However, it is not my intention to search reasons for the traditional consideration of time and history over space in social affairs.³ It suffices by now to observe that a “reassertion of space in critical theory” defended by Soja and others came into being in the 1990s, as the cultural sciences began to unfold space as an important feature of the socio-cultural condition and change (Crang and Thrift 2000, Soja 2000). The fact that space is now more of a concern in social and cultural theory nevertheless provides an interesting background to the present work.

There are of course many explanations for aspects of the intertwining between society and space, as in human geography or in spatial economics; anthropological studies of social integration and the organisation of space; or phenomenological studies of spatial behaviour. These explanations range from partial, specific aspects to broad and ambitious explanations of the problem. This chapter

³ For accounts on the traditional absence of space in social thought, see Soja (1989), Harvey (1973, 1985), and Benko and Strohmayer (1997) among others.

analyses some of the most encompassing ones: three paradigmatic approaches that emphasise rather distinct sociological, political, economic, and material levels of social reality. First, I briefly show main ideas from the work of David Harvey, Henri Lefebvre, and Edward Soja. Second, I review the Durkheimian approach of Hillier and Hanson, a completely distinct view of both society and space. Third, I turn to Giddens' insightful theory of structuration. Finally, I shall point out, through a brief critique of the scope of such approaches, areas for theoretical expansion regarding the spatial and communicative constitution of the fabric of practice, seeking to justify the need for new theories of society and space relations. I shall turn to more recent approaches, namely post-structuralist and non-representational theories, in Chapter 4.

1. Marxist theories

A *Marxist approach* is too broad a definition for Marxian orientations engaged in understanding sociality and spatiality. From descriptions of capitalist relations and its contradictions, epistemological and ontological considerations of space to the idea of a revolution that is also a spatial revolution, these theories certainly deserve a closer look than this work can actually provide. When Harvey announced, at the peak of the quantitative revolution in geography, the theoretical shift to Marxism in *Social Justice and the City* (1973), it was the turn towards encompassing a political view of the complexities of the 1970s: rising social movements such as feminism, anti-war movements, segregation, the expansion of monopoly capital on a global scale – features of what Castells called *la ville sauvage*. Those were approaches appropriate for the times, also as reactions to the positivist perspective of socio-economic contradictions.

Capital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital. (Harvey 1978:124)

If such a physical landscape is the image of capital, space is supposed to relate to the structures of society, to contain in itself the capital conditions as *social relations of production*, and its intrinsic contradictions. The search for a Marxist theory of advanced capitalism and the debate over the role of production and finance capital and the city (be in the substitution of fixed capital or in segregation and class struggle) meant also the search for reasons for the *survival of capitalism*. How could last a system that was supposed to be overcome due to its own contradictions? Lefebvre introduced the explanation: capitalism would survive by producing and occupying space. At the regional and international scales (somewhat disconnected from the urban scale but with many

parallels), the development of a comparable theory was the aim of Mandel (1975): the *unequal development of regions and nations is as intrinsic to the capitalist dynamic* as it is the direct exploitation of labour by capital. The differentiation of space into regions of distinct levels of development and their combination is inherent to capital. Capitalism spins around two tendencies: it cannot reach full equalisation, and therefore induces deep uneven geographical development. “The accumulation of capital itself produces development and underdevelopment as mutually determining moments of the uneven and combined movement of capital” (Mandel 1975:85). Soja (1989) developed such ideas into a more general assertion, the Lefebvrian thesis of a “socio-spatial dialectic.” Let me focus first on his post-modern turn against historical determination.

1.1. Edward Soja and the socio-spatial dialectic

Soja is indeed one of the main agents of the recent spatial turn in the cultural sciences, for his extensive discussions on contemporary issues looked for inserting space into post-modern debates on the *Otherness* (the search for a mostly missing alterity to the male and Western view of the world), on gender, on the failure of modernism and modernist theory to account for the plurality of the social (and spatial) world. He might be seen as a great polemist rather than a systematic thinker, but Soja seems to intend his work to be that way, a mosaic of ideas rather than a formal framework. He intends to reconstruct the historical narrative, allowing for “more ‘lateral’ connections to be made” (Soja 1989) – a *spatial hermeneutic* of “other spaces” aiming at changing reality. Indeed his framework is Marxist, but Soja is also Lefebvrian, which means he actually deals with many different issues from different perspectives, moving more freely than any orthodox Marxist. The *socio-spatial dialectic* is Soja’s first concern. A “key first step in recognizing a socio-spatial dialectic” is to recognise that “physical space has been a misleading epistemological foundation upon which to analyze the concrete and subjective meaning of human spatiality...Space in itself may be primordially given, but the organization, and meaning of space is a product of social translation, transformation, and experience” (Soja 1989:79-80). He uses Poulantzas’ “spatial matrix” of the state and society as “simultaneously the presupposition and embodiment of the relations of production.”

The structure of organized space is not a separate structure with its own autonomous laws of construction and transformation, nor is it simply an expression of the class structure emerging from social (and thus spatial?) relations of production. It represents, instead, a dialectically defined component of the general relations of production, relations which are simultaneously social and spatial. (p.78)

He goes on to theorise such simultaneity, drawing on Lefebvre, as a “corresponding *spatial homology to traditionally defined class relations* and hence to the contingencies of class conflict and structural transformation.” Spatial relations of production and centre-periphery structure are not only homologous to the social relations of production but also arise dialectically from the mode of production. The dialectic is interpreted as a clear correspondence between social and spatial relations of production, between relations of class and those between centres and peripheries. Social and spatial relations are inter-reactive and interdependent. Relations of production are both space-forming and space-contingent. In order to elevate the spatial structure to a social level, the core-periphery relation and its spatial hierarchies at many scales have to be seen as “both the product and the instrumental medium of geographically uneven development. As such, the core-periphery structure becomes fundamentally homologous to the vertical structure of social class” (p.111). Soja synthesises his version of the socio-spatial dialectic in eight premises⁴ listed below, followed by my brief comment on their sources.

1. Spatiality is a substantiated and recognisable social product, part of a “second nature” which socialises and transforms both physical and psychological spaces – as we shall see below, a Lefebvrian notion.
2. As a social product, spatiality is simultaneously the medium and outcome, presupposition and embodiment, of social action and relationships – a concept directly derived from Giddens’ (1984) duality of structure, where Soja substitutes “structure” for “spatiality.”
3. The spatio-temporal structuring of social life defines how social action and relationship (including class relations) are materially constituted – another assertion derived from Giddens. It is curious to see that (only here) Soja acknowledges that “class relations” are but one form of social relation.
4. The constitution/concretisation process is problematic, filled with contradiction and struggle (amidst much that is recursive and routinised). Marx meets Giddens in an awkward combination. In fact Giddens uses notions such as routinisation and recursivity to link agency and structure, which is not there in Soja. Fundamentally, Giddens (1981) criticises the burden of structure over agency also in Marxist theory, what he tried to overcome through the notion of “structure” as constraint and enablement (Giddens 1984).
5. Contradictions arise primarily from the duality of produced space as both outcome/embodiment/product and medium/presupposition/producer of social activity. Soja again uses Giddens (the “duality of produced space” is a simple transposition of Giddens’

⁴ See Soja (1989:129).

duality of structure) to explain a Marxist concept. One starts to believe that Soja is more Giddensian than Marxist, but that is only apparent: the fact is that Giddens actually spatialised social processes, and Soja takes advantage of that.

6. Concrete spatiality – actual human geography – is thus a competitive arena for struggles over social production and reproduction; practices aimed either at the reinforcement of existing spatialities or at a significant restructuring or radical transformation. A truly Lefebvrian assertion.
7. The temporality of social life, from routines to the longer-run making of history is rooted in spatial contingency as the spatiality of social life is rooted in historical contingency. Again a Giddensian notion translated into a Marxist terminology (Marx’s “making of history” in place of Giddens’ “institutionalisation”).
8. The materialist interpretation of history and of geography are inseparably intertwined and theoretically concomitant, with no prioritisation of one over the other. That is a reaffirmation of the dialectic introduced by Harvey and Lefebvre.

Soja tells us that “taken together, these premises frame a materialist interpretation of spatiality.” Let me discuss these and other aspects of Soja’s dialectic. Firstly, Mandel’s homology between social relations and spatial structures works at the international level, but Soja’s urban extension seems little clarifying at the level of urban practice. Cities do not necessarily have a clear spatial distinction between poor and rich, where we find working class areas virtually anywhere in the urban fabric – especially in contemporary contexts of globalisation (see Marcuse and Kempel 2000). Soja himself goes on to admit this lack of clarity:

The polarized structure at all scales is also blurred and mystified in its material forms, giving to actual social and spatial divisions of labour a more complex and finely grained segmentation. The international division of labour, the state-bounded inter-regional division, the urbanized division...[also] in the smallest locality, factory or household, these are not captured in all their complexity by the core-periphery structure. But it is *there* nonetheless, insofar as the social and the spatial relations are linked into capitalist production. (Soja 1989:11)

Although insisting that there are urban core-periphery structures in homology with class relations, Soja ends up acknowledging that “The mutable spatial hierarchy of core-periphery relations is still poorly understood and has created widespread misapprehension” (1989:112). Second, he also admits that there are other forms of social relations apart from production relations. It follows that the dialectic of production relations and uneven spatial development is but *one of the possibilities of*

a socio-spatial dialectic. This particular fact opens the possibility of searching for other forms of dialectics between sociality and spatiality, based on other forms and aspects of relations and interpenetrations between the social and the spatial. Finally, Soja evokes the socio-spatial dialectic but refrains from explaining exactly *how it works at the level of actual practice* – i.e. the daily activities that may be influenced by one’s position in the relations of production. Perhaps he is careful about destroying the dialectical synthesis, or might prefer the quality of the “unfinished” he appreciates in Lefebvre. The fact of matter is that Soja never unveils the reproductive or practical dimension of the dialectic. A Marxist who is certainly not afraid of doing so – and perhaps for that accused of over-formalism by Soja – has been also the most influential geographer of a generation.

1.2. David Harvey and the spaces of capital

David Harvey’s work with respect to the sociality-spatiality relation is both extremely innovative and rigorous. Without the generality and eventual over-enthusiasm typical of Soja, his is a very conscious Marxism – the deepest (if not the broadest) spatial interpretation of Marx’s theory. “As a Marxist I am overtly rather than subliminally concerned with rigorous theory building in relation to unique configurations of historical-geographical processes” (Harvey 1985:xiii). Harvey both epitomised and rejected the quantitative revolution in geography, crystallising the beginnings of a new, critical human geography. He also seems to have arrived at a dialectical formulation of relations between society and space before reading Lefebvre⁵ – a formulation where spatial forms are seen not as inanimate objects within which the social process unfolds, but as things which “contain” social processes in the same manner that social processes are spatial (Harvey 1973). Nevertheless I shall leave aside Harvey’s epistemology, the morality of social justice and the inquiry into the post-modern experience in order to concentrate on contributions more evidently concerned with the relations between spatial form and social processes that he developed so carefully: the imbricated relationship of urban space and capitalist accumulation (Katznelson 1988). The city is conceptualised as “a pivot around which a given mode of production is organized, as a centre of revolution against the established order, and as a centre of power and privilege (to be revolted against)” formed “through the geographic concentration of social surplus product, which the mode of economic integration must therefore be capable of producing and concentrating” (Harvey 1973:203). It is “contained within a field of relations between the social surplus, the dominant mode of economic organization, and the spatial organization of society” (Katznelson 1988:5). Harvey conceptualises the city and urban planning as an object of analysis and action, as a

⁵ See Harvey (1973:302).

form to reach the approximation of Mills' "sociological imagination" and a "spatial consciousness" or "geographical imagination." He will work on the mechanisms of spatial production and how these express and affect social processes. One of the original problems of Harvey's geography is planning: in an approach influenced by location theory and urban economics, he analyses allocation decisions and redistribution of income in an urban social system. That implies mechanisms controlling income redistribution: how changes in the spatial form of a city bring about changes in individuals' income, and generate income inequalities. These questions are related to the problem of defining a spatial structure or set of structures, a territorial organisation in the urban system able to maximise equity and efficiency or at least the control of redistribution mechanisms (a locational pattern efficiently subject to distribution constraints) – a theory "to harmonize the policies governing spatial form and social processes so as to ensure the achievement of some overall social objective" (p.94). That is a normative theory and an understanding based on principles of social justice as territorial distributive justice. Harvey expanded those "liberal formulations" into *principles of social justice*. Harvey starts to draw the theoretical basis of a theory of *use value* and *exchange value* related to *urban land use*.

In capitalist economies rent arises in monopoly, differential and absolute forms. Once it has arisen, rent serves to allocate land to uses. When use determines value a case can be made for the social rationality of rent as an allocative device that leads to efficient capitalist production patterns...But when value determines use, the allocation takes place under the auspices of rampant speculation, artificially induced scarcities, and the like, and it loses any preference of having anything at all to do with the efficient organisation of production and distribution. (p.190)

The importance of urban space to capitalism can start to be devised. Urban growth (periphery, centre and "all through the system") becomes a way of realising increments in rental value or fixed capital value while providing a field for the disposal of surplus product. Harvey fundamentally *links spatial production and social surplus*.⁶ Accumulation in the form of appropriation of surplus labour and concentration of surplus value⁷ is therefore necessary for the production of space. Thus, beyond the "exploitation of a certain section of the population", "Spatial integration in the economy, the evolution of price-fixing markets and the evolution of urbanism are therefore inextricably interrelated through the necessity to create, mobilize and concentrate the social surplus" (Harvey

⁶ Harvey defines social surplus or surplus labour as "the quantity of labour power used in the creation of product for certain specified social purposes over and above that which is biologically, socially and culturally necessary to guarantee the maintenance and reproduction of labour power in the context of a given mode of production" (Harvey 1973:238).

⁷ "Surplus value is surplus labour expressed in capitalist market terms" (Harvey 1973:238).

1973:237). Urban space is a product, a tangible expression of the organisation of production, the process which circulates surplus value in order to concentrate more of it, and the need for consumption demand. The emergence of new relationships in production (in the economic basis) is simultaneous to the emergence of complex spatial forms like cities. Harvey thereby explains “the relationship between urbanism as a social form, the city as a built form, and the dominant mode of production” (p.203). The repercussions of that socio-spatial process are not confined to problems of distribution or a form of the city. Once urban space is produced, “Urbanism may be regarded as a particular form of patterning of the social process” (p.196).

Urbanism is a social form, a way of life predicated on, among other things, a certain division of labour and a certain hierarchical ordering of activity which is broadly consistent with the dominant mode of production. The city and urbanism can therefore function to stabilize a particular mode of production (they both help create the conditions for the self-perpetuation of that mode). But the city may also be the locus of the accumulated contradictions and there the likely birthplace of a new mode of production. (Harvey 1973:203)

Harvey here exposes the Lefebvrian thesis of how social relations of production are embodied in urbanism. He arrives through Luxemburg at a further point: as there is a necessity for an expansionary mode of production to seek accumulation at the very heart of capitalist processes, that can be achieved through an *ever-increasing penetration of the market-exchange mode of production into more and more aspects of social life and into new territories*. Space becomes instrumental in that sense. Contemporary urbanism may be regarded as “global metropolitanism”, a “global form of economic imperialism” – and a way of overcoming capitalist contradictions.

The urbanisation of capital: capitalist crises and the *spatial fix*

A general frame and clarification of the core argument was still to be defined in terms of a broader account of capital, class, state and space – a theory of capitalist crisis and the geography of accumulation. *The Limits to Capital* (1982) engaged in an ambitious critique of Marx’s *Capital* – in the form of a theory of the capitalist production of space. “I there tried to fill all kinds of “empty boxes” in Marxian theory, such as the circulation of fixed capital and built environment formation; the appropriation of rent; the workings of money, finance, and credit; the production of monetary and financial crises; and the like. I needed to theorize such phenomena if I was ever to construct a comprehensive theory of urbanization” (Harvey 1985:xi). Now Harvey was able to proceed “the opening of a new phase in Marxist urban analysis” (Soja 1989:102): the *dialectics of crisis formation and resolution through the production of space* (a Lefebvrian hypothesis). Roughly, this

new level of the socio-spatial dialectic operates in the production of fixed capital itself due to the production/overaccumulation need for geographical expansion and intensification. The production of urban space thus solves momentarily such a contradiction, but only to become a barrier to capital development itself.

Capital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital...Capitalist development has therefore to negotiate a knife-edge path between preserving the exchange values of past capital investments in the built environment and destroying the value of these investments in order to open up fresh room for accumulation.

Under capitalism, there is then a perpetual struggle in which capital builds a physical landscape appropriate to this own condition a particular time, only to have to destroy it, usually in the course of crises, at a subsequent point in time. The temporal and geographical ebb and flow of investment in the built environment can be understood only in terms of such a process. (Harvey 1985:84)

Such an impressive claim is the keystone of Harvey findings on the social production of space as it expresses and shapes (the contradictions of) capitalism. That is the explanation of a dialectic that Lefebvre proposed but left undemonstrated. Harvey arrived at such a conclusion, or so I suppose, through two related ways involving Marx's *annihilation of space by time*.⁸ The first way is derived from Marx's laws of accumulation and the circuits of fixed capital investment, i.e. the structure of capital flows in three interweaving circuits (or "long waves") of space-building investment. The cyclical model of investment in the built environment means that the rhythm is dictated in part by the rhythms of capital accumulation and in part by the physical and economic lifetime of the elements within the built environment. That means that change is bound to be relatively slow as long waves are associated with waves of investment in the built environment and their contradictory character. Fixed capital enhances the productivity of labour and thus contributes to the accumulation of capital (Harvey 1985). The second way derives from the Hegelian search of *a spatial fix for capitalism's contradictions*, the need of spatial "creative destruction" in crises of overaccumulation of capital⁹ and the growing capitalist dependency on fixed capital, in the form of

⁸ The need to reduce *turnover time* (production time plus circulation time, what reduces the realisation of surplus value, for it separates production and realisation) leads to the rationalisation of the geographical landscape and to urbanisation in order to "kill space with time" and "overcome spatial barriers" for capital.

⁹ *Over-accumulation* is the excess of capital in relation to the opportunities to employ it profitably, as surplus of commodities, money, productive capacity, surplus of labour power (Harvey 1985).

geographical expansion into new markets. The production of space in capitalist accumulation defines “dual and intersecting contradictions that locate the underlying tensions that shape and propel historical-geographical evolution of capitalism” (Harvey 1985:60) as “periodic reshaping of the geographical environment to adapt it to the needs of further accumulation” (Harvey 2001:247). The greater the over-accumulation and the faster the consequent pace of geographical expansion, the faster the pace of transformation of space. As space embodies capital that has yet to be realised, an increasing portion of that capital has to be destroyed to make way for the new geographical (urban) configurations of production, exchange, and consumption – a truly dialectical process. Nevertheless, as capitalism spreads geographically its social relations and the need for absorbing over-accumulation, “there is no long-run ‘spatial fix’ to capitalism’s internal contradictions” (Harvey 2001). Harvey solves a “black box” in Marx’s theory through the spatial fix foreseen by Hegel, and demonstrates brilliantly the Lefebvrian thesis of the role of space for the survival of capitalism. This section of course hardly could explore all facets of his conceptualisation, including specific aspects of surplus, modes of economic integration and the space economy of urbanism. Also absent in this review were its political, epistemological and cultural extensions (see Harvey 1989, 1996, 2000). Although – we shall see below – the realm of practice is restricted to production in his work, Harvey’s influence over 1970s Marxist generation can only be rivalled by one theorist, a philosopher whose ideas also have shaped post-modern debates on the spatiality of life, sexuality and difference: Henri Lefebvre.

1.3. The multiple spaces of Henri Lefebvre

The project I am outlining, however, does not aim to produce a (or *the*) discourse on space, but rather to expose the actual production of space by bringing the various kinds of space and the modalities of their genesis together within a single theory.

Henri Lefebvre, *The Production of Space*, p.16

Henri Lefebvre wrote *The Production of Space*,¹⁰ his definitive book on space at the peak of his intellectual powers, after fifty years of Marxist incursions into philosophy, politics, social theory, and urbanism. Such an intellectual richness allowed him to introduce many crucial theses about the social importance of space, and in many directions. Are his the main ideas behind most of the extensive Marxist assertion of space in social theory; ideas such as a multi-layered *social space* (an

¹⁰ Lefebvre (1991); original French edition 1974.

ontological categorisation rejected by Harvey),¹¹ a space not merely concrete but imagined; the thesis of an urbanisation initially induced by industrial capitalism turned into the main industrial reproductive force (also rejected by Harvey 1985); the production of urban space as solution for contradictions of capitalism, and the growing importance of financial capital in urbanisation (both demonstrated by Harvey 1982, 1985); the core-idea of Marxist geography: the embodiment of social relations in space, the *socio-spatial dialectic*; the *colonisation of everyday life by abstract spaces* and the convergence of a fragmented world through space and the perceptual body; and finally the project of revolution that is also a *spatial revolution*. These ideas still represent the celebrated core of Marxist spatial theorisation.

The Lefebvrian ontology assumes that space is present in the very act of creating and being, and that the process of life is inextricably linked with the production of different spaces. He insists that space is *lived* before it is *perceived*, and *produced* before it can be *read* (Dear 1997:52): “in Lefebvre’s hands, space becomes redescribed not as a dead, inert thing or object, but as organic and fluid and alive...it flows and collides with other spaces” (Merrifield 2000:171). These interpenetrations and superimpositions create a *present* space. It is “never easy to get back from the object to the activity that produced and/or created it;” we need to “reconstitute the process of its genesis and the development of its meaning” (Lefebvre 1991:113). His spatialogy comes from his criticism on space in philosophy (as the Kantian transcendental space of an Aristotelian means of classifying phenomena, *a realm of consciousness*), in science (a mathematical unpractical and non-social space), in Foucault (who according to Lefebvre never explains “what space it is that he is referring to, nor how it bridges the gap between the theoretical realm and the practical one”), in the linguistic, mental space of Chomsky (who “ignores the gap to social space wherein language becomes practice”), and Lacan.

Epistemologico-philosophical thinking has failed to furnish the basis for a science which has been struggling to emerge for a very long time...That science is – or would be – a *science of space*. (Lefebvre 1991:5)

Beyond metaphysical spaces, Lefebvre searched a passage to the physical and social. “We are thus confronted by an indefinite multitude of spaces, each one piled upon, or perhaps contained within, the next: geographical, economic, demographic, sociological, ecological, political, commercial,

¹¹ Harvey (1973) prefers to understand space as a historic-geographical process, not as a distinguishable ontological category that could reify space as a thing.

national, continental, global” (Lefebvre 1991:8). This entire intellectual sectioning exemplifies a tendency within the capitalist mode of production: *endless division*. His spatiality is intended to unify three fields usually separated: the *physical* (nature, the Cosmos), the *mental* (including logical and formal abstractions), and the *social*.

Space and social relations

Every society, and hence every mode of production, produces its own spatial practice, its own *appropriated* space. In order to understand how space incorporates social relations we need first understand that social space also contains specific representations of a *triple interaction* that maintain these social relations in a state of coexistence and cohesion, “displays them while displacing them.” Social space has three moments, a conceptual triad of the perceived (related to *spatial practice* and perceptions of the world), the conceived (the *representations of space* constructed by scientists, planners, technocratic subdividers – the dominant space in any society, tied to relations of production and their imposed order, knowledge, verbal signs, codes), and the lived (the *spaces of representations*, of complex symbolisms linked to the clandestine side of social life, the dominated and passively experienced space appropriated by imagination. It tends to lean towards systems of non-verbal signs).¹² The question is the relation, the “interstices” between representations of space and spaces of representation. “[The space of representation] is alive: it speaks” of memories, dreams, and uterine images. It has an “affective kernel or centre”: ego, bedroom, house. “It embraces the loci of passion, of action and of lived situations, and thus immediately implies time...it is essentially qualitative, fluid and dynamic” (Lefebvre 1991:42). In their turn, *representations of space* (the conceived spaces of technocracy) have a practical impact, intervening and modifying spatial textures which are informed by knowledge and ideology. They have a substantial role and influence in the production of space through architecture, conceived as a project embedded in a spatial context which calls for “representations”. Representations of space have combined ideology and knowledge within socio-spatial practice; both are subsumed and operational in the notion of “representation” as the analysis of spaces and of societies which give raise to them. Lefebvre advances the thesis of *the projection of social relations into space* and their spatial reproduction.

There is one question which has remained open in the past because it has never been asked: what exactly is the mode of existence of social relationships? Are they substantial? Natural? Or formally

¹² For the sake of clarity, I adopted Harvey’s (1989) and Gregory’s (1994) version for Lefebvre’s term “spaces of representation” instead of “representational spaces” in Nicholson-Smith’s translation (published as Lefebvre 1991).

abstract? The study of space offers an answer according to which social relations of production have existence to the extent that they have a spatial existence; they project themselves in space, becoming inscribed there, and in the process producing that space itself...The dialectics thus emerge from time and actualizes itself, operating, in an unforeseen manner, in space. The contradictions of space, without abolishing the contradictions which arise from historical time, leave history behind and transport those old contradictions, in a worldwide simultaneity. (p.129)

That is the core of the Lefebvrian dialectics that inspired much of the Marxist geography. Space would reproduce the social relations of production as a capitalist process to maintain its defining structures in three levels of reproduction: bio-physiological reproduction within family and kinship relations; reproduction of labour-power and the means of production; the reproduction of production relations – reproduced and concretised in a space “progressively occupied by an advancing capitalism, fragmented into parcels, homogenized into discrete commodities, organized into locations of control, and extended to the global scale.” That is achieved largely through bureaucratically controlled consumption, differentiation of centres and peripheries at multiple scales and the penetration of state power into everyday life (Soja 1989:92, Lefebvre 1991:182-90). The relation between representations of space and spaces of representation is fundamental. There lies the tension between the colonising forces of capitalist space and the colonised everyday life of appropriated spaces.

Abstract spaces: the colonisation of everyday life

The history of space and its production is not to be confused with the history of events or a sequence of customs or institutions. Relations between the conceived-perceived-lived are not ever stable and have historically defined attributes (Merrifield 2000). To Lefebvre, capitalism gives primacy to the conceived realm; social space of lived experienced gets crushed and vanquished by an *abstract* conceived space. “Lefebvre sketched an historical series of representations of space, each connected to a specific mode of production, through which social space had been progressively ‘de-corporealized:’ the advance of capitalism thus depended not only on a logic of accumulation but also on a logic of visualization through which human spatiality bore less and less relation to the human body” (Gregory in Johnston et al 2000:644). What is conceived is usually an oppressive objective abstraction which renders less significant both conscious and unconscious levels of lived experienced. Lefebvre sketches two “histories of space” which are also “histories of the body”, a radicalisation of Marx’s critique of political economy; his singular Marxism is also a reconstructed historical materialism (Gregory 1997). Lefebvre reveals *other* spaces: *absolute space*, natural until populated by socio-political forces and *colonised*; *abstract space*, the space of

accumulation of knowledge, technology, money, works of art and symbols, in which production and reproduction processes are separated, and space takes on an instrumental function i.e. manipulated by all kinds of authority – a “visual-geometric-phallic space”¹³ (Gregory in Johnston et al 2000:644); *contradictory space*, the disintegration of the old and generation of the new in response to contradictions in abstract space; and *differential space*, the mosaic of different places. Abstract space resembles Marx’s abstract labour: qualitatively different (concrete) labour under the bourgeois system was reduced to one quantitative measure: money. Abstract space, as abstract labour, denies concrete qualitative or differential space, the space that celebrates particularity, the bodily and the experiential. Abstract space is the repressive economic space of capital, bound up with exchange of goods and commodities, written and spoken words, the space of masculinity and the phallic erectility of skyscrapers; formal, homogeneous and quantitative, erasing all differences that originates in the body.¹⁴ Differential space cannot be allowed to flourish by the powers that be; it has unacceptable demands on accumulation and growth (Merrifield 2000:176).

The dominant form of space, that of centres of wealth and power, endeavours to mould the spaces it dominates (i.e. peripheral spaces), and it seeks, often by violent means, to reduce the obstacles and resistance it encounters there. Differences, for their part, are forced into the symbolic forms of an art that is itself abstract...the bureaucratic and political authoritarianism immanent to a repressive space is everywhere. (Lefebvre 1991:49)

Although the abstract space of impersonal pseudo-subjects denies/hides sexual differences, sensuality and affectivity, its contradictory point of reference is genitality: the family unit, the dwelling (apartment, cottage etc.). In such a space, the reproduction of social relations is conflated with biological reproduction, conceived of in the crudest way. The representation of space leaves the narrowest leeway to spaces of representation, limited to works, images and memories, so displaced that has little symbolic force. In its illusory transparency, conceived space relates negatively to what underpins it, the historical and religious-political spheres, and positively to its own implications: technology, applied sciences, knowledge bound to power. The place of social space has also been usurped by a part of space endowed with an illusory status, that concerned with writing and imagery (journalism, literature) and broadcast by the media; a part “that amounts to abstraction wielding awesome reductionistic force vis-à-vis ‘lived’ experience.”

¹³ See Gregory’s (1994) excellent account on the composition of representations of space and its relation to modes of production regarding the simultaneous de-corporealisation of space and the urbanisation of society.

¹⁴ There are certain similarities between Castells’ spaces of *flows* and *place*, and Lefebvre’s *abstract* and *differential* spaces – but Castells does not acknowledge that in *The Rise of the Network Society*.

Any 'social existence' aspiring or claiming to be 'real,' but failing to produce its own space, would be a strange entity, a very peculiar kind of abstraction unable to escape from the ideological or even the 'cultural' realm. It would fall to the level of folklore and sooner or later disappear altogether, thereby immediately losing its identity, its denomination and its feeble degree of reality. (Lefebvre 1991:52)

The abstract representations of space engender spatial practices “of bureaucratization and commodification, which relied on the production and extension of spatial grids of power (an unstable process of territorialization and reterritorialization in both political and economic registers)” (Gregory in Johnston et al 2000:646). Space becomes a criterion to distinguish between ideology, practice, and knowledge. And yet *space is the take-off point for capital accumulation*. The production of space can be likened to the production of any sort of commodity. Whereas for the Althusserian Marxism of Castells space is a question of reproduction and urban crisis a crisis of consumption, for Lefebvre space is not just a passive surface for social reproduction. Although space permits commodity transactions and the reproduction of labour-power, it is also part of capitalist accumulation strategies. *Space is colonised and commodified*. “Abstract space was at once symptomatic of and constitutive of capitalist modernity” – a space that “colonised everyday life and atrophied its roots in an older, historically sedimented concrete space” (Gregory in Johnston et al 2000:646). It internalises the contradictions of capitalism, and such contradictions become contradictions of space (Merrifield 2000:172). Thus the production of space begins with the study of natural rhythms and their modification, and their inscription in space by means of human action, especially work-related actions (Lefebvre 1991:117). While social space is a product to be used or consumed, it is also a means of production. “Itself the outcome of past actions, social space is what permits fresh actions to occur, while suggesting others and prohibiting yet others” (p.73).

Observations on Lefebvre's spatialogy

Of course I neither could go into detail nor explore other subjects in Lefebvre's epistemology of space: the survival of capitalism; a social and spatial revolution; the unity of reality through the sensual body; relations between discourse, space and time; the imagined spaces and the knowledge of reality; the trajectory of capitalism as the inscription of masculine power; his ontology of space and bodies. The great importance of Lefebvre's insightful theory of social space is nevertheless clear. Few authors could offer such amplitude, and indeed few attempted it. For the sake of clarity, we can somehow define realms explored differently by Harvey and Lefebvre. Lefebvre indeed provided much of the grounds where to assent over the problematic of the social and the spatial, and

this was certainly influential in Marxist geography and other contemporary debates. But it was Harvey, also strongly concerned with the philosophical foundations of theory and methodology, who developed such ideas into an incisive, well-finished, more orthodox Marxist framework for understanding a deep involvement of the social and spatial at the level of production.

Lefebvre's space is more concrete and rich in its physicality than Soja's interpretations of Lefebvre would suggest – what has effects in the whole consideration of human spatialities. Soja's space is an heterogeneous “material generality” where complex social contents and movements flow and collide in a melting, yet fragmented capitalist landscape that spreads shapeless rather than in concrete urban spaces of everyday life. Lefebvre's social space is also “everywhere,” but is constituted of spaces of practices *fundamentally constituted by the materiality of place*. His expanding capitalist abstract space has a shape, an urban and architectural shape. Lefebvre is not afraid of seeing the physicality of urbanised space. His critique claims that representations of space have a practical impact, weaving into and modifying spatial *textures* which are informed by “conceived” knowledge and ideology. Through the practice of architecture, the conceived is embedded in actual space which in turn cannot help being subject to “representation.” Let me observe that architectural practice seems generally not aware of this fact. It tends to play an unconscious part in the reproduction of social contexts. Modernist architecture indeed renounced the symbol, the forms of representation latent in historic architectures and cultures. When it did, it distanced certain realms of human activity and complex interpretations of the world – there, represented in the built environment itself. The practice of architecture was drawn into an extremely functional interpretation of the possibilities of practice, announcing and introducing “new times,” modernity itself, deeply into the social world, actualising its reach into everyday life. It announced the division between symbolic (historical, traditional) and practical (in increasingly differentiated functional) realms of life and practice, deepening the initial separation of work and home started in the 17th century (Hall 1998). It installed new rational requirements in and as symbolic, practical and physical space structures. The modern city was to crystallise a rationalised system of specific sites for a system of activities with strategic intent. Functionalism became the “order of the day,” evident in the bare design of pure, abstract geometry of forms in the 20th century. Buildings became “machines to live in” (Le Corbusier): architecture and the city were to play their role in informing and producing new forms of organisation. Lefebvre saw the modern city as evidence of modernisation, just like Weber saw the transformation of the spheres of culture, bureaucracy and ethical orientations, or Durkheim saw the evolution of systems of law and punishment. Architecture and urbanism epitomised the rationalisation of society. These were indeed brief accounts of Marxist

approaches to the socio-spatial problematic. Overall, society is seen as dialectic of forces and relations of production. Surely the understanding of that problematic would be quite different from a Durkheimian viewpoint.

2. A Durkheimian approach: Hillier and Hanson

...the need for a proper theory of the relation between society and its spatial dimension is acute...Unfortunately, because of the pervasive interconnections that seem to link the nature of society with its spatial forms, a social theory of space cannot avoid being rooted in a spatial theory of society. Such a theory does not exist... if it existed, would probably also be a theory of the nature of society itself, and the fact that such theory does not exist is a reflection of some very fundamental difficulties at the foundation of the subject matter of sociology itself, difficulties which on a close examination...turn out to be of a spatial nature.

Hillier and Hanson, *The Social Logic of Space*, p.29

Another approach to the socio-spatial problematic was developed in the form of an analytical theory of architecture and urbanism. A theory strongly linked to empirical studies was introduced in *The Social Logic of Space* (1984) understanding the “effect of social life on spatial organisation.” I shall now draw the main lines of the theory, and leave discussions of more specific concepts including its expansion beyond the Durkheimian framework (in Hillier 1996, 2001, 2003) to Chapters Four and Seven. Distinctly from human geographical accounts, this theory concentrates on a physical dimension of space, with a similarly direct take on the social.

By giving shape and form to our material world, architecture structures the system of space in which we live and move. In that it does so, it has a direct relation – rather than a merely symbolic one – to social life, since it provides the material preconditions for the patterns of movement, encounter and avoidance which are the material realisation – as well as sometimes the generator – of social relations. (Hillier and Hanson 1984:ix)

Considering that “the relation between space and social life is certainly very poorly understood,” Hillier and Hanson’s aim is to develop a form of overcoming these basic difficulties and bridge the social and the spatial – what meant developing a particular form of understanding the nature of space: architectural space *appears* to be physical but that is illusory. Buildings are transformations of space through objects: “they create and order empty volumes of space resulting from that object into a pattern.” The space that matters the most is not visible; it is rather those “spatial voids of

practice” that matter – the voids produced or left by walls and buildings, the spaces we actually occupy and move within. As we produce and structure space, we produce among other things a system of spatial relations within and between those voids produced by physical objects. Just as language and symbolic systems are relational systems, so is space. The human mind makes use of all these unconsciously. Space, Hillier and Hanson argue, is one of those things (like rules in language itself) that “we think with rather than we think of.” The understanding of the complex, systemic articulation between spaces is not an easy task to our cognitive possibilities. Iconic representations of appearance or structure of spatial objects (i.e. features of “absolute space”) can show how spaces are, the form of space (say streets, walls, rooms), as indeed do architectural drawings and urban plans. However, such representations do not see underlying relations between them, say those we ensemble as paths while we move and perform our daily lives – e.g. how to get somewhere in a city or in a building. It can be said that such an understanding relates to a property or dimension of space which is not “visible” (while absolute space objects are), something that we somehow experience, and understand non-discursively as it embeds our use of space. But the human mind, able to master such relations unconsciously, finds difficulties to translate such forms of knowledge into discursive knowledge. This cognitive dimension is in fact a fundamental element of the relation between society and space, and becomes a feature of the study of that relation. That is, the cognitive difficulty in translating that form of knowing and appropriating space into discursive knowledge simply requires a way out of it as theoretical dead-end. Finding “consciously” those spatial relations demands another level of observation, in fact an abstraction from the appearance of form. Hence the need for a method to handle the “invisible” in physical space, focusing notably on relative properties of space, the space of topological relations (“configuration”) in order to turn visible underlying structures of space. Hillier and Hanson (1984) and Hillier (1996) affirm that we take advantage of those very relations not only when we reproduce our practices in space but also when we *produce* space. Such observations were connected to a substantive concern of a sociological rather than behavioural character.

The common ‘natural’-seeming definition sees it [the problem of space] as a matter of finding relations between ‘social structure’ and ‘spatial structure’...The problem definition as it stands has the effect of desocialising space and despatialising society. Society must be described in terms of its intrinsic spatiality; space must be described in terms of its intrinsic sociality. (Hillier and Hanson 1984:26)

They seek a conceptual model of “the social content of spatial patterning and the spatial content of social patterning,” or “how spatial pattern can, and does, in itself carry social information and

content” (p.xi). Structuralist anthropologists as Levi-Strauss saw in space a way of studying “social and mental processes through objective and crystallised external projections of them” and related social structure and spatial form in a number of cases and to different degrees. Hillier and Hanson reject the understanding of space as a mental projection “not to reduce space to being only a by-product of external causative agencies.” As they reject claims that space is not something analysable *in itself* – provided that the analysis is oriented by a sociological intent, and rebuilt or reinserted back into the social, as related dimensions of socio-spatial reality. The “syntactic” method developed to identify relational structures of physical space is intended to account for the forms space is articulated in order to be appropriated by people.

How are the underlying structures of space produced by people and appropriated by them? How could spatial structures be intrinsically related to the social? The observation of fundamental variations in morphologies produced by different societies (from hierarchical to non-hierarchical, dispersed to compressed, non-ordered to ordered, non-meaningful to meaningful) in the form of cities and settlements offered a connection to the social dimension, a form of accounting for “differences in the ways in which space fits into the rest of the social system” (p.5). Seeing societies first as systems of encounter and movement, Hillier and Hanson argue that the underlying structure of cities would define integrated spaces of great accessibility, hence *co-presence* and potential interaction, along with “syntactically segregated spaces” naturally less accessible and thereby stimulating less *co-presence*. People’s movement in space seem to contain certain degrees of densities – *encounters* in space. A step further, the distribution of encounters is related to *social relations* between inhabitants, and between inhabitants and strangers, a “correspondence between socially identifiable groups and spatial domains” (p.6) through co-residence or proximity, and groups that appear to *cross-cut spatial divisions* and integrate across space. The former reinforces a particular community; the latter tends to reinforce the global system as much as the local system (p.41). This duality of “spatial” and “transpatial” seems to appear in all social formations.

Why are spaces produced in one way or another? Why would cities and buildings distribute *co-presence* and potential interaction? And “why should these patterns be different in different societies? Could it be that different types of society required different kinds of control on encounters in order to be that type of society?” The possibility “that there is always a strong relation between spatial form and the ways in which encounters are generated and controlled” was explained through Durkheim’s social solidarities: *mechanical solidarity* based on integration through similarities of belief and group structure, and *organic solidarity* based on interdependence through

difference. "...Durkheim actually located the cause of the different solidarities in spatial variables, namely the size and density of populations. In the work of Durkheim, we found the missing component of a theory of space, in the form of the elements for a spatial analysis of social formations" (p.18). That is "a certain duality in the way in which societies generate space, and this duality is a *function of different forms of social solidarity*" (p.20). *Social relationships are "built" into the very spatial form of buildings and in cities.*

Hillier and Hanson link Durkheim to a view of space through the notion of encounter and co-presence – according to Giddens, we shall see below, a major element of social integration. That would be "the most fundamental fact of space:" that through its ordering of space the human-made physical world is already a social behaviour – "the deepest level at which society generated spatial form" (p.18). Patterns of co-presence or potential encounter latent in people's appropriation of space are a *morphic language* capable of producing spatial arrangements with specific characteristics and properties. They "answer back," generating a social logic of using space. On the other hand, that also means a *spatial logic of society*: specific social solidarities produce space in order to reproduce themselves. "[S]patial organisation is a function of the form of social solidarity; and different forms of social solidarity are themselves built on the foundations of a society as both a spatial and transpatial system" (p.142). Space is not a reflection of society, "but society itself;" the spatial environment is already social behaviour rather than a thing.

What are visible and therefore obviously spatial about societies are the encounters and interactions of people. These are the spatio-temporal realisation of the more complex and abstract artefact that we call society. Now encounters and interaction seem to exist in some more or less well-defined relation to physically ordered space. The observation that this is so provides, in effect, the principal starting point for an enquiry into the relations of society and space. (p.223)

An observation to Hillier and Hanson's perspective on the society-space relation regards exactly "the more complex and abstract" levels of the social. These social processes indeed involve practices and information, the production of practical and symbolic objects and meanings that are forms of relation in themselves. They progressively involve institutional formations such as economic systems, state, and power. One can indeed describe a society in terms of conditions of interaction and social relations. Nevertheless, a more complex description would imply relating them into the complexes of practices themselves. In fact space structures and encounter patterns are there structuring complexes of practice as much as these are there embodied in different social solidarities. By extension, space could play a role in all instances of practices as processes of

communication and exchange. Epistemologically, that implies the connection of research on the structuration of space and social solidarities to other theories. I hope to show that the controversial emphasis on the physical dimension of space does not necessarily imply dismissing the symbolic, as much as the emphasis on social encounter and interfaces does not dismiss the informational or the communicative. I will argue (namely in Chapter 3) that in fact relating these different facets of space will lead us into a more comprehensive theory.

Hillier and Hanson offer a form of understanding a problem that has proved quite difficult: why and how different societies and cultures consistently produce different spaces – say the European medieval town, the North-American city, the Brazilian *favela*, or the Islamic city. They considered the production of these distinct socialised spaces beyond mere contingency, beyond contingent spaces and structures of spaces. In fact, they described spaces as something *also* dependent on, and embedded in the specificities of the social – i.e. the specificities of distinct socialities. They did so expanding a Durkheimian view of social solidarities, combining a notion of societies as embodying differentiated systems of co-presence and interfaces between social categories with a materialist conception of space. Yet another perspective centred on co-presence (and absence) may be found in the work of a sociologist – an insightful perspective able to grasp also intersections and the contexts of intersections of practices in time and space.

3. Anthony Giddens: stretching social systems in space-time

Most social analysts treat time and space as mere environments of action...social scientists have failed to construct their thinking around the modes in which social systems are constituted across time space...It is not a specific type or 'area' of social science which can be pursued or discarded it at will. It is at the very heart of social theory.

Anthony Giddens, *The Constitution of Society*, p.110

It was evident already in *New Rules of Sociological Method* (1976) and *Central Problems in Social Theory* (1979) that Giddens was looking for an alternative to Marxist, Weberian and Durkheimian traditions, and to functional-structuralist theories as in Parsons; an understanding of human agency and of social institutions, a solution for problems such as the structural circumstances which agents are not aware of – one that incorporates agents' contextual explanatory propositions. In other words, he searches solutions for the overestimation of structure over agency in structural sociology, and subjectivity over structure in hermeneutics and phenomenological traditions. Distinctly from

Habermas (1984) who builds a synthetic theory relating those apparently incompatible frameworks as a form of overcoming their specific limitations and antagonisms, Giddens' *The Constitution of Society* (1984) claims a systematic alternative conception which "departs in a substantial fashion from existing traditions of social thought" (Giddens 1984: preface) – although, while rejecting aspects of these traditions, being surely influenced by them. But structuration theory is certainly not "a version of hermeneutics or interpretative sociology" (Giddens 1984:xxi). Its main concern is "the illumination of concrete processes of social life". Here I offer only a very brief view of its "spatiality". I shall discuss its particular concept of "social structure" later in this work.

One of the main concerns of Giddens is to overcome dualisms of subjective interpretation and objective features of action. He does so not through a painstaking adaptation of analytic and hermeneutic traditions, but simply through a Wittgensteinian notion of *practice*. "[S]ocial practices, biting into space and time, are considered to be at the root of the constitution of both subject and social object" (p.xxii). A coherent account of agency and structure leads to the study of time-space relations: "The structural properties of social systems exist only in so far as forms of social conduct are reproduced chronically across time and space. Structuration can be understood in terms of how it comes about that social activities become "stretched" across wide spans of time-space. Incorporating time-space in the heart of social theory means thinking again about some of the disciplinary divisions which separate sociology from history and from geography" (p.xxi). Giddens claims – and that is the very last sentence of *The Constitution of Society* – that "there are no logical or methodological differences between human geography and sociology!" (p.368).

The key-question of how an agency reproduces structural properties of the social system is somehow contained in "how far the situated practices studied in a given range of contexts converge with one another in such a way that they enter directly into system reproduction", i.e. the mechanisms of relation between social and system integration mediated through social practices and time-space: "the routinized intersections of practices" in time-space as "transformation points" in structural relations (p.xxxi). The "interpolation of actions" in time-space situations are either based on co-presence or happen "across extended time-space." That is indeed one of the most significant forms of the material constitution of society: "Relations with those who are physically absent...involve social mechanisms distinct from what is involved in contexts of co-presence. We deal here with basic questions about the structuring of institutions" such as how "the limitations of the individual 'presence' are transcended by the 'stretching' of social relations across time and space" (p.37).

The relation of social to system integration cannot be grasped on a purely abstract level; the theory of urbanism is essential to it. For it is only with the advent of cities...that a significant development of system integration becomes possible. (p.xxvi)

Giddens believes that contexts of social interaction are positioned in time-space – coordinated connections of “locales” (settings of interaction) used chronically and largely tacitly by agents to sustain meaning in communicative acts. Co-presence, encounter, episode (all related to the positioning of the body, its gestures and movement in time-space) are “to be understood in relation to the *seriality of encounters across time space*” within a network of social relations, regions of space and time. In contemporary life such time-space flows are widened and more interrelated, as “All organisations involve the coordination of interaction in flows of time-space relations ‘channelled’ through contexts and locales and express exactly the multi-scalar process of time-space distanciation” (p.77). Settings of interaction are regionalised in ways that influence the seriality of encounters. The connection between social and system integration can be traced by examining the modes of regionalisation which channel and are channelled by the time-space paths that agents or society follow in their daily activities. Daily paths of individuals are “strongly influenced by, and also reproduce, basic institutional parameters” (p.142), the institutions of which form “articulated ensembles” (p.170). Coordination in the division of labour is an axis of structuration, relating the “internal form of an enterprise” (daily practice) to broader aspects of societal totality. “In institutional analysis this involves detailing the transformation/mediation implicated in the ‘clustering’ of institutionalized practices across space and time” (p.190). In fact, if we are to understand how practices relate to social totalities we need see how space-time is part of institutionalisation.

The centrality of time-space in Giddens’ sociology is a remarkable advance in social sciences. The importance that Giddens places on space as constitutive of society allows us to identify a number of issues in his conceptualisation. First, there is the problem of “stretching” social systems, i.e. connecting social and system integration in Giddens’ terms. Although aware of structural principles as distinct modes of institutional differentiation and articulation across the “deepest reaches of time-space” (p.185), he does not detail how these articulations happen in space-time. Or in his words: “the modes of time-space distanciation which link the activities and relationships...to features of overall societies” (p.298). Although stating (correctly) that reproduction circuits like money/commodity relations depend on processes of change, say the concentration of a population in expanding urban

areas or communication systems, we do not have an account of *how* institutional ensembles are produced across time-space – say, the actual channels of interaction, as communicative structures and economic or political-administrative organisation across urban, regional, and global spaces. That means the interlacing of the physical milieux with reciprocal routines, the mobilities of bodies immersed in systems of situated practices and contexts converging with one another as they structure and are structured by the interactive organisation and disorganisation of practices – the reciprocity of agencies as processes across time-space. Put more simply, one expects to see the articulation of actions through time-space. The notion of stretching systems in time-space still leaves one to imagine how it is materialised as social and material reality. The relation of social to system integration, fundamental in societies with a growing long time-space distancing, is therefore left largely unsolved. Second, there is a problem with the concept of space used by Giddens. The properties of space (drawn upon Hägerstrand's time-geography) are there only reactive or constitutive of social processes in terms of friction of time and constraint over number of activities to be performed in daily life paths. Giddens' spatiality drew mostly from time-geography and traditional geographical notions, which are of course of enormous importance. But as it stands, Giddens' approach includes only weakly the intrinsic structural properties of urban space as active part of social processes – say as location and segregation are in Harvey's socio-spatial dialectic, or topological space is in the spatiality of movement and co-presence in Hillier and Hanson. The complexity and the specificity of space remain unseen, perhaps because Giddens refuses to "suppose that space has its own intrinsic nature."

Much more promising is the importance Giddens sees in the meaningful contexts of action as actively part of the *intersections of actions* across time-space. In that sense Giddens starts to blend the practice of meaningfully-mediated interaction into time-space: "The communication of meaning, as with all aspects of the contextuality of action, does not have to be seen merely as happening 'in' time-space. Agents routinely incorporate temporal and spatial features of encounters in processes of meaning construction" (p.29). If the construction of meaning is a social, communicative construction, this could well be the beginning of an *ontology of space and time, language and social reproduction* that – we shall see below – seems still missing in theory. However, what are these features? What do they imply? Giddens moves into other discussions. Missing is the actual means that constitutes the channels of intersections of practice in its multiple temporalities and spaces in the form of an explanation for the meaningful construction of practice and of space itself and the sociology of structuration of practice. I would suggest that missing in Giddens' theory, as in other approaches, is *the communicative exchange of meanings and the*

communication beyond meaning relating people through the situational character of practice (body, co-presence and context) right into broader institutionalised articulations across time-space – there, constituting actual flows of practice and economic and administrative organisations. Giddens has not explored the very heart of social production and reproduction, the practices of meaningfully mediated and non-meaningful interaction, the elusive communicative structure that constitute all forms of social transaction – and the presence of space in those vanishing, recursive events and relations. Giddens seems refrained from reaching such an explanation, a key problem also left unresolved by Marxist and Durkheimian theories.

4. The need for new material theories of the social?

These were brief reviews of three encompassing approaches to the problematic of space and society: the Marxist geography in Soja, Harvey and the multiple dimensions of social space in Lefebvre; the fundamental continuity between Durkheimian solidarities and the production and appropriation of physical space in Hillier and Hanson; and the sociological conceptualisation of the time-space condition of social and system integration in Giddens. Now I make some final observations that shall orient the discussion of alternatives to them.

The role of space in Harvey's theory is considered in relation to structures of daily practices of work and class struggle. Socio-spatial processes are reduced to the spatialisation of flows of capital, production-circulation-consumption circuits and projection/conflict of class relations, which say little about the role of space in agents' meaningful practices and their relation to others. The internal constitution of the circuits of production-circulation-consumption must be clarified not only from the vantage point of capital imperatives but *also* from the viewpoint of the acting subject immersed in joint action in space-time, and, by extension, the role of space in the constitution of action in the division of labour and *beyond* work-consumption related activities. His innovative studies seem to ignore a potentially relevant *sociological dimension of urbanisation related to the structuration of social systems*, including "the intricacies of social process and the elements of spatial form" (Harvey 1973:27). Nevertheless, Marxist theorists frequently claim a kind of priority or immediacy over reality, the only proper explanation of social and material reality. That this self-assurance is epistemologically incorrect is common to any assertion of theoretical privilege. Due to their own analytical framework (the dialectics operates over pre-given analytic categories such as class relations), and despite a key political intent (an intent that is not exclusive to them), Marxist theories seem to suffer from an endogenous inability to consider properties related to the peculiar nature of

urban space and its reproductive role in social dynamics related to co-presence and the practice of interaction. They emphasise long-term socio-spatial transformations. The socio-spatial dialectic is addressed indeed at the level of social production – of relations of production, centre-peripheries, inequalities and the survival of capitalism. *However, how could the socio-spatial dialectic be possible at the level of social reproduction? How does it happen at the moment of actual practice and interaction?* This still seems an unanswered question. Here a critique that is still relevant is that Marxist approaches seem to rely on an unsatisfactory reduction of the conditions of social reproduction. Work and interaction are “thrown together under the label of Praxis” (Habermas 1972:62), and in the dialectical relationship between the forces of production and the relations of production. The dialectic remains unclarified “as long as the materialist concept of the synthesis of man and nature is restricted to the categorial framework of production” (Habermas 1972:54). That is, as long as it ignores that “the practice of linguistically-mediated interaction must be viewed as an equally fundamental dimension of historical development” (Honneth 1987:372). This is a particularly acute problem when it regards the spatiality of human activity. The meaningfully mediated constitution of the fabric of social life seems underestimated as a spatial problem.

In the incursion into all these fascinating theories, a spatial perspective of the social indeed increases its depth. But it also finds a need for alternatives. We have seen that they share to different extents an inability to address the communicative dimension of practices, and how this dimension lies in fact at the heart of the production of social relations and interaction complexes. As such a dimension was merely (but insightfully) introduced by Giddens, the possibility of a theory of a spatial reproduction of the social, a “dialectic of practice and space” – i.e. space constituting the social emergence of practice, and being produced and reproduced in that process – is left unresolved. There is still a demand for a “spatially sensitive theory of practice” (Painter in Thrift 1996). It seems that we cannot understand the deeply informational and interactive nature of socio-spatial processes without bringing that dimension to the forefront. New perspectives therefore should on one hand depart from the framework of Marxist and Durkheimian approaches, which have seemingly fully explored epistemological possibilities, and found restrictions in ontological scope; on the other hand, they could seek to expand the reach of Giddens’ insightful structuration theory (see Gregory 1989) – what might well run against its loose framework. This work shall look for another possibility: exploring *communication (beyond the linguistic) and meaning (beyond the intelligible) as constitutive of the production and reproduction of social relationships*, those vanishing social structuration processes and their unfolding into differentiated institutionalised realms of practice and social reproduction – *a theory that sees from the inside the interlacing of*

agencies and urban space through semantic exchanges. We need theories able to address the elusive communicative structures of practice as they involve space. Now, it is exactly this possibility that could be opened if one explored social theories of action stemming from the work of Max Weber in – more recently expanded into an overt communicative dimension by Jürgen Habermas and Niklas Luhmann. Therefore, before incurring into post-structuralist geography, its sceptic view of meaning and its de-centring of the human subject, I will argue in the following chapter that precisely the semantic and material condition of action, a key dimension of social reproduction, may begin to be addressed through Weber, Habermas and Luhmann, in connection to other ontological, sociological, and spatial ideas. I am now able to move more freely into social theory, looking for elements missing in traditional approaches to society-space, so briefly visited above.

Chapter 2

Meaningfully-mediated Reproductions of the Social

The second chapter looks for foundations to an alternative framing of the practice and space relation, identifying concepts able to throw light on a particular dimension systematically underestimated in previous theories: the spatiality of social practice as an effect of semantically mediated interactions – or *communication*. Theories of the social as an effect of communication and communication as an effect of *meaning* are discussed in order to define a notion of the social as a communicative achievement. From this particular incursion, a concept of practice as communicative practice is developed, to be connected to space in the following chapters.

Introduction

The insertion of concepts of space and space relations, of place, locale, and milieu, into any of the various supposedly powerful but spaceless social theoretical formulations has the awkward habit of paralyzing that theory's central propositions...Whenever social theorists actively interrogate the meaning of geographical and spatial categories, either they are forced to so many ad hoc adjustments that their theory splinters into incoherence or they are forced to rework very basic propositions.

David Harvey, *The Urbanization of Capital*, 1985:xiii

Where should we search elements for an alternative investigation of the relation of practice to space? Marxist, Durkheimian and Giddens' approaches seemed to have overlooked a fundamental dimension of social reproduction. I argue in this chapter that a starting point for exploring that dimension would be incurring into an enormous tradition in social theory that is still little explored in the spatial study of the social.¹⁵ I suggest approaching "practice" initially through the notion of "social action," a concept centred on questions of meaning and interpretation introduced by Max Weber, and active in the works of Jürgen Habermas and Niklas Luhmann among others. My aim is to assert that, exploring the spatial potential of action theories, we could assess the place of space in social reproduction not through the reconstruction of a spatial history of society, but reconstructing theoretically the spatial fabric of interaction. I will insist that *the problem of the social constitution*

¹⁵ Exceptions are found in the works of Simonsen (1991), Werlen (1993, 2005), and Ernste (2004) in human geography, nevertheless based on authors which do not bring to the forefront the elocutionary transactions of meaning in interaction (e.g. Werlen draws upon Popper, Schutz and Parsons). I shall refer to these works below.

of practice is a problem of space.

Harvey (1973) reminds us that such a reconstruction should do more than merely insert spatial concepts into sociological categories, or vice-versa. As the problem definition stands, it seems necessary to investigate deeply the nature of practice and of space, and produce an understanding of the social which is *also* a spatial understanding – one free of *ad hoc* adjustments and risks of reifying either space or practice. Therefore, I shall first make explicit what in our practices could relate to space (and conversely) in ways perhaps unseen by previous theories. When turning to Weber, Habermas and Luhmann, I am after a theory of the “infrastructure” of action as informational exchange. I will not focus on actual formations that institutionalised actions take (say descriptions of the state, or the economy). I will address instead the heart of those processes as communicative accomplishments – as vanishing social structures and their frequent recursive condition. I shall explore in this chapter the interactive nature of social action, to connect it to a concept of space only in Chapter 3 “The Grounds of Social Reality.” The following chapters will search to expand the notion of “meaningful action” discussing post-structuralist assertions of practice, space and the “non-meaningful,” and extend the rather implicit connections contained in these initial explorations.

1. Max Weber and the theory of social action

Sociology...is by no means confined to the study of ‘social action;’ this is only, at least for the kind of sociology being developed here, its central subject.

Max Weber, *Economy and Society*, 1968:24

Weber’s concept of action can be fully understood only in the context of his broader notion of *rationalisation of society*. That notion can only be sketched here. Weber proposed that our practice has been progressively differentiated in types and purposes of action in a new ethic, economic and political organisation of Western society in the evolution of capitalism, what he sees as main aspects of *modernisation* – the concept Weber chooses to understand such transformations. We shall see below, this analysis searches to reveal in detail specific conditions of practices, and their articulation in circumstances of social organisation and everyday life. It does so sustaining the individual universe of interpretations, orientations and motivations as the active counterpart of those cultural processes. I start with methodological considerations that embed his approach, as they shall prove useful for unearthing space in the social constitution of practice.

1.1. The interpretive methodology: *Verstehen Soziologie*

Weber's is a sociology guided by the fundamental fact that "men [*sic*] attach meanings to their actions and these become embodied in social norms" (Honderich 1995:908), a systematic science of *Verstehende Soziologie* (interpretive sociology). He insisted on the fact that accessing social actions and relationships necessarily involves assessing meanings latent in the causal courses of actions (Parsons 1947, 1968). Meaning is "what distinguishes action from mere behaviour" (Schutz 1967:15). Social sciences, unlike other sciences, have a particular relation to theory. They deal necessarily with "explanation" derived from observation, and "understanding" derived from the interpretation of social facts and individuals' actions and intentions. Weber's definition of sociology given in the first paragraph of *Economy and Society* is a methodological position:

Sociology (in the sense in which this highly ambiguous word is used here) is a science concerning itself with the interpretive understanding of social action and thereby with a causal explanation of its course and consequences. (Weber 1968:4)

According to Habermas, that is an answer for the question "how are *general theories of action* possible?" "[I]n contradistinction to natural processes, regularities of social action have the property of being understandable. Social action belongs to the class of intentional actions, which we grasp by reconstructing their meaning. Social facts can be understood in terms of motivations." (Habermas 1988:11). Weber aligns interpretations of meaningful actions to actual facts in order to understand an overt course of action.

In 'action' is included all human behaviour when and in so far as the acting individual attaches a subjective meaning to it...Action is social in so far as, by virtue of the subjective meaning attached to it by the acting individual (or individuals), it takes account of the behaviour of others and is thereby oriented in its course. (Weber 1947:88)

Only the reunion of an objectivist account of actions as observable interconnections of facts, and the interpretation of their meanings could lead to understanding historical processes as causal relationships. Action is understood in terms of motive in addition to direct observation of its contexts:

Thus for a science which is concerned with the subjective meaning of action, explanation requires a grasp of the complex of meaning in which an actual course of understandable action thus interpreted

belongs. (Weber 1968:9)

Weber associated methodological problems of a social science with substantive problems of modernisation and the rationality of action. The methodological primacy of purposive-rational action converges to the thesis of a progressive rationalisation of society. Such process would be apparent in the growing purposive, means-end rationality that leads to increasing differentiation and specialisation in the production and organisation of practices. Weber explains the conditions of social organisation in processes of rationalisation through the analysis of two spheres of social life: first, the structuring of interests and activities in the economic sphere of life, an account of the institutional structure of systems of economic activity and the ranges of variation to which this structure is subject, lacking in economic theory (Parsons 1947:30). His innovative view of the rationalisation of action relates to a second sphere of life, political authority and its modes of exercise, *the political-administrative sphere and the State*. He equates the development of the modern form of organisation of corporate groups in all fields (the enterprise and the state share a similar structure) to the development and progressive spread of bureaucratic organisation. How far does Weber go in considering the substantive problematic of rationalisation as differentiation of economic, political and traditional spheres of action, and mainly in considering “meaning” as a way to access social phenomena? What are the differences to other approaches and the reasons for drawing upon more contemporary ones? Weber’s main contributions to an alternative approach to the spatial constitution of action are three:

- i. his theory is able to identify the conditions of *societal transformation* and integration/disintegration as they involve cultural change, differentiation of values, rationalities and meaningful orientations of action;
- ii. it details *institutional processes* and their articulations. Weber explains more than any contemporary social theorist the conditions of institutional organisation of actions, analysing the interpenetrations of different spheres of action as economic, political, and traditional systems, as well as their constant tension and interchangeability;
- iii. *the substantive and methodological emphases on action* and the development of a “cross-over” analytic-hermeneutic approach to social action, where interpretation of meaning is fundamental to the description of action courses – which I shall fundamentally relate to space – without (and only in principle) being subordinate to it.

Weber firmly established the importance of accessing practice through its meaning. Nevertheless, and perhaps ironically, Weber seems to have failed in using his own interpretive method of *Verstehen Soziologie*. Interpretation still finds a methodologically subordinate role – not in terms of an epistemological emphasis on external regularities but by being forced to centre on the empirical qualities of rational means-end criteria:

it is at this point the theoretical limitations of Weber become evident. He breaks off his analysis of the social world when he arrives at what he assumes to be the basic and irreducible elements of social phenomena...His concept of the meaningful act...is, on the contrary, a mere label for a highly complex and ramified area that call for much further study. Weber makes no distinction between the action, considered as something in progress, and the completed *act*, between the meaning of the producer of a cultural object and the meaning of the object produced. (Schutz 1967:7)

This crucial distinction between meaning in the universe of the acting subject and meaning immanent in events and thus subject to differentiated interpretations is not short of implications. As far as the spatial study of action is concerned, it could in fact open possibilities for considering space as part of social action also at the infrastructural level of meaning. In other words, the relation between intended meanings and those assumed by participants in an event suggest relations between *interpretation* and *context*. That is what Giddens (1984) calls the “situatedness” of practice. Such an initial speculation could lead into an investigation of the place of space in terms of exchanges of meanings in temporally and spatially contextualised and related social situations. I shall discuss this possibility in Chapter 3. Habermas observes restrictions in the core argument of Weber, the notion of “social action” as it regards rationalisation – a difficulty shared by other theorists before and after Weber. Habermas believes it is so due to action-theoretic bottlenecks: the action concepts used by these theorists “are not complex enough to capture all those aspects of social actions to which societal rationalization can attach;” they were not designed to encompass all possible dimensions of the rationalisation process. Weber surely introduced the meaningful condition of social action and interaction – a dimension which I wish to relate systematically to the problem of space. But he left largely unresolved the problem of how “individual action” becomes “social action” through mutual interpretations and actual exchanges between acting subjects – that is, through *communication*. That can only be done through a study of the conditions of the intersubjective formation of action complexes. Habermas will argue that institutional processes are constituted by communications. It seems that, if we are to understand how space is part of social reproduction, we need to study practice from the viewpoint of communicable exchanges as they constitute interaction flows mediated by space. Therefore let us visit a theorist that, along with

Niklas Luhmann, develops the meaningfully-mediated, communicative condition farther than any other contemporary theorist.

Max Weber analysed differentiated spheres of action (economic, political, traditional), institutional formations and tensions according to differentiated rationalities of action, substantively constituted by, and methodologically accessed through meanings and motives (conscious or not), all embodied in processes of societal rationalisation or modernisation. Jürgen Habermas in his turn will analyse the infrastructure of social action at the level of communication, in both practical and interpretive dimensions of social experience and reproduction. Thus, whereas Weber provides the initial understanding of the meaningfully-mediated condition of action, the interpretive methodological requirement, and the most comprehensive understanding of institutional complexities to be found in the literature (Swedberg 1999; Parsons 1947) – the latter an aspect also still little explored in current approaches to the spatiality of social life¹⁶ – Habermas provides the communicative embodiment of modernisation processes, and a clearer methodological way to unearth the centrality of communicative meaning in processes of social and system integration, and rationalisation. It is his take on practice that will allow an alternative exploration of the relation of social practice to space; a potentially clarifying spatialisation in a framework able to turn explicit the communicative condition of social practice.

2. Habermas' Theory of Communicative Action

Of course Habermas is an extraordinarily controversial theorist. But one thing that most critics and sympathisers share alike is the observation of his wide-ranging interests and ability to relate in a single theory a number of diverse, apparently incompatible theoretical traditions (see Bernstein 1983; Giddens 1987; Rawls 2001). A complete review of his complex theory is not of interest here; I shall concentrate on dimensions of the action problematic as they might relate to space. Therefore I will not deal with Habermas' famous conditions of emergence of the *System* of rationalised actions and its troubled relation to the realm of traditional actions or *Lifeworld*, with the thesis of the universality of communicative reason, or with his project of societal integration through communicative rationality as emancipatory interest. Habermas' intention in his *magnum opus* in sociological theory, *The Theory of Communicative Action*¹⁷ is indeed to define a critical project that

¹⁶ There is a growing literature on subjects like relations between state, power and space. See Brenner, Jessop, Jones and MacLeod G (2003), Herod and Wright (2002), and Blomley, Delaney and Ford (2001).

¹⁷ *Volume 1: Reason and Rationalization of Society* (1984); *Volume 2: A Critique of Functionalist Reason* (1987a).

reconstructs Enlightenment values not through reviving the paradigm of consciousness that anchors Weber's, Adorno's and Horkheimer's diagnoses of the paradoxes of modernity, but through a shift to the *paradigm of language*. And that is of interest regarding space. He develops a notion of "communicative action" incorporating elements of systems theory introduced by Parsons, while searching to overcome its functionalist limitations through a creative dialogue with a number of traditions in philosophy and the social sciences, like hermeneutics, language and communication theories. He seeks to define the conditions of social reproduction as they involve interaction and co-ordination of actions, focusing on communication oriented to mutual understanding – a communicative form of rationality according to Habermas – as the basis of societal integration (McCarthy 1984): "the human species maintains itself through the socially coordinated activities of its members and that this coordination is established through communication" (Habermas 1984:397). Differently from Luhmann (1995), Habermas supposes a phenomenal distinction between action and communication, and a fundamental relation between actions oriented to either functional co-ordination or to reaching understanding.

The communicative model of action does not equate action with communication. Language is a means of communication which serves mutual understanding, whereas actors, in coming to an understanding with one another so as to coordinate their actions, pursue their particular aims... The interpretive accomplishments on which cooperative processes are based represent the mechanism for coordinating action; communicative action is not exhausted by the act of reaching understanding. (Habermas 1984:101)

Habermas places the problem of action co-ordination deeply in its communicative dimension – or as Giddens (1987) understands it, as an answer for the question "how are we to grasp the distinctively meaningful character of human conduct?" The focus on rationality implies bringing again to the heart of sociology one of its central problems: the rationality of action as condition of meaningfulness, intentionality, intelligibility and communicability. For social theory cannot limit itself to community theory. It is confronted with the whole spectrum of manifestations of everyday practices beyond variants of clear-cut types of purposive-rational action regarding maximisation of profit, power or administration. It is concerned with *all* forms of symbolic interaction as structures of a lifeworld – forms that in fact underlie other subsystems of purposive-rational action. Sociology must be *also* a theory of society. "Habermas shifts our attention to the broader context of individual purposive actions, to the structures of social interaction in which teleological actions are located" – a shift from the teleological to the communicative dimension of action (McCarthy 1984:xi).

Here Habermas introduces a version of Husserl's concept of *Lebenswelt* or Lifeworld, "the correlate of processes of reaching understanding," a background more or less diffused and always unproblematic: subjects acting communicatively always come to an understanding in the horizon of a lifeworld. "The lifeworld also stores the interpretive work of preceding generations" minimising risks of disagreement that arise from communication (Habermas 1984:70). The notion of a lifeworld as shared interpretive resources is of particular interest to an alternative spatial account of the sociation of practice, i.e. provided that its material condition is rendered explicit. *Communicative action* "refers to the interaction of at least two subjects capable of speech and action who establish interpersonal relations," where "actors seek to reach an understanding about the action situation and their plans of action in order to coordinate their action by way of agreement" (Habermas 1984:86). As in Weber, the concept of *interpretation* is central here, and refers to negotiating definitions of a social situation. Language has a prominent place in this model, rendered paradigmatic through Mead, Wittgenstein, Gadamer and others. Only the communicative action type fully incorporates language as a medium for reaching understanding (McCarthy 1984). For other models of action conceive of language one-sidedly:

Only the communicative model of action presupposes language as a medium of uncurtailed communication whereby speakers and hearers, out of the context of their preinterpreted lifeworld, refer simultaneously to things in the objective, social and subjective worlds in order to negotiate common definitions of the situation... the communicative model of action, which defines the traditions of social science connected with Mead's symbolic interactionism, Wittgenstein's concept of language games, Austin's theory of speech acts, and Gadamer's hermeneutics, takes all the functions of language equally into consideration. (Habermas 1984:95)

The model implies "presuppositions of a *linguistic medium* that reflects the actor-world relation as such" – an interpretive concept of language that lies behind theories of formal pragmatics. Habermas' aim is to "make clear in what sense achieving an understanding in language is thereby introduced as a mechanism for coordinating action" (p.94). But he avoids risks of *reducing action to speech*, and *interaction to conversation*, defining (a) the *character of action* and (b) the *reflective relation of actors* to the world in processes of understanding. In the first case he defines the use of the term "action" "only for those symbolic expressions with which the actor takes up a relation to at least one world (but always to the objective world *as well*)" and distinguishes actions from bodily movements and operations "that are *concurrently executed* and can acquire the independence of actions only *secondarily*." As Weber associates "action" and the social meaning of what is done in the world, Habermas defines that "movements are the substratum in which actions are carried out"

(p.96)¹⁸ – a key consideration regarding the limits of theories which centre the socio-spatial exclusively on the body and co-presence, or avoid the inclusion of meaningful and linguistic exchanges in the spatial production of practice.

In a certain case, actions are realized through movements of the body, but only in such a way that the actor, in following a technical or social rule, *concomitantly executes* these movements. Concomitant execution means that the actor intends an action but not the bodily movements with the help of which he realizes it. *A bodily movement is an element of an action but not an action.* (p.97)

Just as bodily movement and operations in general do not have explanatory power, the communicative model of action implies (b) the possibility of *reflection*:

language is relevant only from the pragmatic viewpoint that speakers...take up relations to the world...in a reflective way...They no longer relate *straightaway* to something in the objective, social or subjective worlds; instead they relativize their utterances against the possibility that their validity will be contested by other actors. (p.98)

Habermas does not mean that interpretation must always lead to stable and unambiguous assignment and interactions. It rather embeds a “diffuse, fragile, continuously revised and only momentarily successful communication in which participants rely on problematic and unclarified presuppositions and feel their way from one occasional commonality to the next” (p.100). He builds his analysis in a way that the idea of “rationality” inherent to the problem of action relates to the question “What does it mean to understand social actions?”

2.1. The communicative coordination of action

Communicative action involves the fact that participants in interaction can coordinate their action “through an intersubjectively valid appraisal of their relations to the world,” an interpretation “that is rational in approach.” The question is whether the internal structure of the actors’ mutual understanding is extendable to the interpreter (or to the social scientist). Explicating complexes of communicative action implies explicating the meaning of the symbolic expressions embodying observed sequences of interaction connected with the rationality of opinions and attitudes. The central insight of Wittgenstein’s theory of meaning is the fact that the interpreter understands the

¹⁸ Actions imply that “something changes in the world.” Habermas distinguishes the movements as intervention in the world and instrumental acting from those with which a subject embodies meaning (i.e. expresses herself communicatively). The first is of *causal* relevance, the second is also of *semantic* relevance.

meaning of communicative acts only because they are *embedded in contexts of action* oriented to reaching understanding. The interpreter cannot become clear about the *semantic content of action* without understanding the *reasons* that move participants to take the positions they take. Exactly understanding such reasons draws the observer into the process of assessing validity claims and the semantic content of action. The social scientist is subject to the same condition. Both interpreter and social scientist get involved in the process of understanding through which alone they can gain access to their data has to use the language encountered in the object domain. They cannot “enter into” this language without having recourse to the pre-theoretical knowledge of a member of a lifeworld – their own. *Understanding meaning is a mode of experience* (Skjervheim in Habermas 1984) – *of social experience*: as I shall discuss more in detail in Chapter 4, semantic meanings become a way to participating and accessing the social world:

intersubjective understanding, because it is a communicative experience, cannot be carried out in a solipsistic manner. Understanding [*Verstehen*] a symbolic expression fundamentally requires participation in a process of reaching understanding [*Verständigung*]. Meaning – whether embodied in actions, institutions, products of labor, words, networks of cooperation, or documents – can be made accessible only *from the inside*. Symbolically prestructured reality forms a universe that is hermetically sealed to the view of observers incapable of communicating; that is, it would have to remain incomprehensible to them. (Habermas 1984:112)

Communicative action requires *interpretation* that is “rational” in approach – i.e. searches mutual understanding. Habermas shifts his analysis from *semantics* to the *pragmatics* of the *relations between meaning and validity of claims*. He sees the domain of social practice as antecedently constituted by the interpretive activities of its members – a domain accessed only via interpretive understanding “be these ‘objects’ social actions themselves, their *sedimentations in texts, traditions, cultural artefacts...or such organized configurations as institutions systems, and structures*” (McCarthy 1984:xvi – my emphasis). Habermas certainly ignores the possibility of space be an embodiment of meaning, as actions, institutions or objects may be – i.e. their sedimentation in space, accessed via interpretive meaning. Nevertheless, it is exactly this possibility that this work shall search to demonstrate: it is the network of meaning exchanges that embed social action that shall be related to space as this work follows. Space itself must be shown as semantically pre-structured in a way to be part of semantic and practical exchanges.

Sociology must seek a *vertehenden*, or interpretive, access to its object domain, because it already finds there processes of reaching understanding through which and in which the object domain is

antecedently constituted (that is, before any theoretical grasp of it). The social scientist encounters *symbolically prestructured objects*; they embody structures of the pretheoretical knowledge with the help of which speaking and acting subjects produced these objects. The inner logic of a symbolically prestructured reality...resides in the generative rules according to which the speaking and acting subjects that appear in the object domain produce the context of life... (Habermas 1984:107-8).

We may start to devise some brief analogies to Weber's and Giddens' approaches. Giddens (1977) appropriately reminds that, as the characterisation of what others do and the reasons for what they do are the conditions for the intersubjectivity "through which the transfer of communicative intent is realized," *Verstehen* must not be regarded only as a special method of entry to the social world, but as an ontological condition of social life as it is produced and reproduced by its members. In a spatial sense, analytic philosophy, with the theory of meaning at its core, does offer a promising point of departure for a theory of communicative action that places understanding in language, as the medium for co-ordinating action. Weber, however introducing "meaning" as a basic concept of action theory and thus distinguishing actions from observable behaviour, relies not on a theory of meaning but on a theory of consciousness. There, meaning is not explicitly related to the linguistic medium of possible understanding but to the beliefs and intentions of an acting subject. Weber starts from a teleological model of action and specifies "subjective meaning" with a pre-communicative intention, which may indeed be spatialised as meaning-generating processes and social behaviour – but with no explicit connection to the use of *language and meaning transactions as they constitute actual elocutionary processes and linguistic interaction. It is precisely this substantive level that I wish to connect to space.* Habermas allows us to see that communication is a mechanism for coordinating actions; acts of reaching understanding "link the teleologically structured plans of action of different participants and thereby first combine individual acts into an interaction complex" (Habermas 1984:288). My aim is to investigate whether space would have a similar role – one certainly beyond the teleology of structured plans – in combining actions into complexes also through the mediation of meaning.

Interestingly from the viewpoint of society-space relations, Habermas differentiates and connects *speech acts* with *contexts of interaction*: "the *pragmatic* level of agreement that is effective for coordination connects the *semantic* level of understanding meaning with the *empirical* level of developing further – in a manner dependent on the context – the accord relevant to the sequel of interaction" (Habermas 1984:297). Such a connection "can be explained by means of the theory of meaning" and the centrality of meaningfully-mediated exchanges in social structuration.

The patterns of illocutionary forces realized in particular languages reflect the structures of this network of actions. The linguistic possibilities for performing illocutionary acts – whether in the fixed form of grammatical modes or in the more flexible form of performative verbs, sentence particles, sentence intonations and the like – provide schemata for establishing interpersonal relations. *The illocutionary forces constitute the knots in the network of communicative sociation*; the illocutionary lexicon is, as it were, the sectional plane in which the language and the institutional order of a society interpenetrate. This societal infrastructure of language is itself flux; it varies in dependence on institutions and forms of life. But these variations *also* embody a linguistic creativity that gives new forms of expression to the innovative mastery of unforeseen situations. (Habermas 1984:321 – my emphasis)

This assertion brings to the forefront the place of communication constituting “the knots in the network of sociation” and they include relations of societal organisation to a non-spatial idea of “context.” Here we find a description closer to the processes that are still left to be connected to space. Habermas thus defines, via the concept of communicative action, a way to rebalance the agency-structure problematic, seeing it not as *dualism* but as *duality*. On the one hand, tackling societal integration as social integration starts with communicative action and understands society as a lifeworld (whose reproduction appears to be the maintenance of its symbolic structures) analysed in terms of the internal perspective of members, and connects the investigator hermeneutically to the understanding of participants. On the other hand, societal integration seen only as system integration ties the analysis to the external view of an observer and poses the importance of grasping interconnections of action. Structures of action are “not accessible to purely external observation; they have to be gotten at hermeneutically, that is, from the internal perspective of participants” (Habermas 1987a:151). And conversely,

actions are coordinated not only through processes of reaching understanding, but also through functional interconnections that are not intended by them and are usually not even perceived within the horizon of everyday practice. (Habermas 1987a:150)

These particular insights into the ambivalence of meaning and communication as elements of social experience and processes of social structuration will be discussed later on and related to other forms of ambivalence of meaning and space, as a way to relate space to practice. The strength of Habermas’ work for an alternative spatial approach lies in the description of conditions of structuration of practice at the level of communication. Achieving an understanding in language (the co-operative process of mutual interpretation) is introduced as a mechanism for co-ordinating

action. Habermas emphasises the place of communication and meaning (embodied in argumentation and embedded in actions intersubjectively understandable regarding certain ends) *in structuring the social world*. Communicative action provides the medium for the reproduction of lifeworlds. Changes in social structure cannot be comprehended solely from the outside. Linguistically mediated and normatively guided interactions need be interpreted if we are to gain access to phenomenological understanding of the lifeworld and analyse the interconnections between reproduction processes. The relation between the individual and institutional conditions of action is possible due to a correspondence between *structural components of the lifeworld* (culture, society, personality), *reproduction processes* (cultural reproduction, social integration, socialisation) based on different *aspects of communicative action* (understanding, co-ordination, sociation). They permit communicative action to perform different functions and serve as a medium for the symbolic reproduction of the lifeworld (McCarthy 1984). The meaningful and communicative condition of action asserted by Weber and Habermas will be the starting point to explore other relations between society and space. Let me discuss such spatial incursion into theories of action considering contemporary approaches to practice.

3. Space and (a paradigm of) communication?

It seems that a whole generation of social theorists (such as Giddens and Bourdieu, Habermas and Luhmann) that followed the early developments of systems theory (Parson, Merton) and the interpretive reaction via phenomenology and ethnomethodology (Douglas, Garfinkel) attempted to overcome their limitations: namely, the dualism created between objective and subjective worlds, macro and micro, structure and agency they produced. Nevertheless, Habermas and Giddens do so through quite different strategies.

The basic domain of the social sciences, according to the theory of structuration, is neither the experience of the individual actor nor the existence of any form of societal totality, but social practices ordered across space and time. (Giddens 1984:2)

Although Giddens draws upon both interpretive and functional traditions, he situates his theory somewhere “in between” their object domains – i.e. outside the sphere of experience and an overt conception of action systems. Whereas he searches alternatives in shortcuts that dissolve traditional oppositions *immediately*, Habermas (as Rickert and Weber) chooses to draw explicitly upon both traditions, reworking inherent incompatibilities and building a theory tailored to handle

contradictions immanent to the process of rationalisation of society and modern capitalism. It is rather an explicit integration of the symbolic nature of action and its practical relational condition. Such a theory certainly does not have the synthetic appeal of Giddens's duality of structure, for it is conceived through a careful integration of distinct theoretical traditions. The action approach accounts for the motivational, semantic and interactive dimensions of practice – action does not exist outside the sphere of the individual immersed in intersubjectivity. It searches to reveal how meaning is produced in order to allow forms of interaction (and I shall discuss below the ontological limits of the concept of meaning regarding bodily interaction, emotions, non-interpretable acts and non-meaningful experience).

However, if we accept the action approach as a propaedeutic way to tackle spatially the problematic communicative dimension of practice, what steps should the theory take? It is suggested that a first step would be connecting properties of practice brought about by action theories to space, throwing light on the spatial conditions of (i) the meaningful, interpretive and situated constitution of action itself; and (ii) the intermeshing of action consequences across time-space, in social exchanges anchored and reproduced in (and which anchor and reproduce) everyday life and institutional spheres. Let me discuss these first possibilities.

- i. Following an action approach, the former moment would consist of *the spatial reconstruction of practice through its semantic and practical differentiation*. It refers, first, to the substantive possibility of a meaningful space, if space is to be part of meaningfully-mediated communication – i.e. a space able to be part of the communicative construction that ensures the possibility of sociation of practice; and second, to the methodological possibility of accessing space through its socially produced content, and conversely. In short, it implies a definition of “meaningful space.” Such a definition would not be short of ontological implications, like the problematic of subject-world relations: space may be seen as constitutive of these worlds and of their interrelations, perhaps mediating beyond its physicality the relation of actor to social world. That is an investigation of space as constitutive of the material and semantic frameworks where different subjects may converge when performing, imagining and interpreting spatial practices. That problem (how to access space as a symbolically pre-structured realm and a condition for the social constitution of action) is the subject of Chapter 3. There, I explore such ontological condition through two related properties of space: a *semantic and interpretive* property at the level of action contexts, and a *practical and systemic* property at the level of the

intermeshing of action consequences – the possibility of an actively *spatial* interconnection of social events. This clearly implies another possibility to the theory of communicative practice and space.

- ii. *The reconstruction of practice as interrelated spatial complexes of actions* in a way to understand their “systemness” (in Giddens’ terms), i.e. the unfolding of practice into other spaces, places, and times, in counter-intuitive social processes.

For doing so, it seems necessary to tackle once more the differentiation of meaning and communication, and how these produce institutionalised spheres or systems of action seen by Weber, Habermas and others. That could well lead into an analysis of the social system as power, market and production relations not restricted to the sphere of the urban economy but including general economic and geopolitical relations, such as geographical networks of power, and their interrelations to spatio-temporal networks of symbolic interaction. Of course such dimensions of the relation between practice and space relate to *the problematic of integration and disintegration of socialities*, the inherently spatial tensions between competing and conflicting agencies that make up the social world, and the potentials of space in integrating societies. In Weberian terms, these tensions emerge between realms of purposive-rational and traditional actions, and in Habermasian terms, between formalised institutional structures and the “communal” interactions reared in the lifeworld – processes inherent to modernisation itself. Such a problematic certainly finds profound relations to spatial theories such as Lefebvre’s and contemporary debates on abstract spaces. I cannot explore these dimensions here. I suggest focusing instead on meaning and communication, praxis and spatiality which embody differentiated agencies and political-administrative and economic subsystems.

Chapter 2 searched concepts for an initial understanding of *the sociation of practice* as communicative, meaningfully-mediated interaction. I shall discuss in the following Chapter 3 a concept of *space* able to relate to such a dimension. Nevertheless, these provisional concepts shall be enormously expanded through a *third* action approach, namely Niklas Luhmann’s theory of autopoietic systems – and farther, into other aspects brought about by post-structuralist approaches in human geography; all to be visited and discussed from Chapter 4 onwards.

Chapter 3

“The Grounds of Social Reality”

Once defined an initial approach to the social through a concept of *sociality* as communicative accomplishments lacking in previous theories, the third chapter looks for foundations for an alternative approach to *spatiality*. Through a return to questions like “may space be social in any sense?” or “what is the social embodied in space?”, it aims at developing a concept of space able to relate to a notion of social practice as an effect of communication. Beginning with a critique of the deterministic “form-function” relation found in architectural theory, the chapter demonstrates that physical space cannot answer for all informational and practical requirements of social acts: space must be social through and beyond the physical. A new concept is thereby proposed, at once a semantic and practical space active in the experience and communication of meaning – from the possibility of mutual interpretation to the fluidity of interaction in the social situation; from the hermeneutic contextuality of practice to the production of complexes of practice well beyond the boundaries of the event..

Introduction

There are various ways in which we can think about space. It is crucial to formulate a proper conception of it if we are to understand urban phenomena and society in general; yet the nature of space has remained something mysterious to social enquiry.

David Harvey, *Social Justice and the City*, 1973:13

Wherever the hieroglyph of space lies deciphered, there is offered the grounds of social reality.¹⁹

Siegfried Kracauer, *Über Arbeitsnachweise*, 1929

According to Habermas, Kant’s critique of reason is no longer the basis of the logic of science (Habermas 1988), and his assertion of space as an a priori, transcendental category of experience, knowledge and the unity of reality has long been forgotten in social theory. The sociologist Talcott Parsons, for instance, could claim in the 1930s the virtues of an abstract social analysis free of space, asking “whether theoretical systems analytically applicable to the empirical world, to

¹⁹ The word *Grund* in Kracauer’s original may find of course many different meanings in English: motif, reason, explanation, foundation – and grounds, as I opted for when opening this work, evoking an ontological condition of action.

phenomena in the Kantian sense, must always be couched in terms of a spatial frame of reference. Since in Kant’s time the view of analytical abstraction here put forward was not known, his view that all phenomena are observed ‘in space’ strongly tends to be combined with the view that theories which analyze them must involve also spatial categories” (Parsons 1968:474 footnote).

Parsons’ statement could only be the case if space was a passive setting for action – and this was in fact the dominant view of space in theory. From virtually forgotten to eventually reified, the condition of space has been a long if poorly theoretical drama of philosophical and social theorists alike. Even paradigmatic approaches seeking an active insertion of space into social processes largely misunderstand and disagree with one another, and reject competing conceptions of space. The risks of misunderstanding and disagreement when it comes to concept formation can hardly be ignored, and avoided in the reception of a theory. And yet there is the need for new concepts of space in new theories of society-space relations – concepts that try to establish new connections to a changing social world, or emphasise aspects perhaps overlooked. Then we could turn to an understanding of space as a condition of human experience as in Kant’s time, uncovering it actively interwoven with the fabric of practice – perhaps ironically, through means asserted in contemporary theory.

Chapter 2 aimed at a definition of the problematic of society-space starting with the substantive need of searching what in society could have been systematically related to space in theory, and with the methodological need of a conceptualisation of practice able to grasp missing aspects (namely the interactive condition of practice and social structuration). Of course many approaches have currently been eager to see beyond “meaning” and its relations to the philosophy of consciousness and to the “centrality of the subject” – all there, at the heart of action theories. Before discussing those new approaches, I wish to extend the still little explored action approach to the problem of space, for that could lead us into fresh places of space in social processes – places perhaps ignored also in sociology. With an eye to space, I looked into that problematic through “the prism of the social.”²⁰ Chapter 3 reverses that strategy and puts “space first,” inquiring into what is theoretically necessary to seeing space as part of the social production of action.

We have seen that social action contains a first fundamental ambiguity: it constitutes one’s horizon of experience, and involves practices and consequences beyond one’s horizon in time and space, constituting conditions of social structuration and material reproduction. Essentially, this chapter

²⁰ I recall (and reverse) the approach adopted in Hillier and Netto (2002) “Society seen through the prism of space.”

argues that space matters in the production of such dimensions, and in the passages between them. In other words, it introduces the idea that *the connection between situating one’s experience of the world and structuring it into broader social processes would be actively mediated by the production and appropriation of space*. It argues that space could only be part of those processes if it was an active part of action experientially, interpretively and practically. The first aim of Chapter 3 is to verify this in two ways: (i) attesting, through a critique of theories of physical space, the need for a methodological form of handling its symbolic and practical dimensions; (ii) exploring methodological forms according to which space could be actively part of meaningfully-mediated dimension of practice. Or, more fully:

(i) One way to attest the importance of a semantic and practical dimensions of space is the observation of the *limits of physical space in the production of action*. One only could do so if she started with the possibility of phenomenal distinctions between the social and the spatial. It will be initially argued below, and that might seem surprising or controversial (to say the least), that it is legitimate to analyse space counterfactually as a physical counterpart of social reality. That is, it would be theoretically interesting to suspend all other dimensions of social space (say its symbolic, political or practical dimensions) in order to address “what is not the case” (or seems not the case), something that goes against the apparent course of our experience, and indeed goes against most theories of space: the possibility of a “physicality of space” methodologically addressable and substantively active in its own right. It would be so for two reasons: first, in order to understand the materiality of practice, and the differences between the materialities of our practices, objects, signs and spaces as they appeal to our senses and language – for (material) differences might matter in their inter-relation, and might be in fact the very essence of an “inherent relation.” Second, in order to find out *whether social contents could be intrinsic to the very physicality of urbanised space*. The intention is to verify whether urbanised space is able, as a physical entity that it *also* seems to be, to “contain” or even “express” meaning in its very physical form, beyond what is usually addressed through abstract notions of “spatiality” or “striated space” (e.g. Thrift 1996:31; see my discussion below), i.e. its urban and architectural structures. Finding out the limits of physical space to contain social information allows one to speculate *whether there is any purely semantic dimension in our relation to space*, i.e. a purely cognitive construction of social contents extrinsic to the physical form of space itself.

My argument about the possibility of analysing space as physical space and its place in the social

will reveal *the inevitability of a semantic dimension of space*. I hope to show that the physical dimension cannot answer alone for all informational and practical requirements placed by the reproduction of practices and their institutionalisation over space. And it is precisely here, I will argue, that space matters the most – not only as part of the reproduction of class relations, but as part of the production of the flux of interactions in social processes. But a semantic dimension of space cannot be attested as constitutive to practice in undefined geographies. I will argue that it demands taking into account the very urban and architectural dimension of space, i.e. the places of practice themselves. Considering the problematic conceptualisation of space in different spatial theories (and even more so of a “common” conception – see for instance Harvey 1973; Hillier and Hanson 1984; Soja 2000; Crang and Thrift 2000), I suspect that one of the reasons for the difficulties in unearthing its place in the reproduction of practice lies in the lack of descriptions of the relations between actual spaces of action as a sensual and informational counterpart, and the vanishing networks of practice, experience and meaning produced in connection to a diversity of social spaces. For, Lefebvre (1991) would remind us, what space could social relations and meanings relate to apart from the very materiality of tangible cities and places of practice? A disconnection at the physical level means renouncing the very possibility of a practice-space relation. It would have the effect of condemning practice to remain in some abstract geography or a dematerialised social ether.

(ii) When searching the literature about a semantic dimension of space in order to unearth space in the meaningfully-mediated fabric of practice (and I mean the very daily acts behind the abstract notion of “practice”), one of course finds different traditions. For instance, there is in architectural theory, concerns with *gestaltic* and semiotic constructions through sensual signs (e.g. architectural forms and typologies), key dimensions which I will only briefly refer to in this work. This tradition of course draws heavily upon traditional phenomenology (Heidegger) and semiology (Eco and Barthes) respectively. Second, we find in human geography assertions of a *symbolic dimension of space actualised through a practical construction* (e.g. Simonsen 1991). At its heart, that is a semantic-practical relation. This idea may be traced back to Wittgenstein’s theory of meaning. A third possibility into a symbolic condition of space may be approached historically. Here, as in Weber, the question connects to the modernisation of society, whereby the differentiation of social contents of space (thus of spaces themselves) connects to the growing differentiation of practice showed by Lefebvre. I cannot explore that connection here. As other possibilities, I shall leave it aside, and opt instead for discussing the previous one as a “genealogy of meaningful space” well established in socio-spatial theory.

In short, this chapter concentrates on how practice could produce a “social space.” Following chapters will reverse that strategy, focusing on how practice is produced through the production and appropriation of a socialised space. I suggest below that the problem involves a methodological challenge also found in action theories: accessing space as (among other things) semantically pre-structured by the informational and practical requirements embodied in our activities – a view of space well beyond the condition of mere support of action assumed by Parsons and others. I hope to show that in a way that it is not only substantively legitimate to extend the meaning approach to the problem of space but – if we are to objectify certain overlooked dimensions – that also is a methodological requirement.

1. The access to space as constitutive to action

The basic point I am trying to make is that, if we are to understand spatial form, we must enquire first into the symbolic qualities of that form. How can this be done? (Harvey 1973:32)

One of the most usual – and yet most problematic – fundamentals of a theory of society-space relations is the assumption of some kind of “social content” in space. It is of logical necessity, and possibly all that socio-spatial theories share, that an active relation presupposes a space capable of containing or being something social if it is to be part of social processes, and social processes being spatial in some sense (Hillier and Netto 2002). But different theories claim the existence of that reciprocal presence in different domains. Marxist approaches identify relations of production also “behind” the appearances of space (Lefebvre and Soja), although Harvey (1973:30) himself addresses the need to focus on the symbolic level connected to social activities, starting with the problem of architecture. He does so confusingly seeing the symbolic as exclusively representational and aesthetic, amounting into a spatial symbolism in the form of the city. Hillier and Hanson in turn sees space carrying social information enough to produce/reproduce patterns of encounter and to structure relations and interfaces within and between different communities and classes, according to differentiation principles of social solidarities and class relations in industrialised societies. As we shall see shortly below, Hillier has expanded these considerations beyond the initial Durkheimian framework, exploring cognitive, economic and cultural contents underlying the Durkheimian ones. Economic approaches will identify social contents in the pragmatic form of interactive activity systems that structure space in the form of location patterns. Finally, architectural and urban theories frequently bring the aesthetic and practical dimensions of space, but

mostly far from a systematic perspective.

It is the general confusion on what is the “social meaning” that could be part of space (so that space could be part of the social) that I wish to address in this section. We need understand whether the society-space relation includes a way in which space supports or assumes or is “social content” (and we indeed need to clarify what this ambiguous word means in the context of spatial practices) in any sense. I propose to verify that possibility exploring space little by little. I shall verify first the extent to which social contents, meanings, or information could be there in the very physicality of space, for this could turn a purely symbolic dimension of space or a cognitive relation to space into a complementary – or even simply unnecessary – thing. In short, we must account for the possibility that the very materiality of space could be produced in a way to contain or suggest forms of doing or communicating. Let me start with a fundamental dimension of space often forgotten in spatial theories, the architectural spaces of practices that make up cities and their regional and global relations. Let me turn to theories within the discipline of architecture itself, and concentrate on a particular theory of social information in space.

Architectural theory: The form-function (unsolved) relation

Form follows function. (Sullivan 1956:258)

One scours the architectural manifestos of the twentieth century in vain for a thoroughgoing statement of the determinism from spatial form to function or its inverse. (Hillier 1996:377)

...the problem was one of describing either the action of the social environment upon the form of the building, or conversely, of the action of the building upon society. (Forty 2000:188)

Usually, architectural theory understands the complex relation between “space” and “social content” in a peculiar way, perfectly coherent to its status as an anomic, rationalised discipline with practical intent. It understands the space-social content relation as a “form-function” relation. That is the idea that human activity may find to some extent a direct expression in terms of architectural space. Perhaps the most important assumption in architectural practice *and* theory is the existence of a direct relation between human activity – the requirements of a particular activity or the logic of its organisation, its purpose, or “function” – and its space – the physical structure both at the level of the plan and the tri-dimensional organisation of the building produced to support the activity; the idea of architectural “form.” Yet the form-function relation has remained over the history of

architectural practice and theory exactly as this – an assumption, an unsolved, unexplained problem. Due to the centrality of this problem to architecture, and the tremendous difficulties in explaining exactly what it is, how it is and what are the limits of a relation between architectural form and human activity, it has indeed remained as a dilemma – perhaps the deepest dilemma in architectural theory. But what exactly is transmitted from the social to the spatial? What in human action could be transferred into space and the physicality of space, into the structure of buildings? What in the social could be there in space? And what are the limits of physical space to express and support and influence back the “actions” that – once understood by the architect – originated the building itself and its structure? This section addresses this difficult relation: the passage between the social activity and architectural space, mediated by design.

A set of concepts is associated with the form-function relation: users, structure, order, space, flexibility, environment, community, language and grammar analogies, machine and organic metaphors. These are concepts “most regularly used to describe the social properties of architecture [and] surprisingly inarticulate when it came to describing the specific social qualities aimed... attempts to define its social qualities immediately reveal the poverty of the language” (Forty 2000:103). Whatever is the “social” dealt with by architects, it must be contained there, in the notion of “function,” the condition for an activity to take place – that is, for differentiated interactions and agencies to co-operate within a particular space. Those socio-functional conditions shape architectural space itself through the definition of internal articulations and movement between functional areas, and in a way to accord to a particularly modern condition, “efficiency:”

architecture forms the fixed arena for action of specific duration, that it provides the path for a definite sequence of events. Just as these have a logical development, so [does] the sequence of spaces... (Frankl in Forty 2000:106)

There is certainly no other concept addressing the nature of human activity in architectural theory and practice as emphatically as “function,” and its expression in space through the vague notion of “form.” Although I cannot go through a critique of the sociological and spatial implications of what is understood as function and form, theories of their relation can be accordingly divided as: (i) “structuralist” theories that presuppose that activities or “programmes” require certain configurations of space at the level of the *plan* (an analytical instrument used by architects to organise and produce space according to the functional requirements of the activity) stemming from Blondel and Viollet-Le-Duc well into the rationalisation of urbanism and architecture in the

twentieth century, celebrated in Sullivan’s aphorism “form follows function” or Le Corbusier’s “the house is a machine for living.” (ii) Theories that bring relations between programme, meaning and the aesthetic level of architectural signs (say the façade, the distribution of volumes or visual symbols). (iii) Eventually in the history of architectural ideas these two aspects were related, and crossed with a broader notion of “use” of space (say Behne’s “social form” [1926] or Tschumi’s function),²¹ conceiving the uses of buildings as part of their aesthetic nature, and conceiving the aesthetic as conditioned by efficiency or utility (Forty 2000). Both structural and visual aspects involve questions of adequacy between form of a building and the nature of its activity – which are to a considerable extent normative to architectural practice.

Some observe that architectural theory has for long struggled to define ideas of form-function relation – it could not find out exactly what in space could relate to the social, and vice-versa. Due to that dilemma, theoretical and practical concerns with the problematic have been diminishing (Forty 2000), and arguably evolved into even more pragmatic views. A reaction against such a trend is found in Hillier (1996) – a theory that Forty defined as “by far the most lucid investigation of the ‘form-function paradigm’” – the “theory that never was” (Forty 2000:194). As I argued in Chapter 1, Hillier fundamentally looks for the social in the very physicality of space. Part of that enquiry is the study of architectural space.

1.1. Syntactic space

...buildings are among the most powerful means that a society has to constitute itself in time-space, and through this to project itself into the future. (Hillier 1996:403)

Affirming that the form-function determinism in fact does not exist, Hillier affirms that its implicit error was the fallacious assumption that buildings can act mechanically upon the behaviour of individuals. “How can a material object like a building impinge directly on human behaviour?” (Hillier 1996:378). The idea of environmental determinism, a metaphor that aligns natural with artificial spatialities

blinds the enquirer to the most significant single fact about the built environment: that it is not simply a background to social behaviour – it is itself a social behaviour. Prior to being experienced by

²¹ A broader notion of function is Tschumi’s (1996:3) “movement of bodies in space, together with the actions and events that take place within the social and political realm of architecture.”

subjects, it is already imbued with patterns which reflect its origin in the behaviours through which it is created. (Hillier 1996:388)

“Hillier resolves this conundrum by the hypothesis that the relation between form and function at all levels of the built environment, from the dwelling to the city, passes through the variable of spatial configuration” (Forty 2000:195). We have seen in Chapter 1, Hillier sees space as structures of interconnected voids defined by walls and built forms – relations of spaces that are fundamental in our appropriation of space. They have the effect of distributing our movement in space. Moreover, they are produced in certain forms exactly to reproduce co-presence patterns and social interfaces in space according to culturally variable forms of social solidarity (Hillier and Hanson 1984). “The ordering of space in buildings is really about the ordering of relations between people” (Hillier 1996:1). The interior of buildings can order social positioning through the definition of boundaries dividing agents into specific categories. These categories interact under spatial circumstances that reproduce them. “[Space] realises a categoric order locally, then uses the boundary to interface this category order with the rest of the social world” (Hillier 1996:146). The physicality of space is an ordering of fundamental social relations, from flexible functional categories (say the divisions between inhabitant and visitor in a house, or medical doctors and patients in a hospital) to cultural categories (say between different classes and communities in a city, segregated in topologically less accessible areas). It is the materialisation of categories and possibilities of co-presence in physical space that consists of the *social content* or information produced by different socialities. The very physical structure of architectural space (or the “syntax” of space) “*creates the relation between function and social meaning.*” And in this sense, architectural spaces have a “tendency to embody much higher degree of social information in their spatial form” than exterior, public spaces (p.142). Social meanings that embed elements of social relations and interaction are there in (or are) the structure of space itself. Let me explain more carefully how that could be the case.

On the syntactic definition of meaning in space

The relation between form and function, space and social meaning is understood by Hillier through a system of concepts including space as a “morphic language,” the theory of “natural movement,” and the peculiar “three filters” theory of form and function in architecture (multiple interfaces, generic function, and specific function) among others. I cannot cover all of them here; let me concentrate on four main concepts, as these will suffice to show the limits of physical space to contain social information, and the need for concepts able to grasp space as a practically and symbolically pre-structured fabric.

- i. *Space is a morphic language*, a syntactic physical structure with primacy over semantic representation, with the property of meaning nothing except itself. That is, the physical structure of space does not exist to represent possible symbolic meanings latent, say, in the communication between people in space. It exists self-sufficiently as relations to patterns of co-presence/interface ordered by the connectivity of the empty volumes left by architectural and urban structures. Hillier argues that retrieving information in physical space means that we have more information about how social categories are defined in a certain situation, and where we are more likely to find visitors, strangers or members of the community, for the configuration of space has to do with patterns of expectation about people that guide our behaviour and our occupation of space. Configuration itself is non-discursively understood; a non-discursive a form of meaning. Space is a structure where we encode a form of knowledge about society itself. “A morphic language is any set of entities that are ordered into different arrangements by a syntax so as to constitute social knowables” (Hillier 1996:48). And that relation happens in everyday life through:
- ii. *Natural movement*: individuals are not impelled by buildings to move in this or that direction, but are distributed according to the configuration of space and a principle of route economy. The relation between function and movement is that “an integrated space for everyday living is one which generated movement is natural to its function” (Hillier 1996:393). But how could internal spaces shape movement and distribute encounter levels within buildings? Architectural spaces, due to their technological limitations as built objects and their functional requirements for occupation and activity, are frequently arranged in sequences of spaces. That sequencing of occupation zones is clearer in churches, houses or other places where interaction frequently implies passing through certain rooms defined for complementary functions. Sequencing “normally occurs when (and perhaps only when) there are culturally or practically sanctioned functional interdependencies between occupation zones which require movement to be an essential part of these interdependencies” (p.326). Movement in these spaces is strongly shaped as specialised areas or functions as spatial definitions of the scope of expected actions and behaviour. As buildings grow and activities get more complex, sequences of spaces are internalised into areas of the building or sub-complexes that will be more independent of each other, connected by circulation systems (say a system of corridors). The movement between these areas also tend to be less programmed, and increasingly independent of what happens in those sub-complexes – i.e. the specificities of the activities and their co-ordination requirements. In complex activities and buildings, movement, co-presence and potential encounter between people rather tend to accord the internal relational structure of that building, the configuration of those interconnected spaces through visibility and the principle of route economy (Fig.1). People grasp cognitively that relational structure and find topologically shorter paths within a spatial complex. As in cities, the physical structure of the

building tends to concentrate or disperse people in distinct areas. Roughly, that is the core of the relation between social information and the structure of space. But that would be a non-deterministic, *generic relation*:

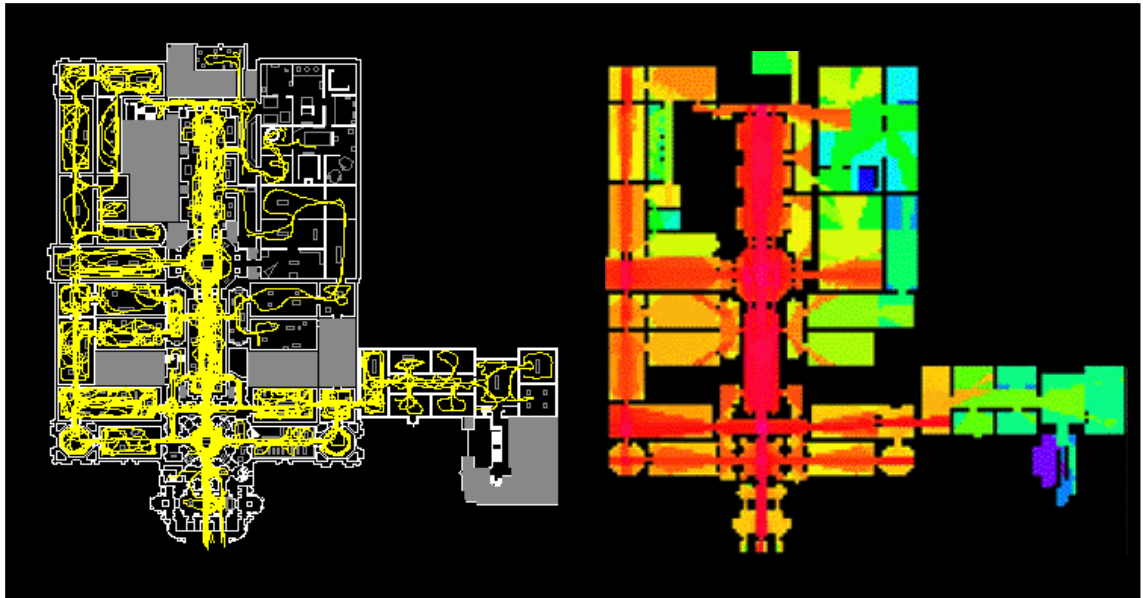


Figure 1: Movement within a complex building, and visibility allowed by the plan. There are strong relations between the *structure, intelligibility and visibility* of space, and the intensity of *appropriation* of space. (Tate Gallery, London. Source: Space Syntax Lab).

- iii. *Generic function* means the property of buildings (and cities) to support different activities and forms of social appropriation of space. Spatial structures “arise *not* from specific functional requirement, that is specific forms of occupation and specific patterns of movement but from what makes possible for a complex to support any complex of occupation...” (Hillier 1996:312). It means the possibility of occupying space in a building regardless of the activities there performed, and moving about in the building regardless of the purpose of movement. Complex activities and architectural spaces involve a high number of possible interactions. This means uncontrolled levels of encounter that consist of and place generic requirements on co-presence. In short, natural movement and co-presence have a generic relation to built space. Buildings end up ordering co-presence in levels compatible with most activities. Furthermore, the occupational areas within buildings are weakly differentiated in universal types (say, rooms, corridors, courts) that vary in shape and size but not in nature – and that is “one of the reasons why buildings designed for one set of activities are often adapted to others” (p.391). “Functionality” is thus defined more flexibly as “the ability of a complex to accommodate function *in general*, and therefore potentially a range of different functions, rather than any specific function” (p.315). The key generic idea is the need for activities to be close to or

remote from movement – and the production of buildings which attend such requirements. Co-presence, categories and movement in space would be distributed *generically* by the building structure.

The notion of generic function²² leads to the relation between “knowledge of the social event” that happens in a particular space and the configuration of that space. The apparent abstraction of this relation may be understood through a concept able to address its structure: what Hillier calls the “model” of the activity and the space it needs, i.e. the number of bits of information we need in order to describe or understand the relation between social event and a certain space. The form-function relation (or space-social content) would be mediated by an abstraction *common to both* social model of the activity and its space. That means that the information that people would retrieve from the physical structure of space (say from the sequencing of rooms within a building as hints about where to go or whom to talk to) may be complemented by the information they have about the event itself. For example, a church or a courtroom (although being basically a single open space) may have in fact a very long model – its complex appropriation and operation will depend on people sharing the same abstract model to guide their behaviour and appropriation of that space. Thus, a long or short model is inherent to both activity pattern and space in which it occurs: it relates to our pre-given knowledge of the building as space and activity, and pre-disposes us to behave in ways socially acknowledged as appropriated to the social interfaces they contain. “It goes with the idea that a doctor wearing white coat and stethoscope in the streets outside the hospital has no particular status, but inside he or she has huge status, defined by the spatial context.”²³ The building in all the inter-related senses we are aware of – as built form, as spatial complex and as activity complex – prepares us to behave in the ways expected within the building when taking part in the practices of those buildings. The longer the model, the stronger (or maybe the more deterministic) will be this effect – because it forewarns us of more specific behaviours in space and time. But it does so requiring *a level of social information that is not merely contained in the physical structure of space* – which already goes beyond the possibility of social information

²² Generic function consists of the “first filter” in the form-function relation in Hillier’s theory; the *second* is the socio-cultural interface, a concept at once social and spatial – within a particular culture, functional labels – *salle commune*, *chambre* etc. – are associated not only with the “semanticisation” of architectural space but also with a particular configurational embedding in the layout as a whole, as a clear spatial meaning to function – and by implication to semanticisation through decor, furniture, activities and so on (Hillier and Hanson 1984). This led to the “theory of interfaces,” the spatial component of functional programmes. Only in Hillier (1996) was this consolidated through the “theory of generic function.”

²³ Observations were drawn upon personal communication with Hillier. The usual disclaimers apply.

contained in the very physicality of space. Nevertheless, this particular concept will be useful in my discussion of architectural space as context of practice later in this chapter.

- iv. The concept of buildings as *social genotypes* is an earlier, ambitious notion that somehow wraps up the previous ones. “A functional genotype in a building is a temporary fixation of cultural rules in configurational form” already produced according to generic function. That is, architectural complexes embody social information as a field of generic potential movement and co-presence: “buildings can receive information from society through spatial configuration, and also transmit effects back to society through configuration” (Hillier 1996:393). Once again, configuration itself is a non-discursive form of transmitting social meaning. Configuration shapes movement and in doing so it shapes encounter and co-presence – the condition of what Giddens (1984) redefined as ‘social integration.’ Space would receive social information when structured, and return it *actively* to society, all the time.

“The fact that the social set up ‘gives a meaning’ to the building is more than an association of ideas. Once a social set-up with its building exists, then the building is much more than a stage set or background. In itself it transmits through its spatial and physical form key aspects of the form of the social set up” (Hillier 1996:397). This transmission also applies to urban space, but in a more generic way – i.e. without the functional typing of buildings. As Forty (2000) argues, these ideas turn out to be perhaps the first clear explanation of how the form of architectural space *is active* in social matters, a first clear formulation of the form-function paradigm in architectural theory – and a way out the theoretical dead-end it had found. The kind of information that space transmits back to society is not actual interaction or “maps” of interaction in space. They are rather “seeds” of interaction: probabilistic movement patterns and social interfaces arranged by – and somehow *contained in* – the physical structure of daily spaces produced within (and reproducing) a particular sociality. But is that form of social information all that space could embody as social information? What other forms could be there, impressed in architectural and urban spaces?

1.2. Beyond syntax: The limits to physical space as social information

In an architectural vein, these last questions could be translated in “how exactly is the activity content (or as architects pragmatically call it, function or programme) intrinsic to the actual spaces of architecture? To which extent could the action requirements within an activity be transferred into the structure of space itself?” Such a hypothesis is the most fundamental assumption and reason of architectural practice as organisation of space for the co-ordination of action. Such usual definition is of course an extremely functional conception of “practice” and “social content,” for it ignores

complexities and symbolic dimensions of appropriation and space to focus rather on practical requirements over space, and the effects space would have over the organisation of actions. I wish to discuss now precisely the limits of space as a “physical storage” of the “codes” of action co-ordination. Although still not entering into the symbolic aspects of space and practice, I would first suggest to expand the notion of “social content” seen by Hillier as co-presence and social interfaces into other conditions of practice, through a (certainly still restricted) notion of “teleological action” – nevertheless reduced to “function” in architectural theory. In the case action co-ordination could manifest itself in space through requirements other than co-presence levels and interface forms, that notion could include symbolic and practical conditions of situations of work and other forms of communicative action. As it stands, the problem is to identify whether *the content of the activity* (that is, what people do, whom they talk to, or where they go within a building) is actually embodied in the physical structure of space itself (and grasped by people when appropriating that space), or whether it emerges from people’s knowledge of the activity itself. First of all, keeping the notion of teleological action as a background, is there any specific “spatial embodiment” of a particular set of actions in particular spatial forms as architects seem to assume? The relation between co-ordination within the activity and its space seems to be variable. Theorists and architects dealing with that empirical aspect of the form-function relation frequently understand that there is some flexibility there (see Forty 2000). Many activities are not so specific regarding demands on spatial distributions, or simply may find many different distributions. To complicate matters even more, many buildings produced to support certain social activities end up supporting quite different ones. The conversion of buildings shows that architectural structures can be appropriated for more than one specific activity or social content – say houses may be converted to retail activities. That seems theoretically attested by Hillier’s concept of generic function. But, *if the relation is generic and flexible, how could social information be transferred to physical space, and back to social affairs?*

Is the form-function relation an isomorphic relation?

Let me take a rather naive starting point: the conversion of buildings to other social uses. Why some architectural spaces can be promptly used for different activities, whereas other spaces impose difficulty? Of course convertibility can be troubled by differentiated requirements that specific activities place on geometry (size and shape) of their spaces. A theatre demands large internal areas, museums demand sequences of relatively broad spaces, shopping centres demand large corridors, and so on. These spatial specificities or idiosyncrasies may indeed be seen as “social information” transmitted to (or inherent in) space. But let us leave aside exceptional requirements on size or

equipment and concentrate now rather on the “sequencing” of spaces of occupation inside buildings. It seems that introducing concepts able to address the very structure of space, like those of *depth maximising* and *depth minimising spaces* (Hillier 1996), would be useful to start answering the question. Depth maximising structures are largely composed by spaces that allow through-movement in a highly structured way – say long sequences with little flexibility to take other routes within the building. “Intuitively, deep tree-like forms [i.e. long branches of sequenced internal spaces] as the depth maximising form seem functionally inflexible and unsuited to most types of functional pattern while the depth minimising form seems to be flexible and suited to a rather large number of possible functions” (Hillier 1996:316). This definition implies that the physical structure of space may have something to do with certain kinds of activity and not with others. I shall follow this hint and suggest a somewhat sketchy idea of physical complexity and structure in buildings or plans, and relate it to a concept able to address the internal organisation of an activity. That is, one may address depth maximising spaces relatively unproblematically as physically complex, or perhaps more precisely as highly structured spaces – those, say, with several divisions, boundaries or specialised rooms, hierarchies or sequences of functional spaces and potentially a diversity of shapes such as corridors and rooms for activity (Fig.2) – or physically complex spaces.

It must be clear that I am not affirming that “building complexity” or “spatial complexity” is the same or can be reduced to “physical complexity” of the building or to a complex structure. I am searching a concept able to address directly the physical structure of an architectural space as a way to draw a relation to the activity in that space, in the fashion of an analytic theorist searching an homological relation between form and function – and only to show its inadequacy. So let me define highly-structured activities in similar terms, roughly as those events that imply a great number of stages within a social situation or process (e.g. involving a great number of divisions of labour, distinct roles, longer hierarchies or controlled interaction within an organisation or situation), both temporally and spatially (say routine work in a corporation, or the different stages within a trial).

Is there a direct relation between the “structure of an event” and of “structure of a space”? “Low-structured activities” (say an informal gathering or a party) imply more direct interaction, low hierarchical control, high levels of encounter and multiple, random interaction, what seems to fit architectural spaces little structured by boundaries, long sequences, branches and sections.

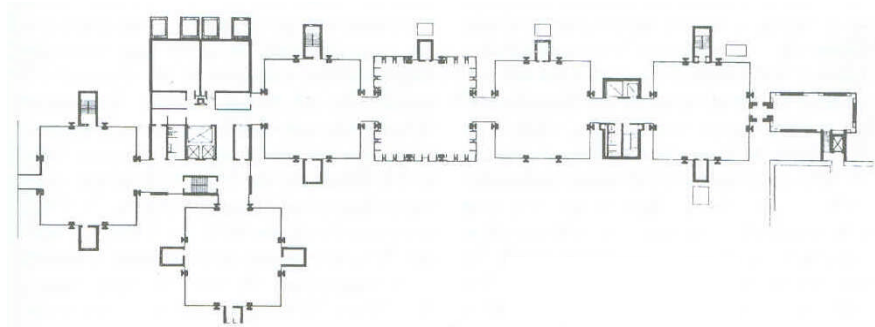


Figure 2: *Form follows function?* Building designed by Louis Kahn, apparently highly flexible, is in fact a “depth maximising space” – a long topological sequence without shortcuts or rings of circulation which hardly could support different activities. It enforces a single direction of bodily movement and rigidity in exchanges between different areas. (Richards Lab. Source: Architectural Archives of the University of Pennsylvania)



Figure 3: Convertibility of depth maximising spaces hardly could be carried on without substantial internal changes. The building above holds a level of social information in the topological structure and shapes of its spaces quite specific to a particular activity. (Hospital in Brazil. Source: Propur)

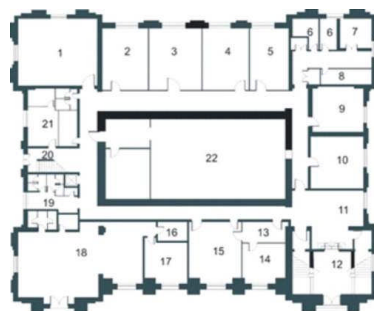


Figure 4: The internal topology is “shortened” by a circulation ring, which turns internal spaces equally accessible from different areas. A flexible, depth minimising space is more generic as social information: one cannot infer the activity from its space. (Scheme for the City Hall plan, Porto Alegre, Brazil. Source: Propur)

Thus highly-structured spaces would seem more suitable for highly-structured activities (say complex medical activities in a hospital – Fig.3), whereas low-structured spaces (say a single, big room) would seem more appropriate for low-structured activities (say the shallow hierarchy and volatile relations within a shop). But the problem is not that simple. Relatively low-structured spaces (such as the building in Fig.4) seem indeed easily adaptable to relatively low-structured activities (say, a small school), but they can also support complex activities (say, a large advertisement company). The relation space-activity (or form-function) is not isomorphic. We cannot say that a complex or highly formal activity (i.e. interfaces between agents involving many different roles and hierarchical relationships) implies a physically complex space. On the other hand, highly-structured spaces are not easily adaptable without changes: they hardly can support the interaction levels and the informality in social relations required in low-structured activities (a hospital could hardly be converted into a city hall) or the specificities of another highly-structured activity (a hospital converted into a newspaper office). It is indeed easier to say that a highly-structured space implies a complex and/or highly formalised activity. Nevertheless, we cannot infer the form of architectural space only assessing the activity itself. And we cannot infer with precision what is the activity merely assessing its spaces. We cannot say that the activity structure is necessarily the same for the built form.

Does that mean that we could never relate “form” to “function” structurally, that we could not say that social information may be somehow transferred to physical space – say, as requirements of interconnections of actions and of spaces? I suggest that we can – but not affirming any isomorphic relation. We can do so simply observing that the more structured or sequenced a particular space gets, the more difficult it is to place another activity in that space. Physically complex architectural spaces produced for particular activities can be seen as more obvious manifestations of the content (or social meaning) of the activities they place. They were subject to heavier, more specific, or perhaps more formal and hierarchical teleological requirements stemming from the activity they were produced to support. Thus we cannot say that activities carry specific physical structures (although they tend to have certain spatial requirements), but we can say that *the more physically complex a space structure gets, the more “intrinsic” a specific social content or information tend to be embodied there, in the very physicality of that space.* In the relation of social content to space, highly-structured spaces would carry more information in their own structures – as constraint and enablement to occupation – say, through specific sequences and specialised kinds of occupation as spatial conditions of the activity. Therefore the informational, material and practical “transference” between social content and space ranges from generic to specific, depending on how structured is

the activity and its teleological requirements over the physical structure of its space. Physical space can assume from no specific social content at all (limiting cases of completely flexible spaces as a single room with no partition) to materialise a large part of the “code” or requirements of the activity as coordinated actions (e.g. highly-structured spaces such as hospitals).

One could say that depth-maximising or highly-structured spaces can in some way carry social information (as specific teleological requirements) in their very physicality more explicitly. But how frequently do we really appropriate spaces of this kind in our everyday lives? One acknowledges that these spaces relate mostly to complex institutional organisations (say universities, hospitals, shopping centres, large factories, corporations or certain large bureaucratic institutions). Perhaps most spaces appropriated in our everyday lives consist of less complex spatial structures (say residential and commercial buildings, small schools and factories, offices where we work, a specific department within a university and so on). Most spaces can be correctly seen as “socially generic” in this sense.

From the form-function paradigm to “space as information to practice”

However, that poses a fundamental problem for those who search for the anchoring of the society-space relation in the physical “depths” of space – that is, there in the tangible places of everyday life, the architectural spaces of practice. Let me clearly state that when the relation between structures of space and action (at the level of the activity place) is mostly generic, *physical spaces could not carry any specific meaning*. In other words, if the action-space relation is mostly generic, most physical structures of architectural space cannot carry specific social contents since most spaces would carry similar contents. And this contradicts architectural theories of physical space as carrier of social contents such as Hillier’s space syntax theory. In probably most of the architectural production that makes up cities and underlies their regional relations, and despite rational efforts of architects to produce structural specificities to specific functional requirements, most spaces can be appropriated for activities with completely different contents or meanings.

Put another way, the kind of social information found in the physical structure of those places is generic enough to be easily found in another place. More crucially, it says nothing of the specificities of the nature of the event itself. Mostly, built spaces may “suggest” where to go or even who to talk to if we search someone or something in a place, by the (also topological) structure of boundaries, corridors, rooms and other physical elements in space. But that structure cannot tell

what people are doing. The physicality of architectural space by itself cannot tell about or specify contents of an activity, say the nature of sensual and symbolic exchanges that happen in a place, in a way to be more practically useful in the construction of actual interactions. In short, *the embodiment of the social in physical space is simply not precise enough as social information*. If space could carry social content only in its physical structure, most places would have limitations to carry it. And if that is the case, agents would have to learn about the conditions of the event from other sources of information (such as other sensual signs, or observing people’s practices) or would have to retrieve it from a pre-formed knowledge of the type of event itself – i.e. from what Hillier (1996) calls the abstraction common to both the social model of the activity and its space: the information that people retrieve from the physical structure of space must be complemented by the information they already have about the event itself.

Providing basic conditions for interaction (i.e. co-presence levels and interface forms) would indeed be all that space could do in the constitution of social action, unless we admit that the content of space is also a symbolic construction. I wish to suggest from now on that the social and informational role of space is not restricted to either its physical dimension nor to the basic conditions of interaction. If space is to be actively part of the meaningfully-mediated constitution of practice, the cognitive burden of the relation between action and space (which cannot find complete expression in the physical structure of space itself) must lie somewhere else. It must be carried also and perhaps mostly in a dimension that transcends purely sensual space. Apparently, it only could lie in a *semantic dimension* of space – surely beyond an independent form of social knowledge.

In fact, my analysis of the limits of physical space suggest that *the more the relation between activity and physical structure is generic*²⁴ – that is, when requirements of coordinated action are not projected into physical particularities of a built form – *the more action will rely on a social knowledge anchored in space*. As we shall see below, a social knowledge connected to space only could be the case through a semantic action-space relation built up in time, where a content of action is identified in and with a particular space. It would involve a cognitive construction that seems to encompass relations to spaces of activity, and uses forms of addressing and appropriating space like meanings and symbolic associations as a way to do so – i.e. incorporate space as part of

²⁴ That fact is empirically attested by the flexibility of uses of architectural (and urban) spaces as they can be converted to new forms of appropriation. Another logically possible form of a generic relation between action and architectural space would be most activities sharing similar structures, and implying similar spaces. But that would only imply a same need for specification of information in space rather through a semantic attribution of meaning.

everyday practice and communication through a “symbolic (and practical) construction of meanings” related to space. The structure of physical space probably never has effects over practice, fully independent of a semantic dimension. A physical support to social contents is not always the case, whereas a symbolic construction of contents in space would be the case even for places where action patterns are quite formal or complex, and demand a quite specific configuration of space. Therefore, the theoretical distinction between physical and symbolic spatial supporting of social contents, or between “syntactic” and “semantic” space is relevant: they are not completely tied together as a causal relation between two patterns. The consideration that whatever “social” is there in space is also subject to a semantic construction allows us to explore more broadly the practical dimension of space contained in the pragmatic architectural notion of function – and go far beyond it. For the possibilities of practice and communication cannot be contained in teleological action.

This observation is rather fundamental for the construction of a theory of communicative practice and space: the broader possibility of communicative action implies specification and transmission of purposes and utterances about a proposed or ongoing activity (Habermas 1984). Although when seen configurationally, spaces are more differentiated than they seem to be when seen in terms of their intrinsic properties (Hillier 1996), only if social space could be more differentiated out could it be actively part of processes of action and communication dependent on informational contents. That seems to be a practical requirement if the social content-space relation is to fully exist. Space would find levels of differentiation close to practice itself: to the differentiation in communicative contents, in the communicative constitution of practice, in our institutionalised uses of language, in our cognitive and practical relation to the world. Such a level of differentiation cannot happen at a purely sensual level of space, neither of experience and practice. The differentiation problem poses again the need of another dimension both related to and beyond the sensual. It has to involve the experience of contents – of complex symbolic and informational constructions that also constitute practice. I suggest that *space could be closer to practice only if subject to differentiation also at the informational and practical level of meaning* – i.e. if space would be also semantically active. This idea will prove useful to open up other possibilities to see how space matters for society as networks of communicative practice. The possibility that social space can support the production of knowable, communicative practices means that space could well become part of broader and complex processes of social reproduction.

Is such an *informational role of space* sustainable (and by extension, is a *practical* role of space sustainable, as crucial levels of practice seem to be constituted as meaningfully mediated

exchanges)? Does space have a greater role than providing the raw materials for interaction and social relations? I will propose below that space has *de facto* such a key condition, from the level of communicative action in contexts of co-presence to social transactions in broader regions of time-space. As far as theory is concerned, that symbolic relation might take at least in two forms. First, one derived from a visual attribution and perception of social contents in space through architectural and other kinds of signs – a *semiotic* relation to space. Second, through a cognitive construction whereby agents produce meaning in urban and architectural spaces through their practices – perhaps what we could call provisionally an interpretive or *semantic relation to space*. I verify briefly now the first possibility.

1.2. Semiotic space

It is not my intention to affirm that the experience of social meaning in space is empirically broken down or that it can be theoretically broken down unproblematically into causes or origins such as emanating from architectural signs, from the structure of space, or from the practices in space. For simplicity, my intention in addressing these interrelated forms of materialising social meaning is to acknowledge the limits of the physical structure of space in supporting meaning, in order to attest the possibility of meanings produced in space through social events, and their transmission back into the event – into practice itself.

Now there are many theories dealing with the effect of architectural signs and symbols over people. In fact that is probably the most usual approach to the problematic in architectural theory. However, my aim here is not a review of *gestalt* theories and theories of signs in the sense of asserting the effects of spatial elements of information or its history. My aim is to account for the fact that there seems to be an empirically strong relation between recognisable lexicons of architectural forms (as architectural types and styles) historically produced and particular activities culturally associated – in order to move on and explore substantive and theoretical possibilities more directly related to the approach of this work. I indeed acknowledge that lexicons of spatial forms seem to find certain patterns that are traditionally established as representations of specific activities in the Western culture (see Rapoport 1982; this possibility relates to Hillier’s [1996] concept of the abstraction common to the model of the activity and the space it needs, i.e. the social knowledge of buildings and their situated practices). I shall accept such a fundamental semiotic relation (or if one prefers other theoretical traditions dealing with the problem, gestaltic and phenomenological relation). These studies surely assert that the actor may know and remember spaces because she is informed visually by architectural signs or by other imagetic and linguistic signs and objects associated with

architectural spaces. Upon apparently consistent cultural correspondences between architectural forms and actual activities, one assumes – indeed supported by gestaltic theories and theories of signs – that such lexicons have a practical effect of helping to differentiate out space according to the activity, and conversely. From the point of view of practice – and I shall discuss that more carefully in Chapter 5 – the effect is that architectural signs would inform us of the nature of practices realised in a particular space. That could well play a significant role in the actors’ communicative accomplishments. The force of sensual signs cannot be ignored; they surely reinforce a cognitive relation to space.

However, it is not the semiotic dimension often covered in the literature that I am after right now, but one *beyond* the sensual aspect that grasps so much the architectural imagination. Conveniently having merely accounted for the relevance of semiotic and gestaltic dimensions in the relation between practice and space, I shall follow Barthes’ advice (in Forty 2000:37). We need to avoid “the tyranny of visual perception” and acknowledge another possibility of cognitive construction – perhaps one more immediately related to the very practice of actors in space. Or as Lefebvre (1991) would have it, we need to avoid the illusion of opacity and representations of space to rather concentrate on “lived spaces.” I shall concentrate on the possibility of a relation between the social and the spatial through meanings produced in practices themselves – in a way to expand the informational support of physical space, and the symbolic possibilities of the flux of signs emanating from urban and architectural forms, into a flux that is rather a manifestation of practice; a semantic flux that is inherently *experienced and interpreted* as practice.

2. Semantic space and the grounds of social practice

Because social action is symbolically mediated, so that structural patterns of action systems that are integral to their continued existence have to be grasped hermeneutically... Moreover, the self-maintenance of *social* systems is subject to internal limitations resulting from the ‘inner logic’ of symbolic reproduction. (McCarthy 1984:xxviii)

If we are to understand space, we must consider its symbolic meaning and its complex impact upon behaviour as it is mediated by the cognitive process. One of the benefits of developing this view of space is that it seems capable of integrating the geographical and the sociological imaginations, for, without an adequate understanding of social processes in all their complexity, we cannot hope to understand social space in all its complexity. (Harvey 1973:36)

It must be clear that it is not my intention to reify a “semantic space” as a way to reproduce, structure or even influence the course of social processes, or as the actual embodiment or carrier of practice itself. As I shall discuss in the following Chapter 4, space goes beyond the semantic, just as practice goes beyond meaningful practice. Nevertheless I insist that in the relation between social and spatial processes, the dimension of meaningful interaction is at least of initial interest. A step further, it may disclose a particular dimension of social reproduction, the communicative constitution of practice via spatial exchanges of signs in language, images, and objects. Furthermore, the analysis of the limits of physical space in supporting social contents showed the necessity of a symbolic production of social contents in space, in most cases either predominantly or exclusively. Meaningful space (or the semantic relation of agents to space) seems a necessity if space is to be part of the complex informational reproduction of practice.

But the fact that space does not encode meaning as explicitly as utterances or texts makes the thesis of a meaningful space problematic. Rather than seeing space as a medium that *is* already social meaning of a particular kind, the relation between social meaning and space is often seen as mere association or transference. The fundamental question is *how could space be produced and cognised as meaningful to practice*, i.e. pre-understood by agents as relating to the communicative and practical contents of an activity. There are a number of possibilities in theory to be explored here. They might be posed as “genealogies of meaningful space,” and are of course not mutually exclusive. They rather explore different aspects or are based on different epistemologies. For instance, from a historical viewpoint, that problem has been associated with an ongoing process of modernisation that involves the rationalisation of space (see Lefebvre 1991). Part of that process is the genealogy of “intentionality” and social pressures behind the production of space, namely activities that urban space is teleologically produced to support – usually a problem seen in instrumentally oriented disciplines like economic geography and architecture. Connected to these two aspects is the purely cognitive process of how the differentiation of practice could be in space and thus be read in space. It has to do with our daily heuristic construction of knowledge about contents of urban spaces, mostly the subject of cognitive geographies. Accordingly, one could speculate in a more sociological vein about the institutionalisation of these meanings in space in relation to the institutionalisation of practices and discourses – as I shall do so below.

There is also a related possibility which I shall develop here, for it evokes more emphatically the idea of practice; a genealogy of forms and practices which will suggest that *the meaning of action transcends itself to become immanent in space through the sensual, interpretive and practical*

relation between actor and space. I shall find support for such a claim in Wittgenstein (1953), when he affirms that meanings cannot be ascribed to independent phenomena – they are in fact produced by practice (see Simonsen 1991:418). Upon the informational nature of communicative practice and its varied contents and objects, a condition based on the possibility of mutual interpretation (a Habermesian assertion) and the relation between practice and the construction of meaning (a Wittgensteinian assertion), one may argue that the “semantic” is a practical construction, an inter-subjective achievement as it is language itself. Such a perspective shall therefore avoid centring “meaning” in the universe of the intentional subject typical of Weber and the philosophy of consciousness. And because meaning is a practical construction, the capacity of space to embody social meanings (the informational differentiation of space) may be in fact *closer* to the that of our actions and utterances than a purely sensualist approach to practice or a purely physical approach to space would allow us to think.

Surely not at the expense of the sensual and affectional, my argument insists that only the inclusion of an active semantic relation to space can make it fully active in the sociation of practice. As I discuss also in the following Chapter 4, any presence of space in the social – including the “stretching of social systems in time-space” – cannot exist completely outside the (also) hermeneutic relation between actor and the social and material world. The question of how space is part of action seems deeply anchored in the cognitive and practical problem of subjects’ confrontation with material reality, as to show how we experience meaning in our practice and in our relation to the world and to others. However, like in a dialectical fashion, the meaningful relation actor-space will only become clearer if the practical level is accounted for.

I suggest that a way to connect these two dimensions (in fact a way to connect elements of the philosophies of consciousness and language, hermeneutic and analytic approaches, and problems of agency and structure) is through the concept of *context-dependency* of action and language found in social theory and philosophy (e.g. Schutz, Garfinkel, Wittgenstein, Habermas), and human geography (e.g. Simonsen 1991; Thrift 1996). At its heart, the problem of context-dependency relates to interpretive and practical connections between action, speech and their context. In these meaningfully-mediated connections we reach relations to *other* contexts and agencies – or as Gregory (in Johnston et al 2000) would have it, to “extended networks of co-existence.”

I explain below how this passage happens relating the *concept of context-dependency* to *action*

*theories.*²⁵ In both sets of theories, we find two complementary aspects: (2.1) a *sensual and interpretive relation* at the level of the context mediated by co-presence, so that the meanings experienced (in space) become relevant (at least) for the interpretive accomplishments of participating actors; and (2.2) a *practical relation* of actors to space so that actors may interrelate their acts in the situation, intentionally or not, and into other situations in other places and times. Bodily co-presence, non-interpreted exchanges and interpretations accomplished in situated events may imply consequences that go beyond the temporal and spatial boundaries of the event itself, beyond interaction mediated by the body, and beyond the horizons of the participants, sometimes far away in space-time. This practical dimension therefore leads into what Giddens (1984) spatialises as “system integration.” One has to keep the intermeshing of contexts and the possibility of a spreading effect of practice in mind in order to avoid Castells’ (1996) mistake of breaking down the social relation between the “space of place” and the “space of flows” of transpatial²⁶ practices.

2.1. The hermeneutic actor-space relation

As the hermeneutic relation between actor and world (say in processes of mutual interpretation in social interaction) is usually seen like in some abstract, immaterial reality, the investigation of space as meaningful support for action seems not justifiable without further ado. On the other hand, one could apparently claim that, and on logical grounds alone, if space has the capacity to support social meaning or be meaningful in itself, i.e. if there is a symbolic relation of actors to space, then *it must have some consequence to the interpretive accomplishments of agents involved in social situations.* That would certainly be a way to expand theories of the social knowledge of a space active in the definition of social behaviour and forms of appropriating space – and so into an assertion of the actual place of contextual space in the interpretive and communicative dynamics of interacting actors within a social situation. My aim at this stage is to propose a particular notion: whereas the assertions of a hermeneutic space mediating structure and agency is there in Simonsen among others (e.g. Ernste 2004) and the idea of “boundless context” is there in Thrift’s performative approach, I shall develop the idea of *a hermeneutic space active in mutual interpretation overtly*

²⁵ A similar strategy was used by Simonsen’s (1991:418, 430) contextual approach in human geography. Simonsen uses the idea of context to “mediate between objectivism and subjectivism, structure and agency” – a mediation he finds both in action theories and in Wittgenstein’s theory of language and praxis.

²⁶ The term “transpatial” was introduced in Hillier and Hanson (1984) to address an informational dimension and practice that goes beyond spatial contiguity when relating to groups, or symbolic systems. My use of the term addresses the capacity of certain things and processes (e.g. electronic flows of communication) to break through *physical* constrains of space, such as the tendency of bodily performances to be subject to friction of movement.

into the very definition of the content of communication itself – into the fluidity and into the production of communication flows and subsystems of communicative, institutionalised practice. The actor-space relation can find space active only if the *context of action* matters for actors themselves. But does any “context” matter at all? We need to first answer this question if we are to show that space is cognitively involved in social action. Very influential in the shift towards the balance between agency and structure aimed by contemporary social theorists, theories found in ethnomethodology, phenomenology, hermeneutics and communication theory indeed support the context-dependency of action. Space is only eventually brought to the forefront in them. I first address these theories, to then move into overtly spatial approaches.

If the investigations of the last decade in socio-, ethno-, and psycholinguists converge in any one respect, it is on the often and variously demonstrated point that the collective background and context of speakers and hearers determines interpretations of their explicit utterances to an extraordinarily high degree...Naturally this meaning could not be thought independently of contextual conditions...that must be met if the speaker is to be able to achieve illocutionary success. (Habermas 1984:335)

Contexts are fundamental for interpretation and communication. Habermas defends Searle’s thesis that the literal meaning of an expression must be completed by the background of an implicit knowledge that participants normally regard as trivial. Sentences like “give me a hamburger” or “the cat is on the mat” cannot be fully understood without the definition of contexts, for the “truth conditions of the assertoric and imperative sentences employed therein cannot be completely determined independently of implicit contextual knowledge” (Habermas 1984:336). Context-dependency is a necessary condition for the normal use of our language – as hermeneutic ties between interpreter and situation. “In everyday communication an utterance never stands alone; a semantic content accrues to it from the context the speaker presupposes that the hearer understands. The interpreter too must penetrate that context of reference as a participating partner in interaction” (Habermas 1984:125). It is rather the “penetration” of a context that I wish to spatialise, i.e. see a context defined by crossing spatial boundaries. As I suggest below, *the unity of act, expressions and context seems potentially reinforced by meaningful definitions of space whose material boundaries seem to coincide to some extent with the symbolic and practical definition of the activity*. “By identifying the social act or joint action, the participant is able to orient himself [*sic*]; he has a key to interpreting the acts of the others and a guide for directing his action with regard to them” (Blumer in Wilson 1971:67). Participants assess situations as a necessity to orient their own action.

In describing interaction interpretively, the observer necessarily imputes an underlying pattern that serves as the essential context for seeing what the situation and actions are, while the same situations and actions are a necessary resource for seeing what the context is. (Wilson in Habermas 1984:126)

The interpretation of situations through a pre-understood underlying pattern is used to assess actions that in return help to confirm or not, and increase the pattern definition: “on any given occasion present appearances are interpreted partially on the basis of what the underlying pattern projects as the future course of events, and one may have to await further developments to understand the meaning of present appearances...on any particular occasion in the course of the interaction, the actions that the participants see each other performing are seen as such in terms of the meaning of the context, and the context in turn is understood to be what it is in the light of later events” (Wilson 1971:68). Let me move into more explicitly spatial assertions of contextuality. To begin with, searching space as part of contextuality finds strong support in Giddens’ spatial ontology. When discussing media of mobility of the body and communication in relation to the physical world he again offers key-ideas – although too briefly. Giddens draws on Wittgenstein and on geographical notions of *place* or *location*, calling them “locales.”

Locales refer to the use of space to provide the *settings* of interaction, the setting of interactions in turn being essential to specifying its *contextuality*...It is usually possible to designate locales in terms of their physical properties, either as features of the material world or, more commonly, as combinations of those features and human artefacts. But it is an error to suppose that locales can be described in those terms alone – the same form of error made by behaviourism with regard to the description of human action. A ‘house’ is grasped as such only if the observer recognizes that it is a ‘dwelling’ with a range of other properties specified by the modes of its utilization in human activity...An obvious element of this is the physical aspect of what Hägerstrand calls ‘stations’...as locales in which the routine activities of different individuals intersect. But the features of settings are also used, in a routine manner, to constitute the meaningful content of interaction...Context thus connects the most intimate and detailed components of interaction to much broader properties of the institutionalization of social life. (Giddens 1984:118)

In this seminal observation, Giddens acknowledges space as meaningful (i.e. beyond a physical dimension) in order to avoid a mistake analogous to that of behaviourism: to ignore the symbolic dimension, thus remaining confined to the surface of practice as stimuli-response effects, without *penetrating* its exchanging contents and practices (Habermas 1988). Furthermore, there are other

aspects that will prove fundamental in my propositions below. First, he relates the spatial delimitation of settings directly to the contextuality of action – a (Wittgensteinian) construction of meanings in space through “modes of its utilization in human activity.” Second, he suggests that “features of settings are used to constitute the meaningful content of interaction,” i.e. space would be an active hermeneutic support to action. Giddens (1984:118) in fact affirms that many examples of that may be found in the works of the sociologists Harold Garfinkel and Ervin Goffman. Third, he connects the contextual relation between action and space to an institutionalising role of space in system integration, what he terms regionalisation (“the zoning of time-space in relation to routinized social practices;” “the structuration of social conduct across time-space”). Through this set of ideas, Giddens spatialises the contexts of human action. Although Giddens does not explore these insights further, for he does not develop his theory into the meaningfully-mediated dimension of social constitution, it seems important to do so in order to include the spatiality of contexts as one thing participants rely on for interacting. One may such an assertion derive a link between *the differentiation of practice, the production of interpretable acts, and the production of symbolic media of communication – amongst them, meaningful space*. I shall therefore take Giddens’ insights on the spatial delimitation of contexts and on the relation between features of settings and contents of interactions, and extend and unfold them in order to search more thoroughly what these imply in terms of conditions of interpretation and communication in social situations. I will propose a place of space in the “background knowledge” over which acting subjects situate their action, whereby a common definition of scope and nature of action may arise and ease communication and the reciprocity of practice. That is, I shall search for a role for space from (a) being part of the hermeneutic context of action to (b) the systemic connections of action into eventful, unpredictable, contingent flows of (acts of) communication and recursive, institutionalised flows of organised interaction. In other words, I wish to investigate the spatiality of context as a way to:

- i. set up common backgrounds of communication;
- ii. relieving the cognitive burden of asserting over and over a common background – assumed by participants to be space itself – ensuring the fluidity of interaction;
- iii. being active as a symbolic and material resource in the definition of the communication content, and
- iv. in the production of networks of communication and subsystems of institutionalised action.

I shall do so exploring spatial findings in phenomenological, ethnomethodological and communication approaches.

2.2. The spatiality of context

All experiences have a social dimension, just as the temporal and spatial arrangement of my experiences is also ‘socialized.’ (Schutz and Luckmann 1973:104)

A spatial component in the context-dependency of action finds support in what the sociologist Alfred Schutz’ (Schutz and Luckmann 1973; 1989) called “regional ontology of society.”²⁷ Schutz stated that the primary aim of the phenomenological analysis is to elucidate the spatio-temporal structures of the lifeworld and experience (Habermas 1987a). Influenced by Husserl, he studied the “spatial stratification of the lifeworld” as the “world within my reach,” actual and potential, and its relations to power (the spatial stratification may be imposed or controlled). “In every situation a certain segment of the world is given to me,” a “province of experience” around which other differentiated provinces of restorable and attainable reach possess *temporal, spatial and social structures*. Although one might say that Schutz still prioritises time in his Weberian version of Husserl’s phenomenology, his are relevant insights on the spatial constitution of the lifeworld. He influenced a great deal of sociological analysis: the spatially situated character of action is also eventually found in Habermas and others. Habermas (1987a) arrives at the spatio-temporal boundaries that constitute a social situation as part of its ontological presuppositions. The action situation is defined temporally by upcoming breaks and spatially by the distance between sites. Habermas sketches a structural relation. “A *situation* is a segment of *lifeworld contexts of relevance* that is thrown into relief by themes and articulated through goals and plans of action; these contexts of relevance are concentrically ordered and become increasingly anonymous and diffused as the spatiotemporal and social distance grows” (Habermas 1987a:122) – so that the specific place, the time and the reference group of agents:

...constitute the null point of a *spatiotemporal and social reference system*, of a world that is ‘within my actual reach.’ The city around the building site, the region, the continent, and so on, constitute, as regards space, a ‘world within my potential reach;’ corresponding to this, in respect to time, we have the daily routine, the life history, the epoch, and so forth; and in the social dimension, the reference groups from the family through the community, nation, and the like, to the ‘world society.’ (Habermas 1987a:123 – emphasis added)

Although situations are not sharply delimited, they always have a “horizon” (the social, temporal

²⁷ See also Schutz (1962).

and spatial field of experience an agent has of her lifeworld upon her moving position) that shifts with the theme of the situation (Schutz and Luckmann 1973; see also Husserl 1976). For those involved, the action situation is the centre of their lifeworld; it has a movable horizon because it points to the complexity of the lifeworld (Habermas 1987a). Habermas is less systematic about the spatiality of these moving horizons than Schutz, but also points out to the relation between social situation and spatio-temporal boundaries as part of such a complexity. Habermas goes farther than Schutz when holding that the connection between elements of situations and between situation and lifeworld does not need to be explained exclusively as a phenomenological relation to the “world within my reach.” It may be understood as interconnections of meaning holding between a given communicative utterance, the immediate context, and its connotative horizon of meanings, breaking free from the paradigm of consciousness that backs Schutz and Husserl. This movement indeed opens the possibility of relating the bodily and interpretively mediated contexts of practice to broader spheres of communicative interconnections *beyond* the horizon of participants, while still seeing meaning as a significant medium of social transactions.²⁸ In Habermas’ words, the mode of utterances “expresses the spatiotemporal or substantive perspective from which the speaker relates to a validity claim” (Habermas 1984:37), although it may transcend those contexts. Utterances and validity claims are related to “fields of argumentation” that are institutionalised as social arenas or activities (Toulmin et al 1979). They have to do with the spatial horizon of subjects, the spatio-temporal boundaries that Habermas and Schutz see as constitutive to social situations. In other words, contexts of action seem to coincide with forms of argumentation and activities institutionally – and spatially – defined. Would these contexts find a clearer definition to agencies through spatial boundaries, i.e. as activities find specific, delimited spatial settings? I wish to propose that, if contexts are part of the definition of a common, active background to communication as Habermas, Garfinkel and others sustain, and if space is part of the contextuality of action as Giddens among others affirms, then *the spatio-temporal delimitation of a situation may become part of such a “presupposed commonality” – the interconnection of utterance and the connotative possibilities of meanings being communicated, or the background that actively sustains mutual understanding and communication.*

The interpreter must either already know, as a participant in interaction, the context on which the speaker is relying, or he [*sic*] must demand of the speaker that he expressly formulate his presuppositions. To meet this demand, the speaker would have to replace the situation-related indexical expressions with situation-independent expressions, for example, with space-time

²⁸ I shall explore this possibility of meaning in the following Chapter 4.

specifications or other characterizations. Such efforts to make contextual knowledge partly explicit and to remove misunderstandings about presuppositions are altogether common in everyday communication. (Habermas 1984:124)

Habermas asserts the importance of spatial references complementing “indexical references” as defined by the ethnomethodologist Harold Garfinkel – the fact that words have no clear definition since meaning comes from the reference of words to other words and to their contexts; utterances made with the help of indexical expressions can be understood only in cognisance of the speech context. Habermas does not ignore the fact that spatial evocations in language are indexical expressions. Garfinkel (1967) himself finds indexical expressions that evoke spatiality such as “here” or “there” – they also vary according to the context. References to space in language thus render empirically explicit the connections between context and space. This is a potential path for a communicative approach to the practice-space relation: the possibility of space as indexical reference to speech, namely the crisscrossing of spaces of language and linguistic communication and actual space. Spatial terms are evoked as reference to ongoing practices and apparently work to define the context of the speech, and depend on context themselves. But could space itself be reference to ongoing practices?

2.3. Space as interpretive resource

The framework to the communicative practice-space relation which starts to be outlined here is able propose a way to find a place for space beyond a reference to the speech definition – a place closer to that of a reference to practice itself via the connection between meaning in space to the meanings constitutive to communicative practice – i.e. space as reference to the ongoing communicative practice (cf. Werlen 2005). It may do so through a brief incursion into ethnomethodology. Ethnomethodology carries out the phenomenological programme of grasping the general structure of lifeworlds through the particular character of everyday life, or how “the managed accomplishment of organised settings of practical actions, and that particular determination in member’s practices of consistency, thankfulness, relevance, or reproducibility of their practices and results – from witchcraft to topology – are accompanied and assured only through particular, located organisations of artful practices” (Garfinkel 1967:32). Such theories look for the construction and reproduction of social situations through “invariant features” of interpretive procedures and reference systems used by participants in interaction: the context-dependency of utterances, the narrative organisation of temporal sequences, the interpersonal organisation of spatial distances (Habermas 1984). We find there – as we find explicitly in Schutz’s

phenomenology (1973; 1989) – suggestions that space is part of the ordering of situation contexts, a structuring element of experience. The ethnomethodological approach allows us to expand this role, and see *space as part of a meaningful system of practical co-ordinates* with which members have to be familiar with: it constitutes the context-forming horizon of personal and shared lifeworlds, from within which participants in communication come to an understanding. Sequences of interaction are in fact “problematic momentary consensus groping to the next.” Here, the *clarity of context matters* for the continuity of interaction into other events.

If all concepts and action orientations impinging on the situation have to be negotiated anew each time, the occasionalism of the particular dominates the general. So that the appearance of continuity across a number of action sequences can be secured only through reference to the given context. (Habermas 1984:124)

Habermas indeed does not explore the spatial dimension of context²⁹ in the continuity of interaction as Giddens and Schutz do – i.e. the spatial delimitation of a situation, and the social, temporal and spatial movement and penetration into given contexts. Nevertheless, connections between these arguments allow one to speculate whether space is potentially part of a clearer definition of what a situation consists of, and how it relates to others. We would refer our social acts to space via the infrastructure of communication itself: the exchanges of meanings during our interactions mediated by the meanings of the spatial context. This would imply the possibility of space as indexical reference *active also in moments prior to the ongoing situation* – a symbolically differentiated spaces evoked in the definitions of plans of practice, i.e. even before our actual acts. Such a spatial condition could have pervasive effects, although seemingly taken for granted in daily life. Such a possibility has remained unexplored even in overtly spatial approaches.

The failure of geography and sociology to recompose an appropriate ontology in which...‘space matters’ (rather than just being there) has kept the existential meaning of the spatial context hidden. (Soja 1989:148)

Contextual space is surely a subject in human geography and in Lefebvre’s philosophy. Thrift (1996) for instance argues that context is “a necessary constitutive element of interaction,

²⁹ Habermas (1987a:129) claims instead that he shall not go into the spatio-temporal and social organisation of the lifeworld. Indeed he does not. For instance, he brings general dimensions of speech situation, namely the *temporal dimension* (whether participants are oriented to the future, past or present or whether speech acts are temporally neutral), the *social dimension*, and the *dimension of content*. Habermas does not include here a *spatial dimension*.

something active, differentially extensive and able to problematise and work on the bounds of subjectivity”³⁰ – a “performative social situation, a plural event” which is more or less spatially extensive and more or less temporally specific. These parcels of time-space relate to subjects and objects “aligned in particular ways which provide particular orientations to action.” Spatio-temporal contexts are not passive – although human subjects transpose contexts in various ways (e.g. language, narrative, imagination and memory). On the other hand, “context has strong effects on each and every one of these transpositions” (Thrift 1996:41-3). Contextual approaches thus also seek to expand that situational character as they enquire the world “as a series of associations and entanglements in time-space, and...seek both to retain and to explicate those interlacings as the central moment of their interpretations and explanations” (Gregory in Johnston et al 2000:110). They shift the view of space as external containers or frameworks (e.g. “neutral grids”) to a view of space unfolded into the conduct of life, as productive elaborations or “what we labour to produce as we go along,” constantly and differentially folded into streams of action and activity (Thrift 1999).

We also find in geography an idea of particular interest here, a *connection between space and situated knowledge* based on texts. The production of texts is a practical activity taking place within and intervening with specific contexts – the interpretation of texts depends on the recovery of their contexts (and this insight may be traced back to both Gadamer’s hermeneutics and Derrida’s deconstructivism). Of course the dangers of reduction in reading off text from contexts, and the networks that “spiral out from and fold back into texts” are subject of debate. But the point here is that “discourses are embedded:” they are not free-floating constructions but are materially implicated in the conduct of social life; they fit into a network that has its own history and condition of existence and its own geography (Gregory in Johnston et al 2000:111, 180). Lefebvre in turn sees space as active in social production; he eventually mentions that activity in space is in fact restricted *by* space – “space commands bodies, prescribing or proscribing gestures, routes and distances to be covered” (Lefebvre 1991:143). There seems to be a form of relation to a supposition reared in social practices that a particular space has a particular use understood by agents as such reflects a normative force seen by Lefebvre (1991) and Foucault (1980) (cf. Toulmin et al [1979] on agents inferring scopes of interaction from the action context). Nevertheless we should observe Habermas’ (1984) emphasis on the *complexity of possible actions: action does not necessarily follow the scope prescribed in a rationalised activity*. A normative character of practice is nevertheless frequently seen as embedded in or assumed to be space itself: *space is frequently one of the normative forces*

³⁰ However, Thrift (1996:3) ignores that semantic approaches have shifted with Wittgenstein and Habermas (among others) to understand meaning as “rooted in action-in-context,” actively embracing practice.

setting the limits and patterns of possible actions. And these would be set up by spatial features themselves. “Anyone entering [a] park knows instinctively the boundaries of behavior, the appropriate codes of conduct” (Eyles and Cosgrove 1989:113; cf. Hillier’s social knowledge of buildings pre-disposing behaviours when one enters their assembly of practices). So let me extend the normative force of space over bodies and gestures and cognition itself to the communicative flow of interaction exploring the possibility of space as a source of interpretations in its own right.

3. Space in the production of communication

In the consideration of space as both setting up and forming an ongoing part of the contextuality of practice lies, paralleled by the frequently oppressive normative force of space, a potentially beneficial effect: *space may be part of clarifying pre-dispositions of the situation*. The symbolic-practical relation to the spatiality of context seems to include a pre-interpretation of the normative patterns involved in the situation. Say, the ways in which children will be taught at school (the scope of activities which will potentially emerge there) do not have to be established everyday; they are implicit in the fact that they join that routinised situation, surely evoked by memory or practical consciousness, but clearly set up by penetrating that particular space especially defined for that activity, and constantly reminded by its practical, symbolic and physical boundaries.³¹ Such background is set immediately by the spatio-temporal recognition of context and by the transposition of its (physical, symbolic and practical) boundaries. Of course the heuristic knowledge of the activities in “the world within my reach” spatio-temporally and my action plans already contain a pre-understanding that anticipates the situation – but the hermeneutic experience is only fully started in the crossing of spatio-temporal boundaries of the event in our social experience. Just as different activities set up completely different patterns of behaviour and behavioural expectations, scope of communications and types of argumentation, the “shifts” in the nature of human activity are remarkably spatial phenomena (cf. Hägerstrand 1978) – say walking from the underground to a street, to work, then to the streets again, and then home. Our pre-given knowledge of the building both as form and activity pattern seems to pre-dispose us to behave in ways appropriated to the social interfaces they contain.

Based on such observations, I would like to suggest that, beyond abstract geographies, participants

³¹ This idea seems supported by Hillier’s theory of relations between model of activity and model of space, i.e. the relations between rules of the social event, the configurations produced in space and the appropriation of space itself.

joining a situation delimited in urbanised space and time – a spatio-temporal situation whose meaning is frequently attributed by action, which starts in the architectural production of space and is certainly produced, reproduced and changed by daily practices – may find that space itself is a reliable source of contextual interpretations. That is, our interpretive and normative relation to space helps ensure that our actions and interactions are flowing according (or not) to behavioural expectations and communication flows constitutive to the flow of the event itself. Participants of the event do not have to wait to grasp the nature of the event from what agents do and say in order to find a common cognitive background. By doing so, *a semantic-practical definition of spaces would provide an initial frame and so help reduce cognitive efforts of establishing over and over the predispositions that embed the situation – and thereby reduce risks of misunderstanding.* Just like the commonality of a background “smoothes” the flow of communication (Habermas 1987a), space as constitutive to the symbolic background of action would have no passive role when referred to as cognitive and practical context to action.³²

Like much of what ethnomethodologists search to uncover, this hypothetical role of space seems difficult to be objectified. Facing the difficult nature of space, its role as part of the conditions for setting up the background knowledge implicit in the interaction context itself is hardly brought to our attention in everyday life. Space seems one among those elements that, paraphrasing Wittgenstein’s comment on language, are “anchored in all my questions and answers, so anchored that I cannot touch.”³³

3.1. Mutual understanding and the fluidity of interaction

Indeed notions of the spatiality of context and situations suggest the importance of the place of practice and its *boundaries*: “...although an energetic ontology is oriented to movement, this does not mean that *it* has to ignore spatial fixity or the matter of boundaries. Space is striated, which is both a negative *and* a positive condition of existence” (Thrift 1996:31). More than an abstract notion of striated space, human spatialities consist substantially of urban and architectural constructions: boundaries are produced in the form of buildings as “places of practice” for relatively definable events or stages of events, and as urban, public spaces between them.

Following authors in social and socio-spatial theory, I have explored the interpretive relation to

³² Some urban theorists indeed affirmed that spatial contexts establish conditions of unproblematic communication (see Rapoport 1982:77-81).

³³ Wittgenstein in Habermas (1984:336).

space as context of action, insisting on what kinds of *effects space has over the course of actions and communication, e.g. how meaningful space becomes part of the flow of practice*. I have searched to expand the assertion of space as part of the mode of life at the level of a general notion of “experience” or “being” (cf. Simonsen 1991, Werlen 1993 among others). My aim has been to understand what exactly within communicative experience is “embedded of space.” And for that I addressed the crisscrossing of space to practice through linguistic latent in our speech and in our doing:

- i. evocations of space in language, and the possibility of space itself as an “indexical reference” and context for illocutionary acts ongoing and prior to action;
- ii. the relations between space and acts of understanding (space as background for common understanding).

The possibilities opened up by brief incursions into social theory are related to an aspect that I shall discuss only in Chapter 5: the consideration of *space as a form of knowing the social world* and enacting socially, a form of producing flows of practice through communication. Only then the framework will reach the place of a semantic and practical space to the production of systems of interaction. Finally, it is necessary to point out limits to the relation between context-dependent action and spatial context. It must be clear that the course of communication, in spite of its scope relatively delimited by the social, temporal and spatial boundaries, cannot be reduced to an institutionalised type or remain circumscribed by space. An approach geared to communication may suggest that the spatiality of the context may be active in setting up also cognitively the nature of actions and social categories involved – not in generating by itself what agents do or say.

I attempted to expand the idea of space as context found in Giddens (1984) and found in human geography, among others explored by Simonsen (1991) as a relation between agency and structure. Like the latter, I connected it to action theories and attempted to show the place of space in the hermeneutic dimension of action; unlike both, I discussed the passage to actual interaction or how these interpretive efforts, actively contextualised by meaningful space, blend into the communicative exchange, into communication itself – a Habermasian development intended to address the communicative level unexplained in geographical approaches, for they usually ignore the effects of spatially-mediated interpretive accomplishments in the actual sociation process and in the course of social action. I have certainly searched for such a dimension. The present Chapter 3 thus defined the basis of a spatial approach to communication as networks of connected practices, asserting the role of space in setting up conditions and rules of interaction; as a trigger to the

“awareness of situation contexts” minimising risks of misunderstanding, relieving the cognitive burden of asserting over and over a common background assumed by participants to be space itself, thus ensuring the fluidity of interaction and the production of communication itself

My argument of a hermeneutic relation between space and agents founded on practice developed through a concept of space as an inherently meaningful realm, a part of the (also) interpretive actor-world relation. It intended to introduce the thesis of *space as pre-structured physically and symbolically by the interpretive and practical action of agents* (nevertheless fully explained in Chapters 5 and 6). It attempted to blend aspects of space into aspects of a theory of communicative action in order to uncover space in the social construction of action – so that we can start to devise social action embodied, semantically and practically in space. Or using Giddens’ (1984) words, it attempted to develop a conceptual apparatus “which would make space, and control of space, integral to social theory.” It asserts that, on the one hand (from the prism of space) the space-meaning relation is more appropriately grasped if we interrelate the semantic-practical dimension of action and space to those levels of social information produced in the very physicality of the structures of urbanised spaces and in its semiotic signs. A critical discussion of spatial concepts from architectural theories (as Hillier’s) allowed the framework to keep the physicality of space active, while accounting for the vital role played by *meaningful space* constituted in hermeneutic and situational, practical and institutional processes.

With the concept of space as inherently meaningful, one may be able to demonstrate, in a deep epistemological sense, space as endogenous to the sociation of practice, and practice constantly embodied, semantically and practically, in space. But such a deep ontological connection found in meaning is also still to be explained. The moment of the spatial emergence of social practice and structures is in fact based on the very ontological foundation of the relation between meaningful, communicative practice and space – a relation that can only be produced through a specific property of meaning. In short, the deep ontological conditions of the practice-space relation need to be addressed as a problem in itself. What is in fact the property or quality that would turn practice able to relate so intimately to space – the property that would allow things of completely different materialities to relate so deeply to one another? We must investigate from now on *what is* this deep connection – or what is there in meaning that produces such a powerful ontological relation.

On the other hand, (from the prism of society) the action-space relation could only be fully grasped if one expands it into the continuum *beyond* the isolated horizon of the subject and the activity place

– as contexts and situations can be transposed through the continuity of practice (cf. Thrift 1996) and their intermeshing into broad landscapes of material reproduction (see Habermas 1984). Neither this passage can be comprehended within the conceptualisation developed so far, nor can the place of space in it. It could well be so through the communicative action approach of Jürgen Habermas. But I shall shift my incursion into action theories in the direction of another approach – one more explicitly able to put together, *inseparably*, action and space: Niklas Luhmann’s autopoietic theory of meaning and communication. I shall take such a direction. Finally, that direction could (and should) also be problematised. I shall do so through incursions into the post-structuralist questioning of categories of subject and world, meaning and space, and the reconstruction of a notion of practice and world relatedness beyond the centred, cognitive subject. Therefore the following Chapter 4 “The Duality of Meaning” will seek to expand the idea of space as context into the relatedness of practice and space, confronting (and converging) post-structuralist theories to Luhmann’s powerful contribution to the action approach. Having laid down the initial foundations to what one might call “*inseparable relation of action to space*,” that of how the social becomes part of the very basic constituents of space (i.e. the architectural places of action), we must now define what exactly is the deep ontological connections between action and space (Chapter 4) if we are to explore a second moment of that relation: the process of social structuration and reproduction through space (the subject of Chapter 5).

Chapter 4

The Duality of Meaning

The fourth chapter aims at a rewriting of the concept of meaning as a connection between the social and the material, a *multiple* connection – perhaps the only possible *intrinsic* connection between things as different as “practice” and “space,” and a major condition of what has been recently addressed as “inherent relatedness.” Drawing mainly on Niklas Luhmann’s theory of self-referentiality, it questions meaning as a bounded conception unable to grasp the apparent relationality and restlessness of a “world on the move,” thus redefining the concept and putting forward both “relationality” and “restlessness” rather as properties of meaning. Those properties are defined as a *duality of meaning* – i.e. meaning as an event in our experience, yet in itself an experience of reference to acts, places, and other meanings. The duality of meaning implies that the very definition of meaning is referential – it is never self-contained or centred; it rather alludes always already to other meanings, acts and spaces, referentially crossing boundaries while reasserting sensual and perceptive qualities. Whereas this unconventional approach does not exclude the non-meaningful, it suggests “a return to meaning” as an opportunity to relate different epistemologies, unveiling relationality while actively keeping the subject’s experience of identities, and shedding light on the importance of the specific materialities at work in the relation between space and social practice. The chapter places this fundamental connection between the social and the material as a key theoretical step to disclose a particular, overlooked aspect of the sociality-spatiality relation: the moment of sociation of practice and its informational and material conditions – a turn to communication in a “referential approach” to the materiality of the social world.

Introduction

The relation between society and space has been currently addressed in post-structuralist geography as a realm of “inherent relatedness” in social and material reality, i.e. agents and objects, practices and places as effects of transpatial, semiotic networks described in new ontologies and *performative* and *non-representational* approaches (see Thrift 1996; 1999). This chapter will attempt to disclose “*other* ways in which those accounts might be made” (Gregory 1989:355). In this sense, human geography indeed “still registers only a very small number of theoretical traditions” (Thrift 1996:4). Although I cannot discuss this particular issue here, one may observe that the number of theoretical traditions has been growing (see Benko and Strohmayr 1997; Crang and Thrift 2000; Dear and Flusty 2002).

The perspective to be developed in this chapter is consciously centred on a tradition still to be

systematically explored in socio-spatial studies. Generally, this tradition may be traced back to theories of action and meaning stemming from Weber and Schutz. Among these theories, I wish to bring and explore from now on the work of Niklas Luhmann on action and communication, structuration and meaning. I shall discuss it as a work that searches explicitly to see ontological continuities in social reality, or the idea of inherent relatedness pursued by new ontologies. I shall also search to overcome its functionalist limitations, while adding a missing spatial dimension from inside that theory – i.e. using concepts from the theory itself – and from outside – i.e. drawing upon other, at first sight incompatible approaches.

Exploring Luhmann's theory in addition to action theories visited so far, the core of the present perspective of social and material reality lies in the proposition of a concept, a way to handle a particular set of issues consciously jettisoned in post-structuralist approaches in geography (and I shall justify a "return" to such issues below). That concept refers to a particular ontological condition of meanings produced in practices, things and spaces, and there at the heart of the inseparable relation between practice and space. I shall address this condition and argue that it will offer a way to see the social emergence of practice through space – that is, the vanishing allusions and connections between changing constellations of things and acts, subjects and their contexts, or what one may call the "extraordinary relatedness of things." Or, as Luhmann would have it, a way to see self-referentiality in the world we produce and experience. It is also a concept able to assert *social structuration* across large spans of time-space as *accomplishments of communicative action*. Of course an epistemological problem at stake here is how to reassert inherent relatedness (brought to the forefront in current ontologies) or "inherent restlessness" (Luhmann 1990) while keeping a bridge open to other approaches and dimensions emphasised in those approaches – say the interpretive and reflective condition of the human subject, and the very specificities in the materiality of things and of space itself. In other words, a concept is proposed (the dual condition of meaning) to see in a different perspective both relentless relatedness and the uniqueness of things and events, space and the human subject.

In fact, parallels and differences between action theoretic approaches and performative approaches were drawn in Gomart and Hennion (1999 – to which I would not subscribe), Simonsen (1991) and Ernste (2004). My aim is neither to repeat such a discussion nor simply suggest the need to "reembrace metaphysics" (see Rose 2004). Instead, the perspective to be outlined below confirms important findings of performative theories, and intends to relate to (and point out) *other* dimensions of relationality, and – by extension – of the relation between practice and space.

Although drawing upon different traditions, it seems that mostly these questions are a matter of greater or lesser emphases on certain elements or qualities of social and material reality. Of course these emphases end up implying deep ontological issues that only debate could address satisfactorily. In this sense, the present approach is also intended to suggest the possibility of taking advantage of the unique nature of the problem of relating practice and space to find convergences between different ways of theorising. Namely, it points out possibilities of relating the Kantian view of meaning as “event in experience” and a Husserlian view of meaning as “experience of reference;” and philosophies of the subject and language and post-modern assertions of affect and the sensual. As such, it finds as background current discussions about less exclusive perspectives in geographical theory (see for instance Dixon and Jones 2004).

If my aim is to address the relation between society and space from a rather unexplored perspective of practice and meaning (Luhmann’s among others), my argument is in fact quite simple. I will argue that the intermeshing of practice and space could only be possible, at the level of social reproduction, *through meanings shared in space and practice*. Thus this chapter discusses an ontological condition of meaning only insofar it relates to an overtly sociological and spatial question: the emergence of practice as a material process. The following chapters will explore (not unproblematically analysable) dimensions of that question: the level of social reproduction and appropriation of space (Chapter 5) and the level of production of action and space (Chapter 6). So let me first relate this intent to current perspectives in human geography.

1. Performative theories in a “world on the move”

I shall finally address the current urge to practice in human geography. There we find an extraordinary interest in post-structuralist approaches and their anti-humanistic critique of the rational subject, namely Deleuze and Guatarri, Foucault, Baudrillard, Derrida, Lacan, Serres and Latour, and others. These theories share many points with non-representational and performative approaches (see Schechner 1988; Butler 1997; Thrift 2000). Above all, they seek to assert a world-producing sense of practice, the “constant hum of the world as the different elements of it are brought into relation with one another” (Bingham and Thrift 2000:281), a new classification of things (Latour 1993). I cannot offer a complete account of these theories here; I shall bring some of their ontological fundamentals and their geographical interpretations into the picture.

Serres suggests a way of thinking beyond concepts that organise the totality of things from a fixed

viewpoint: the ontology of being, categories, the cognitive subject, language. All these consist of a tendency to fixity. Serres wishes to build up outside the “solid” – there in the fluctuant and fluid; less in a place than in a circulation; less in the elements themselves and more in their relations (Serres with Latour 1995). Topology is the science of proximities, transformations and mixture, translation as transport, and Hermes is the mythological metaphor of a space-time of messengers, transmissions: viscosity, not hardness; diffuse fluids cutting across dimensions and scales, creating relations from within chaos; a circulating world, a “world on the move” (Bingham and Thrift 2000). A second major influence is the notion of “rhizome.” A rhizome (in the sense in which it has been used by Deleuze and Guatarri) is made of dimensions, of moving directions; it has no beginning and no end, only an in-between through which it grows. It is a non-hierarchical, non-centred and non-significant system. It is only defined by a circulation of states, of continuous regions of intensities, vibrating over it. The fabric of the rhizome is not the verb “be,” but the conjunction “and...and...and” (Deleuze and Guatarri 1988).

The post-structuralist critique of the metaphysics of presence, and Serres and Latour’s, Deleuze and Guatarri’s seductive ontologies of multiple, moving landscapes of fluxes and in-between-ness, of hybrids and effects have certainly grasped the geographical imagination (Castree and MacMillan 2004). Non-representational theories are those “in which basic terms and objects are forged in a manifold of actions and interactions.” They focus on the “external” rather than on the “internal” and on symbolic representations typical of representational models of the world (Thrift 1996). That means a different way of theorising. Like in Serres, it fundamentally asserts that relations-prepositions “spawn objects, beings, and acts” – and not the opposite (Bingham and Thrift 2000:290; see Serres with Latour 1995). It aims at making sense of a world that unfolds by way of mediation, translation, transformation, circulation, constructing a fragile synthesis expressing “the very tissue in which objects, things themselves, are immersed” (Bingham and Thrift 2000:292). It aims at grasping the “all encompassing and diabolically complex network of inter-information” with “our bodily eyes in concrete surroundings” – like maps (not mirrors) “to [bring] ourselves-in-the-world” (p.292). A celebrated example of this form of theorising is actor-network theory (ANT), a theory of how everyday practices are transmitted into wider processes of social formation without falling back into all-encompassing theoretical orders (Thrift 1996 – although that is indeed a disputed claim; see Rabinow 1999):

actor network theory may be understood as a *semiotics of materiality*. It takes the semiotic insight, that of the relationality of entities, the notion that they are produced in relations, and applies this

ruthlessly to all materials – and not simply to those that are linguistic... the semiotic approach tells us that entities achieve their form as a consequence of the relations in which they are located. But this means that it also tells us that they are *performed* in, by, and through those relations. (Law 1999:4)

It opts for a “topological presupposition” of the network in order to consider how agency is constructed in these social processes (Thrift 1996; Mol and Law 1994). In ANT, agents “can vary in size from individual human subjects to the largest organisations – are treated as relational effects...not unified effects. They are contingent achievements” (Thrift 1996:24). Agents as well as modes of production, structures, classes, interests and so on are not carriers of events but effects arising from network relations. “Actors define one another in interaction – in the intermediaries that they put into circulation” (Callon in Thrift 1996:24); “actantiality is not what an actor does...but what provides actants with their actions, with their subjectivity, with their intentionality, with their morality. When you hook up with this circulating entity, then you are partially provided with consciousness, subjectivity, actoriality, etc.” (Latour 1999:18). “Interobjectivity” is a way of phrasing the new position of the actor. “Subjectivity seems also to be a circulating capacity, something that is partially gained or lost by hooking up to certain bodies of practice” (Latour 1999:23).

This particular view of the human subject fundamentally relates to a “push to practice” and to “thought-in-action” (Thrift 1996; cf. Olsson 1993). Agents moving about in the world know how to find their way in it (Shanon in Thrift 1996). “Our view of action is that it is primitive. It precedes thought, ordering, or organization. Thus, in its most callow sense, an action is a happening; before anything else – before meaning, significance, before it’s fitted into any schema – it simply happens” (Cooper and Law 1995:241). Non-representational approaches emphasise “the situated, pre-linguistic, embodied states that give intelligibility (not necessarily meaning) to human action – what Heidegger called the primordial or pre-ontological understanding of the common world” (Thrift 1996:6). If action may be a happening *before* being an act of giving and relating to meaning, and if the intelligible does not necessarily become intelligible as an act of *disclosing* the world through meaning – and these two notions contradict every action theoretic approach from Weber to Habermas and Luhmann, and at least the latter seems to contradict Heidegger’s theory of meaning as we shall see below – on the other hand meaning-giving is not conscious.

This post-structuralist view of a decentred subject “summons” the body, the emotional and the sensual. The use of language is not seen as a communicative device between psyche and social

structure, but as a means of “moving people or changing their perceptions” (Thrift 1996:20). Thus, non-representational theories question the bounds between subject-object as “the inside and the outside of the subject are seen as folded into each other and because the things we have conventionally depicted as objects, for example machines, are allowed into the realm of action” (Thrift 1996:3), dealing symmetrically with human and non-human agencies in networks of things. “In this scheme of things entities have no inherent qualities: essentialist divisions are thrown in the bonfire of the dualisms” (Law 1999:3).

One is led to agree with the concern to avoid drawing “the bounds of the subject too tightly” and avoid excluding “many crucial relations between subjects and objects;” with theories able to assert the “importance of the between-ness of joint action” (Thrift 1996). However, let me outline now another way of dealing with the inherently relational. Perhaps my intent has something to do with an idea of recovery of ontological depth; for “one of the obsessions of postmodernism is ‘depthlessness’ or, as Jameson puts it, the replacement of depth models by the play of ‘multiple surfaces,’ each shimmering off another” (Gregory 1989:356). Yet it is not my intention to produce a full critique of post-structuralist approaches here.³⁴ I shall restrain my observations to those above, and relate them to Luhmann’s self-referentiality below. Nevertheless an approach based on Luhmann would emphasise certain aspects rather incisively. In some key moments, differences to performative approaches will emerge. I will explore similarities and differences through brief comparisons to Luhmann’s perspective once the main ideas behind the latter are also outlined. For, if post-modernism indeed “entails a respect for the ‘creative tension’ between different theories,” it is also true that “it is far from easy to sustain a dialogue between competing theoretical traditions” (Gregory 1989:357).

2. Other relationalities: Luhmann’s self-referentiality

I shall take up as point of departure again a notion of practice as social action central in (and problematised by) Luhmann. Let me recall a concept of action as, roughly, the things that one does that affect interacting subjects, and do so reciprocally. They do so because they are acts, utterances, gestures or productions of things (objects, signs, texts, hypertexts) that are meaningful, or provisionally, communicable and understandable by other people, implying their actions, bodily and

³⁴ See for instance Wise (1997) and Rabinow (1999).

discursive interaction, agreement-disagreement, omission, reflection, or new productions.³⁵ In fact, considering the appropriate post-structuralist and performative emphases on the pre-linguistic, I have been insisting on the importance of also exploring a dimension whose spatiality seems still underestimated: that of practice as a meaningfully-mediated fabric embodying social life, institutional articulation, and social flows.³⁶ Thus, a main difference between the approach to relationality and socio-spatial reproduction to be outlined here and some non-representational ontologies is the relevance of “meaningful meanings.” I will propose in this chapter that the emphasis on signs, perceptions, affect and the body – perhaps surprisingly – does not have to imply the withdrawal from meaning and communication. That dualism, we shall see below, seems more of an epistemological than ontological nature: we need concepts able to grasp these ontological possibilities rather as ambiguities and dualities than sovereign realities. For the practice of meaningfully-mediated interaction must be viewed as an equally fundamental dimension of social reproduction (see Honneth 1987; Habermas 1984).

As we have seen, this is a dimension particularly relevant when it regards the spatiality of human activity. Not at the expense of the non-meaningful (the tactile, the emotional, the pre-linguistic), I have been bringing to the forefront the communicative unfolding of practice – and we have to emphasise communication beyond the oral – that produces relatedness in social and material reality. That means seeing the flows of bodies and conduct, objects and texts in space as communicative-practical accomplishments also “from within;” that is, recast in the sensual, emotional and interpretive universe of the subject.

Let me now briefly introduce Luhmann as a social theorist, and show what is distinctive in his extraordinarily rich theory of the conditions of possibility of existence of the social world – a theory which “explains the normal as improbable” (Knodt 1995); a post-metaphysical theory that, however accepting it as an unattainable aim, still aims at understanding the structure of the world – for this “world” or “structure” is fundamentally unknowable “not because of the limits of human knowledge but because of the ‘interactively’ alterable limits of the world itself” (Rausch 2002:25). After the break down of the transcendental subject and the failure of linguistically-based theories

³⁵ I draw this provisional notion upon Weber (1968), Schutz (1967), Habermas (1984), and Luhmann (1995), in turn based on different traditions, from the philosophy of consciousness (Weber, Schutz) to the philosophy of language (Habermas) and systems and cybernetic theory (Luhmann).

³⁶ Cf. Simonsen’s (1991:430) “intersection between language and social action and the constitution of social practices in time and space.”

such as hermeneutics, structuralism and analytical philosophy to halt the erosion of modernity's trust in its own self descriptions, and the failure of *métarécit*, Luhmann develops his "observation of observations" in works like *Ecological Communication* (1986), *The Economy of Society* (1988), *The Sociology of Risk* (1991), *Observations of Modernity* (1992), *Social Systems* (1995) and *Theories of Distinction* (2002). Essentially, he links social theory to theoretical developments in cybernetics (Varela and Maturana's autopoiesis), systems theory (and its shift from the knowing subject to a reality that consists solely of self-referential systems and their 'empirically' observable operations), cognitive science and "the potentially subversive connotations of information-theoretical concepts (complexity, chaos, entropy, and noise)" coupling these theories with phenomenology and negotiating disciplinary boundaries in a way to lead theory beyond hermeneutics into the information age (Knodt 1995:xvi). He does so establishing connections between the mutual formation of *social systems* and *consciousnesses* through *communication*, radically rewriting the notion "meaning" and undermining the usual emphasis on "social action" through a revision of the role of language within the self-productive economy of social communication systems, the paradoxical implications of linguistic self-reflexivity, and the status of the subject. His is a theory of society as a self-referential, "autopoietic" system which produces its own structures through communication where "self-reference" is the general principle of system formation (Luhmann 2002). This theory of actualisation of action through "communication that furthers communication" shows the social as the aggregate of communications – not individuals – or a meaning-processing system of communication of ever-growing complexity; a system (and its conditions of connectivity) which differentiates itself into a network of interconnected subsystems (such as the political, economic and the legal system, religions and the arts) where events are communicatively formed, and which "proliferate, subdivide, and re-enter themselves" (Rausch 2002:28) as new ways of coping with their own complexity. Without differentiation, there would be "no world of discrete entities – only differentiated chaos" (Knodt 1995:xvii).

What would Luhmann's view add to or go beyond post-structuralist and non-representational theories? Luhmann's is a theory that places itself within a "de-ontologised realm of second-order observation, a level of abstraction where questions concerning conditions of possibility arise" (Knodt 1995:xvii). He moves through cybernetics and information theory to a post-metaphysical position, challenging the principle of a unified subject, the social as a derivative of intersubjectivity (he rejects the phenomenological subject-centred frame of reference as incapable of accounting for the dimension of the social), communication as an interaction between subjects and a transmission of contents between separate consciousnesses, and the idea of language as a representation of such

contents (Knodt 1995). Distinctive is his concern with the counterfactual conditions of formation of social systems and consciousnesses as probabilistic *and* contingent achievements dependent on communication – a theory of the conditions under which *the improbable becomes probable*. Like certain non-representational approaches, he claims unnecessary all dualisms between agents, objects, environment and informational processes. Unlike most of them, it still reserves an active place for (a renewed notion of) consciousness – a consciousness which overcomes its own boundaries through communication – as a producer of meaning and of whatever “circulates” *in* or *as* the world, avoiding a reduction of the agent to an effect. Furthermore, boundaries of things are still preserved: *meaning* (the difference between the possible and the actual; a category without difference, a medium through which social systems process world-complexity, as I shall explain below) *is the entity that asserts connectivity* within social and material reality *without* eliding distinctions, essential differences, inherent qualities or the dissolution of specificities. I shall nevertheless address these questions along with certain problems in Luhmann’s formulation of his concept of meaning and subject below (section 2.3). Accordingly, the first aim of this chapter is at a difficult rebalance of the following aspects:

- i. the “in-between” or the relationality between social and material entities, and the crossing of “material boundaries” between subjects and objects;
- ii. the individuality of “fixed points” (the subject, meaning, matter), arguing that they are not fixed points in themselves, but rather fluid and active producers of whatever circulates – i.e. seeing the human subject as (and beyond) a relational effect, meaning beyond representation, reflexivity beyond thought-in-action in order to include possibilities of contemplative and interpretive experiences, and the relevance of boundaries of events;
- iii. the importance of material specificities of things that mediate the sociation of practice (such as language and space), arguing that exactly these differences are crucial in the relation between the social and the spatial.

Indeed different narratives of the subject lead to different spatial narratives, and conversely (Pratt in Johnston et al 2000:802). Thus, the unfolding of the present framework will consciously try to *re-situate as dualities and multiplicities in a “world on the move” what has tended to be replaced through dualism*. In this sense, Luhmann’s theory of meaning and communication could certainly add to the attempt to build such an inclusive spatial narrative – to be sure, one able to assert the place of space in the communicative sociation of practice as part of the production of relationality in

the social and material world. Here, there are at least four interesting related aspects in Luhmann's theory of action, communication and meaning – a work curiously nearly absent in spatial studies – to be detailed as this follows:

- Luhmann explains relationality through a particular ontological property produced and exchanged in communication: the *referentiality* of meaning to meaning, a property able to address continuity and fluidity in social and material reality;³⁷ I will search to keep this innovative conception of meaning, while attempting to connect it explicitly, and perhaps against Luhmann's own ontological suppositions, to an *active place of the human subject* and the *material uniqueness of things and spaces*;
- his analysis includes another condition of the emergence of joint action – in fact a whole ontological region frequently ignored: the passage between possible and real, or the problem of how, among the universe of possible actions, some actually happen. Luhmann searches to uncover the moment *before* action – the condition for *whatever socially exists to come into existence*. I will keep this counterfactual quality (i.e. the possibility of addressing what is not the case, what has not come into existence yet or what might never happen as true ontological conditions for what is the case, and as an ontological realm in its own right – perhaps apparently against our experience of the spatio-temporal flow of our acts, events or ongoing “facts” – a universe a possibilities active there, *before* what actually happens). I will interpret it in a way to reveal the place of space in such processes, arguing that a whole ontological region – the elusive passage between “possible” and “real” – would involve space in a rather fundamental way;
- Luhmann places referentiality as fluid connectivity at the heart of social reproduction: the happening of social structures, or *Strukturifizierung*. He sees structure as a relational accomplishment achieved through the communication of meaning. In turn, my intention is to see space embedded in the delicate process of structuration of social practice, the “spatial happening of joint-action” as both *flux* and *event* in-the-world;
- his particular notion of “environment” and social systems: “systems operate with a distinction between self-reference and hetero-reference and can calculate an idea of the environment only through hetero-reference (and thus only ‘phenomenologically’). The environment remains operatively inaccessible, since the system cannot operate in its environment” (Luhmann 2002:50). *It is precisely the virtual absence of a material environment in Luhmann* which must be addressed, and the idea of a “space” introduced as referential to the system, a “spatial” or “material referentiality” as “hetero-referentiality”

³⁷ Cf. Butler (1997) on performances as “citational chains.”

to communication – the material references which linguistic communication incurs or deploys which, following Luhmann, I will locate as a fundamental means through which social action is actualised, seeing space truly as a communication medium, form or system.

I shall discuss the first two issues now; I leave the third and fourth issues to be discussed under a spatial perspective in Chapter 5 “Desperately Seeking Structure.”

2.1. Meaning and ontological relationality

Luhmann’s theory is built up through concepts of meaning and communication as other action theories are (e.g. Habermas 1984). However, Luhmann rather emphasises social information and conditions of actualisation of action in order to overcome bounded conceptions of subject and action (Knodt 1995). Distinctly from organic systems, systems that operate on the basis of *communication* (social systems) and on the basis of *consciousness* (psychic systems) require meaning for their reproduction. Meaning is not only a category or property of action – it plays a role in social reproduction. Differently from organic systems to which natural world events become issues of survival, social systems constitute their own symbolically structured “world.” There, within the flows of bodily interaction, they survive and reproduce themselves through the production of meaning, and are immersed in symbolic production. Symbolic production becomes their environment. The problem of surviving is therefore solved through a symbolically structured “self-environment” of production and exchange of symbols and meaningful objects, actions and communication. Meaning

articulates a world-encompassing referential nexus...Systems bound to meaning can therefore never experience or act in a manner that is free from meaning. They can never break open the reference from meaning to meaning in which they themselves are inescapably implicated...Any attempt to negate meaning on the whole would presuppose meaning, would have to occur in the world. Thus meaning is an unnegatable category, a category devoid of difference. In the strictest sense, its sublation would be ‘annihilation’ – and that could only be the matter of an unimaginable instance. (Luhmann 1995:62)

Meaning becomes a mode of our experience; “the form of the world” of social beings whose manifestation ultimately “cannot be free from meaning.” But that does not mean that there is nothing but meaning. Luhmann mentions “the directly accessible contents of experience” that have been called “pleasure, facticity, and existence” (p.63). He means sensations, affects, desires – precisely what is absent in theories nurtured in the philosophies of consciousness and language, and

what post-structuralist approaches seek, as I discuss below.

Nevertheless, Luhmann's notion of meaning is neither contained in the dimension of representation of facts nor is it usual in social theory. He draws upon Husserl to claim meaning as *indicating* something even when a sign or thing does not mean anything (Husserl 1976): "signs in the sense of indications (*Anzeichen*) (notes, marks, etc.) *do not express anything*, unless they happen to fulfill meaning *as well as* [*neben*, alongside] an indicative function" (Husserl in Derrida 1973:20). Husserl speaks of an entanglement of "indication" and "expression." *Expression* refers the content of what is said to something about which something is stated, and ascribed to the sphere of solitary mental life (Habermas 1987b:168), i.e. signs which "want to say," which "mean" (Derrida 1973); they refer to certain objects (Husserl 1976). *Indication* takes on the function of external speech (Habermas 1987b): it connects something to something, it leads to something else. "Meaning (*Bedeuten*) – in communicative speech (*in mitteilender Rede*) – is always interwoven with such an indicative relation" (Husserl in Derrida 1973:20). "[Expressions] operate indicatively" (Husserl 1976:278).

However, what is this indicative quality of meaning, and what is indicated? What is the element of meaning created through references? Why would meanings bring in themselves other meanings as conditions for their own actualisation? Luhmann pushes Husserl's concept of indicative meaning into deep ontological waters: into an idea of ontological relationality – relationality between everything that exists (and more, between what does not exist yet) in the cognitive horizon of social beings. Luhmann calls it *self-referentiality* at the heart of the relation between subjects, social systems and world; between past, present and future; between what is possible, latent, and real. Every meaning brings within itself references to meanings imagined, produced or to be produced in communication, objects (and spaces?) – strings of references to agencies (places?) in a lifeworld.

A muddle of objects is never meaningless. A pile of rubble, for example, is immediately recognizable as such, and one can immediately tell whether it is attributable to time, to an earthquake, or to 'enemy action'...everything that can be perceived and processed in the world of meaning systems must assume the form of meaning; otherwise, it remains a momentary impulse, an obscure mood, or even a crude shock without connectivity, communicability, or effect within the system. (Luhmann 1995:62-3)

Although there is the non-meaningful, something only acquires communicability outside itself if it assumes some form of meaning. Signs, whether verbal or nonverbal, facilitate the formation of social systems via a process of "symbolic generalization." As a medium they serve as an interface

between conscious systems and social systems and permit their structural coupling by encoding the difference between information and utterance in ways that stabilize the coordination between the two (Knodt 1995). Communication becomes a problem of communicating meaning.

Meaning can insert itself into a sequence that is bound to bodily feelings; then it appears as consciousness. But meaning can also insert itself into a sequence that involves others' understanding; then it appears as communication. Whether meaning is actualized as consciousness or as communication does not reveal itself 'only afterwards,' but determines any respective actualization of meaning, because meaning is always constructed self-referentially and therefore always includes reference to others as the way to self-reference. (Luhmann 1995:98)

We shall see that meaning is not necessarily always "conscious," "coherent," "intelligible." References are certainly not limited to a direct relation between "signifier" and a range of "signifieds" in our perception and production of practices and things, or between language and things. In a Husserlian fashion, references also imply what comes *before* and *after* our practice, before or after the realisation of meanings uttered, written, realised in an object or gesture, in action or text.

[Husserl's] external world of material objects represents itself to consciousness in the form of a spatio-temporal field of unactualized perceptions that surround it like a 'halo of background intuitions'. The flux of actual experience is constituted as a series of 'intentional acts' that seize upon particular objects within this field. As a specific aspect of a given object is actualized, others recede to the periphery of the perceptual field, where they reside as a latent, yet constitutive part of its differential structure. (Knodt 1995:xxvi)

In Luhmann's sense, every meaning is only produced because it was implied by previous and surrounding meanings. Actions and utterances are expected in a conversation, or they follow a thought or feeling about something real or imagined, actualised in previous or ongoing interactions, or in informational and material products; or yet were latent in those products or in our feelings and minds. *Latent* meanings are in fact very important. They are possibilities that could have happened but were not explored, experienced, and transformed into actual meaning and practice, utterance and object; that never related, perhaps unexpectedly, actors in different places. Yet they remain latent, mere possibilities – perhaps lost, or "waiting" to be realised in another encounter in space-

time, say when we come across a text or object (products of other agencies) unexpectedly.³⁸ “The world, although an endless horizon, guarantees its own determinability” (Luhmann 1995:82 on Husserl). The streams of world and mental processes are never only actualised; they exist as meaningful experiences only in the form of passage between potentiality and actuality. From these initial considerations one may draw a first self-referential concept of meaning: meaning is the (vanishing, changing) horizon of possibilities virtually present in its actualisation – the connection and difference between past and future, forgotten and latent, possible and actual acts and events. That is the form of *transition between one moment and the next*. Luhmann relates this question back to Hegel who answered it through the dialectics of thesis, anti-thesis, and synthesis.

Whatever a system actually does or communicates, any of its acts and communications has a form consisting of two sides, an inside and an outside. The inside, for Luhmann, goes by the name of ‘information,’ the outside by the name of ‘connectivity’. Whatever you do, it relates to something else. Thus, the question might not be how to go from one moment to the next, but how to go to this one and not to another one. The shift from the former question to the latter one entails the whole switch from philosophy to sociology, and from dialectics to constructivism. Luhmann asks for a notion of communication that entails both information and connectivity, or both knowledge and ignorance. (Baecker 2004)

This is a concept of meaning able to map virtual and real, changing and endless *networks of self-relatedness between events and objects, practices and communication, subjects and lifeworld*. Meaning is a property of things, of speech, of gestures (of spaces?) that asserts connectivity – infinite self-referential connection. “The meaning of an act is the ensemble of possibilities of connecting further acts onto this one that is given as a specific situation; that is, the meaning of an act is the multiplicity of connective possibilities that the act opens up. This is synonymous with saying that the meaning of an act is its reference to one or more places in the system...” (Frese in Luhmann 1995:513). Nevertheless one could dispute (2.2) Luhmann’s passage between possible and real meanings (and acts and events) – an ontological problem that he situates at the heart of social reproduction; and (2.3) his restriction of meaning to “self-reference.” Let me discuss first the former problem, and do so through a famous notion of ontological pairs.

³⁸ Cf. Simonsen (1991:426) on Sartre’s concept of *hysteresis*, or “events and actions can be formed in different epoch from the one in which they appear. Concrete actions then unite current meanings with meanings that at the given time may be socially outdated and can in this way be of very different temporal depth”.

2.2. Luhmann and Deleuze on the actualisation of the act

I will suggest below that along evident differences, Luhmann's and Deleuze's considerations may contain interesting parallels and surprising complementarities. As Luhmann searches his notions of possible and real in Husserl's philosophy, Deleuze associates, through Bergson, time and space to two multiplicities: the *virtual* and the *actual* (Deleuze 1991). All multiplicity implies actual (current or becoming-present) and virtual elements. There is no object purely actual (Deleuze and Parnet 1987). The actual is immersed in clouds of virtual images above coexistent circuits, replacing, emitting others, and involving and corresponding to the actual endlessly. The virtual reacts over and creates along the actual a *continuum*, a *spatium*, the plane of immanence where the actual object is dissolved, at once virtual and actual without noticeable boundaries. As showed Bergson, memory is not a virtual image formed only after the perceived object; the virtual image coexists with the perception of the object. Evoking memories (visiting a region of the past) means bringing the past to the present; a memory actualises itself in a present image, and in the movement of the body that ensures the convergence between the two movements, past and present. These ontological regions coexist and repeat each other (*do they refer to each other?*) The virtual refers to a past that "insists" in echoing in the vitality of the present moment. The distinction between virtual and actual corresponds to a fundamental division of time, when it becomes differentiated according to two paths: it turns the present into past, and keeps the past alive. Virtuality is actualised through differentiation, through diverging, successive and simultaneous lines, each representing an actualisation of the whole. Virtuals communicate above the actual between them.

The *virtual* is different from the *possible*: Bergson exchanges possibility for virtuality (Deleuze 1991). The possible has no reality, although the possible may have actuality (and this observation will be crucial for a relation between Deleuze and Luhmann). The possible is what is realised or not. The real is seen as an image of the possible it realises, in a way that the real differs from the possible only for having been realised. Therefore there is no conceptual difference between "real" and "possible." The possible becomes real (the process or realisation) in two ways in Bergson: *similarity* and *limitation*. As all "possibles" cannot be realised, realisation implies limitation: certain "possibles" are rejected or stopped while others become real (Luhmann would indeed agree with this condition, and evoking practice, call it "selection"). Furthermore, the virtual does not have to realise itself because it is alive in memories; it simply "comes back" into the present. The conditions of actualisation are not similarity and limitation, but *difference*, *divergence* and *creation*. In order to be actualised, the virtual (differently from the possible) cannot proceed by limitation, but has to create its own fluxes of actualisation through positive acts. For whereas the real is like an

image of the possible that it realises, the actual does not resemble the virtual it brings.

Deleuze (1991) believes that Bergson's rejection of the notion of possible for that of virtual regards the possible as a false notion: as the real would be already realised, the possible presents as a false "actuality;" the real resembles the possible because we waited for the real to happen and then projected its image to the time before it happened. We make the possible look like "real" and thereby lose the mechanism of difference and creation. One may understand Bergson's fear, but that fear excludes infinite possibilities that might happen at any time, no matter what actually happens. The realm of possible should not be addressed to justify what is realised. It does not contain an imperative of limitation in itself; only cognitive subjects revisiting or assessing their situation might apply such imperatives. It serves, in Husserl's sense, always as a horizon to practice, *other* horizons to be sure. As Luhmann (1995) insists, there are always more possibilities in a social world that can be actualised. Luhmann's insistence on the possible is to access exactly what is not the "virtual" in Deleuze's sense: to access what simply did not happen, to be free of repetition, to be open. Thereby Luhmann addresses the counterfactual in order to puzzle over what is realised – to see the "real as improbable," to be surprised with instead of predicting what happens; or to come back to questions behind Deleuze's problematic, like "why does *this* happen and not *that*?" Deleuze (1991) himself sees the confusion between "virtual" and "possible" as unnecessary, for these terms address different ontological realms. The confusion is further clarified – and gets closer to Luhmann's definition – when Deleuze (1993) suggests that the pair virtual-actual does not explain the whole problematic, there being a second pair, the *possible-real*. He suggests that in the pair possible-real, our world is one among an infinity of possible worlds. These possible worlds have equally their actuality in fluxes that express them. There is an actual that remains always possible and that is not necessarily real. The actual does not exclude the real; in fact it needs be realised. The problem of realisation relates to that of actualisation.

Deleuze (1991) claims that the force in the process of actualisation is the difference between the virtual that originates the movement and the actuals where we get – there, in the psychological moment of perceiving/remembering and acting, and in the difference between complementary fluxes according to which actualisation is realised. That is, the virtual is always an origin and a convergence – differently from the possible in Luhmann, free from an origin or end. Nevertheless, Luhmann's *latent* brings together what Deleuze calls virtual and possible. Deleuze's virtual does not exclude the latent at all. The latent (i.e. latent meanings) is always there, coming back from the past, as past itself along the present, close possibilities perhaps due to similarity and affinity. The

latent is close to moments of actualisation like a suggestion, perhaps in the form of a possible partner in interaction, or a text “within my reach,” a memory, a discussion we never undertook. It includes the past in two ways: fluxes of acts and meanings that already happened but are alive in our perception (like Deleuze’s virtual), and as past possibilities that were only partially explored or that remained “waiting” to be realised in a new event or reference. But unlike the virtual, the latent also includes a *present* anew, not occurred before and unpredicted, without reference to memories, escaped from the past because it was never announced or perceived – a possibility there in past events and fluxes, but not a memory; it was never cognised.

Furthermore, Deleuze suggests that the relation between actual and virtual is not like that between actuals. Actuals imply already constituted individuals, determination through ordinary points – whereas the relation between actual and virtual becomes individuation or exceptional points to be determined every time (Deleuze and Parnet 1987). Deleuze thus underestimates the relation between two actualised fluxes (say objects, practices or images) – it does not have to be ordinary. It might involve the unexpected. It might connect ongoing events or agencies exceptionally, even in different places. Finally, and interestingly, Deleuze asserts that ontological fluxes are not independent: two fluxes can only coexist if they are contained in a same and third flux; that is folding and reflecting itself into a third while folding and containing each other. There is a fundamental triplicity of fluxes (Deleuze 1991). Could one reinterpret the folding of multiple fluxes converging into/diverging from one another as *recursive references* between virtual and actual, image and object, between differentiated fluxes of actualisation, actual connections, as Luhmann’s flows of practice refer to one another? Deleuze sees connections between past and present; Luhmann sees past meanings suggesting agencies, including those ongoing and those that *never happened* (the universe of the possible). He fundamentally includes these ontological realms as conditions of practice and social reproduction, what is of potential interest for a spatial narrative of the emergence of practice. Let me move now to the second difficulty in his approach: his one-dimensional notion of “meaning” as “self-reference.”

2.3. Referential meaning and the human subject

There is a fundamental limitation in an exclusive notion of meaning as self-reference. Meaning there is not a phenomenon in a Kantian sense. Luhmann’s aim is exactly a non-Kantian definition of references between possible and real, and between actualised facts or events. And since my analysis genealogically contains Kantian elements (stemming from an action approach derived from Weber and Habermas), my critique and use of Luhmann’s ideas have apparently the structure of a

dilemma. As it concerns use, we shall see below, a partial disagreement on the ontological condition of meaning implies neither discarding his counterfactual perspective nor its self-referential hint.

Meaning is the true ‘substance’ [of the relation between psychic and social systems]... It is therefore false...to assign the psychic, that is, the conscious, anchorage a sort of ontological priority over the social. It is impossible to find a ‘supporting substance’ for meaning. Meaning supports itself in that it enables its own self-referential reproduction. (Luhmann 1995:98)

Luhmann considers that there is no privileged carrier for social meanings embodying human consciousness, practice and communication. Meaning is rather a connection. As we have seen above, such a property allows us to see action as communication, a continuum of practices and consciousnesses. “Communication is only possible as an event that transcends the closure of consciousness: as the synthesis of more than the content of just one consciousness” (Luhmann 1995:99). The self-referentiality of meaning sustains the extraordinary continuity of actions and human subjects rather differently from the semiotic kaleidoscope of actor-network theory. Luhmann breaks down the boundaries between subjects, objects and processes through a Husserlian notion of meaning, admirably seen as a mode of existence (and surely not the only one), a form of reproduction of psychic and social systems.

Nevertheless, Luhmann’s mistake is not the consideration that “there is no privileged carrier, no ontic substrate” for meaning (p.98) but a functionalist conception of the “carrier” merely as informational difference, a way to selection and realisation of actions. Such a conception of meaning does not make the intrinsic connection between identity of signification and the commonality of intersubjective reference (Habermas 1987b:380). Accordingly, meaning remains undifferentiated as “sense” or “motive” assumed by subjects when participating in situations. As Husserl – and unlike Frege, Habermas and, implicitly, Weber³⁹ – Luhmann does not differentiate meaning between *Bedeutung* (signification as perceived in events) and *Sinn* (“sense” in the motivational universe of the subject) But forgetting the interwoven of expression and indication in Husserl (see Derrida 1973; Habermas 1987b), Luhmann’s is a concept of meaning that, although appropriately asserting the continuum of practices and consciousnesses, is designed only to functionally attend social reproduction. Communication becomes mutual observation rather than a

³⁹ See Habermas (1988). *Bedeutung* as “significance” (not “reference”) is found in the English translation of Habermas’ (1988:12) critique of Weber’s ambiguity in the use of the concept of *Sinn*. These terms are still subject of discussions on the philosophies of Frege and Husserl (see Føllesdal 2001; Bell 1994; Tito 1990).

convergence of personal horizons through understanding (Habermas 1987b). Meaning becomes almost replaceable by the exteriority of signs, regardless of its status as form of being and doing, expressing and relating the universe of different agents. It is merely an accomplishment of semantic structures (and we have to question the term “semantic” in Luhmann) that reproduce themselves and the social system *regardless of their sense, almost independently of the subject*. Simonsen (1991:418) in this sense correctly affirms, upon Wittgenstein, that “Meaning and significance cannot be ascribed to independent phenomena, they are produced by human beings in their carrying out of specific activities.” Otherwise, the agent disappears as intentional acting being, whose consciousness and sociability are in fact reared in the production of meanings through communication (see Mead 1934; Habermas 1984).

Those considerations might lead one to think of a return to a humanist view of the transcendental subject, a view according to which the exterior reality is immediately accessible, indeed belongs to the subject (see Deleuze and Guatarri 1994). For the transcendental subject relates naturally to the idea of meaning as a means to disclosing the world; to a condition of experience. However, the conception of subject in the present work is not quite like that. It is counter-balanced by the *movement immanent in meaning itself* – the movement of possible and real referentiality between things-in-the-world beyond the transcendental subject. The notion of meaning as self-reference is a key into the world beyond knowing and the knowable – it is rather a path always already leading into next, multiple flows of self-referential codes and practices and things (and spaces?).

Thus as much as de-centring the transcendental subject implies another conception of meaning, the transformation of meaning as fixed entity (a key into the knowable world) into multiple flows of self-referential meaning implies de-centring the subject. Yet such a relation between subject and meaning must include a dimension which has been missing in theories of practice reared in the philosophies of consciousness and language: if meaning may be a form of addressing existing things, yet meaning is not all that exists, neither all that is meaningful is fully disclosed through meaning. As we shall see below, meaning also leads into the “undecidable,” the enigmatic, the non-intelligible (say in aesthetic and bodily experiences). The subject is not only about understanding: she experiences sensation, affect, and passion (see Deleuze and Guatarri 1994; Lefebvre 1991; Thrift 1996). The experience of the subject cannot be reduced to meaningful experience and even less to representational meaning.

But that cannot lead us into another dualism: that of ignoring meaningful meanings, imposing a

discontinuity between linguistic and pre-linguistic in experience. Heidegger (1962) and Gadamer (1977; 1989) among others asserted language and understanding as inseparable structural elements of being-in-the-world, “not simply optional functions that man [*sic*] engages in or does not engage in at will” (Linge 1977:xxix). Our interpretive relation to meanings produced in the world cannot be merely switched off even in favour of senses exclusive of meaning, a moment “before-meaning” only available to the body.

Meaning is the ‘upon-which’ of a projection in terms of which something becomes intelligible as something: it gets its structure from a fore-having, a fore-sight, and a fore-conception. In so far as understanding and interpretation make up the existential state of Being of the ‘there,’ ‘meaning’ must be conceived as the formal-existential state of Being of the ‘there,’ ‘meaning’ must be conceived as the formal existential framework of the disclosedness which belongs to understanding. Meaning is an *existentiale* of Dasein, not a property attaching to entities, lying ‘behind’ them, or floating somewhere as an ‘intermediate domain.’ (Heidegger 1985:224)

As understanding, *Dasein* projects its Being upon possibilities for-Being. “The fundamental *existentialia* which constitute the Being of the ‘there,’ the disclosedness of Being-in-the-world, are states-of-mind and understanding” (Heidegger 1985:233). “Understanding” relates to communication and language as articulations of meaning, the totality of significations put into words, a way we articulate Being-in-the-world and Being-with-one-another. Meaning, understanding, communication and language articulate co-understanding, when Being-with becomes explicitly shared; they are “existential characteristics rooted in the state of Dasein’s being.” They are not a mere exchange between “inside” and “outside” the subject, for Being-in-the-world is already outside itself when it understands (Heidegger 1962). They are “the full disclosedness of Being-in” – what Luhmann calls the crossing of the boundaries of consciousness in the moment of sharing/producing meaning. “The disclosedness of understanding pertains to the entirety of Being-in-the-world” (Heidegger 1962).

According to Heidegger and others (e.g. Gadamer 1989; Habermas 1984), experience and understanding are inseparable, if not in the moment of bodily sensation, surely in the continuing experience of the world and other social beings. But if feeling, passion and the sensual are part of experience, how can they relate to understanding? Or, can we free the continuity of sensations from their connections with other forms of experiences, or ignore the possibility of continuity between sensation and interpretation, say the sudden consciousness of a sensation there, within the very flow of practice? It seems that in separating the experience of complex meanings in sensual experience

from interpretation, we are in fact reproducing the traditional ontological division between body and mind, the old philosophical distinction between *res corporales* and *res incorporeales*. But could a broad understanding of meaning encompass sensation and feelings *and* their possible interpretations by the human subject?

Communication offers rich possibilities for an accompanying perception. But perception at first remains a psychological event without communicative existence... it remains locked up within consciousness and nontransparent to the system of communication as well as to every other consciousness. It can naturally become an external reason for a subsequent communication. Participants can bring into communication their own perception and the interpretations of the situation that are bound up with them, but only according to the autonomous laws of the system of communication, for instance, only in the form of language, only by claiming speaking time, only through imposing oneself, making oneself visible, exposing oneself... (Luhmann 2002:158).

If the bodily constitutes a form of experiencing and knowing, could we see a “continuum of experience?” Olsson’s (1993) human geographical approach is in this sense exemplary: he relates body and mind in a unique way, seeing thought as a “sixth sense” in relation to the five bodily senses; seeing a dialectic of (bodily) desire that is a dialectics of signification, “of making a thing present by its absence” (p.287) through sign and meaning, a relation between desire, intentionality, identity and difference of meaning.⁴⁰ Surely we cannot reify meaningful meaning. After Deleuze, Derrida and others, one is able to see that self-referentiality is broader than the social reciprocity of interpretive meanings. Meaning cannot be taken as merely linguistic or coherent, discursive or conscious. As discursive, imagetic, or intuitive thing it has no boundaries. Thus *the referentiality of sensual and cognitive meanings cannot be discontinuous if our experience and relation to the world are to be continuous (and that does not mean unproblematic)*.

These relations suggest an alternative view of the place of meaningfully-mediated communication and language, and the continuities between linguistic and pre-linguistic, cognition and affect, thought and mystery and their relation to spatiality. For as Frege helps us see, the *dissolution of Sinn* implies the partial dissolution of meaning – at least of its resonance in the universe of subjects,

⁴⁰ Olsson’s (1993) position seems interestingly ambiguous (or perhaps dual). If he tends to a post-structuralist conception that “meaning does not reveal itself in the identities intended, but in the differences achieved” (p.281), on the other hand he says that “Human beings lend signification to everything” (p.282), seeing meaning as “signification” related to cultural *intentionality* (an assertion perfectly alignable with action theories), yet connected to the *desire of turning into presence what cannot be*.

what motivates subjects into joint-action and participation. And as Heidegger and Gadamer suggest, a partial dissolution of meaning would surely impact the possibilities and forms of experiencing, being, and doing – a part of our relation to the world and others. “Human beings lend signification to everything, especially and foremost to their thought-and-actions” (Olsson 1993:282; see Simonsen 1991; Castree and MacMillan 2004). Self-referential flows of interaction do not flow simply because they are differentiated out but because they are practically and semantically intended as such. Differences are in fact differences within the symbolic contents of utterances, texts, images, objects, gestures or actions. A semantic dimension in human practice and communication is of necessity. A purely semiotic or syntactic world is impossible as long as human beings relate through symbols that, however working as differentiations, imply the *penetration* of their differentiated informational contents. Purely semiotic or syntactic worlds could not be fully experienced, for experience involves, among other things, the disclosing of signs through meaning. Therefore social systems cannot be seen as merely differentiated networks; these *cannot fully exist from outside meaning*. As meaning, understanding and language are modes of experience, one may say that the partial dissolution of meaning is necessarily accompanied by a partial dissolution of possibilities of experience. In a world where meanings are exclusively reference or indication (and Husserl was careful to say that that is not the case), there would be a significant dissolution of the human subject’s world into constant flux. Human subjects would be always “outside” themselves. There, no consciousness or boundaries would need to be crossed: there would be no consciousness, no boundary, and no individuality of things at all to us. Consciousness, having meaning as a mode of experience, is related symbolically to the social world through communication, imagination, and so on. That is to say, it is never completely isolated from past or present events, or from possibilities of a future. But ongoing flows of communication cannot involve a particular subject *constantly*. The practical closure of the self from social context is always momentarily possible. Agents can simply step outside communication through reflection, imagination, desire, or the experience of loneliness. That very possibility asserts the active place of the subject in the continuity of interaction, and a creative drive within the continuity of the social world: the individual interpretation and creation of meaning at work at these moments, and in their passage to communication and back.

Luhmann’s is, in that sense, an ontologically weak notion of meaning, only possible to a functionalist theory that sees the human subject as mere stage in the transformation of information between environments, the relation between operations of self-referential systems. In Luhmann’s post-metaphysics, as in many post-structuralist approaches, the acting subject *disappears without a*

trace.⁴¹ The notion of a semantic flux between “environments” or of agents as network effects cannot bring the complexities of the subjective level of production of meaning and its complex relation to the social world. We must attempt to find equilibrium within a conception of the social world where the boundaries of consciousnesses are indeed crossed through practice and communication, but flows that never dissolve the subject completely – for that could imply a subtle but ultimate domination of structures over acting subjects.

3. Event in experience and the experience of reference:

The “duality of meaning”

Whatever Luhmann’s concept of meaning leaves behind (the relation between significance, sense and information), we can preserve both the intersubjective fluidity of communication and the counterfactual condition of happening of practice, while relating them to a concept of action and communication explicitly based on Sinn and Bedeutung (and thus on the relations of motivational actors to world). First of all, a neo-Kantian concept of action (say in Weber or Habermas) is not logically incompatible with the idea of meaning as a form of passage from possible to actual, or as a form of inherent relatedness of events-in-the-world. The neo-Kantian element, as it sustain meaning as an aspect in the universe of the subject and as a fact perceived in works, rather evokes distinctive aspects of why and how actions are ever possible and relevant to interacting subjects. In turn, the connection of the self-referential aspect to a somewhat Kantian definition of meaning (against Luhmann’s conscious avoidance of metaphysics and the equation of meaning and being) would beneficially add the Husserlian condition of passage between possible and real, and the boundlessness between objects and subjects to the action perspective.

Surely my proposition consists of *an unusual connection between a stable, bounded definition of meaning typical of traditional social theory, and Luhmann’s new, highly fluid character of meaning*. Let me explain it through some observations on the post-structuralist critique of meaning. Post-structuralist perspectives were of course influenced by Saussure and his emphasis on meaning as differentiation between signs among themselves. The anchoring of the thing, event or space is not in meaning – in the “essence” of a sign or thing – but in the linguistic system itself. This has two effects.

⁴¹ See Habermas (1992:210); Simonsen (1991:418).

First, meaning as a knowable able to address the essence of something is somewhat emptied: “There are no essences to be captured by appropriate linguistic formulations” (Giddens 1987:204). Meaning cannot address the heart of events or consciousness. This epistemological operation lies behind the post-structuralist “decentring of the subject” as a presence. Thus in Lacan the “I” is not immediately available to itself; it is not the expression of some core of continuous selfhood and it is not given through the capability of the subject to use the concept “I” (Giddens 1987; see Lacan 1977). There is always some distance between words and what they address – a temporal distance that Derrida (1973; 1974) indeed will extend to every sign-meaning relation (the “deferral of meaning”). Thus, against Husserl’s primacy of “pure meanings” anchored in consciousness and the disembodied interiorisation of its linguistic expression, Derrida proposes a reversal: the transcendental primacy of the exteriority of the sign against the primacy of meaning (Habermas 1987b:173). Instead of relating the identity of meaning to the employing rules of language in praxis as Wittgenstein and Habermas, Derrida splits the innerworldly from the performances of the subject. In his turn, Luhmann also goes beyond Husserl when he is able to see the communicative carrier of meaning beyond the subject. But Luhmann, as Husserl and Derrida, does not expand the semiotic distinction between sign-types into a distinction between *signal-language* and *propositionally differentiated meaning and language* (see Habermas 1987b).

Second, as Giddens (1987) observes, in turning the objectifying and signifying relations between signifier-signified into the differentiation of signifiers among themselves, the possibility of *reference* between (spoken and written) sign to the exterior world is weakened: “the discovery that the component elements of *langue* only have identity through their differentiation within the overall system serves to drag language away from whatever connections of reference it might have with the object world. Structuralist and post-structuralist thought alike have consistently failed to generate an account of reference... [That discovery] has radically impoverished the accounts of meaning such traditions have been able to offer” (Giddens 1987:204-5).⁴² By extension, *the fluid and multiple chains of referentiality opened up by every sign and meaning (as events of communication and means of social reproduction) are rendered invisible, unaccountable, non-existent: they cannot be tracked. And as the multiple referentiality of meaning is invisibilised, meaning cannot be seen as part of, or producing, relationality in social and material reality. Only the movement of signs is accounted for. Their meanings cannot be addressed in their own right.*

⁴² Simonsen (1991:418) also rejects a concept of meaning as difference founded merely on the arbitrariness of the signifier in favour of one mediated in the praxis of language games in contexts of social action.

The connection between the “identity” of meaning and the endless “referentiality” of meaning is possible, I suggest, through a *duality of meaning*. The duality of meaning is not just linguistic indication (a relation between sign, meaning, and thing, a condition of the production of meanings in gestures, acts, utterances, or texts). It is such a relation produced through/as relations to previous and surrounding, possible and future meanings – beyond language or the cognitive function of knowing. Living the identity of an experience as certified by the identity of a presence (say our own presence in some point of social time-space, and/or the presence of something in our horizon of experience), the experience of the duality of meaning goes beyond it: it always already leads into other flows and events. It rather asserts the “I,” “now” and “here” as both effects and generators of connections to other agencies and places. Thus this reunion of a neo-Kantian view of meaning and Luhmann’s extension of Husserl’s indicative quality of sign and meaning can track movement between entities not only as (seen, heard) flows of signs but also as (invisible, understandable) meaning. Such an idea has effects for ontology: it is able to see the continuity of things and the engagement of subjects. It includes the possibility of sharing an experience; of evoking subjects that are not only produced by but *also* actively produce the flows as their very activity; it sees subjects as existing, pulsing, for it addresses the unseen of the subject-world relation (i.e. beyond the exteriority of signs).

But it does not propose a return to meaning and the subject if that implies turning our back to the “in-between,” or the cares of post-metaphysics against the sovereignty of presence. It does not ignore that meanings and signs in themselves defer “the moment of encountering the thing itself” (Derrida 1973:138). It asserts that we rather need ambiguity: how can one see these dimensions co-existing? *The duality of meaning seems to reach and relate the innerworldly of the subject and the textures of multiple, kaleidoscopic relations between everything performed – or yet to be performed* (as I explain below, meaningful space will by extension be able to produce such an ontological duality, be part of it, as both event and relation to that and other agencies and places). It shows us the tremendous extension of referentiality beyond our immediate spatio-temporal contexts (cf. Thrift’s 1996). Linguistic and imagetic signs and their meanings are able to “travel” and refer to other places, times and agencies beyond those exchanges in bodily-mediated situations. This has deep ontological implications especially in a “world on the move:” *meaning performs connections to what is absent; beyond the body, beyond the visible horizon.*

Let me explain the duality of meaning in a slightly different way. Meaning carried in communication, objects, (and space?) is always an *irruption* in the fabric of symbolic and material

reality, a disruption in one's field of sensual and cognitive perception. Thus it is always "event" perceived and interpreted as such within one's experiential flux. Yet, as an irruption, it always already brings within itself the past possibilities and action consequences that were condition to its actualisation. It brings relations to events/meanings disclosed before itself, that led it into existence; and to new, possible events/meanings along and after itself – implied by its existence, summoning perception, interpretation and reaction from interacting subjects. An irruption in the flux of practice is always both "event" and "relation," "fact" and yet "reference" to something else. In other words, the event in our experience is also the experience of self-referentiality of meaning – always leading into other meanings, agencies, things (and spaces?) in the world. In fact the very temporality and spatiality of social life implies clearer irruptions, recognisable quasi-discontinuities, there in the performance of routines and in structures of space as architectural and urbanised space. When we enter a room, and join a social situation, we are ourselves events to other agents. Getting there and joining the situation is an event also for us – however implicated and continuous within our own practice – an event to be, potentially, infinitely, implicated in others. For action is not an identifiable unit; it flows into others (and other spaces).

Therefore, this work attempts a redefinition of meaning shifting from Luhmann's to a broader notion, one based on a fundamental duality of meaning in our experience of signs and things as such. We may see the subject immersed in movement however experiencing the uniqueness inherent in things and events – and immersed in their uniqueness however experiencing movement. We may lose the sense of the fixed presence; neither centre nor de-centre the subject (or perhaps centre and de-centre at once). Such a concept of meaning as infinitely self-referential yet full of identity seems able to move along multiple possible-real directions into things, subjects, places where our messages get – the inherent relatedness within the social and material world. Things are inherently woven – and beyond: they do have boundaries, but boundaries frequently blurred through self-referentiality. It is so for meaning (possible and latent, virtual and actual) produced by practice crosses boundaries of apparently discrete phenomena and those to our consciousnesses. Meaning does so without necessarily dissolving events, things and spaces into free-floating fluxes of signs. Things still are events (that bring possible references to others) in relation to our senses. *Meaning itself is perceived as event (the "illusion of fixing" processes and relations realised by the subject, through naming, joining a social situation, a space to penetrate), and cognised and actualised (in acts and thoughts) also as reference (direction, movement) well into the corners of social and material world.* This concept is indeed intended to combine a Kantian perspective of entities in experience, and a Husserlian perspective of boundlessness between things and subjects (and spaces)

– perhaps a little like Olsson’s double trick: “turning things into relations, relations into things.”⁴³

□ □ □ □

This discussion could not claim to have explored, let alone solved all relevant aspects in this complex matter. Instead, it makes the case for an idea of mediating social and material reality in a more inclusive way, beyond the perception-interpretation divide; i.e. beyond both a “tyranny of the sign” and the Kantian representations of the world. We cannot reify meaning but rather see it outside itself, as indefinable constellations of reference, always evoking other real or possible, latent or virtual fluxes or events. But what is the use of all these ontological reflections? This chapter has put forward the idea that, given its apparent potential to keep and cut across boundaries and relate different things and practices while seeing the strength of their individuality, *the duality of meaning is key to an inherent relation of practice and space at the level of social reproduction – the deep ontological connection* of agencies and materialities in the spatial emergence of practice. If one goes on exploring and expanding the referential approach into space, the next stage would be to relate the dual condition of meaning to the particular process of social structuration, and connect it to space.

⁴³ Olsson (1993:282).

Chapter 5

“Desperately Seeking Structure”

Few notions have been debated in social theory and human geography as much as the notion of structure. The fifth chapter proposes to look again into the nature of social structuration rather from a new perspective. It explores the sociological work of Luhmann and his concepts of action as networks of communication and *social structure as communicative accomplishments* in a way to throw light on the role of communication and its relation to space. At once rendering the idea of structure problematic and searching for a “materiality of structure,” the chapter places the connection between sociality and spatiality found in the dualities of meaning as a dimension at work in ongoing processes of social reproduction, and a way to explain precisely what has been overlooked in previous theories: the reproduction of social structures as a communicative *and* material process. Developing the idea of *space as referential to communication*, it shows *how space becomes the unconscious but referential substrate* which provides a certain form of available organisation to the semantic field where communication networks are performed. In other words, it unveils space as a referential condition for socialised acts to come into being and unfold, a space active at the precise moment when action becomes social action, and social structures emerge and fade away as connections of linguistic acts and places – a “material referentiality” built upon meaning. The chapter relates the idea of “structure” to the crisscrossing of language and space as a key theoretical step to disclose the spatiality of communicative practice – and the place of space in social structuration as a communicative process.

Introduction

The development of society is conceivable only in urban life, through the realization of urban society.

Henri Lefebvre, *Le Droit a la Ville*, 1968

What is lacking is... a semantics of the relationships between structure and semantics, a theory of self-description of a society that reproduces itself via structure.

Niklas Luhmann, *Observations on Modernity*, 1998

The kind of society that, retrospectively, came to be called modern, emerged out of the discovery that human order is vulnerable, contingent and devoid of reliable foundations. That discovery was shocking.

Zygmunt Bauman, *Intimations of Postmodernity*, 1992

The title of this chapter recalls Bauman’s critique of the modernist compulsion to structure (“Modernism, or desperately seeking structure”), a critique that may well be extended to modern theory itself. It does so with some irony: although claiming neither a “modern” nor a “post-modern” position, this work aims exactly at exploring relations between society and space through notions like “structure.” However, the loaded notion of structure has been at stake from modern and post-modern, sociological and geographical perspectives alike. Indeed a theoretical incursion into the existence of structures in the social world means penetrating a turning point in social theory. One is therefore led to relate problematically to the notion of structure – and perhaps led to claim it, following Giddens (1984) and others, as non-existent, or barely existent. Accordingly, I shall seek first of all to render the concept of structure problematic, through a discussion of ideas of Derrida, Bauman, Giddens, and Luhmann about what could be, if any, its mode of existence in the social, and the epistemological place of an idea as old as *epistèmè* itself (Derrida 2001); to only then rescue “structure” in a contemporary version. For the idea of structure seems to have not only resisted ferocious post-modern attacks (as Bauman’s) but be active enough in theory (as in Bauman’s critique itself). I shall insist that such a weary notion – now a far cry from an entity in dichotomous relation to action and a constraint over the acting individual – still has something to contribute to understand the social world, and *especially* to the spatial understanding of the social world.

The status of structure is also ambiguous in human geography. Due to the peculiar nature of social space (see Harvey 1973), and its renunciation of a positivist past, human geography has been relating problematically to spatial notions of structure – indeed to the physical dimension of space itself (Jackson, 2000; Philo, 2000; Lees, 2002; Michell, 2002; Latham and McCormack, 2004). However, even self-proclaimed post-modern accounts still rely on notions of structure (e.g. Soja’s [2000] *Sinekism or stimulus of agglomeration*, described with a help from economic geography; or Dear and Flusty’s introduction to *Spaces of Postmodernity* [2002], still relating “social” and “spatial” structures). The idea of structure in space seems frequent perhaps because the condition of human spatialities as a physical, tangible thing around and between us renders space *dangerously subject* to the possibility of “seeking structure.” It seems still relevant to resuscitate such a problematic if we are to understand how space is behind the way we carry our practices in contemporary societies, whose expansion and relatedness are geographically broader and stronger than ever.

I have argued that the inseparable relation of practice and space could only be possible, at the level of social reproduction, through *meanings* produced and shared in space and practice. For the sake of

clarity, one may approach such a relation in two stages clearly simultaneous in our doing: practices *embodied* in space through the practical production of meaning (the “actor-space” relation) as we have seen; and practices *emerging* through space (the “action-space-action” relation). Chapter 3 “The Grounds of Social Reality” investigated the first moment: the perspective of the actor in her relation to the world, a relation through which meaningful space becomes part of her personal experience and social life. It uncovered (some might say performed) a semantic space enacted in practice. Nevertheless, the fact that agencies would appropriate and produce space in their transactions can neither be explained nor justified only by affirming a fundamental cognitive link to space. For that link does not explain *how* agents would relate to space when producing and joining vanishing fluxes of practice in connections in time-space, within divisions of labour or in long-term institutional processes. It only asserts the *spatial foundations of action* at the level of the situation or event in one’s experience. Nevertheless, when studying those foundations, I was in fact examining the first dimension of a fundamental problem in social reproduction: “how the social may be embodied in space through situated practices, meanings and interpretations.”

The second dimension or moment (“how social practice emerges through space”) – again for simplicity – could also be seen in two overlapped moments: the *reproduction of action* or *appropriation of space*, and the *production of action and space*. The reproduction-appropriation moment is addressed in theories of how we relate to space in our activities or how we enact our social lives spatially (“how action refers to action through space”), including theories usually ignored in human geography – of course cautious about positivist biases – such as theories of cognition or how individuals retrieve spatial information in order to enact. That is the subject of this chapter. In turn the production moment summons theories of production of space in the constitution of action, and includes critical incursions into approaches also frequently ignored in human geography, like economic and urban configurational theories. That is the subject of Chapter 6 “The Improbable Relation of Materiality to Immateriality,” an incursion into questions like how the production of space is part of the structuration of action, and how social structures emerge unproblematically only through the production of space.

The present chapter therefore addresses the key question of conditions of material reproduction of the social world. Accordingly, it starts discussing the possibility of structure exploring ideas of Derrida, Bauman, Luhmann and Giddens. It then relates a particular notion of structure to concepts

of space, meaning and practice.⁴⁴

In this sense, the concept of the “Duality of Meaning” allowed an expansion of the usual notion of identity of meaning into the ontological realm of a relentless *referentiality crossing boundaries between social and material processes and things*. The expansion was a construction that took into account traditional notions of meaning in action theory as well as Luhmann’s “self-referentiality.” Accordingly, I shall go on exploring his theory – now drawing on his peculiar notion of “structuration” – in order to unveil the spatialisation of communicative processes of social reproduction. The intention is to see *space embedded in the delicate moment of structuration of practice, the happening of action as both flux and event-in-the-world – the relation of practice and space mediated by the duality of meaning*. And for that very intention, an approach has to penetrate deeply enough epistemologically in order to capture this simultaneously symbolic and practical, material and vanishing fabric. At times the approach might give the impression of being sterile, dead – a dead analysis. I hope to constantly situate the analysis in an ontological horizon; I hope to *ontologise* the analysis: make it a means to see the vitality ongoing in the process. For the fact that space is posed as a condition of social reality, and the apparent improbability of a relation between immaterial and material realms suggest the possibility of an *ontology* that sets its own terms. It asserts space as both “event” and “reference” in a universe of practice also marked by such a duality; and does so questioning unitary, non-inclusive views of social and material reality that still embed current theory.

1. “Desperately seeking structure”

...as long as the problematic of metaphysical unitary thinking remains in force and as long as idealist modes of thought remain in use, the universal will triumph over the individual, which is banished to ineffability. (Habermas 1992:157)

There are thus two interpretations of interpretation, of structure, of sign, of play. The one seeks to decipher, dreams of deciphering a truth or an origin which escapes play and the order of the sign, and which lives the necessity of interpretation as an exile. The other, which is no longer turned toward the origin, affirms play and tries to pass beyond man and humanism, the name of man being who, throughout the history of metaphysics or of ontotheology – in other words, throughout his entire

⁴⁴ Cf. Fairclough, Jessop and Sayer’s (2001) interesting and brief account of the relations between structure, materiality, performativity and “semiosis” (or the relational, “intersubjective making of meaning” beyond verbal language).

history – has dreamed of full presence, the reassuring foundation, the origin and the end of play.
(Derrida 2001:369-70)

1.1. Derrida and the metaphysics of structure

According to Derrida, the metaphysical idea of structure lies underneath the idea of a “world of presences.” It is in fact a search of a presence, a means to address the presence itself. And there lay the dangers of reduction and imposition. Structure – “or rather the structurality of structure” – was neutralized or reduced through a process of referring it to a point of presence, a fixed origin. “The concept of centered structure is in fact the concept of play based on a fundamental ground...a fundamental immobility and a reassuring certitude” (Derrida 2001:352). This centre received many names, all of which “have always designated the constant of a presence” – *telos*, *archè*, essence, existence, substance, subject, consciousness, man, God (p.353). The epistemic centring meant that “structure” was fixed, made rigid, and thus held in opposition to “play,” an idea put outside the sphere of interpretations. So that the centre of a structure, the reduction of the *structurality* of structure, limits play within a total form, a prescribed coherence. The need of certitude restricts play, a certitude that is brought about to master anxiety. From that centre, repetitions, substitutions, transformations “are always taken from a history of meaning...whose origins may always be revealed or whose end may always be anticipated in the form of presence” (p.352). At the centre, permutation or transformation of elements is forbidden. Structure was made rigid in a way that “even today the notion of structure lacking any center represents the unthinkable itself.”

The function of this center was not only to orient, balance, and organize the structure – one cannot in fact conceive of an unorganized structure – but above all to make sure that the organizing principle of the structure would limit what we might call the *play* of the structure. (p.352)

A centred structure becomes *telos* and *archè* – the end and the origin according to which thought and practice must be understood and produced, “the basis of a full presence which is out of play.” However denouncing the logics of control it was placed to serve, Derrida does not opt for the apparently attractive and easy path of *destroying* the idea of structure. He claims instead an ongoing era that began with the Nietzschean critique of metaphysic concepts of being and truth, a moment of decentering, when structurality began to be thought, and the laws that governed “the desire for the center in the constitution of structure” began to be questioned along with “the process of signification prescribing its displacements and its substitutions for this law of the central presence” (p.353). That epistemological questioning was followed by structuralist and post-structuralist

analyses of the relation between signified and signifier, “a system where the central signified, the original or transcendental signified, is never absolutely present outside a system of differences” (p.354). The absence of a transcendental signified extends “the domain and the play of signification infinitely.” As a consequence, the concept of truth, as it relies on the absolute relation between signified and signifier, thing and name, collapsed. Derrida sees in the “sign” a way out of the rigidity of structure, a way of *decentring*, of returning play to structure. The metaphysical concept of sign addresses the universe of signifiers. However, the empirical possibilities of different signifieds destroy the unity of other metaphysical concepts, because there is no transcendental or absolute signified for a signifier. That brings the possibility of play, of no rigid or particular signification, of no centred structure in the reference to the presence, thus in the presence itself to us. Structure may therefore be conceived of as an absence, or with a centre “with no natural locus...but a function, a sort of non-locus in which an infinite number of sign-substitutions came into play.” Derrida of course is interested in decentring old metaphysical categories. Even so, he is careful about the linguistic destruction of the concept of structure and other metaphysical concepts. He evokes the impossibility of stepping outside a metaphysical conception contained in the idea of “sign” itself:

all these destructive discourses and all their analogues are trapped in a sort of circle. This circle is unique...There is no sense in doing without the concepts of metaphysics to attack metaphysics...we cannot pronounce a single destructive proposition which has not already had to slip into the form, the logic, and the implicit postulations of precisely what it seeks to contest. (Derrida 2001:354)

If surely there is no absolute relation between a sign and a signified, then logically the absence of a transcendently unique meaning of “sign” can *also* destroy “sign” as a metaphysical concept. It follows the complete destruction of the possibility of addressing the relation between any sign and a signified,

which is precisely what cannot be done. For the signification ‘sign’ has always been comprehended and determined, in its meaning, as sign-of, signifier referring to a signified, signifier different from its signified. If one erases the radical difference between signifier and signified, it is the word “signifier” itself which must to be abandoned as a metaphysical concept. (Derrida 2001:354-5)

A theoretical eradication of the metaphysical notion of sign would erase *the very possibility of knowing* relations between representations and the world of presences. Post-metaphysics thus is linguistically trapped. “The *paradox* is that the metaphysical reduction of the sign needed the

opposition it was reducing” (p.356). Derrida extends the paradoxical dependence of keeping a “basic rigidity” between signifier and signified in our conception of the world to other metaphysical concepts, even if we exercised the signifier-signified relation to deconstruct other rigidities, and “in particular to the discourse on ‘structure’” (p.356). For the destruction of the notion of structure would collapse the possibility of addressing of the condition of presences in the world. Derrida, suggesting the *deconstruction of centres* at the heart of the signification of taken-for-granted notions such as “structure,” nevertheless rescues the condition of structure through a post-metaphysical turn to language – written language – and reaffirms it as inherent to *epistèmè* itself. It is not possible to replace a metaphysical class of concepts without falling into metaphysics again. Derrida indeed reacts against a Reason that became the means of rigidity: the desire for order is the fear of uncertainty. But rescued from destruction is the fact that, if “structure” is indeed the search of a presence, the idea of structure is a means to find presence-in-the-world. It attends the anxious need of understanding (dominating?) existences: the “I,” the other, nature, history, (space?). That is: how can we understand the world? How do we think the “presence”? Above all, how do we experience the possibility of *thinking* the presence? Positivism converted the possibility of addressing what exists into an obsessed separation and re-association of structure and presence. It converted structure into the moral idea of order. The possibility of addressing the presence found in *epistèmè* (in the complexities of the relation signifier-signified) the condition to deny the presence itself and our relation to the presence. For instead of ideally addressing its ontological condition and revealing its meaning, it *informed the presence of what the presence was, and formed the presence to our experience*. And worse, it brought in itself prescriptions of what the presence should be.

Although so subject to the complexity of its signified, and precisely for that subject to the “multiplicity of destructive discourses and the disagreement between those who make them” (Derrida 2001:356), the notion of structure as signifier represents the very possibility of knowing what exists. And if Wittgenstein (1953) is right when affirming that “the limits of my language are the limits of my world” – i.e. if there is no discontinuity between experience of things and their existence to us, in our languages – addressing the world through notions such as *structure*, *flux*, or *event* means the possibility of relating to the world. When the presence was the “I,” the other, the social, the modern idea of structure was in fact the means of the imposition of a “will to order.” It implied the creation of an entity of mechanistic workings – a centre where there was only sociality. That entity created was in fact the prescription of a moral condition, a totalising existence, an association of a conception of presence and the presence itself; between “structure” (as systems doomed to order), and “society.” These became the same entity: society became the system doomed

to order. I shall extend the critique of the modern compulsion to structure *in the social* through Zygmunt Bauman.

1.2. Bauman and the compulsion to structure

We are structuring music. We are structuring mythological thinking. We are structuring cooking. We are giving structures to every area of our lives...Every aspect of social life is structured. But it doesn't mean that there is some final, ultimate, underlying structure of everything. (Bauman 1992:211)

Bauman is less subtle than Derrida in understanding the will to order and the moment of change in the conception of structure. He names them clearly (and naming might impose reduction and discontinuity): modernism, post-modernism. Modern mentality and institutions have “struggled for *universality, homogeneity, monotony and clarity*” (Bauman 1992:188). They consist of “an incessant drive to eliminate the haphazard and annihilate the spontaneous” (Bauman 1992:xi) – “to eliminate ambivalence and to drive out ambiguity, to classify, to design, to name, to separate, and to segregate” (p.212). For Bauman, as for Derrida, the desire for regularity came with the discovery of chaos; the practice of ordering came when contingency was found – they came as twins, “perhaps even Siamese twins.” The dream of order “emerged out of the discovery that human order is vulnerable.” It conceived the world as chaos, object, challenge, and “a compulsive reason to act” (p.xi). Models of modernity “differed solely in the selection of the ultimate destination or the organizing principle of the process, be it universalization, rationalization, or systematization” (Bauman 1992:188). Bauman claims the need of a sociological theory of post-modernity to “lift itself out of the mental frame in which they had been conceived”. It “must be free of the last vestiges of the metaphor of progress that informed all competing theories of modern society;” break with the modernist telos, the vision “of modern history as a movement with a direction” (p.188). He proposes qualities of the post-modern as reaction: *pluralism, variety, contingency, ambivalence*.

What the theory of postmodernity must discard in the first place is the assumption of a systemic character of the social condition it purports to model: the vision of a system (a) with a degree of cohesiveness, (b) equilibrated or marked by an overwhelming tendency to equilibration, (c) defining its elements in terms of the function they perform in that process of equilibration or the reproduction of the equilibrated state. It must assume instead that the social condition it intends to model is essentially and perpetually unequilibrated: composed of elements with a degree of autonomy large enough to justify the view of totality as a kaleidoscopic – momentary and contingent – outcome of

interaction. (Bauman 1992:189)

Bauman attacks the notion of structure as order, and the simplification that that association imposed on the understanding of social reality.

The orderly, structured nature of totality cannot be taken for granted, nor can its pseudo-representational construction be seen as the purpose of theoretical activity. Randomness of the global outcome of uncoordinated activities cannot be treated as a departure from the pattern which the totality strives to maintain; any pattern that may temporarily emerge out of the random movements of autonomous agents is as haphazard and unmotivated as the one that could emerge in its place...All order that can be found is a local, emergent and transitory phenomenon. (p.189)

The notion of system in its mechanistic version is useless even as a metaphor: “the theory of postmodernity would do well if it disposed of concepts like *system* (or, for this matter, *society*), suggestive of a sovereign totality whose welfare or perpetuation all smaller (and, by definition, subordinate) units serve – and thus a totality entitled to define...the meanings of individual actions and agencies that compose it” (Bauman 1992:190). It follows the need to replace the category *society* with that of *sociality*,

a category that tries to convey the processual modality of social reality, the dialectical play of randomness and pattern (or from the agent’s point of view, of freedom and dependence); and a category that refuses to take the structured character of the process for granted – which treats instead all found structures as emergent accomplishments. (p.190)

Although these theoretical conditions are far from rejecting structure, rather relating it to momentary fluidity, Bauman wishes to substitute the emphasis on structure for that on agency and its local condition, the *habitat*. Bauman curiously still describes the habitat in terms of systems theory, “according to contemporary mathematics” as to assert unpredictability and self-assembly (the work of collecting, selecting and adopting). But Bauman stresses the limits of such a relation: “The ‘systemness’ of the postmodern habitat no longer lends itself to the organismic metaphor, which means that agencies active within the habitat cannot be assessed in terms of functionality or dysfunctionality. The successive states of the habitat appear to be unmotivated and free from constraints of deterministic logic...the self-organization of the agents in terms of a *life-project*...is displaced by the *process of self-constitution*.” (Bauman 1992:192). The habitat

appears therefore strikingly different from the confined space of its own autonomic, purpose-subordinated pursuits. It appears as a space of chaos and chronic indeterminacy, a territory subjected to rival and contradictory meaning bestowing claims and hence perpetually contingent...The existential modality of the agents is therefore one of insufficient determination, inconclusiveness, motility and rootlessness. (p.193)

Bauman’s statement makes explicit the enormous epistemological shift away from Parsons’ system theory – but still incorporating (recent) concepts of system. Accordingly (and ironically), his “tenets of the theory of post-modernity” are produced with the viewpoint of someone who *observes* the existence of the agent, social group or local system; he keeps the external perspective typical of explanation. That is, his descriptions of local social systems are not built up “from within” – from the perspective of the agent and her relations to others. However, Bauman calls for an *unbalanced position towards agencies* and the habitat. On the one hand, his position seems to understand social reality renouncing the possibility of sociality between socialities, communication between habitats, integrations and disintegrations across space-time. On the other hand, the main quality in Bauman’s observations is the complete destruction of the idea of social presence as a body or system, as actual existence. Structure certainly cannot be seen as an entity, thing or property; not even as a virtual thing, a concept to represent the social presence or whole. Indeed relatedness in the social and material world fades almost as soon as it emerges. If socialities find systemic qualities in the fluidity and communication between local “emergences,” structures exist only in “ways of doing” (e.g. in the form of knowledge and practices of interaction, institutions, norms, tradition, laws) that orient and potentially relate to what others do, in the present or in the future (cf. Giddens 1984). Now Bauman’s rejection of ordered structures through recent developments of systems theory finds an echo – a systematic one to be sure – in Luhmann’s approach.

1.3. Luhmann’s *Strukturifizierung*

The scientific analysis of systems, texts, language games, and so on is attributed a reference to reality and *this reference to reality is guaranteed by the concept of structure*...Everything is much simpler than Hegel and Kant though: if in general analysis comes up against structures, then those structures cannot be attributed to itself alone. [Analysis] always brings along a consciousness of its own contingency, its own open attitude toward other possibilities, and is therefore forced, when it runs into structures, to attribute them to reality, not to itself...The possibility of stylizing the whole concept [of structure] dialectically is obvious because precisely ‘free variation’ (Husserl) permits structures to appear as the negation of their freedom, an appearance that then fuses analysis and

reality into a unity. (Luhmann 1995:280)

Indeed one of the main contributions of post-modern thought is the idea that there is no longer a binding representation of society within society: “there is no *métarécit* because there are no external observers” (Luhmann 1998:x). Yet post-modern theorising is according to Luhmann at a bifurcation point. He sees the post-modern “semantics of impossibility” as a belated reaction of modernity to the shock of its own contingency. Luhmann refuses to describe this shock in negative terms, say as a crisis of representation (Knodt 1995). Although his observations on modernity are of interest indeed, I will not pursue Luhmann’s as a theory of society.⁴⁵ I am not interested in concepts such as boundaries of social systems, complexity as number of states, entropy, and order from noise. I certainly do not pursue any notion of social systems as entities. Let me paraphrase Bauman and affirm that societies are not “systems” in any totalising sense. Practices rather have *systemic* properties (see Giddens 1984); they are produced in continuous contexts of interaction and meaning. Accordingly, Luhmann’s notion of social systems (still a totalising notion) is not simple at all – it defies easy categories. Luhmann’s is a theory that places itself within a “de-ontologised realm of second-order observation, a level of abstraction where questions concerning conditions of possibility arise” (Knodt 1995:xvii). He moves through systems theory, cybernetics and information theory to a post-metaphysical position: Luhmann challenges the principle of a unified subject, the social as a derivative of intersubjectivity, communication as an interaction between subjects and a transmission of contents between separate consciousness, and the idea of language as a representation of such contents (Knodt 1995). Like Actor-Network theory, he claims unnecessary all boundaries and dualisms between agents, objects, environment and informational processes.

My aim now is to discuss his peculiar sociological insight into structuration, or *Strukturifizierung*. In accord with Luhmann’s ontological presuppositions, the relevance of this idea is that it grasps the dimension of whatever exists *before* actions – i.e. the condition for actions to come into being, or *for what exist socially to come into existence*. As I shall explain below, Luhmann defines structuration through a concept of meaning that asserts endless networks of self-relatedness among events and objects, practices and communication, consciousnesses and lifeworld. One may locate *Strukturifizierung* in the moment before, during and after communication or interconnection of actions: in the passage from the *possible* to the *actual*, when from all possible action interconnections, one is actualised; and in the passage from the *actual* to the *possible*, when meaning contains in itself reference to a constellation of possible meanings and agencies (and I

⁴⁵ See Luhmann (1998); for critical comments, see for instance Habermas (1992) and McCarthy (1984).

shall add spaces). Meaning itself constitutes a means of actualisation; and Strukturifizierung is the actualisation of *actions* among the universe of possible actions in a lifeworld. That moment presupposes “selection.” Actualisation and selection imply interconnections or communication as exchanges of informational and material objects. Here we are about to finally reach *the emergence of the vanishing structures of action*.

2. Social practice as networks of communication

Both Jürgen Habermas and Niklas Luhmann consider the notion of “communication” to be of central importance for their respective theory building (Baecker 2004). But Luhmann’s understanding differs from Habermas.⁴⁶ In Habermas, action and communication are not equated: while mutual understanding through language aims at action coordination, communicative action is not exhausted by reaching understanding. For it implies the intermeshing of consequences crucial in material reproduction. In turn, Luhmann breaks down the distinction between action and communication to assert a *continuum of social action-communication* to a point where meanings and communication are a manifestation of the semantic (and practical) closurelessness of consciousnesses. A theoretical distinction remains when Luhmann asks himself about the basic and indecomposable unit of the social to be action or communication: “Only communication is necessarily and inherently social; action is not. Moreover, social action implies communication, implies at least the communication of the meaning of the action or the intent of the actor; but it also implies the communication of the definition of the situation, of the expectation of being understood and accepted, and so on and so forth” (Luhmann 1990:6). Luhmann goes on to affirm that communicative action therefore cannot be the unit which social systems are composed of, although they “require the attributions of actions to move their autopoiesis.” He proposes in fact a “conceptual revolution within sociology: the replacement of action theory by communication theory as characterization of the elementary operative level of the system” (p.6)

2.1. Social practice as “communication”

...the basal process of social systems, which produces their elements, can only be communication...
But how does this process of communication relate to actions, to the elements of the system that it produces? Is a social system ultimately composed of communications or of actions? Is the ultimate

⁴⁶ Habermas’ position was influenced by and departed from Luhmann’s as attested by their public exchanges. See Habermas and Luhmann (1971); see also Habermas (1987b) and McCarthy (1984).

unity, with whose dissolution the social would disappear, a successful coupling of different selections, or is it the single selection that can be attributed as action? (Luhmann 1995:138).

Social systems are usually seen as based on action or aspects of action; through action, subject comes into the system – but does “this accurately [grasp] the relationship between action and sociality?...Sociality is not a special case of action; instead, action is constituted in social systems by means of communication” (Luhmann 1995:137):

communication and action cannot be separated (though perhaps they can be distinguished...The elementary process constituting the social domain as a special reality is a process of communication. In order to steer itself, however, this process must be reduced to action, decomposed into actions... social systems are broken down into actions, and by this reduction acquire the basis for connections that serve to continue the course of communication. (p.138-9).

In turn, “Communication is also an emergent reality, a self-generated state of affairs. It comes about through a synthesis of three different selections, namely the selection of *information*, the selection of the *utterance* [*Mitteilung*] of this information, and selective *understanding or misunderstanding* of this utterance and its information” (p.157) – a transaction of signs, meanings and their effects.

These components are not functions, acts or horizons for validity claims, neither are ‘building blocks’ of communication that can exist independently. (Luhmann 2002:160)

Communication is based on selection, and selection operates as the *production, utterance and understanding of difference in contents and values of information*; something that is there in meaning itself – meaning as interpreted difference:

Meaning allows no other choice than to choose. Communication grasps *something* out of the actual referential horizon that it itself constitutes and leaves *other things* aside. Communication is the processing of selection ...information is a selection from a (known or unknown) repertoire of possibilities. Without this selectivity of information, no communication process would emerge” (Luhmann 1995:140).

Information and the act of utterance require meaningful interpretation, or *understanding* (or misunderstanding): “the perfection of communication implies understanding” (Luhmann 1990:6). In turn, understanding implies the understanding of meaning – the interpretive penetration or decoding

of the content of communication: what is there that signs address and reveal to the acting subject. Communication is “a special case of information processing per se” (1995:142).

As far as information is concerned, alter [the utterer] must view himself as part of the meaning world in which information is true or false, is relevant, repays utterance, and can be understood. But as someone who utters it... he must interpret himself as part of what can be known about the world, for the information refers back to him (otherwise he could not apply it). In another regard, he controls himself as a self-referential system. Dieter Henrich calls this the ‘distance between his being a subject and belonging to the world’ and views this distance as justifying the need for unified interpretations of life... ego [the addressee] interprets the behaviour of alter as communication and therefore expects alter to accept this distance...The sociality of the situational interpretation decisively creates this aporia... Communication emerges only if [the difference between information and utterance] is observed, expected, understood, and used as the basis for connecting with further behaviours” (1995:141).

Understanding is therefore “a precondition for the connection into further communication, thus a condition of the autopoiesis of the social system” (2002:158).

When one communicative action follows another, it tests whether the preceding communication was understood. However surprising the connecting communication may turn out to be, it is also used to indicate and to observe how it rests on an understanding of the preceding communication. (1995:143)

Communication operates in different times; interacting agents “come back” to verify the assertiveness of their utterances: “only in the process of connecting can one tell whether one has been understood” (p.143). Luhmann adds the fact that action involves a choice among a multiplicity of meaningfully pre-selected possibilities – counterfactual possibilities of semantic and practical *interconnections actualised through action and communication*,⁴⁷ and *the selectivity process – the utterance-information-understanding process of communication*.

2.2. “Structure” as a communicative accomplishment

Strukturifizierung means the continuity of action through meaning and communication as an “autopoietic” (or self-produced) solution for the problem of social reproduction. Social systems therefore are self-referential systems that produce and change their own structures, “networks of productions of components that recursively, through their interactions, generate and realise the

⁴⁷ In fact Luhmann (1995:278) claims that the concept of structure does not play a central role in his theory – certainly not as highlighted as Maturana’s *autopoiesis* or recursive operations of self-referential systems.

network that produces them and constitute themselves, in the space in which they exist” (Luhmann 1995:3). Luhmann thus analyses structural change *without* a general structure as a point of reference (McCarthy 1984). Despite the “recursivity” hint, such a concept is very distinct from Giddens’ structure as “rule-resource sets implicated in the institutional articulation of social systems” (Giddens 1984:367) – although one should not understand Luhmann’s structure as any form of concrete entity. His concept has indeed more similarities with Bauman’s assertion of structure as local, emergent, contingent and transitory accomplishments at the level of the *habitat*. Exactly for this, let me clarify Luhmann’s counterfactual conceptualisation (once more) through a brief comparison to Giddens’ well-known “structuration.”

Both Luhmann’s *Strukturifizierung* and Giddens’ structuration deal with the way social structures exist – but in apparently opposed directions. “Duality of structure” in Giddens means that the *structural properties* of social systems are both the medium and outcome of practices they recursively organise (Giddens 1984). That is, structural properties *exist as* and are *reproduced through* recursive practices. Structures as rules and resources are conditions for further actions. In Giddens, space is an element of the contextuality, situatedness and recursivity of action, fundamental in the reciprocity between actors both in circumstances of co-presence and distance, stretching social systems across time-space as convergences of co-presence and absence. However, as we have seen, such a key contribution is still unable to reveal the condition of production of action. It lacks in its abstract formulation concepts that show how the “stretching process” is materialised through communication and institutional articulation, and the place of space in those. However abstract, Giddens’ concept is indeed more probable than Luhmann’s – in the sense that the latter sees what is not actualised yet. I suggest that it is precisely this that *opens strong possibilities for throwing light on the place of space in the social world*. *Strukturifizierung* deals with the improbable, and the conditions through which the improbable becomes contingency. In Luhmann, what gives insights about structuration is not only recursivity of actions, a condition of institutionalisation in Giddens, but whatever must be restrained (in the sense of a selection among a certain universe of choices) and actualised (in the form of communication or *interconnection*) in order to any structuration to happen. Social structures emerge because of a need to escape from the impossibility of any social relation. While the duality of structure objectifies phenomenal conditions for structuration such as rules and resources impressed in the recursivity of realised actions, *Strukturifizierung* reveals the conditions (and risks) that actions face if were to be constituted at all. However, these concepts are not mutually exclusive – they seem in fact complementary. Giddens and Luhmann, as Bauman, assert the need of a new view of social reality as fluid, non-ordered

convergences of presences and absences. As Derrida (2001), they assert that the concept of structure, as a form of addressing the social condition, does not need to be destroyed. It rather needs to be deconstructed – purged from its ideological transformation, and freed to address “presences” (social or material) without prescribing a condition of order; *the fluidity of presences must be freed from a telos*. Through such incursions, one is able to define “structure” keeping its relevance as form of addressing the social – and the spatial as part of the social. In such incursions, Bauman’s emphases could indeed be used to deconstruct Luhmann’s generalising view of the social system. But also Luhmann sees structures as local, recursive and unpredictable phenomena, as means of social reproduction. They involve contingency: they happen through particular conditions. Such an idea seems able to free social structures of centres, order and telos, thereby attending Derrida’s condition. Such a localised condition is nevertheless latent in Giddens: rules, resources and memories leave traces in and only exist as instantiated practices, the “medium and outcome” of structures. Or as Luhmann and Habermas lead one to think, *structures exist in the moment of communication: when the semantic and practical meanings of words, signs and objects produced are uttered, interpreted, appropriated and transformed in the practice of others – sometimes far away in space and time – as complement, contradiction, reaction*.

They find idiosyncratic, institutionalised forms, like habits, traditions, a model of state and democracy, a mode of production, social relations, and functional subsystems, including units of social operation like economic enterprises, institutions, local governments and so on. And from (and during) such localised social accomplishments, relations to other localised processes may be performed, so that social reproduction may happen through the relation of processes. That is, structures, as partial solutions, frequently imply practical and symbolic relations between different social emergences across space-time (say exchanges between firms); or already consist of a transpatial emergence (say a telephone or email communication) as different persons, groups or spheres of institutionalised practice have effects over each other. Thus the problem of general social reproduction gives way to relations of social contingencies, or perhaps “socialities of socialities.” At the same time that this opens possibilities of seeing and exploring the particular, it keeps open the possibility of relating particulars. The referential understanding of practice, meaning, and communication is intended to overcome shortcomings of views that emphasise “agency” rather than “structure” or vice-versa – as if the distinction was ever possible; views that lose trace of how socialities reared in relatedness are ever possible. This notion has the property of making the *dualism of agency-structure* and its attempts of solution *unnecessary* – a mistake that always leads to reify and dismiss dimensions of the social. That dualism does not exist. It is based on wrong

conceptions of structure as centre (inside, outside) still embedding even recent discussions that, although attempting the opposite, disassociate agency and structure. Structures are always communicative accomplishments, exchanges of meanings in signs or objects (through spaces?) continuously subject to bodily perception and symbolic interpretation.

Moreover, despite fashionable emphases on contingency (e.g. Bauman 1992; Luhmann 1995; Law and Urry 2002), let me suggest that communication brings both *contingency* and a relative *causality* into social processes. For causality and contingency are effects already at work in the ongoing communication itself, in the moment of mutual interpretation, *in the space between signifier and signified in the universe of the interpreter* (an interpretive space filled with contextual, and spatial, meanings). Communication implies interpretation of things that one says or does expecting to be understood in a certain way; it implies “reciprocal expectations” and the capacity of achieving common definitions on what utterances, gestures or images mean (see Habermas 1984; 1987a). But if communication is indeed achieved through certain levels of causality (expected at least by the speaker/writer), yet it implies *particular* interpretations, understandings, and thus potential disagreement or unexpected, unpredictable change in the course of communication. The interpretive space between signifier and signified cannot be avoided. Any intended causality in communication (and by extension in social processes) tends indeed to vanish in time (and so does the power of causal explanations), for contingencies become strong factors as communicative achievements merge and relate in time-space.

Therefore, I would like, upon Luhmann’s view of communication, to interpret the idea of “social structure” overtly as a communication process, a communicative achievement, the momentary (and sometimes recursive) production of connections through the exchange of meanings and information – via bodily interactions situated in and mediated by space, its meanings and its physical shaping. In the perspective being introduced here, such momentary processes assert connectivity between places, cities, regions and socialities – as socialities act in, or enact networks of communication. A step further, if meanings produced and exchanged in communication are always subject to the others’ interpretation, meanings imply transformation. The informational content of communication is constantly transformed in the intersubjective flow, frequently in unpredictable ways even for those participating in the situation. Social structures, momentary but boundless, tend to be free of stability: they stimulate the production of new meanings in practices and objects. Meanings are always inherently transformational (as Giddens’ “rules”), for “only meaning can refer to meaning...only meaning can change meaning” (Luhmann 1995:xx). The continuity of socialities –

including situations of non-meaningful experience and bodily interaction (and these may be subject of realisation or translation into consciousness) – is ensured by the production of meanings in signs, communication, works, objects... and space? Whereas Bauman’s habitat has an implicit and local spatiality and Giddens’ structuration finds general images of convergences of absences and presences, Luhmann’s Strukturifizierung refers to time, ignoring space in the problem of social reproduction. Social structures are emergent structures of “temporalised social complexity,” reversible “because they hold open a limited repertoire of possibilities for choice” (Luhmann 1995:44). Luhmann connects the “complexity” of socialities and “selection” *through time*.

[Selection] already implies time; it comes to be only through time and in time. In complex systems, time is the basis of the pressure to select, because if an infinite amount of time were at one’s disposal, everything could be brought into tune with everything else...selection itself is a temporal concept: it is imminent, is required, is performed, and finally is past. Selection enlists time in order to maintain itself in an already temporalized environment. One could say that selection is the dynamic of complexity. Every system must adapt itself to time... (Luhmann 1995:42).

Luhmann’s conditions of structuration in time are striking. But one may also be struck by the way he systematically underestimates space, even eventually mentioning “material differences” and an emerging “form” (see Luhmann 1995:76). Luhmann believes that “meaning” has three differences or dimensions: those of “fact,” “temporal” and “social” dimensions – no *spatial* dimension. He sees that societies produce their own environment, a symbolic environment given the fact that there is only social existence through meanings – but such an environment has little spatiality. Space is not regarded as a dimension loaded with meaning or part of the meaningful environment produced by practice. Strukturifizierung includes time as a *pressure* for selection of action choices. That makes sense indeed. Space does not seem to “put any pressure” over agencies or communication. It could not do so, I will argue below, for *space is in itself information about possible actions*. Luhmann could not see space even as a form of solution for the counterfactual problem of “selection.” He could not see *space as a structuring and structured “pre-selection” of actions, a form of institutionalisation*. I propose from now on to include space in social structuration, the irruption of momentary, partially contingent and causal, local (but contradictorily, potentially “transpatial”) and transformational structures of action and communication. Of course that thesis implies an active symbolic and practical relation between actors – their practices and interactions – and space. That possibility – the place of *space in the self-referential structuration of action* – seems to be what previous theories have been failing to explain. I would like to term this possibility the “referentiality of action and space” at the level of social reproduction.

3. The referentiality of practice and space

Social action is traditionally centred on meaning. I argued that so is a key dimension of the relation of action to space. The access to the meaningful dimension of social action pioneered by Weber culminates in Luhmann’s assertion that “Only meaning can recognise meaning;” or perhaps in a more factual vein in Habermas’ “Meaning – whether embodied in actions, institutions, products of labor, words, networks of cooperation, or documents – can be made accessible only *from the inside*” (Habermas 1984:112). But Luhmann, as Habermas, overlooks the possibility of meaning in space. So how can we finally relate all this to space? I suggest that the substance of that inseparable relation is at the level of reproduction *the dual condition of meaning* carried in practices and their environment. Let me propose the inseparable relation of action to space through the duality of meaning as *reference and event*. I shall investigate in sections 3.1 and 3.2: a first moment of that peculiar form of inseparable relation, that of how actors refer their practice to (meaningful) space; and a second moment, how meanings referred in space “refer back” to practice, i.e. *how practice addresses practice through meaningful space*. So that space, through its semantic, practical and physical properties, will be both event and reference within the flux of practice – a part of the autopoietic structuration of social action.

3.1. The ambiguity of space as “environment” and “communication”

The problem of the actor-space relation can be addressed as a question: “how actors experience the reference of what they do to space?” Instead of exploring once again hermeneutic or semiotic assertions (either restricted to the situation or to the exteriority of signs), I will be able to explain the actor-space relation and the mediation of space in social practice through the *referentiality* of meanings (actualised and latent in actions) to the (spatial) *environment* of action. As the contextual approaches examined in Chapter 3, my solution will also have the advantage of blending context and action, and the semantic into the practical through the informational properties of meaning. But rather particularly, it will prove able to see the multiple flows of meaningfully-mediated practices constituted recursively, continuously, variably converging into and diverging from the material environment. Self-referentiality is not a metaphysical category as “transcendence” or “immanence;” it is in fact an empirical property of symbolic production and communication. It translates the transcendence of meanings as these may transfer across different media or material realms (say from texts or objects to consciousness and back) into its actual informational and practical condition of transacting, moving, graspable things.

Luhmann does not extend the referentiality of meaning to space. Let me carry on such an extension, initially through one of his own concepts: the idea that meanings are produced as social “self-environment” in the sense that environments are simultaneously meaningfully and practically addressable as possibilities to action. Meaningful environments support action in the sense of choices and means of actualisation. *Environment* (in fact the cognitive-practical horizon of agency) and *communication* thus relate to each other. Environment and communication media intermesh through the self-referentiality of meanings, as the moving “in-between” that constitutes communication, i.e. the way we exchange practices with and experience one another. I wish to show that urbanised space (as other virtual, moving spaces) is part of the social self-environment exactly to foster social reproduction. The environment (like contexts in Thrift’s geographic approach) relates our practices as much as movable objects, texts, or vanishing words may do so. The environment itself becomes a media of interaction. Thus, in the self-referential logic, one does not need to differentiate “communication” from “environment” – both become forms of production and relation of meanings that turn consciousness able to transcend their closure as social life.

Could space be a part of such social self-environment? Luhmann certainly failed to appreciate that the actual environment of social beings encompasses space and the urbanisation of space. He failed to see that societies produce spatialities as self-environment *beyond* a mere physical setting. He could not see space as a projection of a constellation of practices, meanings and aspects of social organisation.⁴⁸ One may insist that, if agencies produce their own environment as “meaningfully structured worlds” to mediate their relation to other agencies and to the natural environment, consisting of a key-form of social “survival” and “reproduction,” it is clear that the *spatialities* produced by social beings are an expression of that need, a means to mediate agency. The spatialities of different socialities are produced as practical and symbolic environments for their experience, communication and reproduction. The consideration of spatialities as social environment turns an alternative approach able to include space in the self-referential structuration of action – i.e. in the relation of our actions and different media of interaction. Utterances, texts, objects, currency may be presences criss-crossed in space in order to be interrelated in self-referential fluxes of cognition, practice, and environment. Therefore, in addition to genealogies of meaningful space through hermeneutic and semiotic differentiation, *space may become part of the level of referential constitution of practice*. The production of action frequently involves in our daily lives the instantiation of meanings in space, and only in that moment space may fully achieve

⁴⁸ See works from the anthropological record of Levi-Strauss (1963) to human geography (e.g. Simonsen 1991) and theories of architecture and archaeology (e.g. Munro 1987; Hill 2003; Hodder 1987)

its place in social reproduction (cf. Simonsen 1991). Therefore, it would suffice to account the production of spatial meanings through the referentiality of practices to environment regardless of what is the ultimate link to space: hermeneutic, semiotic, mnemonic or physical. Provided that there is reference, there is no substantive or methodological need to think of an absolute relation of meanings between practice and space, however factual it seems.

Not by chance, a referential perspective on practice-space leads one to see that *the ambiguity of space as “environment” and “communication system”*⁴⁹ is in itself produced by ontological qualities of meaning. Meanings produced in space, as events in agents’ experience and as indications to other meanings and agencies, places and events, themselves merge into the fluid symbolic transactions that constitute the communicability of practice. The duality of meaning in space becomes a mediation of those experiential flows, when agents refer to space in order to refer to other agencies; when space “tells” of other agencies all the time; when space might suggest interactions even when no one is consciously looking for counterparts. This is precisely the process I wish to describe. Having redefined the actor-space relation through the duality of meaning as identity and referentiality, let me explain now how we refer to spatial environments so that our practices might refer to one another through space. I will suggest that it happens because the communicative infrastructure of practice – the eventful and relational production of meaning – refers practice and its consequences to the spatial context or environment. In other words, *if meaning is constructed self-referentially, and if space can be meaningful in human cognition and practice, then space may be practically part of the referentiality of meaning and practice.* The practical involvement of space is what we need to understand.

3.2. Space in the connectivity of practice

I shall address from now on space as a means to connect actions and interaction media (Fig.5).

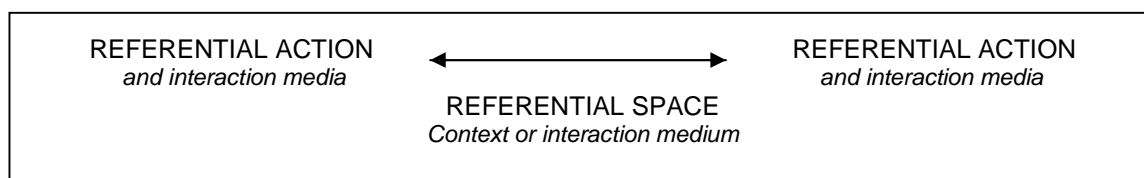


Figure 5: Dual space and the vanishing structuration of action

⁴⁹ A duality is somehow present in Thrift’s (1996) non-representational version of stretching, boundless “contexts of practice” still restricted to the exteriority of signs and performing bodies.

The core of my argument is that agents experience the duality of meanings in space (i.e. the eventfulness and referentiality of meaning and practice), even without realising it, when imagining their acts, or when interacting and having access to interaction media in situations of work and socialisation. I will make the case that there are two moments that depend on urban space in our interactions, be it in situations of co-presence or in the connections of practices across time-space through exchanged objects, currency, and mobile and electronic communication:

- i. *the appropriation of space as a source of information* about practice, a form of knowledge about the lifeworld and its workings, and a “form of the lifeworld present itself to itself;”
- ii. *the appropriation of space in the moment of practice*, when we interact with those co-present or access media of communication that, available in actual space, may relate our actions to those of others (say exchanging objects or accessing a text or hypertext produced by other agencies in other places and times). *Space here is a semantic and physical support for the emergence of action-communication systems within events, and for the connection of events across space-time.*

The emergence of communicative practice surely requires agents relating to each other when enacting – relation and enaction being unavoidably semantic or informational, and spatial processes. Therefore, in order for agents to enact socially, they must relate to semantic media and to their spatial contexts when enacting. It is the very possibility of space as informational device (i.e. beyond a merely physical, sensual space) that the present framework has searched to unveil, and place as a central moment of social reproduction. It comes as no surprise that the place of space as a semantic element in the production of practice has not come to the forefront in previous socio-spatial theories: the reproductive role of information has been overlooked at its origins in social theory (see Luhmann 1990).

The present framework will therefore suggest the need to bridge the gap between social theory and cognitive studies in order to offer an explanation to the problem of how communicative action is produced spatially. I shall address the problem of social reproduction as a problem of “how actors may experience social practices and participate in them through space,” or in other words, how agency produces itself through the social information produced in space.

Space as presentation of a lifeworld to itself

Much attention has been paid to virtual spaces such as the Internet as a source of information about people, organisations, ongoing events and processes – an information network, a form of structuring

information in a way to make it accessible to people. Much less attention is given to actual space as source of information about everyday practices – as an information network in its own right. This section addresses the knowledge of possible practices produced in our habitat or sociality (say a neighbourhood, a city or a region) as something fundamental to guide us and to inter-relate our actions, i.e. to find out and define agencies we will interact with. Chapter 3 “The Grounds of Social Reality” proposed that space may be a form of social information, a way to set up contexts of interaction and a form of learning the condition of social events – forms of knowing about society and about how to enact socially – starting with the architectural level, i.e. the level of the places of action or the built elements that make up cities. It did so through concepts like the form-function relation mediated by the model of space and the event in Hillier (1996), the usual concept of semiotic space, and finally through a concept of *semantic and practical space* part of the communicative efforts of agents, derived from a number of approaches like communication theory and ethnomethodology. Let me shed light once again on space as information to practice, and extend those concepts now well beyond the spatiality of a specific activity place. I wish to explore *cities as informational devices to practice and interaction*.

In this sense, Vygotsky (1978) affirmed that knowledge and human cognition only attain sense in social contexts. Any form of knowledge is social knowledge, shared and produced largely as social information. Following (and spatialising) Vygotsky, the present framework suggests that spatial knowledge (the knowledge of space and its physical, symbolic and practical contents) also means social knowledge (the knowledge of the practices that compose a lifeworld). *The knowledge of space may be seen as a means to constructing our practical knowledge of society – as knowledge of society itself*. A fundamental aspect here is that social knowledge is produced not only through communication, but communication in space: it would be constructed through the spatio-temporality of experience.⁵⁰ It is this spatio-temporality that goes *beyond* the boundaries of buildings in the sociation of our practices.

A number of questions arise. Do agents need information in space about actions? Would other media (say oral and written communication, images, advertising) be enough? If not, how agents “read” information in space? Do agents know that they do so (say, through visual perception, interpretation and memorisation of relations between a certain activity and a place)? This problem finds a growing literature in cognitive geography and architectural theory. I cannot review this

⁵⁰ See Schutz and Luckmann (1973; 1989) on the spatio-temporal stratification of experience, situation-relatedness, plans of action and the knowledge of a lifeworld.

literature here. Nevertheless, we shall see below that some findings of these studies strongly suggest urbanised space as information for agents in their everyday lives, a meaningful aspect in their choices among alternative events and in action. They do so potentially in accord to the theoretical conditions of social reproduction diversely stressed by Luhmann, Bauman and Habermas: the convergence-divergence of people and the formation of the fabric of communications in everyday life – a fabric projected on and materialised through urbanised space.

The role of information: the gap between social theory and cognitive studies

A closer observation on social theories easily shows that the cognitive dimension of sociation processes seems still ignored: *sociological theories seem to implicitly assume that agents would enact their realities getting all information they need from language and other communication media than the material environment where they live.* Most sociological studies seem to miss the empirical requirements of daily life, the conditions to carry on one’s activities and social relationships including information transmission as a condition of actualisation of interactions (cf. Luhmann 1990). Luhmann’s theory is an exception – but one which still remains blind to the *spatiality* of social self-environments as *information* in its own right.

On the other hand, an equivalent disconnection is found in the study of information and cognition relations. Cognitive studies hardly realise the sociological dimension or see “cognitive agents” as “social agents” embedded in a world of enactment and transactions. Social theory and cognitive studies approach social and cognitive reality as separate, disconnected domains, as if it were possible to study implications of cognitive operations performed independently of the social conditions of such operations, and conversely. I will argue below that social knowledge and performance – i.e. how agents lead their everyday lives, get involved in and choose events to participate and agencies to interact in “the world within their reach” – are crucially informed by social facts produced in space. It would be so that that the passage from possible to actual action (Strukturifizierung) would be firmly mediated by space as information of possible actions. In other words, I will attempt to *connect the “cognitive city” to the “practical city,” so that knowledge of a city may be seen as the knowledge of a mosaic of differentiated meanings and agencies* that agents may develop to some extent; a form of knowledge developed recursively in their interaction with their social and spatial environment. I shall move into the connection of a cognitive perspective on space as information with a sociological theory of informational constitution of practice systems – another theoretical gap between artificially separated disciplines; another major ontological problem invisibilised by epistemological boundaries.

Some studies relate social information to space in a detailed way. They include the cognitive differentiation of the social and practical “content” of built forms, and suggest that people retrieve information from space (see for instance Hillier 1996; 2003). Agents are able to remember activity locations and evoke them in their routines, construct utterances about them, and infer about possible related activities and their locations. Portugali and Casakin’s (2003) concept of “semantic space” addresses the way individuals retrieve forms of information from the city to a point of guiding and altering their action and interaction. Faria and Krafta (2003) see the urbanised environment becoming “cognitively structured information,” potentially helping agents to enact. These works allow one to consider that environmental (let me call it also “social”) information is processed during interactions with the environment and is retained in memory. Importantly, it would include previous knowledge into the information retrieved from the urban environment. That would also include socially created and shared meanings as part of the perceptual qualities of the environment (Gibson 1979). Couclelis and Gottsegen (1997:157) in turn consider places as “highly meaningful to people...ripe with semantic content, connotational as well as denotational.” Connotations include their *functions*: “Indeed, places are often defined and classified in terms of these functions even more than through their attributes.” Cognitive processes “serve the basic purpose of cognitive economy and organisation of information to satisfy the individual’s functional needs in his/her interaction with the environment” (Faria and Krafta 2003:53.6). The component parts of an urban environment find physical and symbolic differentiations; in fact they become information units carrying properties of the events they hold, and of the network of public spaces that make possible the relation between interactions within the habitat or urban social system. These information units are about “where to get” and “what happens there” – that is, information about the symbolic and practical contents of these spaces as imagined.

Mental representations of cities are thus seen as a reference system upon partial experiences in our movement and activity, which will be evoked again in practice. These considerations begin to blend the “knowledge of space” into forms of “knowledge of practice.” I will nevertheless explore that problem more satisfactorily – i.e. expanding progressively the atomistic concept of functional action that embeds the best cognitive theories – through Luhmann’s self-referentiality of practical and informational processes. I shall then break with Luhmann’s functionalism too, through broader notions of practice and meaning seen so far. *Placing the cognitive relation to space into the sociation of practice, an approach based on the referentiality and identity of meaning is able to see spatial properties and socio-spatial events as practical information that a city encapsulates, and is experienced, interpreted, produced and appropriated as such.* Let me start with notions of

“heuristic knowledge” and “decision making” (and the latter indeed consists of a pragmatic view that a referential approach should render problematic) within everyday life in order to support a Husserlian passage from possible to actual action, intended to reveal fundamental aspects of the relation meaning-action-space. I am referring to the condition of “space as information of possible actions” in the performative structuring of social life.

Enacting the cognitive appropriation of space

Tversky and Kahneman (1981) argue that the mind and built environment keep a complex relationship: decision making in spatial experience involves “heuristic knowledge” instead of “rational choice” based on perfect information and control of information. Individuals make decisions on the basis of previous knowledge, restricted information, and heuristic decisions in personalised processes anchored in the information retrieved from the environment. Smith and Lundberg (1984) suggest that decision-making within the teleological constitution of actions involves choice among alternatives and search in order to satisfy particular criteria. These two observations indeed fit Luhmann’s concepts of self-environment as meaning and communication frameworks, and selection as aspects of social structuration. The referential approach may therefore start to connect more clearly the referentiality and identity of meaning to space, thereby seen as a “meaningful, informational scenario of choices of actions and interactions.” Individuals are required to make continuous complex decisions in everyday life (another item usually absent in social theory, and highlighted in economic theory), although they have no complete information about all alternatives available in a lifeworld. Thus, a frequent problem in applying our knowledge to choice is the reduction of the probability of finding the best alternative (Krafta, Portugali and Lemos 1998). Of course, the heuristic knowledge of space is not a complete account of all alternatives of practices available in the spatial habitat or lifeworld, neither is it a form of perfect processing of that information. While being obviously an enabling factor, it is also a reduction of possibilities of knowing and doing. Analogously, I would suggest that the effect of the symbolic, practical and physical structure of space consists of a similar reduction of possibilities of knowing and doing. I will suggest that precisely such a property will prove fundamental if actions are to happen at all. Spatial experience implies an inevitably partial knowledge of a lifeworld to be evoked at the moment of practice as a reference system to our performance. That moment relates to what Schutz (1967) calls “plans of action” (intentions pre-defined by agents), and to unpredicted participation in events. The referential perspective is defined to reveal – more clearly and systematically than Schutz’s observations on the regionalisation of plans of action and the “horizon within one’s reach” – that the selection of events to join (pre-defined or not) is at the same time a selection of places to

converge and perform, of agencies and institutional sets to interact with.

The referential constitution of action through meaningful space means that agents are able to perceive, interpret and interact through information about actions produced and institutionalised in space *whenever* urbanised space is appropriated by them. Space is indeed an “extension of our memories” (Donald 1991). According to the perspective being outlined in this work, space therefore becomes a possibility of finding and realising activities: agents may heuristically build reliable information about social events (e.g. activities or particular places of interest). Such forms of spatial knowledge are, of course, constructed through practice (some would call “practical knowledge”). They are both heuristic and speculative knowledge of actual and possible places for acting. That is, they are part of the development of social skills, to be used creatively as a means of composing our practice and routine. We know that agencies may be “out there” in a city (or region), say when we walk the streets searching for a particular activity and we know exactly where to find (i.e. we use a heuristic knowledge of space), or that some area might offer that activity (i.e. using speculative knowledge that we form when we “learn” that activities are structured in space as location and street patterns). Or when one uses any place as context of one’s interpretations of the other’s utterances (cf. Rapoport 1982), or when one walks and an activity not included in one’s routine is “suggested” by a particular place. Even these unexpected events find a supporting structure in urbanised space. The construction of such forms of knowledge happens through localised experiences of social events situated in such spaces. It implies a form of experience that is a *spatially structured experience* (see Schutz and Luckmann 1973). These spatial experiences bring unconscious conceptions about forms of social operation, hardly accessible discursively but that back our practice, interpretations, and validity claims (Habermas 1984; Schutz and Luckmann 1973). Such spatial knowledge offers elements for the personal formation of pre-theoretical and theoretical forms of knowledge of what is sociality only partially transposable to discourse.

These initial referential conditions of *knowledge* and *appropriation* of space suggest that space may be a source of information about the lifeworld: habits and norms of conduct, forms of social relation, differentiation and power structured in space as ways of interacting and coordinating action (Schutz and Luckmann 1973; Habermas 1987a). Furthermore, the referential framework is geared to show rather explicitly that the spatial formation of social knowledge is fundamental to the actualisation of our actions; it is a fundamental part of our communications. The appropriation of space becomes a form of knowledge of society, of its workings, and a form of enacting that knowledge. It is the manifestation of a form of life. Urbanised space may be seen as a form of

experiencing and knowing acts that will be structured by the structuring of space itself. Space thereby cannot be a self-confined event. It is in fact the way that a lifeworld presents itself to itself, a statement of the possibility of practice within a lifeworld. Space informs the lifeworld about itself, describes the lifeworld to itself, so that the lifeworld may reproduce and change. *Space becomes, echoing Kracauer (1990), the Grund (grounds, form, explanation) of social reality.* The reference of meanings from action to space and back (heuristically and mnemonically constituted) becomes a cognitive and practical connection fundamental in everyday life.

All these reflections reassert the importance of information to social structuration, and space as information. Of course, such a connection places communication as a bodily-mediated process of information transmission – oral transmission between participants in a spatial event. It does not include different streams and media of communication – say, written texts and the mobility of information interactively exchanged in electronic flows and oral communication across distance (like the mass media, and wired and mobile communication), and the mediation of space in these communication streams between socialities. We shall still see below that *linguistic communication hardly could, by itself, ensure social reproduction;* of course Parsons and Luhmann understood this material problem and searched to identify other systems of societal integration: symbolically generalised media such as exchanges of objects, of money, and functionally differentiated subsystems of action and communication. Communicative relations to space are also certainly part of such recursive processes: meaningfully-mediated structures may take forms of social organisation and institutionalisation, and be part of the reproduction of functional subsystems. However, as I shall discuss in Chapter 7 “The Referential Approach to Society and Space,” the framework cannot explore such empirical formations at this point; it must first concentrate on explaining the crisscrossing of linguistic and bodily mediated interaction with space.

4. The spatial emergence of communication

Conscious systems and social systems... produce their basic elements, i.e. thoughts and communications, not as short-term states but as events that vanish as soon as they appear. (Luhmann 1990:9)

The referentiality between practice and space reveals referentiality as a momentary, localised process: it is the description of an evanescent and still socially and spatially definable moment – a temporalised cognitive and practical connection between the social and the spatial, between our

perception, doing and understanding and our situation in space (a particular space or locale). It evokes the production of communication as interaction – not merely a transmission of information (say via text or image) but actual reciprocal exchange. Although many may dismiss this as some kind of functionalist statement, the urbanisation and appropriation of space are based on a fundamental factual relation: *differentiated spaces are the loci of differentiated practices*, so that agents converge through space if their interactions and experiences are to happen at all. Such observations assert that we refer our practices (and ourselves) to space, being guided to a place by its meaning, and join a social situation by knowing it is (*possibly* or even *probably*) hold in a particular place or area, understanding its social content as a context of action. Here, one’s idea that a certain activity “probably” may be found in a certain area or street is precisely the key to understand the interpenetration and mutual structuration of practice and space. Certainly, and along with memory, it is the meaning in space what stops us roaming forever, what makes us come back to a same place twice, what makes us *know* of possibilities of practice and the existence of such practices. In doing so, we can anticipate possibilities of (finding) particular agencies, and of relating our actions to someone else’s in that or other place which might communicate with us, through words, objects or electronic flows; flows that connect us and that place to other places and socialites, mediated by *that* particular place. This connection constitutes, indeed asserts a way to address a previously underestimated, perhaps epistemologically invisible *reproductive level of the socio-spatial dialectic* – previously restricted to the sphere of production and reproduction of class relations or social solidarities. At this stage, one could paraphrase Habermas’ argument of the role of “mutual agreement” to the effect of clarifying one of the places of space in social reproduction.

Space links the action of different participants and thereby first combines individual acts into an interaction complex.⁵¹

Let me note that neither action nor space refer only to the teleological infrastructure of action addressed by Habermas. Habermas himself insists on the diversity and vitality of communicative action as the practice of a lifeworld. Nevertheless my version of his statement is intended to make explicit the idea that someone’s action is not something planned, structured or ordered – unless we consider fluid, free and unpredictable action following changes in one’s mind and desire. My version asserts that, however fluid and changing, action flows into other actions. Interactions imply intermeshing of their effects into complexes *beyond* one’s horizon in time-space, even considering

⁵¹ “[Acts of reaching understanding] link the teleologically structured plans of action of different participants and thereby first combine individual acts into an interaction complex” (Habermas, 1984:288).

that such complexes are in fact frequently discontinuous and effects unpredictable – say, when we gain access to a certain text or object produced by another agent, within another sociality, another place and time, by accessing a particular place in urbanised space. Effects of actions are always spatial events, even if de-materialised in themselves, for they demand some form of realisation through practical and semantic media; even across distance, for symbolically-mediated transactions may relate distant socialities whenever they appropriate spaces where those effects happen or emerge. It would be so independent of our conscious knowledge of space. We take this invisible role of space, ongoing only at the invisible level of meaning transactions within the flux of practice, for granted. Practices may require reference to spaces of practice whenever practice requires connection to practice. In other words, if vanishing structures of practice are experienced and constructed through the duality of meaning (eventfulness and referentiality), *practice will refer to meaningful (dual) space as way to refer to other practices* – or objects, texts, hypertexts and so on. Enacting *in* space means “enacting space.” Enaction produces meaning in space as an act of knowing the symbolic and practical possibilities opened by or contained in space – a cognitive and practical moment of production of a meaning which will be reappropriated in one’s performance, and indeed in the *sociation* of performances – in the interaction itself. Enacting our knowledge of space and the knowledge of events (and these go necessarily hand in hand), and enacting our *practices* self-referentially are two ways of telling the same story. On the one hand, the act of knowing and appropriating space produces both referentiality and identity of meaning in space. That is the case even if not during actual practice, even if only in a mentally anticipated practice, or in the imagination of enacting. On the other hand, knowing a social content in a particular locale is always an act of experiencing both identity and referentiality: it constitutes, in a mental space, mutual meanings in practice and in urban and architectural spaces. However, how do these cognitive connections to space relate to differentiated communicative networks?

4.1. Performing through referential space

Communication consists of a possibility of continuity and connectivity of practices. The referential view discloses space as part of the infra-structure of such continuity – as the connective context and condition for further communication: “Of course, all communication depends on its environment as a source of energy and information, and every communication indisputably refers via meaning references directly or indirectly to the system’s environment” (Luhmann 1995:144). Although Luhmann does not include space explicitly as part what he calls “environment,” the theoretical extension of the notion of environment to space (therefore the substantive inclusion of a *materialised* environment as part of communication) is – as we have seen – far from an implausible

idea. However, a socio-spatial theory which searches to bring light on the sociation of practice requires a broader, detailed description of bodily and linguistically mediated communication as a spatial phenomenon: how does communication emerge as what Luhmann calls “utterance, information and understanding” and constitutes networks of actions that will find institutionalised structures and recursive acts organised in groups and institutions? How does space mediate the referential connections that embed these cognitive and linguistic flows? How are these invisible, highly fluid and mobility entities (communication itself) spatialised through those relations between meanings constituting the information being communicated, and meanings produced in space? The referential approach shows that these distinct realms (the linguistic flux of communication, and its spatial settings), first, are meaningful *in themselves*. That is, as part of the communicability of practice, they *must* become meaningful in order to be interpreted, understood, performed, and themselves become the subject of communication. Second, the meanings cognitively latent or practically active in urban and architectural spaces of practice either *merge* into one another, or are produced together and *at the same time*. However, could space be actively part of the emergence of communication – the generation of the bodily, cognitive and linguistic conditions for communication come into being? Agencies frequently relate to agencies because their spaces are part of their knowledge of the lifeworld, appealing recursively to their practice, so that we relate to them participating and accessing certain spaces. I would like to lay emphasis on *the self-referentiality of meaning as a means to the convergence of flows of people, actions and information into space – although without any sense of order*. These flows imply the production and appropriation of space in the form of cities as media of interaction at the level of social integration (i.e. converging and diverging agencies in situations of co-presence), and as context and gates to other media of interaction, as social exchanges between cities and regions, in ever-broader and interrelating chains of socialised acts. Through the differentiation of practical and cognitive contents in space as “places of practice,” space becomes what Werlen (1993) calls a form of indexical reference to practice. The open, *material referentiality of communicative practice* connects spatially, both recursively and unpredictably, multiple fluxes of action and information within and between socialities. Indeed, the term “material referentiality” just proposed asserts the *hetero-referentiality of practice to space as a fundamental means to the self-referentiality of practice itself* as opposed to an *a priori* dematerialised self-referentiality of meanings or acts; as opposed to a dematerialised realm of practice where space means nothing and has no connectivity with our acts and communications. Here, the term “referentiality” reveals itself as more precise than “relatedness,” for it implies performing subjects actively constructing and actualising relations to meanings and meaningfully active spaces. Space will be part of the production and reproduction of

these real and virtual, latent and possible constellations of practice – constellations that, due to the material referentiality of practice as a way to self-referentiality, are “endless within themselves.” What is astonishing is the fact that the tremendous complexity of these networks tend to invariably converge to urbanised space; in fact, it is substantially produced through the production and appropriation of urban space. In this perspective, at the heart of social and material reality there are fluxes of meanings – filtered, structured by space; penetrated, referred to, infinitely self-referred through space; produced, converged and diverged through the very meanings and structures of human spatialities (Fig.6). Space will be a way to produce and address the variety and richness, organisation and constant change of social scenarios. Networks of action and communication begin to unfold their connections through *cognitive references* (at the moment of mentally anticipating the interaction with a particular agent and place), and will actualise them through *practical references* to spaces (at the moment of actually accessing these places in order to enact and join situations of communication). Space becomes a potential and actual, cognitive and communicative system of referential connections into a diversity of possible agencies and experiences.

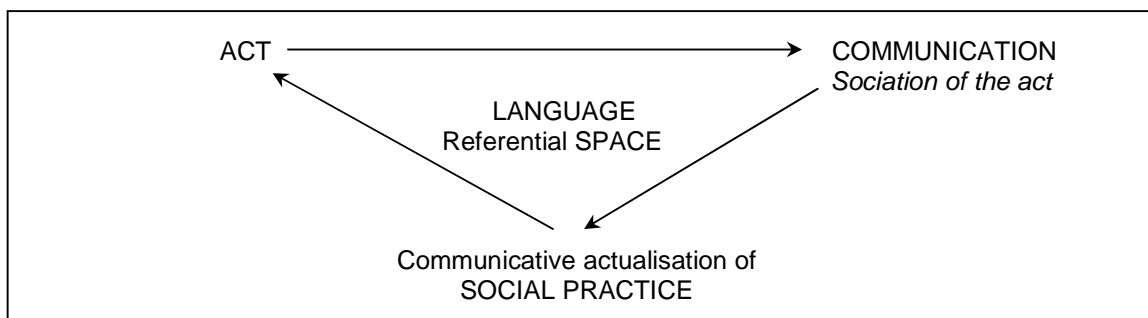


Figure 6: The referentiality of communication and space: our acts carry inherent references to the meanings and materialities of language and space in the unfolding of social practice as networks of communication.

But how could space reproduce the connectivity of meanings and practices? How could space materialise the referential condition of communication, thereby reassuring communication? That could only be the case if meaning would be actively part of the production of space in some sense. And more: that could only be the case *if meaning would be actively part of the structuration of space itself; if even the solid materiality of space would be produced and structured as a constellation of meanings*. The practical requirement of meanings in space to be readily accessible, so that we may know and access agencies and reach their material effects, would require the production of space in some form of semantic structuration. It follows that the rigidity of space would also have to be structured, as an expression of self-referentiality. We are now in a position to answer certain key questions: how could practice and meaning produce space in order to produce

and reproduce themselves? Are there practical requirements of referentiality placed over the materiality of space? How could we see meanings and changing fluxes of action, substantially invisible as they are, relate to, be inherent to, produce and change a visible, rigid structure such as the spaces of our socialised acts? Despite endless flows of self-referentiality between practice and space, there are “areas of materiality” that they seem to contain exclusively. The duality of meaning asserts constant co-existence *and* transposition of boundaries: it merges them but does not negate their identity to our senses and language. There are inherent qualities that ensure things identifiable sensually and semantically; that allow them different names. The unlikely possibility of a structural relation between an “immaterial practice” and a “material space” at the level of social production is the subject of Chapter 6.

Chapter 6

Space and the (Improbability of) Social Reproduction

Previous chapters have shown space as a physical, semantic and practical structure, a presentation of a lifeworld to itself, a constellation of possibilities of connecting acts into other social and material horizons, and a form of communication in its own right – dimensions actively produced through the referentiality of practice and space. However, if there is a “material referentiality” in ongoing performances or in the reproduction of practice, could it also exist in the production of space? In other words, could referentiality shape the rigid and durable form of space as part of the elusive connectivity of practice? The chapter addresses the improbability of a role for space in social reproduction through a second improbability, and a key problem in socio-spatial studies: *an inherent relation between realms of completely distinct materialities* – now at the level of production of acts, things, and spaces. Through critiques of concepts of economic and cognitive action, the chapter proposes a way out of these antinomies – to be sure a quite distinct solution from those found in geographical approaches: the idea of a structuration of space in the form of urbanised space, and the possibility of flexible and multiple relations in the referential production of sociality and spatiality.

Introduction

All structures of social systems have to be based on this fundamental fact of vanishing events, disappearing gestures or words that are dying away. Memory, and then writing, have their function in preserving – not the events, but their structure-generating power.

Niklas Luhmann, *Essays on Self-Reference*, 1990:9

The possibility of a role for space in the sociation of practice seems connected to one of the most relevant subjects in social theory: the “elusiveness of the social world” – i.e. the fact that a substantial part of the world we perform and experience seems to constantly vanish away; like “gestures or words,” the social world as it appears to us comes into being and disappears all the time. Appropriately, *communication* – which has been seen in theory as a means to the continuity of practice and its social effects, or as a major element of social reproduction (see Luhmann 1990; 1995; 2002) – seems deeply constitutive of such elusiveness. Given the material condition of gestures and words in human interaction, and given the apparent fragility of such an essential condition of the social, one may pose a question: *how could a substantially elusive social world actualise itself – and recursively do so, in a way that it may exist, and continue?* Certainly such a question evokes the improbability of social reproduction.

It will be argued below that the answer to this central sociological dilemma highlighted by Luhmann *cannot afford to ignore the spatialities of practice*. I shall argue that the urban and architectural spaces of our practices – similarly to “memory” and “writing” in Luhmann’s observations – are deeply intrinsic to the way social systems deal with such an apparent improbability. Chapter 6 will propose that space is referentially produced as an active form of “material counterpart;” a durable, relatively stable and accessible system of information, connection and communication able to counterbalance the remarkable elusiveness of communication systems such as oral language, and the contingency of one’s contact with informational devices such as written texts. However, is there a need for any form of material stability in the reproduction of social systems, so that – once more using Luhmann’s words – the “structure-generating power” of events may be preserved?

Interestingly, the study of society-space relations is based on similar questions: “what is the place of space in the reproduction of socialities?” “Is there any intrinsic relation between the social and the spatial?” These questions allow a more fundamental one – a counterfactual question on the deepest ontological condition of the relation between the “social” and the “spatial:” how could something substantially vanishing and fluid (the practices that produce and reproduce the social) relate to something apparently durable and rigid (the spaces of practices)? How could the relation of something elusive to something durable be intrinsic, i.e. how could the elusive and the rigid entail one another? If space matters at all in social reproduction, surely this problem may be regarded as a *second improbability of social reproduction: the relationship between different material realms* of the social world, like the materiality constitutive to social action as fluid event-in-the-world (such as bodily gestures and speech), and those materialities constitutive to the physical contexts of our actions (the places and spatialities which actions are connected to). It means a relation between what seems mostly invisible to what is visible and tangible in the world we produce and experience; between something that vanishes in time-space to something that is itself constituted of space.

Chapter 6 will propose that these two conditions – the improbability of a substantially elusive social world reproducing itself, and the improbability of a relationship between completely different ontological realms – are in fact deeply connected. On the one hand, *the rigidity and durability of real spaces produced and appropriated by practice appears as an interesting potential counterpart – at least hypothetically – to the condition of the elusiveness of the social world, of practice itself*. On the other hand, the improbability of reproduction of an elusive social world seems to lie behind

the question of a society-space relation as a secret motif (almost a suspicion), an impression (or a desire) of a significant role for the underestimated spaces of cities and architecture in social reproduction. In other words, whether one enters the subject from the viewpoint of the society-space relation or from the viewpoint of the improbability of social reproduction, these two fundamental questions become strongly connected: they seem to lead into each other as a part of their own individual solution. On logical grounds, a referential approach means that *the enquiry into space has the potential to solve the ontological paradox of “the continuity of an elusive social world.”* It aims at the assertion of an intrinsic relation between space and communication, placing space as a key aspect – like memory and writing observed by Luhmann – of the “structuring-generating power of events;” a condition of social reproduction.

Such referential speculations contain an idea of urbanisation of space as a means to produce, connect and disconnect practices – a realm of possibilities of acting, of agencies to interact with or hide from; a spatial field of contingently knowable practices turned into a means to relate, to different degrees, different performances. This chapter shall evoke the idea of a space produced as a way to “project in the world” different possibilities of practice – to be sure, in the form of cities and experiences *within* cities. It develops the referential quest into a *highly improbable role for space: that of being actively part of the courses of our practices* in the realm of production – and, if that was ever possible, into a last improbability: the “mutual structuration” of completely different ontological realms. Considering the elusive nature of human action, Chapter 6 will propose a key potential role of space: that of *reducing the improbability of social reproduction*.

1. Space and the articulation of action

...there remains a need for explanations of the internal configurations of cities.
(Goffette-Nagot 2000)

One of the key questions in the study of socio-spatial processes is “how practice produces space.” In turn, that question leads into a second key question – in fact, into its reverse: “how space is part of social production.” The chapter revisits that problematic. It inquires into the improbable relation between materiality and immateriality in the production of practice, and does so asserting that, at the social level of practice, the only way would be through meanings referentially shared in our practices and space, and through the semantic, practical and physical structuring of space *beyond* structurations called in economic geography “agglomeration,” and perhaps closer to the structures

seen in a number of recent theories – even in the human geography of Soja (2000) and his intuitive descriptions of “nodal and axial distributions” in urban spaces. The chapter shall search, through the reinterpretation of empirical studies in spatial economics, urban geography and architectural theory, to expand these considerations into what we may term *the dialectic production of social action and space*. That would be a form of dialectic relation different from the production and class relations seen by Marxist theorists: one produced and reproduced via practice and the meaningful referentiality of practice and architectural and urban space. I shall argue from now on that a way into the answer to the question above (“how practice produces space”) and its reverse (“how the spatialities of cities relate to social production”) lies in fact in a *third question* – “one of the classical questions of all human geographical inquiry:”

What makes things (people, activities, the built environment) cluster together in distinct nodes or agglomerations and what are the consequence of this clustering? (Soja 2000:177)

What makes people cluster together is a problem addressed mainly by economic geography. It is frequently answered, we shall see below, through concepts such as “agglomeration economies,” roughly the advantages of being close to other economic agents. My intention is to take this problem *beyond both notions of economic action and spatial agglomeration* – perhaps like Soja intended to do through notions like “synekism” and “spatial nodalities and axialities.” The former means the stimulus of spatial agglomeration, a plea for a broader social and historical interpretation of the reason for cities; the latter a brief, intuitive assertion about the still poorly explained internal geographies of cities, observed by Goffette-Nagot (2000) among others. However, I shall seek such expansions through a different epistemology, a perspective systematically little explored in socio-spatial studies: that of the importance of space in the meaningfully-mediated constitution of social practice – or, why our practices (or the communicative production of relations between our practices) imply the production of urbanised space. The relational aspect is in fact quite important. It means the interactive character of our actions as meaningful exchanges, i.e. the communicative and informational condition of our practices fundamental in social reproduction (see Habermas 1984; Honneth 1987), a problem particularly acute when it regards the spatiality of practice. Nevertheless the informational and communicative constitution of the fabric of social life goes frequently ignored as a spatial problem.

I shall attempt to draw a *relation between our social practices, the production of space and the internal geography of cities* through the concepts of action and communication, structure and

referentiality, able to address more emphatically the poorly explored dimension of meaningfully mediated interactions that make up the spatial fabric of social life. Let me start exploring such a spatial dimension through a critique of Soja's notion of *synekism*.

1.1. "Synekism:" The stimulus to practice?

Soja's "stimulus of (regional) urban agglomeration" claims in a typical grand style that all propulsive forces of economic development throughout history emerge from the particular socio-spatial milieu of cities. Synekism means "the spatial specificity of urbanism, the creative and innovative forces that arise from the formation of densely interactive and interdependent agglomerations of people, their activities, and their built environments" (Soja 2001). Or in other words:

it resembles what economic geographers have called *agglomeration economies*, the economic advantages...that derive from the dense clustering of people and the sites of production, consumption, administration, culture, and related activities in nodal concentrations... Synekistic agglomeration is a behavioral and transactional as well as political and economic concept that activates, makes into a social and historical force, the spatial specificity of urbanism. It is not the only such force arising from the specific geography of cities, but it is crucial in explaining why cityspace and the spatialized culture and political economy of *city-regions* play a powerful and enduring role in human historical and societal development, albeit a role that has been infrequently recognized and rarely theorized explicitly. (Soja 2000:13)

The relevance of Soja's interest in the "social-spatial historical processes that shape our lives" and emanate from cities hardly can be overestimated. It once more asserts a dialectic relation between human activity and space; it affirms the place of space at the very heart of the historical forces of social production and change: "there was a vital and often problematic *socio-spatial dialectic* to the historical development of human societies and modes of production... every mode of production beyond the most primitive forms of hunting and gathering deserves to be described as intrinsically *urban and city-centric* in its origins and development" (Soja 200:69). However, Soja's famous reassertions still seem to operate in a sphere of high abstraction. They barely touch the question of *how* such dialectics happen as actual practices of individuals involved in social reproduction. Whenever Soja tries to explain what such a dialectic process implies at the level of practice and as *specifically urban* spatialities, he falls back into Marxist or other forms of generalisations. For instance, he affirms that production and class relations have begun in and from *urban* social

divisions of labour. Elsewhere he adopts a Giddensian observation, another of “the most important roots of synekism:” co-presence (p.96), what he hardly discusses longer than a few lines. Soja best describes synekism with the help of Michael Storper’s (1997) and Jane Jacobs’ (1969) interesting ideas on regions as relational assets and communicative frameworks backed by conventions (the former), and the city as “the spark of economic life” (the latter). But Soja goes farther than Storper or Jacobs in a key sense: the almost intuitive observation of a *nodal and axial structure* within cities. Such spatial distributions, according to Soja, would connect the city synergistically to the region, as “nodes” and “axes” within “cityspace.” Then again, soon after a promising speculation, Soja contradictorily affirms that the study of spatial structures

will not play a major role in the attempt to make practical and theoretical sense of the spatial specificity of urbanism and the emergence of the postmetropolis...they too often distract attention from an explicit exploration of the dynamics of synekism and the larger project of demonstrating how the spatiality of social life acts as a motive force in geohistory. (p.17)

After flirting with the importance of synekistic structurations within the geography of cities, from axialities and nodalities to regional geographies and back, did Soja refrain himself perhaps for fears of getting close to positivist geographies of physical space? Perhaps differently from what Soja believes, could the physical structuring of the city consist of a way into the generation of forces of social activity and human interaction? Would the physical and the socio-historical aspects be in fact connected and mutually produced – and caught in a reproductive circle fundamental to urban societies? However reasserting the socio-spatial dialectic, and touching the possibility of intra-urban formations, Soja once more does not penetrate the *dialectics of how practice generates urban structures, and urban structures are part of practice*. The concept of Synekism, however insightfully bringing driving social forces closer to space and placing the production of space at the heart of social production, seems to fall short as an explanation. I shall revisit this problem in two stages: first I shall attempt to overcome certain limitations of Soja’s approach on the social condition of practice; second, I will take the idea of nodal and axial spatial distributions seriously – although certainly neither adopting Soja’s theory nor his term as another “Sojaism.” My intention is to use his concern with the productive relation between the production of action and space only as a starting point to develop the referential framework into a *reinterpretation of the place of cities in social reproduction*.

A mutual structuration

As far as urban geographies may have a social condition, what approaches could help us understand it? Most economic approaches – unlike Storper’s and Jacobs’ – seem to lack a broad interpretation of what the external economies generated by space consist of as actual conditions of social reproduction (see Gravonetter and Swedberg 1992). They lack the interpretation of economic dynamics as social processes, and the role of the economy to “put social systems together.” I have suggested to draw upon broader notions of practice found in social theory, and integrate them with deeper and more precise accounts of spatiality than those ideas found in economic geography. The inseparable relation between practice and urban space will prove to be in fact an inherent, referential relation between phenomena that present themselves through different materialities. Such socio-spatial dialectic cannot be contained in a Marxist dimension of production. It happens also at the level of meaningfully-mediated forms of social reproduction. But that could only be possible through meanings shared by practice and space. However, how is space produced to become part of connections of practice mediated by the duality of meaning? Would social structures, in order to emerge and fade away again and again as communicative accomplishments, involve any *particular geographical condition* beyond meaningful space? Would they involve the production of spatial agglomerations in the form of cities and their internal distributions? Economic geography and Soja’s post-modern geography alike interpret the importance of spatial agglomeration as the need of spatial proximity for actions to be related, and their consequences be part of the creative feedback of action over action (including non-intended consequences usually seen as *spill-over*, *externalities*, and *agglomerative advantages* – see Marshall 1920; Scott 1988, 1998; Krugman 1991). The emergence of social action is spatially explained through “agglomeration.” The communicative and practical requirements of connections between actions are seen spatially as “distance” and “proximity.” Economic geography mostly accounts that economic action implies spatial agglomeration if it is to happen – in descriptions of densities of spatially interrelated activities, a blurred urban geography with little internal differentiation. It seldom penetrates the symbolic, practical and physical structures urban space takes if it is to satisfy the practical requirements of our daily interactions and transactions. There seems to be a need felt by Goffette-Nagot (2000) and others: to penetrate the space within cities.⁵²

Beyond the *semantic* aspect of social space, we are led to account for its *materiality* – what gives space its identity and quality as a thing to our senses, thoughts and social existence. I will argue that the production of action will reach deeply into the physical production of *structures* in urban space

⁵² See Fujita and Thisse (2000:9).

(and as we have seen, we must distinguish “structure” from “order” and incorporate “play,” “contingency” and the unstructured into the concept of structure) – including those “nodal and axial distributions” within cities.

Also likely to be there patterning land use, modifying concentricity and the tentlike density distribution [in city space], are ‘preferred’ axes, usually major transit arteries that typically cross in the city center, another reflection of the centripetal power of nodality...that makes cityspace far from randomly or uniformly organized. (Soja 2000:17)

The resultant tentlike structure of cityspace densities is often associated...with land values and other measures of attraction and comparative locational advantage based on accessibility, density of activity, and potential for stimulating further urban development... If proximity breeds advantage, then the spatial specificity of urbanism generates a field of real and imagined competition for advantageous access that makes cityspace far from randomly or uniformly organized. (p.16)

However, Soja’s view of spatial structures is not usually brought to the forefront in urban economics or urban geography, let alone in works in human geography. Mills’ urbanisation of Von Thünen’s regional theory meant that the concept of distance became strongly influential in understanding activity location. The positioning of activities matters to their relationship to a point where space becomes an issue of efficiency and conflict (see Harvey 1973). Social agencies struggle to find less problematic forms of creating and appropriating the city in order to ease their possibilities of structuring interactions. In this sense Von Thünen/Mills models have the property of giving an initial statement of how differences in types of economic relations involve *space as location*, and thus to start to enquire *how spatial structures might reproduce economic relations*. The absolute properties of physical space define patterns of land use that reflect certain relations between different activities – say proximity between services, commercial activities, residence and work. That used to be the place of space in micro-economic relations. But strangely, most urban economics has been focusing on relatively imprecise definitions of CDBs, on industrial, retail and residential location, and on issues of poly-centrality or gentrification. Such activities are not seen interrelated or interdependent in land use models, as forward/backward linkages in production. In fact these models do not see a real economic system active in space (Krugman 1995). The predominance of the Von Thünen model in urban economics seems to be overshadowing the relation between diverse economic agents (say the inter-firm relations of input-output) manifested *also* at the intra-urban level. The fundamental problem is the *scarce descriptions of spatial and socio-functional differentiation of cities* according to potentially complementary (or competitive)

relations between economic actions. Goffete-Nagot (2000:319) affirms that with clarity.

An internal urban configuration depends on firms' and households' interactions in the city and can change following changes in urban size and the evolution of agglomeration economies. At the same time, because of its durability, the urban configuration will largely determine future transport costs, land rents, congestion, and finally the rise of agglomeration economics.

Counterfactual questions about spatial conditions and configurations that could minimise transaction costs while maximising externalities in economics seem constrained to the optimal size of cities and distribution in a region. Missing is a spatial characterisation of the *physical linkages* between firms, firms-workers, firms-consumers, and workers' residences and consumption places, and so on; that is, the *spatial articulations* of the economic space of differentiated activities and locations that make possible highly complex and changing economic interactions.

Now let me address the problem of scarce descriptions of the internal geography of cities – i.e. beyond polycentralities, rings of locational patterns and segregated areas – from the viewpoint of the *logic* of agglomeration economies. Economic approaches show that cities are produced because of agglomerative requirements in production input-output relations, labour and consumer markets. These aspects altogether reveal how economic action implies urban space, and how urban space constitutes micro-economic relations. *They provide strong evidence that there is a relation between a particular realm of social action (the realm of work and production) and spatial structures.* Economists are often able to appreciate cities as crucial elements in economic externalities and increasing returns to scale, as much as they see these as the reasons for cities. But if it is so, i.e. if a city is already a solution more appropriate for economic action than, say, the complete dispersal of economic units (production and households) over a landscape, then one can logically extend that argument *to the internal structure of the city.* In other words, the referential framework allows one to affirm an *internal structuring of cities in the form of different spatial densities arranged in marked nodalities and axialities may extend locational effects, and do so beyond the realm of economic actions.* As we shall see below, it may stimulate the relationality of all kinds of action, as space (and not time) has the potential to do. Apparently, economic geography has been mostly blind to the internal configurations within and between cities *beyond* nodal centralities. Thereby, it has been blind to the deep referential intricacies of action and space. The persistent absence of such explanations in economic geography suggests we might be advised to look elsewhere in the first instance for accounts of the internal geography of cities.

1.2. A critique of physical approaches to urban structuration

A spatial perspective on the improbability of social reproduction should make it possible to ask whether a material referentiality of action and practice powerful enough to structure semantically urban space could also shape its very physicality as a means to referentiality. The search for such a social role of spatial structurations finds support in theories usually ignored in human geography. I shall briefly bring some key findings of these theories, and discuss them as a way to support my own sociological extensions and the expansion from the narrow concepts of action (and eventually, the narrow concepts of “space”) in these theories. These findings are strongly based on empirical research. The reinterpretation of these findings will prove fundamental to support the proposition of the *referential production of space*. Finally, I will suggest that such inherent relations found in the very physical dimension of social space will not imply the demise of the variety and contingency of human action: it will only reveal the condition for variety and contingency to come into play.

Structuration in geographies of physical space

An active research area has taken the identification of structures in the city as its main subject – and has shared difficulties regarding connections to the social, and the role of spatial structuration in human practice. I refer now to urban geographies of physical space. I cannot cover such an extensive literature here; I shall briefly define the kind of description developed in this remarkably positivistic field. Studies in physical urban geography clearly take the existence of structures in urban space as visible facts or assumptions and search to identify the forms these structures take. They identify apparent temporal and spatial patterning processes through theoretical, mathematical and computational simulations. An example here is the description of the “dendritic growth” of cities – deformed fractal, tree-like formations from the inner city into the surrounding region (see Batty et al 1989, 1991, 2003; Andersson et al 2001 – Fig.7). Of course such analyses find no actual social and economic processes active as driving forces for such spatialities – and thereby have no intrinsic relation to practice. These theories clearly tend to bypass socialities and complexes of action that produce and embed these (human) geographies. They rather consist of geometrical studies of structuration which strongly tend to reify physical space. Nevertheless, in their straightforward view of space as a durable phenomenon, they have been able to address the possibility of actual spatial formations – including formations that elude any visible resulting structure. Despite their extraordinary inability to connect such formations to social practice, they still bring interesting observations which may give hints into the actual existence of spatial structures (along with the unstructured spaces yet to be penetrated theoretically) reasserting the relevance of researching the role of these apparent formations. These studies have inhabited the

theoretical void left by current approaches in human geography – indeed tailored to bring the social as the counterpart of any spatial formation – and its difficulty in dealing with the existence of structures.⁵³ Such difficulty has rendered the social implications of urban spatial formations barely accounted for.

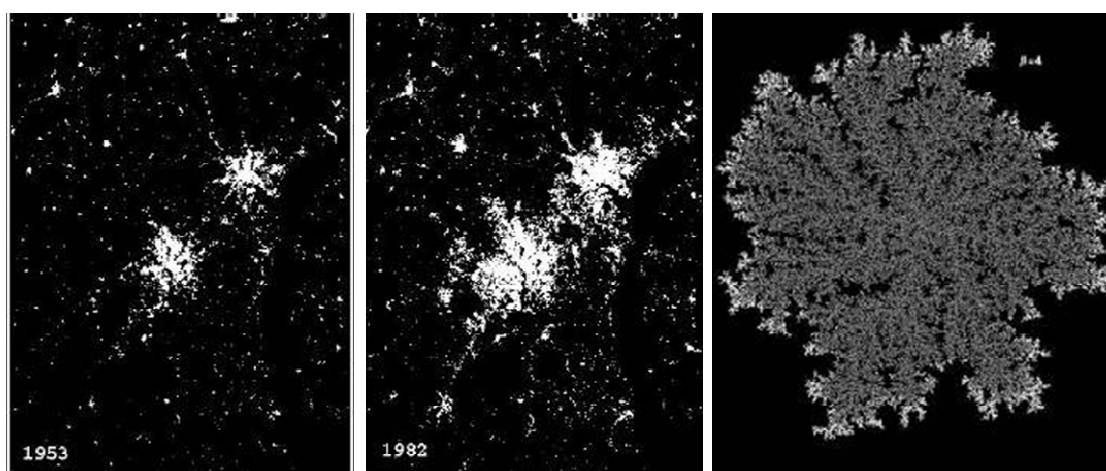


Figure 7: The growth of cities: Baltimore and Washington in 1953 and 1982, and a simulation of urban growth and structuration as dendritic systems (Source: Andersson et al 2001)

Strong limitations of physical studies of urbanised spatial structures regarding the spatial contextualisation of social environments are (partially at least) overcome by another theory. One may, surprisingly, relate Soja's interesting observation of concentric and axial urban distributions to the underlying physical structures of space objectified by Hillier's approach.

1.3. Spatial cores, or axial formations within cities

I would like to point out a particular similarity on the observation of certain structural formations in space, despite great epistemological differences between Soja and Hillier, nevertheless affirmed by Soja (2001) himself. Soja is cautious about physical space and risks of its reification and disconnection from social processes. On the other hand, synekism is still a concept heavily based on the observation of material specificities of urbanised space, openly drawn upon economic geography (even though being Storper's and Jacob's enlightened versions; perhaps this is the reason why Soja saves these authors from radical critique). Hillier's theory, as we have seen, is overtly centred on the physicality of space – but does not do so forgetting its social dimension as Soja

⁵³ See the recent call for a "rematerialised cultural geography" in Philo (2000), Jackson (2000), Lees (2002), and Latham and McCormack (2004) among others.

thinks. In fact it identifies *the social embodied in physical space*. After all, if economic geography has been able to find structures in urbanised space (location and density patterns, multiple concentric distributions) in profound relation to a particular realm of action (economic action), so does Hillier's theory. Of course there are enormous differences between these concepts of action and space. Hillier identifies certain conditions of social action (co-presence, movement, social interfaces) mediated by the production of space – a space of topological relations of spaces within and between volumes and surfaces of urban and architectural spaces. Given his concept of space as voids, these spaces of occupation and movement find axial and convex morphologies of streets and public spaces.

Hillier (2001) has searched to demonstrate the existence of non-dendritic structures (that is, systems of streets arranged in rings around blocks rather than tree-like structures found in physical geography) in an account of structural invariants and differences between cities – namely American (12), European (15), British (13) and Arabian cities (18). Beyond his initial Durkheimian view, he connects spatial properties to social processes reinterpreting “organic solidarity” as a generalised realm of “micro-economy” that cuts across different urban cultures and is found in any city. Micro-economic forces are present in virtually all urban societies – a universal feature cutting across cultural differences, “shaping the emerging global structure of settlements in a more or less invariable way” (Hillier 2001). They would work in the production of the whole city structure due to the ways such social forces use spatial properties to shape their spaces in order to generate great levels of potential movement and exchange – through spaces greatly accessible for a number of exchanging socialities. The economic structuring force as activities of material reproduction (capitalistic or not), manifest themselves as the “spatial cores” that articulate areas within the city, approximate agents and ease their economic interactions. This insight is thoroughly analogous (although it relates to a different aspect of space) to the agglomeration and locational interrelations identified in economic geography. One may even say that it is in fact a topological extension of it, allowing one to see linear distributions rendered invisible to the absolute space approach typical of spatial economics.

A second structuring force manifests itself as spatial idiosyncrasies that different cultures produce. Hillier also reinterprets “mechanical solidarity” as an idiosyncratic realm of “spatial culture” and different spatial identities: “although the creation of the space of the city is driven by socioeconomic processes it is not shaped exclusively by them.” “Culture” is variable and puts its imprint on the local texturing of space, generating interstitial differences. It works locally, due to

the ways local cultural forces appropriate spatial properties to shape their spaces in order to generate or restrain potential movement ranging from controlled to open interactions – a natural control reproduced as distributed morphological accessibilities into differentiated spaces, including those spaces where particular socialities and experiences may come into being. Emerging from the dialectical tension between forces of a generalised logic of economic life and traditional forms of life,⁵⁴ would be the tremendous complexity and variety of urban and life forms – as spatial properties shaping the basic generative process of the city – a *dual* process of spatial structuration.

Space also being *physical* space, differences between spatial structures are founded in geometrical differences: lines of different lengths with different angles and kinds of intersection. There are geometrical variations even in seemingly well-defined spatial structures found in different cultures. Modern American cities seem to have longer, more connected and integrated streets: a number of long lines approximating the radius of the system, found in most of its parts (e.g. Atlanta) and marked by right angle incidences. European and British cities tend to have their longest lines shorter than their radius (tending sometimes to be radial, like Athens and London), and peripheral to discrete local groups of streets, with less strong right angle discipline (increasing in the case of British cities). Arabian cities tend to have longest lines as only a fraction of the radius of the system, which tend to be found towards the periphery of the system intersecting with greater angular change and variation than the previous groups (Hillier 2001 – Fig.8). Despite such differences, there is still *a tendency observed*: a small number of streets are longer than most others, cutting across and connecting a great number of smaller streets – and this is found at all scales. Hillier has found consistencies in the statistical distribution of lengths of streets (a logarithmic distribution) in the formation of an urban core, i.e. the physical structures of cities as they find the building-block-grid basic configuration – essentially shaped by the grid itself:

- i. a small number of long streets (from 2% to 5% of the whole number of streets in a city) and a large number of short streets, becoming more the case when cities grow (the definition of longest or shortest streets accords the division of the range of line length into ten: most cities have around 2 to 5% of streets in the decile of the longest lines; and around 90% in the shortest);
- ii. as cities grow, “the proportion of lines which are long relative to the mean for the settlement becomes smaller but the lines themselves get longer. This seems to be invariant across all cultures in spite of the

⁵⁴ Interestingly, Max Weber’s sociological approach addressed this tension and defined it as a tension between realms of economic, formal and purposive rationality, and substantive, traditional actions.

strong geometric differences we have noted” (Hillier 2001:02.7) – i.e. cities grow as their spatial core of accessibility spreads into its geographical surroundings.

These distinct morphologies of appropriation and movement produce spatial cores and interstices which become more apparent as cities grow – i.e. systems of longer and highly accessible streets, and shorter and fragmented streets emerging between and within urbanised areas. “What is the role of this small core of long streets” and the marked tendency for longest streets to be centre-to-edge lines “starting at some distance from the original centre?” How and why do they seem to appear in virtually all cities? One may certainly say that the core of accessibility (i.e. the infra-structural network of public spaces in a city) consists of the spaces where social categories are put together and mingled; spaces of intense social and economic exchange, fundamental to a form of social organisation based on intense exchange. Such structures of space would have practical and cognitive properties and effects: they reproduce the “movement economy” (i.e. movement is analogous to an economy – with multiplier effects etc. – in which the raw material of exchange is movement) in people’s appropriation of space; they bring intelligibility to space (Hillier 1996), and synchronise the diachronically developed cognition of different agents.

These properties are based on human vision and physical space: the extension of the field of visibility within cities, increased by longer streets, permits one to see more and thus understand and interact more extensively with the spatiality of the city (Hillier 2003). The relation between practical and cognitive also becomes explicit: movement and intelligibility are based on properties of physical space, and on our cognitive relation to them. That is, the emergence of physical spatial patterns in cities would not just reflect social forces but also a cognitive property, and this would happen first because the structuration of physical space would relate to geometrical properties (i.e. the way configuration emerges from the placing of physical objects such as buildings and blocks producing paths and cores of accessibility and movement); and, second, because agencies would acquire knowledge of these properties by acting in the world, by appropriating space in their routines – just as we acquire a felt knowledge of the laws of physics by throwing things so that their parabolas lead them to land in waste baskets.⁵⁵ Hillier’s theory shows that practical accessibility to activity places is also an emergent property of urban structures. That is, if there exists such a thing as “accessibility” or “structures of accessibility” in cities (say streets connecting activity places), then the properties of these structures are part of the production of the city itself. If they matter in such a process, they cannot simply appear: they must be endogenous to it.

⁵⁵ Some of these observations were drawn upon personal communication with Hillier. The usual disclaimers apply.

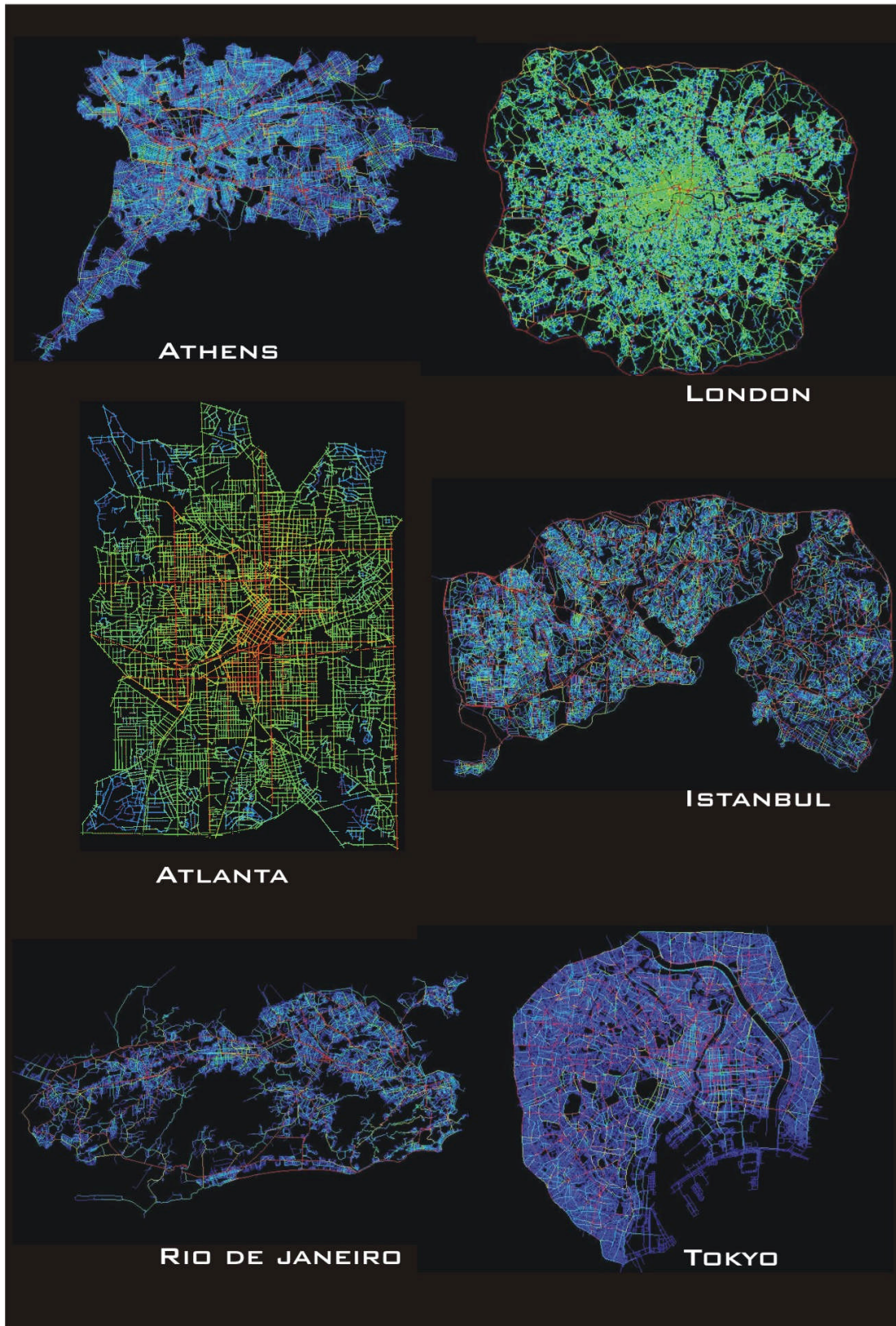


Figure 8: Spatial cores (in red) mapped through space syntax methods: the presence of these cores in cities analysed throughout the world, despite their enormous differences, may be reinterpreted as *visible traces of referentiality* at the moment of production of social practice and space. (Source: Space Syntax Lab)

Although one may certainly claim that the understanding of urban processes must include explicitly the semantic and communicative dimensions of practice and space (certainly missing in Hillier's theory), the spatiality of movement and accessibility brought to light by it still goes largely unseen in economic and physical geographies – let alone in human geography. But all this is of course a matter of debate. There are other studies of the production and change of cities, nevertheless tending to limited conceptions of practice and space. I cannot explore them here. Nevertheless, the specific spatial structures produced through some form of (intended or unintended) collective synchronisation of acts of production of space that come before, along and after those reproductive acts of daily life seem yet to be fully explained by theories of space. Clearly, there is the difficulty in imagining how social actions generate simultaneously structured and unstructured urban spaces. *But if these formations exist* (as theorists as distinct as Soja, Batty and Hillier make us think), *they also seem carry in themselves a potential effect over the relationality of our practices.* Let me discuss more carefully this effect and properties of urban space absent or latent in the approaches mentioned above, and finally intertwine them with social action.

2. The improbable relation of materiality to immateriality

Like all big cities it was made up of irregularity, change, forward spurts, failures to keep step, collisions of objects and interests, punctuated by unfathomable silences; made up of pathways and untrodden ways, of one great rhythmic beat as well as the chronic discord and mutual displacement of all its contending rhythms. All in all, it was like a boiling bubble inside a pot made of the durable stuff of building laws, regulations and historical traditions. (Musil in Latham and McCormack 2004:701)

I wish to rethink from now on the spatialities of urban cores and interstices as *visible traces left by the differentiated referentialities of practice and space* – from overtly public communicative practices in main streets and other public spaces to those hidden spaces of aesthetic and bodily practices and interactions of particular social groups. The present framework shall suggest that the common element between such diverse spatialities (and practices) are related to what economic approaches and Soja's human geography define as "centripetal-centrifugal forces," i.e. mobilities of people, information and objects within and between urban spaces. Social mobilities based on physical interaction clearly require a form of physical connection and communication. The referential perspective suggests that the form which such connections take is the urbanisation (or the structuration and "unstructuration") of space. It asserts that the role of space in interaction at the

level of the habitat (with implications to other localised social systems) can hardly be overestimated. A way to develop this argument is bringing again one of the major insights of economic geography on space as an important aspect to consider in a theory of communicative practice and space: *the extension of the economic logic of proximity between (potential and actual) interacting agents*. I wish to do so arguing that urban space plays a key role in social reproduction *beyond* economic action. Seeing communicative action beyond the economic realm will allow the framework to suggest that *urbanised spaces plays a role in rendering communication and interaction within a city more probable, fluid, and contingent* at once – say as spatialities of proximity (and distance) between agencies, reducing (or increasing) the friction of distance, increasing (or controlling) co-presence, exchanges and interaction, as synekistic forces to stimulate or control the probability of bodily-mediated interaction.

Considering the condition of space itself as physical thing (for space is, among other things, a physical thing) and its intrinsic relation to practice, this means that *the urban structuring of space in the form of centralities and axial distributions within the city tends to have the effect of increasing the potential of interacting between different agencies specifically at the urban core – while minimising internal distances between them*.⁵⁶ In other words, and if spatial proximity actualised in the form of the core of main streets and architectural nodal and axial densities within the city have anything to do with the density of encounters and potential interaction, one may certainly say that these spatialities have the effect of stimulating mobilities and random social contact, otherwise reduced or controlled in less accessible spaces. A step further, the cognitive and practical qualities of structured and unstructured spaces seem to relate to the condition of an “unproblematic interconnection of actions” seen by Luhmann as a fundamental aspect of social reproduction. That is, if space actually implies a physical dimension (and we should not fear the fact that space is also physical), the spatial structures and non-structures of body mobility and communication between agents and activities might matter for social production, structuration and reproduction. Here we have a possibility of an alternative theory of the social reason of cities as material production in changing social systems, *a theory able to address the possibility of vanishing action structures becoming structured (and unstructured) through the production of a complex material structure*. I shall take this controversial possibility and discuss it more carefully below, in the section 3.1. “Reinterpretations of the city in social reproduction: the Referential City”.

⁵⁶ Of course the core of this idea is anything but new. See works as diverse as Isard (1956), Morrill (1970) and Hillier (2001).

Now, once the hypothesis of differentiated effects of differentiated spatialities over the bodily dimension of communicative practice is objectified and provisionally defended on logical grounds, we may return to the main question of this chapter: how could practice, or better, the volatile systems of practice emerge through, from spatial structurations defined (and how else could they be defined) by their very rigidity? What could the relation between social structures and spatial structures be like? If the unproblematic structuration of action depends on the structuration of space, how could action relate to, become more fluid or be even suggested by space? I suggest that, however referentially related also at the level of production (and that is still to be explained below), we are still talking about things that cover partially different ontological regions, a relation between entities of at least partially different materialities. *The ideal relation between what is “structured” and what is “fluid” becomes a dilemma (unseen in current ontologies) when one of these things is defined by its rigidity, its resistance to change – when it is not only symbolic or linguistic, but also physical.*

Let me suggest that these questions refer primarily to *time*, and how flexible is the relationship between unstable structures of action and relatively stable structures of space. That is, however referentially intertwined are space and practice at the level of social reproduction (through the duality of meaning), one is able to identify different materialities and temporalities involved in their production and duration. Action structures are re/created constantly, whereas the physical dimension of space requires a much longer time of creation, destruction and recreation, and may have long permanence. So how do fast-changing structures of action relate to slow-changing structures of space? Does that difference imply that action could turn space obsolete or too rigid for its ever-changing nature?

2.1. Time and change in different material realms

The framework proposed here implies that *a mutual structuration of action and space could not imply a specific relation*, say a specific spatial configuration produced to attend a certain set of agencies, interactions, or a pattern of actions. For that would imply that a spatial structure (a city) brings a constant set of social relationships. Space would “freeze” human action; it would be a constraint over our choices in a few forms of doing things and interacting with limited, pre-defined agencies, forced upon us by space. That is obviously only a counterfactual image, routinely denied by our experience of moving and appropriating space to connect and articulate our actions. Indeed, we hardly think about how space allows “fluidity” into these connections or may “ease” such articulations, or otherwise how they would demand more of our efforts and energies if the spaces of

our practices actually were impenetrable, “difficult spaces”.

A step further, we simply do not know, acknowledge or realise all possibilities of interaction produced in a social system – even if we consider the localised boundaries of the urban “habitat.” We do not come across most of them – perhaps because space itself does not help us do so. I will return to this last observation below. By now I would like to account for the possibility that, if there is any mutual structuring relation between practices and their spatial contexts, this relationship would simply have to have room for *flexibility and change* – in action and in space. Distinct temporalities and changeabilities seem to constitute the very heart of their intrinsic relation, and have resulted in an extraordinary, if underestimated problem: *how do we understand the relation between media of different materialities and different relations to meaning – now at the level of production?*

Tensions of materiality and immateriality

This is a problem usually underestimated in orthodox sociology or positivist geographies as these handle either social or spatial aspects exclusively; and is so also in human geography possibly for a problematic relation to the physicality of space (Michell 2002). Here, spatial economics has been of little help, handling the dimension of meaning inherent in action and space functionally. The problem involves certain conditions of temporality and materiality.

- i. *The instability and changeability of action as vanishing communication structures*, produced and fading away all the time.
- ii. *The relative stability of action* as it finds recursivity in social relations and organisations (say class relations, or exchanges between firms), and institutionalised forms of interaction and mutual expectations (say habits guiding participants in a conversation). These two conditions find in space a form of projection, as:
- iii. *The relative stability of social contents of spaces*. The argument I have been developing affirms that spaces become cognisable and meaningful so that one can have a complex experience of and address space in her practice (the concept of meaning-as-event). Doing so, she can address other agencies and practices through addressing the spaces of practices (the referential hint). Both aspects are crucial in social structuration and reproduction. If this practical referentiality of action and space through the duality of meaning is correct, that

means that the stability of social contents of space is related mainly to that of the institutionalised practices that happen there – in a way that one can *associate* and name a space after a practice. In fact, the content and meaning of space are produced to *outlast* the vanishing re/creation of action; to *inform agents that a social event is a possibility*; and to be part of the context that supports and informs conditions of communication when agents join the event, implicitly defining and setting up forms and norms of interaction (see Chapter 3). On the one hand, that means that the meaning of a certain space could only be institutionalised through the reproduction of the practice. The stability of meanings of a place is greater than that of communications and exchanges that happen there and compose the event – but nevertheless dependent on it. On the other hand, that means that if practice is to be institutionalised, i.e. find recursive reproduction, it has to project itself beyond the temporal boundaries of a single event. That happens through memory, habitus, social norm – and space. Space means the possibility of practice to be cognised beyond its own vanishing temporal boundaries, as a possible, ongoing act within a lifeworld. Institutionalised practice, to be institutionalised at all, has to find its own social space. The condition here is through a spatial form (semantic and physical, practical and referential) that defines the environment and form of social relationships and activities (and thus power relations) to be realised: say, family and sexual intercourse, house and bedroom.

- iv. *The rigidity of the physical aspect of space*, i.e. the material anchoring of symbolic and practical exchanges and experiences. Space is a semantic construction. It could not be different since meanings are effects of practice (see Wittgenstein 1953), and means of reproduction of both consciousness and society, also there in the production and appropriation of physical objects (see Luhmann 1995). But space is not sound, it is not word. It does not vanish like time, utterances or body movement. Both at the urban scale and that of the place of practice (the architectural scale), space is a thing defined to us by the resistance of its own materiality to change, to destruction, to substitution. Space, whatever else it is, can only be defined by its own rigidity, what gives space a particular perception, a name and a conception. Space can only be defined by being the opposite of abstract ether. Or better, space can only be defined by the co-existence of “rigidity” and “ether,” for we enact *within* the voids left, structured⁵⁷ by the rigidity of space. We indeed live within the counterpart of the rigidity; an ether that, however penetrable, is made also resistant to change because it is defined by rigidity. “Physical space” – the idea about an entity artificially stripped bare of its

⁵⁷ I draw this conception of space upon Hillier and Hanson (1984).

meaningful and practical connotations – is indeed *both* rigidity and void. The voids that are material effect and permeable structure of practice cannot exist without the rigidity of the material form, and the material form only exists to define the spatial ether of practice.

Thus space, this ambiguous thing part visible part invisible – material and immaterial, rigidity and void, appearance and meaning, continuity and boundary – is bound to be (and mean) “durable.” And because it is so, change, destruction and substitution of spatial forms, of space itself become issues in the dynamic of a social system, in the changing social universe of cities and regions.

2.2. Space as obstacle to social change

New actions happen all the time, new social articulations and agencies are organised and depend on space to affirm (and inform) their presence to a lifeworld; a space to circumscribe their presence, to ease their recursive emergence, to articulate their presence with other agencies. In order to accommodate social change or manifest it to the lifeworld, symbolic and practical contents of space change, or are produced along new architectural spaces. Furthermore, new kinds of activity may emerge and require *new forms* of architectural space. A form defined by rigidity does not mean that it may outlast practice. Institutionalised actions, forms of interaction and organisational forms may indeed outlast the longevity of physical space – say the practice of exchanging or banking within a monetary system outlasts a particular building that supported the activity of a firm. Changing agencies may also destroy both institutionalised contents and the rigidity of space. Such rigidity, produced to serve, express and inform practice, is thus subject to destruction precisely by the fragility of vanishing actions as constantly changing agencies, and by the intangible force of habitus and institutional arrangements that may last longer than physical space itself, due to its deep imprint as reproduced practice, template, and memory.

Nevertheless, the resistance of physical space may also become an obstacle to social change. *At the architectural level* of urban densities, of practice and appropriation of space, the problem of durability is solved through change of its cognitive and practical content, or through transformation, destruction and substitution of the built object according to socioeconomic processes and pressures (e.g. institutional or market demands that can only be satisfied by change of use or substitution of the building itself in order to accommodate more intensive activities – see Wheaton 1982). On the other hand, *at the urban level of the structure of interlinkages* (and I use this term both as sociological “channels for mobilities” and as “connections between activities” emphasised in economics), the problem of durability is indeed more radical. Local social systems change, cities

grow or decay, physical structures of communication between agencies are built, interaction and movement intensifies or fades away, new interlinkages between activities and agencies aggregate and relate to one another. How could whole spatial densities and street systems change? Surely it would change only very problematically. Now we could finally uncover the level of the relation between space structures and action structures where the differences in their materialities become structural problems. That is a problem of potential collisions, tension, and difficulties for practice to happen or more effort for agencies to interact (say, finding a particular place or service, or getting there, and doing that routinely). *However dialectically related (i.e. related at the level of production) through productive practice and shared meanings – turning space and practice into never fully distinguishable and independent phenomena – material differences are always at work, and actively so.* This is a dialectic relation that does not make differences disappear into undifferentiated flux. It rather feeds precisely from such differences: the material specificities that make space a peculiar medium or form of material expression, medium of interaction, and “gate” to the overlapping of other communication media (say, language, money, objects, electronic spaces and so on).

3. The mutual structuration of communicative practice and space

If the physical infrastructure of urban space cannot change easily, how does it absorb social change? The only possibility apart from a status of space as obstacle to social change is the structure of space need be generic enough to couple with changing interactions (see also Hillier and Netto 2002). In this perspective, urbanised space presents itself as a projection of possibilities of interaction within a lifeworld. Such a projection has to be flexible; as such, it depends on a physical infrastructure of interlinkages (i.e. a street system connecting densities of architectural spaces and social activities) also *flexible in itself to admit changing interactions; yet structured enough to be easily understood and produce fluidity to mobility and communication.* It has to be structured in order to connect the internal parts of the city and these to the exterior world while rendering efforts and costs manageable. For people and activities need interrelate, and do so mediated by space and its symbolic, practical and physical structure. Spatial structures emerge as a medium of communication in its own right, a mediation of realms of human practice.

Now I would like to relate the possibility a *generic* structure of activity location and accessibility in the form of what we call cities to those properties identified in spatial economics and Soja’s human geography and mentioned above: *proximity* and *agglomeration*. I argue that the way of being

“generic” is precisely being “minimal” – a minimal construct in the sense of minimising internal distances within cities simply through a simpler geometry (let me remind us not to fear the fact that urban space is *also* geometrical space, a space shaped by geometries socially generated), say longer streets articulating urban interstices. In other words, a structure also made of what Soja (2000:16) describes as “preferred axes of accessibility patterning land-uses, modifying concentricity” and “locational continuity reducing the friction of distance in everyday life” making “social cooperation more efficient and effective” (p.46). Soja also observes that these structures are present “even in smaller settlements;” they are “nearly always there to find if one looks hard enough” (p.16-7). Although not adopting Soja’s epistemology, one can align that observation to Jacobs’ (1969) reconstruction of urban processes that also suggest a general process of agglomeration and structuring. But why (and how) would different cities present any form of spatial structures? I would suggest that cities from different cultures would present such internal distributions because “*proximity*” and “*articulation*” are frequently part of the basic requirements of practices immersed in complex social environments with a large division of labour and high costs of material reproduction, including mobilities and transactions. As long as social systems are complex (i.e. a great number of changing agencies and possibilities of interaction) and also dependent on physically-based communication and exchange, they require semantic, practical and physical articulation. These spatial properties work seem to present themselves as empirical requirements of communication, a logic that goes well beyond the realm of the economy.

The structuration of urban space means distributing activities, accessibilities, levels of interaction, access to practices and information in certain areas, generating the intelligibility necessary in the appropriation of space. What Soja mentioned as “preferred nodalities and axialities” are, I suggest, a spatial form of accommodating certain conditions of action – say getting information about other actions available there, in the form of urban space. Minimising distances in daily social transactions is as much an economic as a usual practical requirement – say, when people search shorter paths when going to work or crossing a public square. It frequently is a *spatial condition of the emergence of action structures based on co-presence. Interconnecting actions spatially would imply the spatial structuring in the form of urban space of accessibility articulating the locational distribution of activity places that need be close or easily accessed.* This potential would be there, embedded in the material things that make up cities: the production of spaces for practice (built forms) and spaces of accessibility (streets). These emerged historically *together* when the division of labour in different societies increased substantially (see Hall 1998), and when space was progressively urbanised; they imply mutual structurations (and “unstructurations”? I shall discuss the “unstructured spaces of

practice” in the following Chapter 7). That process of course has a cognitive dimension. It means the production not only of agglomerations but internally *structured* spatialities able to be visible and intelligible during our appropriation, being easily graspable, and allowing seeing farther, into other areas (Hillier 2003). It also means that spatial structures may foster the transmission of social information (i.e. informational contents of space), and thereby interaction, and *new* interactions.

These observations lead us beyond the notion of agglomeration and centralities, into the relation between nodalities and their articulation through streets as spaces of social appropriation – as channels of movement and communication. Of course all this may be seen as a strongly functional interpretation of the physicality of urban space, a vision of the city “as a device for the chronically fatigued.” I would first of all argue that there are indeed teleological conditions present in certain moments and forms of action. They do not mean a functionalist reduction or bias of action. They range from features like the pressure of time in production relations, stages of argumentation expected by participants in a dialogue or situation, and the structure of taken-for-granted activities and knowledge of the social world.⁵⁸ Also, the realisation of these teleological features of practice does not imply the withdrawal of spontaneity, desire, or the complexity of practice – although the relation between these are far from unproblematic. Surely we do not appropriate spaces and cities like machines or like we were optimising machines, but we do search for certain practicalities or feasibilities – we search for more fluidity to our doing. These “practical features of practice” are partial, momentary aspects in our acts that could not go without effects – without *structural effects*. The observation of frequent practical requirements of proximity and articulation does not imply that cities, as manifestations of different life-worlds and action systems, should all look the same. It merely asserts that lifeworlds find conditions to materialise, communicate, and reproduce through the symbolic, practical and physical structuring of space in a diversity of possible spatialities. Spaces whose common feature seems the structural affinity between the qualities of the “minimal,” “generic” and “flexible.”

This is the heart of an argument against the dissolution of practice and space into free-floating fluxes or blurred socio-spatial dialectics unable to see the communicative constitution of practice through space and meaning. *The improbable relation between a medium of social reproduction that changes all the time (action and communication) and a medium that changes only eventually*

⁵⁸ See, respectively, works in economic geography (Storper 1997; Storper and Salais 1997; Scott 1998); in sociolinguistics (Toulmin et al 1979); and in sociology (Habermas 1984; Wilson 1971; Garfinkel’s [1967] experiments in dismantling certain teleological principles to uncover fundamental assumptions that compose one’s social knowledge).

(buildings and streets) seems only possible through the sharing of meaning so that action and space may refer to each other – and action may refer to action through space. It depends on a spatial structure flexible enough to accommodate change in the convergence of material and immaterial flows. If time, human effort, energy, innovation and costs are factors in material production, then spatial articulations structured enough to ease access, knowledge and communication, yet complex and generic enough to permit quick and vast changes of action interconnections become relevant material aspects worth paying attention to. That would include radical changes in modes of social organisation, say the transformation of urban societies from pre-industrial (e.g. medieval cities) to fully industrial societies. Indeed the historical spatialities of European cities show the successful role played by originally medieval structures well into an industrial mode of organisation.

Could such structures also support a *post-industrial* mode? Say, would a global financial centre such as the City of London, whose structure was produced back in the Middle Ages, show that space can indeed accommodate radically different modes of social organisation and action patterns? Apparently yes. Space is a relatively stable semantic, practical and physical structure, *specific enough* to be recognised as part of a specific culture and form of life – yet *generic enough* to cope with the unstable emergence of action structures in everyday life. A step further, urban spaces cope even with periods of deep changes at the institutional level, such as successive revolutions in *modes of organisation* (say, the transformation of Frankfurt or the City of London from medieval urbanisations into globalised spaces of financial practices with little or no substantial changes in the physical structure of streets) and even *modes of production* (say, the transformation of Berlin or Russian cities into a city for a communist society, and back). Spatial structures distribute and concentrate mobility and activity, spatial intelligibility and co-presence (Hillier 2001), and thus information about ongoing practices – properties consistent with the importance of intense (and also co-presence-based) interaction for the New Economy (Storper 1997; Scott 1998; Hall 1998; Sassen 2001). The answer to such an apparent paradox – that of radical transformation of practices without radical transformation of space – seems to be found in a structural condition: *as long as old and new modes place similar needs of interaction and distributions of co-presence in space, new patterns of action will be absorbed into the existing urban framework with comparatively little change* (Hillier and Netto 2002), absorbed through changes in the appropriation of space, and in architectural densities and forms of occupation.

One may still assert the importance of the internal structuring of urbanised spatialities through a contrast to the counterfactual possibility of *having no structure at all*. I wish to emphasise that the

constitution of semantic, practical and physical structures cannot be exclusively contingency – say the result of successive processes that produce a certain structure through “path development,” as certain theories suppose.⁵⁹ For *contingency could also imply the contingent absence of any structure*. Now that is simply not what urban spaces in different cultures and historical periods reveal. Echoing Luhmann, without structure, there could only be a shapeless world, enormously intricate spatial fabrics with no intelligibility and mobility – only fragmented, *labyrinth-cities*. That would have an effect analogous to the dispersed landscapes described counterfactually in economic geography: a space where transaction costs and economic externalities do not exist; sociologically, where the spatiality of interaction between agencies is not part of social reproduction – a society not based on social integration. In such a spatial scenario, the social and economic, informational and practical difficulties for interaction would be simply too high. The emergence of action as vanishing structures of bodily-based communication would be too problematic. Space would become an obstacle to sociality. Given the historical record of cities in different cultures throughout the world, that possibility presents itself only as a counterfactual world – a merely theoretical question yet to be answered. It is interesting to notice that *the labyrinth is in fact a spatial form only produced intentionally* – when there is the conscious purpose of generating spaces of such unintelligibility and mystery; a structure where no “structurality” can be found; a space unstructured enough to become a dramatic experience of loss (of oneself) and of loneliness – effects of a deprivation of the mobility of the body and the connectivity of action. That is the reason of our fascination with the mystery of the labyrinth. But however complex or apparently chaotic, cities are *never* labyrinth-like.⁶⁰ If they were, and if there were an intrinsic relation of practice to space – a deep relation where practice shaped space in a way to allow the spatial fluidity of practice – would the referentiality and eventfulness of practice come into being unproblematically in such spaces? The labyrinth shows us that the structure of space matters for the communicability of practice.

I attempted to discuss the problem of production of social action as a problem of space – that is, how material structures of space are part of action and communication ideally seen as “unproblematic.” I verified the possibility of a relation between materially distinct phenomena and pointed out to their inseparable connection in our practice, possible due to and produced through the duality of eventful and self-referential meanings. Nevertheless the problem that set up this chapter

⁵⁹ E.g. Haken and Portugali (1995) in cognitive geography; Krugman (1996) in economic geography; or Batty (2003) in urban models and geo-computation.

⁶⁰ The same relation of long and short streets is found in cities which seem at first sight far less intelligible than others (see Hillier 2001).

was so far understood as “*the need of fluid relations of actions at a material level*” solved through complex spatial structures of cities stimulating actualisation, variety, and change in the universe of practice, all at once. However, these considerations both allow and demand a broader interpretation regarding a dialectic production of action and space. Let me explore such a possibility as a way to highlight certain processes of socio-spatial transformation, and identify a particular (and largely unseen) place of space and the city in changing conditions of social reproduction.

3.1. Reinterpretations of the city: the “Referential City”

I have suggested that, if one takes into account the specific materiality of space, one may say that space – the shape of the built environment – becomes an issue in one’s participation in social events and transactions.⁶¹ Participation in social events also accords to the capacity of agencies to know space, including the use of technology to move and communicate, and modes of organisation. In fact the experience of space as an obstacle to action is frequently the case especially for certain social groups. Using Schutz’s term, space indeed reveals different “worlds within one’s reach.” This problem has many dimensions and finds many names, such as “social segregation.” For instance, Harvey (1973) explains precisely what it implies as difficulties in people’s lives, e.g. difficulties in accessing certain activities, increasing social inequalities, the uneven competition for space – ultimately being an aspect of class struggle. Although far from solving them, the structuration of space in the form of a spatial core of urban, architectural and social densities and mobilities seems rather a way of minimising even these contradictions, rendering peripheries and interstices more accessible. More generally, individual experiences find structures and “unstructures” in space, e.g. proximity between commerce and residence, or between certain services or firms in input-output relations (as a variety of studies in cognitive and economic geography suggest). Space is produced in a way that certain relations between certain potentially complementary actions, interactive agencies or events will be perhaps even suggested by space (or sometimes hidden from most eyes by intricate spaces) – say, during the search for a specific kind of activity we unconsciously rely on space as a reference system. Such a possibility seems rather fundamental in many social activities of everyday life, otherwise rendered less fluid (or rendered – intentionally? – less visible) by dispersed, poorly connected or articulated spatialities. It is precisely the *differentiated potentials and restrictions of space and their impact over the social managing of time in the formation of relationships that seems to compel social systems to spatiality and, a step further, to spatial structuration* – as a way of actualising constellations of acts and activities interrelated in diverse

⁶¹ For works exploring the relation between participation in events, time and space see mainly Hågerstrand (1978); see also Carlstein, Parkes and Thrift (1978) and other works in *time-geography*.

processes of sociation.⁶²

According to this argument, space is not merely an event in itself. It is in fact a statement of possibilities and difficulties of performing within a lifeworld, throughout all of its potentialities and contradictions. The spatiality of a social system, when finding semantic, practical and physical structures as a way to the fluidity of agency, becomes itself a pre-selection of actions. Or again paraphrasing Luhmann (1995:159), it becomes a way to define “how society sets itself off from mere interaction, and what is excluded as too improbable.” If that assertion is coherent, it would imply that space has the potential of being part of agencies’ selection of actions, for *the structuration of spaces (including their unstructured interstices) would reduce the counterfactual universe of actions to a constellation* that can be surveyed at any moment. Of course this is a counter-intuitive assertion. It means that the “absolutely infinite variety” of possible action available in a social world is reduced to a “practical infinity” more evident from the (cognitive and spatio-temporal) viewpoint of a particular agency. They are disposed in most immediate practical relations. All other interactions are still possible; they are just less knowable, or less accessible. Thus, I have suggested that social structuration is naturally produced by spatial proximity and articulation; potentially demanded spaces are rendered accessible (both cognitively and practically and depending on the social conditions of agents) in order to be appropriated as loci of praxis.

Now I would like to relate the structuration of space in the form of urbanised space to a complementary aspect: the *knowledge of space*. That relation is intended to situate *the spatial reduction of possibilities of action as the reduction of the improbability of social reproduction* – and place it *in the horizon of experience of the agent herself*. From one’s perspective, in one’s routine and social life, urbanised space is a form through which she produces and performs social knowledge. For one thing, her experience of social events is spatially produced and structured (Schutz and Luckmann 1973). An agent does not know completely her social world, neither *all* possibilities of action latent in her sociality. She does not even know all possibilities of interaction already actualised in urbanised space; she does not know completely her city and region (the actualisation of her local sociality, of course open and related to others); she only may experience meanings and bodily possibilities of action already reduced, projected, actualised *as space*, structured in the form of events in time-space. Her knowledge of sociality (and the idea of “sociality” as a concept dissociated from “spatiality”) is no longer possible to a referential

⁶² Cf. Hillier and Netto’s (2002) argument on “how societies are made out of space by overcoming space,” i.e. societies exist as sets of global relations that must be created and actualised in space.

perspective) grows progressively, in more detailed descriptions of places and agencies that relate or may relate to her in a possible future. In this sense, urban spaces are gates or bridges to socialities still to be known. But these gates and bridges *do not lead into fixed or pre-defined places*. The flexible relation between practice and space means that the complex, unpredictable structuration of space into a diversity of cores and interstices regionally produced would offer at once singular (personal) and plural (open to different agencies and experiences) forms of knowing society and enacting social life. The form that agents experience socio-spatial structuration is through a heuristic knowledge of practices that constitute their lifeworld, learned through spatial experiences – through the projection and reduction of actions as their most likely relations set out there in the form of actual spatialities. In this sense, within one's practice, *the heuristic and intuitive knowledge of a relation between activity location and a spatial structure is already the knowledge of a set of actions or possibilities of action more likely to be found*. That is the knowledge of how she may enact appropriating her lifeworld *through* space. In short, social and material structuration will predispose a form of knowing what society is, how it is to be part of society, or how society works. The heuristic knowledge of space is *in itself* the concentration of possibilities of “knowing” and “doing” – a cognitive and spatial structure that will nevertheless be open to practice, and to the sociation of practice. *Space becomes literally a form of practice*.

The referential structures of action and of space will at once be a liberating and constraining power, a tangible means of doing and being. Nevertheless, without the “liberating power” (to use Habermas' words in another context) of such structures, agents would be forced to deal with and live within a purely unstructured social and material world. The relation between space and the knowledge of practice therefore could not be incidental. But space is not merely a form of knowledge. At the moment of heuristic experience of the social content of a place – a moment that is always ongoing and transformed into practice, into knowledge itself – space and spatial experience are already reductions of previous possibilities of knowing and acting – and reductions of possibilities that remained latent, that were never realised within the “social horizon” actualised as space itself. Space is thus a form of “social memory,” a memory of previous actions which describes society for itself – a memory that is also a statement of new, possible actions (cf. Massey 1999; Amin and Thrift 2002). *Space would become a memory and a statement of possibilities of practice, a form of turning the relatedness of agencies into a flux between present possibilities, past facts and latencies; a form of projecting and actualising new facts, increasing and reducing the potential to selection and communication*. But how could it be so, and how could it be so all at once? There is certainly a paradoxical sense attached to such an affirmation. Let me explain it more

thoroughly.

We have seen that, from the viewpoint of agents and against the pressure of time and material production, the meanings latent in contexts and events – actualised in utterances, practices and bodily exchanges with the social world – may refer to the meanings in space as a way to refer to other utterances and practices. But such a way into social reproduction could only come into being if space and practice would be related also at the level of production – that is to say, in a way that action structures may emerge and socialities relate and reproduce through the production of space. The production of space will allow and stimulate possibilities of actions, and attend levels of both *contingency and causality* involved in social interaction and reproduction. The city and its internal differentiation can be seen as visible traces of diverse social irruptions in a material form which still allows such irruptions and differences to be relatable – and precisely that is a major reason for space to be produced in the form of cities. The city is in fact the actualisation of actions not through a “shapeless world” or labyrinthine spaces (which would render the emergence of practice as bodily networks of communication impossible) but through material forms that already offer ways into (or pre-selections of) complementary interacting agencies. Space finds meanings that turn it into a part of the self-referential flows of (meanings that embed) production and communication; turn it into a medium of interaction in its own right – one that folds and unfolds into other communication networks and material connections and courses of actions. Through meanings, space is urbanised as a means to render socialities, as flows of communication, knowable and addressable. And that is the core idea of the emergence of communicative practice through referential space.

Chapter 6 attempted to disclose the “inseparable relation of practice and space” at the level of production, i.e. how the referentiality of practice and bodily-mediated communication would shape space itself in the form of the non-labyrinthine spaces of the city as a way to stimulate fluidity (or referentiality) in the social actualisation of practice. That is a way to produce space as a durable, relatively stable and accessible system of information, connection and communication – and a way to the *reduction of the improbability of reproduction of a substantially elusive social world* – otherwise dependent exclusively (as frequently assumed in sociological theories) on immaterial means such as oral language, memory, or on the mobile materiality of artefacts that support written language and communication. The problem of the improbability of social reproduction was shown as deeply related to a second problem (and a second improbability) which most theories of society-space relations take as a given: the paradox of an intrinsic relation between realms of different materialities. The chapter proposed a way out of such theoretical dilemmas: *the structuring of the*

rigidity and durability of real spaces produced and appropriated by practice was posed as a counterpart to the elusiveness of the social world – and a counterpart to the sociation of practice itself. It attempted to show the active role of space in the “structure-generating power” of social events: the idea of urbanisation of space as a means to produce, connect and disconnect practices. It described space as a realm of possibilities of acting, of agencies to interact with or take distance from; a physical and semantic field of contingently knowable practices turned into a means to relate, to different degrees, different performances. In other words, it evoked the idea of a space produced as a way to project in the world different possibilities of acts, proposing a *highly improbable role for space*: that of being actively part of social production through a “mutual structuration” of completely different ontological realms: our *acts of sociation* and the *spaces* of such performances. Chapter 7 will attempt to review and synthesise the main arguments set up throughout this and previous chapters, in a way to bring to the forefront the building blocks of what one may term “the referential approach to society and space.”

Chapter 7

The Referential Approach to Society and Space

The final chapter brings together the main arguments developed in the thesis into a single framework: the “referential approach” to the society-space relation. It discusses the possibility of a *semanticised space* (the sign that space has participated in turning individual acts into social acts) through a renewed, referential notion of *meaning* as the only possible intrinsic connection between ontological realms apparently as different as “human practice” and “space.” It also readdresses a central problem in the society-space debate, a dimension previously little explored: a spatial account of the mediated exchanges that constitute the knots in (spatialised) networks of sociation – or *communication*. Finally, it proposes the possibility of space as *the counterpart to the elusiveness of other forms of communication and other means of building relationality in the social and material world*, such as those purely semiotic exchanges based on language and other sonic and visual media. In building such a conceptual scheme, the final chapter lays down the initial aims of a referential approach to the materiality of the social world on a renewed notion of meaning: clarifying space as a semantic field to the communicability of practice; clarifying its role in society by showing a referential space as a means to the sociation of acts; and clarifying society itself by showing how profoundly and pervasively it relies on the referentiality of space. The chapter ends with a discussion on possibilities for future theoretical and empirical research.

Introduction

This one [the city of Los Angeles] condenses...the entire future geometry of the networks of human relations, gleaming in their abstraction, luminous in their extension, astral in their reproduction to infinity.

Jean Baudrillard, *America*, 1986

In the Introduction to this thesis, a key problematic was outlined: that the unresolved problem of the relation between society and space has not been addressed in a thoroughgoing way through one of its most evident manifestations: the detailed intertwining of practice and space. It was proposed that this could be addressed by looking at the idea of “practice” beyond an ontological given – i.e. bringing to the forefront processes through which *practice became social practice and action social action*, and looking at the sociation of practice as a *problem of communication*. By carefully considering communication in this way, it was suggested that a new and active role for space could be identified in the society-space relation: *space as a dimension of the communicative sociation of practice*. By looking at the inter-penetration of communication and space and seeing space as a

constituent of the communicative condition of the social, the outline of a new framework for addressing the society-space relation could be brought into view.

The thesis proposed to explore this possibility in a series of stages. It began by examining existing theories of society and space relations, as found in social theory, architecture and human geography, so that we could assess how far they provide compelling answers to the problem of the communicative sociation of practice, and define areas where further progress was needed. Then by discussing critically a number of diverse sources, including the post-modern questioning of notions like “meaning” and “structure,” new approaches in human geography, and mainly the theory of structuration and self-referentiality of Niklas Luhmann, it explored the ways in which we might build a theory of *relations between communicative practice and space* as an alternative frame to the society-space relation. A concept, the *duality of meaning* as “event” and “reference,” was proposed as a means to address the multiple relations between space and social practice. The concept was placed within the more general problem of social reproduction, and the implications of this concept to the spatiality of social structures were discussed: namely, the possibility of a role for space from the hermeneutic moment of interaction to the communicative connection of practices into complexes. Finally, the thesis used this as a basis to explore the possibility that the spatial emergence of practice as a communicative process requires, in order to come into being, some structuring of the space in which it occurs – a mutual, referential structuration *beyond* the contingency of practice and space. The argument of a “structuration of practice through referential space” was therefore reversed into the argument of a “structuration of space through referential practice,” and their endless *mutual* structuration was asserted as a process always already at work in social reproduction and production – as referential practices producing referential spaces which, in turn, are part of the reproduction of practice itself.

In this final chapter, my aim is to bring these stages of my narrative into a single theoretical framework which I call the *referential* approach to the society space question, and to explore its potentials for future research. I begin by recapitulating the key results of the explorations in the first six chapters.

1. An alternative framing of the society-space relation

In posing the question of the communicative constitution of practice as a key problem in the society-space relation we found ourselves first dealing with previous theories able to address the

problematic as a whole – namely Marxist approaches in geography, a Durkheimian approach in urban and architectural theory (Hillier and Hanson’s), and Giddens’ social theory of structuration among others. The discussion of these broad socio-spatial theories in Chapter 1 “Relations of the Social and the Material” led the argument into the identification of a need to focus on certain issues either underestimated or rendered invisible in those epistemological views. Chapter 2 “Meaningfully-mediated Reproductions of the Social” searched for a concept of “social practice” able to grasp aspects missing in previous spatial discourses and defined, drawing critically upon Max Weber’s concept of “social action,” and moving more overtly to the communicative aspect of action through Jürgen Habermas’ theory of communicative action. Through these approaches, an initial frame to the spatiality of the communicative fabric that constitutes social practice could start to be built. Pursuing the conditions that seem to be at the heart of the relational emergence of social acts, it brought to the forefront the flows of signs and meanings that embed the informational exchanges social beings produce in order to relate to each other and to the material world. Once defined an initial approach to sociality through “communicative practice,” we could move into spatiality itself. A particular concept of space as “semantic and practical space” was developed to connect to the communicative dimension of the social – through and *beyond* physical space (Chapter 3 “The Grounds of Social Reality”). From this moment on, the work could afford to be less interested in existing general descriptions, and move into a series of theoretical propositions.

Certainly one of the major aims of the thesis was to *introduce communication into the spatiality of practice, and spatiality into communication*, ranging from the material condition of mutual interpretation and the contextual use of language to the spatiality of linguistically-mediated interaction and the unfolding of those communicative flows that will constitute courses of action or sequences of social situations. The spatial approach to practice as a communicative emergence therefore moved from an exclusively linguistic idea of communication as “informational exchange” to a definition able to assert space as intrinsically part of that emergence. Accordingly, Chapter 3 coupled an initial Habermasian concept of communicative action with an overtly spatial standpoint as a first key step to develop an approach focused on the problem of practice, communication, and space relations.

However, why should we connect the concept of communicative action to space, and why would this be a fundamental step to re-theorise the practice-space relation? The chapter suggested that the same ambiguities found in the Weberian idea of “action” as a constitutive of one’s interpretive experience and of the objective conditions of (what we now call) “social structuration” *could be*

found in space itself (p.74; 105, section “Space in the production of communication”): space was suggested as part of (and passage between) the interpretive moment of interaction and those courses of actions which unfold through and beyond the moment of interaction. This “similarity” or apparent homological condition certainly seems an intriguing one, since “action” and “space” seem quite different things. The thesis in fact dealt all the time with the mystery of such an improbable relation. If such a deep relation existed, it would also naturally have the status to be a theoretical path to uncover space in the social construction of practice. This relation was initially defined through the Weberian concept of “meaning” latent, interpreted and transmitted in social action. Thus, the idea of finding meaning in space clearly consisted of a major possibility to access the place of space in the communicative transactions that constitute the sociation of action. The theoretical possibility of a “meaningful space” or a spatialisation of meaning was found in what I called “genealogies of meaningful space” (p.94): firstly, in a Wittgensteinian notion of things (and therefore spaces) which are rendered meaningful by practice, and mainly in the notion of a “hermeneutic relation to context” stemming from distinct works in philosophy, communication theory, sociology and human geography (namely in Gadamer, Schutz, and Habermas; Giddens, Gregory, Simonsen and Werlen – p.94-102.). Through the possibility of *space as inherently meaningful* (i.e. part of an interpretive actor-world relation), Chapter 3 searched to define the basis of a spatial approach able to unveil space as endogenous to practice, and practice as constantly embodied (semantically and practically) in space.

In this sense, the first major epistemological problem dealt with in Chapter 3 was whether there is any “social space” or any meaningfully-mediated relation to space at all worthy of investigation. That problem is in fact one of the most fundamental questions in the society-space relation: *whether space can contain the social in itself, or whether space is only socialised momentarily in our performances* – supposing that the “social” is an effect of being part of society. This problem relates directly to the material condition of space: we needed to identify the limits and forms of social information that space could contain, say as buildings or cities. If space could not contain social information, then any informational relation of practice to space would have to be reproduced only in practice – a construction of practice itself. That is, space could still be “social information,” but a form of information that cannot be (at least completely) “stored” in or “retrieved” from space. Verifying those limits in the very physical form or structure of space would allow (or not) the assertion of a “practical construction” of meanings in space (p.76, section “The access to space as constitutive to practice”). The thesis investigated this question in a key dimension of spatial production underestimated in most geographical approaches: *the architectural production of space*

as those complexes of activity and spatial densities we call “the city.” It discussed architectural theories which assume that space encodes some form of social contents in its physical structure, and find enormous difficulties in explaining exactly how space relates to the social activity it supports, and what is the social that might be there, encoded in physical space (p.77, section “The form-function (unsolved) relation”). It then attempted to rework and solve the traditional “form-function” dilemma through the critique of a more precise definition.

1.1. The limits to physical space as social information

Verifying the possibility of a form of social information embedded in the physicality of space required the discussion of a particular theory (p.79). Hillier’s theory shows the limits of the relations between “spatial form” and “social activity.” It shows that there is indeed social information encoded in physical space – and that information, among other things, is about the “seeds of interaction:” the distribution of co-presence in space through the influence of space structure on the movement of bodies. Architectural complexes embody social information as a field of generic potential movement and co-presence. The theory also claims that, precisely for that, most buildings may work for different activities – as distributions of movement and encounter are apparently shared by different activities. For most buildings, the relation of the structure of physical space and activity is generic (i.e. mediated by “generic function” or the ability of space to shape movement and distributions of bodily co-presence).

In turn, Chapter 3 questioned the limits of physical space as social information, asking whether the generic information in space would be enough as social information; and why, as generic information, should it be transferred from the social to the spatial (and back) at all. It attempted to explore social space *beyond* arrangements of co-presence and social interfaces (p.84, section “Beyond syntax”) – into a dimension of space potentially related to the semantic exchanges that constitute the communicative sociation of practice. It was then observed that certain social activities find spatial conditions that may be considered richer social information, as heavier spatial constraints or conditions latent in the activity (if the activity is to happen unproblematically) – a problem that is certainly not apparent if one ignores the detailed spatialities of everyday activity, like the internal requirements of communication and bodily movement within an ongoing social situation.

A closer observation of that dimension allowed Chapter 3 to suggest, first, *the impossibility of any isomorphic relation between the structure of architectural space and the structure of the activity to*

be supported by space; second, it suggested that *the more physically complex a space structure is, the more intrinsic a specific social content or information tends to be embodied in the very physicality of space* (p.88). Physical space can assume from no specific social content at all (cases of completely generic spaces as a room with no partition) to materialise a large part of the “code” or requirements of the activity as coordinated actions (e.g. highly-structured, sequenced spaces such as hospitals). The chapter asserted that precisely here may be found an answer to the difficulties found in previous theories: most activities have no heavy or specific spatial conditions; most buildings have spatial structures that indeed consist of “generic social information.” Physical space in most cases cannot be social information in a strong sense. If the relation action-space is mostly generic, most physical structures of architectural space cannot carry specific social contents since most spaces carry similar contents. And this contradicts architectural theories of physical space as the carrier of social contents. *The embodiment of the social in physical space was thereby shown as simply too generic to make space actively part of the sociation of practice.* The physical configurational dimension of space, while often (i.e. depending on the length of model) a vital component of the social meaning of such space, is not in itself enough to establish social meaning in a way to mediate the communicative transactions that constitute social practice.

A series of conclusions followed in order to reveal more precisely the limits to physical space as social information and develop a solution for the form-function dilemma. On the one hand, the possibility of social information encoded in “concrete materiality” evokes a powerful presence of space in social processes (i.e. the conditions for distributing or structuring encounters), a space revealed at the heart of the social (p.84-88). On the other hand, it still cannot cover the full spectrum of what social practice is. Providing physical conditions for bodily encounter would be all that space could do in the constitution of social action, unless we consider the possibility of a “social space” as “semantic and practical space.”⁶³ If space was to be active in social life (and this must include the social emergence of practice through communication), and if the relation between activity and physical structure is mostly generic, then action would have to rely on a form of “social knowledge” enacted *in* space and *as* space in order to become social. *If space has any deeper role in*

⁶³ Syntax theory reaches this problem through the distinction between “short” and “long models” and the (parallel) distinction between “weak” and “strong programme” buildings: basically the stronger the programme the more it needs to be supported by social behaviour – the courtroom is a clear example (see Hillier 1996, Chapter 7). At the generic level, the relational pattern of space provides a kind of generic social information. This is then clarified by the organisation of socio-spatial interfaces (a concept linking the social and the spatial) and by non-spatial elaboration of the physical milieu and by specialised social behaviours, i.e. the construction of the social is mainly social, but space plays a part in it – a non-determinative but indispensable part – at the level of the relationality of spaces.

social reproduction, that place must be found in dimensions of practice connected to, and beyond, the bodily: that is, in the communicative dimension of practice – a dimension which must be connected to a “social space,” a space able to be practically active in the emergence of action.

But how is that dimension of space like? How could space be more than “physical”? How could it be part of communication? The thesis analysed possibilities of a “communicative space” in two levels found in theory: the level of *architectural signs* (the “semiotic”), and the level of *interpretive meanings* produced by subjects’ acts in space (the “semantic”). Exploring Wittgenstein’s concept of meaning previously spatialised by Simonsen, my argument focused on the latter possibility as it connects directly to practice: meanings are implied in practice or lent by practice to everything that practice relates to; meanings produced and exchanged in communicative action “transcend themselves” and become immanent to space (p.94) – an argument further elaborated in Chapter 4 as the “duality of meaning.” Chapter 3 thereby shifted the theoretical emphasis in the society-space relation to the *informational constitution of practice* – an aspect of interaction certainly produced through the sensual, but one that goes beyond sensual space.

Such a theoretical shift was not short of implications. First, the emphasis on communication allowed us to see that social exchanges are dependent on semantic differentiation (an insight found in communication theories such as Habermas’). Therefore, a complex social role for space – if it is to exist at all – could neither be restricted to the physical dimension nor to co-presence as the bodily condition of interaction (p.89-92, section “From the form-function paradigm to ‘space as information to practice’”). The differentiation level found in practice is only compatible with a *semantic* differentiation produced through cognisable and transmissible informational contents that constitute the very possibility of communication. In other words, the differentiation and transmission of meanings required if the sociation of practice is to be accomplished happen at the level of symbolic contents, and are found in diverse semantic media such as institutionalised uses of language and – so the thesis suggested – *space itself*. But how could that be the case? How could informational differentiation be produced in space?

Second, if communicative practice requires semantic differentiation, then (conversely) semantic differentiation can only be an accomplishment of practice itself (another major insight in Wittgenstein’s theory of meaning found in my incursions into Habermas’ theory of communicative action). It followed that a *spatial, communicative sociation of practice requires a level of informational differentiation in space found only through the differentiation of practice itself* (p.94-

5). In other words, if space is to be part of social practice, and involve the experience of complex semantic and communicative constructions in space itself – an experience produced in space through our very practices – the informational differentiation problem poses the need of a spatial dimension. I suggested that space could be closer to social practice only if subject to differentiation also at the informational and practical level of meaning (p.101) – i.e. if space could be semantically active. A “social space” would therefore imply levels of differentiation close to practice. Thus a key epistemological definition found in Chapter 3 was that *only a differentiated social space could be actively part of processes of action and communication. However, informational differentiation cannot happen at a purely sensual level of space, or experience. Such a differentiation may only be accomplished as semantic differentiation. A practically active space must be a semantic space.*

So the question that leads to the answer Chapter 3 searches to give is “why is space always semanticised” or “why do we semanticise space”? We semanticise space in order to establish this larger informational role of space in human practice. The parallel between action and space is that, *like action, space only becomes social through the semanticisation of space through communication* – so the real link between the formation of action complexes on the one hand and a relational space on the other hand is the semantic elaboration in both domains. *The semanticisation of space is the sign that space has participated in turning one’s individual act into “social action.”* The semantic differentiation of space is therefore posed as the counterpart of the sociation of practice, initially expanding the form-function relation in architectural theory into an idea of “space as context to practice” usual in human geography, and then going beyond those approaches in order to see space as part of interpretation and communication: the blending of linguistic contents in speech, and the semantic features of space. But why and how is space part of sociation? The answer to this question seemed to lie in the definition of a concept of space able to connect endogenously to sociation – i.e. a dimension of space related hermeneutically and practically to communication. The chapter demonstrated that this property cannot lie only at the physical dimension of space: it depends on a “communicative space,” a space actively part of the transactions of meaning which lie at the heart of communication. But we were still left with the question “how could such space be like?”

1.2. Space and bodily-mediated communication

The final aim of Chapter 3 was to propose a concept of space able to grasp the communicative aspect of the social: a semanticised space active in “mutual interpretation” as a fundamental element of the very *definition of the content of communication itself*. Therefore, the possibility of a space relating to the practical through and beyond the bodily returned to the hermeneutic (beyond rational

interpretation) and meaningful (beyond intelligible meaning) in order to eventually go beyond the “hermeneutic” itself: into a communicative space. I searched to show that, whereas assertions of a hermeneutic space mediating structure and agency are surely there in Simonsen’s and Werlen’s social geography, and the idea of “boundless context” is there in Thrift’s performative approach, the possibility of space active from mutual interpretation to the very production of communication networks seemed still to be explicitly brought to the forefront. Discussing works in sociology, ethnomethodology, hermeneutics, Chapter 3 reasserted the idea that just as different activities set up different behavioural expectations, scopes of communication or types of argumentation, the taken-for-granted shifts in the nature of human activity are remarkably spatial phenomena. The spatio-temporal delimitation of a situation is part of a “presupposed commonality,” the background that sustains actively mutual understanding and communication (the spatialisation of a contextual idea found in Habermas). Space constitutes the context-forming horizon of shared life-worlds (Schutz), from within which participants in communication come to an understanding (p.99-104, sections 2.2 “The spatiality of context” and 2.3 “Space and interpretive resource”). Space was seen as part of the ordering of situation contexts, a structuring element of experience with which members have to be familiar – an “indexical reference” (Schutz and Luckmann 1973; Werlen 1993) to the ongoing practice in moments prior to the ongoing situation itself,⁶⁴ and to speech. A step further, the chapter suggested that only spatially is the hermeneutic experience fully achieved and blended into communication: the unity of act, expressions and context seems reinforced by meaningful definitions of space whose material boundaries coincide in one’s experience with the practical and cognitive definition of the activity. If one considers the spatial boundaries of social situations as a source to our interpretations, then the relation of space to our cognition and action may be extended to the communicative flow of our interactions themselves: to the possibility of agents inferring scopes of speech from the spatial context. *Participants do not have to wait to grasp the nature of the event from acts and speeches in order to find a common cognitive background to communicate. This background is set up immediately by the (pre-linguistic) cognition of a spatial and temporal condition of the event, and by the transposition of its spatio-temporal boundaries.* My argument was that, along with memory, the definition of spaces of action provides an initial frame to performance and so may help reduce cognitive efforts of establishing over and over the predispositions that embed the situation (p.105-7). Just like the commonality of a background stimulates the flow of communication (Habermas), space as constitutive to the informational background of action could have no passive role in the use of language when referred to as cognitive and practical context.

⁶⁴ A subject worked through in Chapter 5 (in the section “Space as a presentation of the lifeworld to itself.” Compare this argument to Werlen’s (1993; 2005) Parsonian interpretation.

The thesis added to the classical hermeneutic insight the idea that, if there is a symbolic relation of actors to space, then it must have some consequence to the interpretive accomplishments (and communicative acts) of agents in social situations. That is an assertion of space in the dynamics of interaction within a social situation; a link between the differentiation of practice, the production of interpretable and non-interpretable acts, and the production of symbolic media of communication. It was proposed that *space finds an active place in the passage from the interpretive context to the communicative production of practice: a semantic-practical space active in the definition of contents of communication.*

My argument took the intertwining of space and action through linguistic references and evocations of space in language, and the possibility of space itself as an indexical reference for illocutionary acts into the production and passage between two dimensions of action:⁶⁵ (i) *the hermeneutic definition* of the (simultaneously bodily and interpretive) context of individual and social experience – i.e. a place for space in the formation and enaction of a background knowledge over which acting subjects situate their action, whereby a common definition of the scope of action may arise and be part of the fluidity of communication and the reciprocity of practice; (ii) *the systemic production of practice*, when space becomes a medium relating localised practice to broader social landscapes – i.e. from situating the nature of experiences to articulating actions across time-space. Of course, the systemic connections of action take the form of eventful, unpredictable, contingent flows of (acts of) communication, along with recursive, institutionalised flows of organised interaction. Just as action cannot be defined as an isolated unit but unfolds through communication into networks of action, the place of space in the fluidity of communication cannot be contained within the spatio-temporal boundaries of the social event. It merges into “interpretive spaces” of language and communicative practice (p.105-9). The early developments of the present approach therefore expanded the role of space in the constitution of action from the level where social contexts are related to properties of architectural spaces to the systemic level of social structuration and the institutionalisation of practices. *A semantic-practical space means a presence of space at the moment of mutual interpretations of interacting subjects, and at the moment when mutual interpretations blend into and shape communication and the networks of practice produced through communication.*

⁶⁵ Compare my Habermasian development of this argument to Simonsen’s (1991) relation between agency and structure which leaves unexplained how space penetrates into speech and in the communicative course of action.

Therefore, I attempted to expand the idea of space as context as a relation between agency and structure found in social theory and human geography. Unlike these theories, I discussed how interpretive efforts, actively contextualised by meaningful space, blend into communicative exchanges – a way to address the communicative level unexplained in previous approaches, which usually ignore the effects of spatially-mediated interpretive accomplishments in the socialisation process or sequences of actions. Chapter 3 thus defined the basis of a material approach to communication asserting an active role for space in practice (p.99): first, space is part of the semantic process of setting up common backgrounds of communication and behaviour when one crosses its boundaries, actively interfering in the cognitive and communicative moment of establishing the conditions of interaction. Second, the meanings recognised and assumed in space anchor the interpretations to be performed, minimising risks of misunderstanding, and ensuring (along with memory and other cognitive resources) the fluidity of interaction within the social situation. Third, space becomes a contextual part of illocutionary acts, in the definition of contents of speech and informational exchange; a meaningful space that – in a complex intertwining of bodily and informational enactments of space – is a construction of practice in order to contextualise practice; practice requires the semantic dimension of space just like it requires the sensual. In other words, with the concept of space as inherently meaningful, one is able to assert practice as constantly embodied, semantically and practically, in space, and unveil the effects of space at the moment of transmission of social information (initially) at the level of the place of practice. So that space may finally become part of the unfolding of communication networks *beyond the spatial boundaries of the event*, when communication relates agencies performed or yet to be performed elsewhere, including the formation of differentiated complexes of action in social structuration.

However, more was needed in terms of a description of the networks of semantic exchanges that constitute the possibility of complex systems of practice to emerge at the level of the urban, and beyond. The possibility of a spatial and social structuration required the clarification of what exactly is the connection between “social” and “spatial.” Such a connection, in fact an ontological foundation to the relation between practice and space, could only be produced – so the thesis argued – through a specific condition.

1.3. A return to “meaning”

Chapter 4 “The Duality of Meaning” investigated the possibility of an inherent relation between the social and the material in a way radically different from the dissolution of things into free-floating signs of recent ontologies, without jettisoning the identity, the subject, and the centrality of

meaning. It brought instead a property of meaning as a relationality-producing thing deeply anchored in (material) differences and the definition of (distinct) identities: the *duality of meaning*, a connection between Luhmann's self-referential version of Husserl's theory of meaning as indication, and neo-Kantian conceptions based on a view of meaning as a way to disclose the existing thing or entity, or a thing meaning itself – reinterpreted as dual conditions of constitution of the social world (p.129-131). It consists of an unusual bridge between a definition of meaning typical of traditional social theory kept from my incursions into Weber's and Habermas' theories of action (a way to address the identity of things through meaning), and a property of highly fluidity of meaning as connection or movement immanent in things as they refer to others, derived from Luhmann's Husserlian account of meaning. The neo-Kantian element, as it sustains meaning in the universe of the subject and as a fact perceived in works, rather evokes why and how actions are relevant to interacting subjects. In turn, the self-referential connection beneficially adds the condition of boundlessness between objects and subjects to the concept. The chapter proposed such a duality as a property always already at work in the relation of practice and space, i.e. in the connection between distinct ontological domains. The concept implies, first, that "things mean" their meaning, that (recalling Derrida on Husserl) they "want to say" (p.119). Second, meaning is a construction made through *references* to other meanings. Every meaning actualised brings within itself references to meanings imagined, produced or to be produced; references implied by other meanings.

The dual condition arises when identities are built through references: the moment when the meaning of a thing emerges in one's perceptive field – the moment when something is perceived *as* something – happens through the immediate construction of its meaningful connections to multiple possibilities of acts and (material) contexts. Meaning is perceived as "event" in one's experience (the illusion of fixing boundaries of some thing, process or relations through naming, joining a social situation, a space to penetrate) and as "indication" (direction, movement) to something else beyond a visible horizon in the socio-spatial world. The experience of something is an experience of an event and of reference at once (p.132). "Reference" is in fact produced by the distinctiveness of things motivated by a cognitive and practical "push to differentiation" as much as "difference," "distinctiveness" or "identity" are referential constructions. In short, if things appear to us as (and through) systems of differentiation, meaning is a means through which differences (as different identities) are accomplished. The concept takes the cognitive experience itself as a form of *decoding identities as referential chains and continuities between things and acts and spaces* immediately connected to others in their impressions, if they are to be cognised and enacted at all.

What is the advantage of connecting these views on meaning? What does it add to previous theories – say the post-structuralist rejection of “meaning” and the assertion of “inherent relatedness”? The duality of meaning is a concept defined to bring a “return to meaning,” a way to address the “identity” of things in their own vitalities, material differences, specificities – or the vitality latent in such specificities, in whatever differentiates a thing from any other thing to us. *The duality of meaning means that the material constitution of the social world is built through an intrinsic condition of meaning – a condition where “restless referentiality” (of the world, of a thing, act or space) connects to, indeed contains, paradoxically, difference or distinctiveness (of a thing, act or space) to our senses, practices, and language-games.* It is a return to meaning as a way to disclose the world renouncing any “inherent stability” or what Derrida calls “the metaphysics of presence.” Instead, it asserts identity as a relational quality of things accomplished in our experience of them, connecting ourselves always already into an ontological field of things, contexts, acts and possibilities of acts, and immersing the interacting subject in a deep sense of its own continuity and interactivity with her/his environment (p.131). It is a concept defined to relate intrinsically different properties objectified by different epistemologies and in different theoretical traditions.

However, the duality of meaning is not coupled with a subject-centred view in three senses (p.124-128). First, it does not propose meaning as a return to the transcendental subject. Accordingly, the indicative quality of sign and meaning can track movement between entities not only as (seen, heard) flows of signs but also as (invisible, only partially understandable, or unintelligible) meaning. The notion of meaning as an “immanent reference” (i.e. a reference immanent in the identity, a quality at the very heart of the thing which nevertheless defines itself only through its “others,” which leads the identity to transcend the thing itself into other things, acts, and places) is placed as a key into the world beyond knowing and the knowable. It is rather a path always already leading into following, diverse referential codes and practices and effects and spaces. The possibility of meaning as what Heidegger called “a disclosure of the world,” a condition of understanding and being, is thus counter-balanced by a *movement immanent in meaning itself* – the movement of possible and real referentiality between things-in-the-world beyond the transcendental subject. As much as de-centring the subject implies a fluid conception of meaning, the transformation of meaning from a fixed entity (a key into the knowable world) into multiple lines of referential meaning implies de-centring the cognitive subject.

Second, it does not ignore the bodily, the affective or the enigmatic. If meaning may be a form of

disclosing existing things, yet meaning is not all that exists, neither all that is meaningful is fully disclosed through meaning. Bodily sensation, passion, or the enigmatic cannot be reduced to meaningful experience and even less to representational meaning.

Third, it neither reifies meaningful meaning, nor does it ignore the possibility of meaning. Meaning certainly cannot be taken only as intelligible or coherent, discursive or conscious. The duality of meaning is broader than the social reciprocity of interpretive meanings. As cognitive, imaged, or discursive effect, it has no boundaries. Yet we cannot afford to ignore meaningful meanings, or impose a discontinuity between the linguistic and the pre-linguistic in experience (p.126). One's perceptual field is not simply "bodily perception." Although being a pre-linguistic moment, perception is not free from the unconscious "decoding of things" as webs of meaningful (not necessarily intelligible) references. The duality of meaning relates to "sensation" and "feeling" as existential qualities of being and as ways into interpretations (or into disclosures of the world). It asserts the possibility of continuity from sensation to interpretation (and back), a "continuum of experience" – say, in the experience of love, when the other becomes more and more meaningful through sensual and emotional interaction. *The duality of meaning consists of a view into the place of communication, language, and the continuities between linguistic and pre-linguistic, interpretation and perception, in their relation to the material.* Unlike much of current ontological approaches, it does so for it addresses the unseen of the subject-world relation (i.e. beyond the exteriority of signs) and the possibility of sharing an experience, evoking subjects that are not only produced by but also actively produce flows of practice as their very activity (p.124, section 2.3 "Meaning and the human subject"). It focuses on referentiality as a meaningful process that summons the acting subject able to recognise things and act upon them through their materialities and meaning.

The thesis also developed the concept placing *meaning as a communicative device beyond its conscious use in language, in fact beyond any form of linguistic transmission, and beyond the conscious acting or relation to things and spaces.* Indeed our relations to the world and to others – relations produced as meaning relations – go well beyond the possibility of addressing the existence of things linguistically and consciously. The meaning of an act is the "multiplicity of connective possibilities that the act opens up" (Luhmann), a communicative continuity of subjects, acts, things and spatial contexts. These "strings of reference" seem to be there "informing" socialities all the time. This invisible, potentially endless referentiality becomes more pervasive than the phenomenon of linguistic communication itself and its mediation through space: it exists in the absence of

spoken or written words.

Strings of the social and material world? “Referentiality” as communication without words

The concept of the duality of meaning addresses our relations to things as “perceptive connections” active in the unfolding of our experience – or our experience of references between things and contexts, which precede, contextualise and follow the actualisation of actions. It addresses “an underlying, latent communication” anchored in the thing itself. Referentiality is a form of communication beyond words. Accordingly, if the major concern of Chapter 4 was to answer a key ontological question (“what is the connection between ‘the social’ and ‘the spatial’?”) the chapter developed this question into an approach centred on a renewed concept of meaning. It shifted, at that moment, from a spatial reflection on sociality to a description of certain ontological structures of the social and material world – a description of the interlacing of space, meaning, language and communication as (actual, potential, latent) “ontological strings” within the social and material world. It asserted that, as bodily *and* informational beings, agents address the world through the socially shared medium of meaning: at the heart of one’s relation to realms of things and different materialities and their interrelation there is “identity” and “referentiality” – a form of ontological relationality produced by meaning, latent in things as possible connections, actualised in one’s perception, interpretation and enaction. *The duality of meaning reaches and relates the innerworldly of the subject to the textures of kaleidoscopic relations between everything performed – or yet to be performed.* It allows one to see a social world constituted of real-and-possible strings of reference – a particular way to see the extraordinary relatedness of things in a world of vanishing allusions and connections between changing constellations of acts and contexts that constitute social and material systems immersed in production and change; allusions and connections between everything that exists (and existed, and what does not exist yet).⁶⁶ *Referentiality and identity are, together, an ontological foundation of the relation between the social and the material; a mutual, ultimate connection ensured by meaning and built through meaning.*

The chapter went on to suggest that meaning implies a connection between the visible and the invisible; it consists of a means through which structural relations within the social and material world are actualised as the actualisation of referentialities in the eventfulness of acts, things and spaces in our cognition and practice.⁶⁷ Therefore the concept opened the possibility to include *space*

⁶⁶ See my discussion of Luhmann’s “self-referentiality” (p.119-121) and Deleuze’s coupling of concepts of “virtual-actual” and “possible-real” (p.121-4).

⁶⁷ This possibility was pointed out at the very end of Chapter 4 (p.133), and developed in Chapter 5 (p.152 onwards).

as a key dimension of world-referentiality, suggesting that references are produced in space as they are in other semantic systems. Space could start to be devised as intrinsically part of the actualisation of everything performed (and yet to be performed) – a part of the very actualisation of those meaningful exchanges that constitute the practical and cognitive connections between acts. Space could thereby be devised as a key dimension of the possible-and-real webs of references between things and performances because space consists all the time of the possibility of relation between things and performances (something what would be overtly addressed only in Chapters 5 and 6), and seen – along with language – as a major referential system to the sociation of practices as they are immersed in deep relationality, a “sensed, cognised relationality” or world structure of continuities and discontinuities, potential coherence and paths into incoherence, communication breakdowns and new communications; traces of penetrable and joinable (practically and experientially) “world restlessness.” Thus, through one’s own practice and capacity to communicate and through the spaces which one appropriates and transforms (and produces, and certainly reproduces), one places oneself *as, into* a part of this massive chain of practices and “disclosures of the world” through mind, feeling and actions contained in one’s experience. “To make one’s way into this world” or “walking in this world” is walking in traces which contain (and at the same time lead to) past (and future) gestures, words, times, spaces, artefacts, intentions, desires. One experiences this “interlaced world” *as, through* a relentless (constant, diverse) profusion of traces or connections which are active in one’s action in the “now;” traces barely apparent in the web of so many other traces – a massive invisible web of which we one is usually only conscious of *this* trace (of one’s here and now, of something or someone or some event around her) which, in its connections, in the very elements of one’s own experience of the here and now (of what is around her right now and in this space), reveals already so many other places – only, of course, if we look close enough.

The referential view to space and practice introduced in Chapter 4 of course could not remain confined in the abstract level of a fundamental ontology, i.e. as the assertion of a fundamental relation between the social and the material; neither could it contain itself in a philosophical discussion of the place of space in the relatedness of things. Instead, such an ontological observation allows a view to a particular level of the socio-spatial dialectics, and to the problem that posed this whole incursion: “how space is part of the communicative exchanges at the heart of social practice.” It suggests that the absence of the ontological foundation of meaning is part of the reasons why the emergence of practice as a communicative process could not be systematically addressed as a process mediated by space in previous theories: without such a connection, the

material differences at work in ontologically distinct realms such as space and practice would keep them inevitably, fundamentally as distinct, separated realms, however related with one another, or perhaps related only at the level of bodily co-presences. A view to referential meaning is a view into the role of space in the production of networks of communicative practice.

1.4. Action as spatial networks of communication

How could space clarify the way social practice is produced through networks of communication? What would a spatial account add to the understanding of communication as the fundamental operation in social reproduction? Chapter 5 “Desperately Seeking Structure” placed the idea of meaning as a way to map elusive and endless networks of actual and possible connections between acts and between things, spaces and subjects into the heart of a sociological problem: how vanishing complexes of communicative practice emerge through space, or how city space takes part in the semantic and practical flows of connections in our actions. Of course that problem is “structuration” itself. Building a concept of “structure” beyond stable, rigid or centred structures through discussions of Derrida, Bauman, Giddens, Habermas and Luhmann (p.137-147), Chapter 5 explored the possibility of *structure as an immanent accomplishment of communicative practice and communication*. Such a conception of structure as communicative achievement is intended to localise “structuration” at the very moment when meanings (of words, signs, objects and spaces produced) are uttered, interpreted, appropriated and transformed in the action of others – sometimes far away in space and time (p.149). Those communications certainly are not signs of an existing working entity, an organism, a single, unifying structure, but of referential properties that permit social systems to produce internal relations of this particular kind – communicative and spatial relations between different persons, groups or spheres of institutionalised practice have effects over one another. Structures are proposed as exchanges of meanings in practices, signs, objects and spaces continuously subject to bodily perception and semantic interpretation. The concept of social structure as immanent accomplishment of communication addresses those fluxes of referentiality actualised and turned explicit in acts and utterances – fluxes that produce referentiality at the level of practice itself, and assert the possibility of practice to come into being. But how could this be the case? Chapter 5 essentially argued about *space as a way into an active participation within the world*, a way to join and produce referentiality – and, thereby, join social action or “sociation.” The production and appropriation of space were shown as forms to produce, know and control cognitively and practically those traces of possible connectivity between gestures and effects of gestures. Along with the production of other semantic systems, the production or urbanisation of space is a production of a constellation of *actual, latent and possible connections of one’s actions to*

those of others – so that one can connect oneself actively to the web of effects that is the world itself; i.e. join a social world of traces of gestures, things and places, and participate in the ontology of partial interlacements which the social world itself is constituted of. The chapter attempted to show how that could be the case: how simultaneous “social structurations” – the unfolding of differentiated networks of practice – come into being as spatial interrelations. It explored the possibility that, if communicative structures (elusive as they are) could be seen as spatial processes that ensured connectivity between socialities (as socialities enact networks of communication materially), then we could get closer to the “materiality of social structures” – a relation between different ontological realms produced through meaning and otherwise rendered impossible. So *space was proposed as a semantic field produced to structure communication; i.e. to connect human practices through an cognitively and practically penetrable structure which take the form of the spatiality of cities and architectural spaces – as visible, durable, institutionalised “knots” in networks of communication.*

Communication as a spatial process

In the attempt to disclose the spaces of the city as knots in networks of bodily-based communication, Chapter 5 faced a difficult theoretical gap: the place of space as an informational device in the production of practice seemed not fully explained in previous socio-spatial theories. Indeed the social reproductive role of information itself has been overlooked in social theory and in cognition theory alike. The referential perspective into space introduced in Chapters 4 and 5 explored the possibility of bridging the substantive gap between the *social enactment of space* and the *cognition of space*, and the epistemological gap between social theory and cognitive studies. It addressed social reproduction as a problem of “how actors may experience social practices and participate in them through space,” or through social information in space (p.152, section 3.1 “The ambiguity of space as ‘environment’ and ‘communication system’”). The problem of how practice becomes social through space thus required another unusual theoretical connection – one to the cognitive dimension of how agents get to know their social world and the possibilities of action through media of information and communication, among them space itself. The chapter moved into the assertion of *space as social information and cities as informational devices to practice and interaction*, and moved from a cognitive perspective on space as information to a theory of the material and informational constitution of systems of practice – a major problem easily rendered invisible by disciplinary divisions – connecting the “cognitive city” to the “practical city” (p.157) so that knowledge of the spaces and workings of a city could be seen as the knowledge of a constellation of differentiated meaningful possibilities and agencies, a knowledge developed

recursively in the interaction with the social and spatial environment. It explored the idea that *spatial knowledge (the knowledge of space and its physical, semantic and practical structures) is a way to produce and access social knowledge (the knowledge of the practices that constitute a lifeworld).*

A fundamental aspect in this problematic was to consider that social knowledge is produced not only through communication, but *communication in space*: it is constructed through the spatial temporality of social experiences – namely the arrangement of social situations in a diversity of temporal and spatial boundaries of simultaneous events that take the form of the city itself. Agents need information about actions in their normal doing, and read information in urban and architectural space as they do with other symbolic systems and interaction media. Chapter 5 learned from cognitive studies that spatial information is processed during interactions in and with the city and is retained in memory, including previously acquired knowledge relating socially shared meanings as part of the sensorial qualities of the environment. Places and architectural spaces in the city find physical, semiotic and semantic differentiations, and become information units carrying properties of the events they hold, and of the network of public spaces that makes possible the mobilities of the body, the interactions and relationships within an urban social system (p.157-8, section “The (social) role of information”). Spatial properties and socio-spatial events consist of practical information that a city encapsulates – surely the city is experienced, interpreted, produced and appropriated as such. Mental representations of cities, as cities themselves, become a reference system built upon partial experiences in daily movement and activity, which will be used again in practice.

Indeed elements of the referentiality of practice and space via meaning may be found in cognitive studies – although usually reduced to the specific domain of cognitive interpretations. Nevertheless, what such theories have not explained is *how action becomes social through such a cognitive connection to space*, neither have they seen such a connection as an ontological property of meaning – a deep connection between the social and the material. So my interpretation of the “knowledge of space” as the “knowledge of practice” aimed at expanding the atomistic concept of functional action that embeds the best cognitive theories, *while* adding the missing spatial and informational conditions to the social practice approach. The development of a referential approach to space and action intended to add an explicit view to the sociation of practice lacking in cognitive theory (p.159, section “Enacting the cognitive appropriation of space”). On the other hand, it added the *informational role of space* absent in socio-spatial theories (and found in cognitive studies) to a

theory of action. That includes Luhmann's unusual attention to information as a key dimension of social reproduction. Strukturifizierung certainly includes time as a pressure for selection of action choices. In turn, the present work proposed that space does not seem to represent pressure over agencies or to relate to the urgency of communication: space is in itself information about agencies and possibilities of communication (p.151). *Rather unlike time, space means no pressure over our doing. It rather tells us of (or eventually hides from our sight) performances, of possibilities of agency. It is information about (and a form of control of) the production and transmission of information.* Therefore, Chapter 5 interpreted the appropriation of space as a form of knowledge of society, of its workings, and a form of enacting that knowledge. The spatial formation of such form of social knowledge becomes essential to the actualisation of actions; a fundamental part of daily communication and movement – and the differentiated capacities to communicate and move in space, certainly a matter and a manifestation of power. Urbanised space was thereby seen as an informational structure of possibilities of actions and interactions, *a form of experiencing and knowing practices structured by the structuring of urban space itself*, and by the specificities of places and architectural spaces where we perform. Space cannot be a self-confined event. It is a statement of possibilities of practice within a lifeworld. Space describes the lifeworld to itself (p.160). The reference of action to space becomes an essential process in the enactment of everyday life. It truly becomes “a form of life” in itself.

Thus, if meaning is a property of things in use (Wittgenstein), the experience of space could not be self-contained. If something of space is cognised as related to practice, it becomes part of practice experientially and practically. The informational presence of space cannot be discarded at will. If practice addresses practice through semantic exchanges in order to become social, it also relate to space in order to do so: practice may address practice through meaningful space. Semanticised space implies the possibility of reference – complex networks of references – between our practices and the spatial contexts of our practices. Acts are always already produced and experienced through references to previous and surrounding acts and things and spatial contexts. Chapter 5 suggested that a substantial part of that relation would happen through meanings shared – or built through references – between practices and space. *Space is enacted as sensual and semantic information about possible practices, just as meanings produced in space “refer back” to practice. In addition to genealogies of a social space, space was thus seen as an active part of the referential constitution of social action.* The ambiguity of space as context or “environment” and “communication system” (p.152) is in itself produced by such ontological properties of meaning. Referentiality would blend agency and spatial context; it would blend the perceptible, the semantic and the practical. Spatial

environment and communication media may intermesh through meanings, just like meanings produced in space (as events in agents' experience and as indications to other meanings and agencies, places and events) may merge into the fluids of communication and exchange, into the elusive semantic transactions that constitute the communicability of practice. The duality of meaning in space becomes a mediation of those experiential flows, when space tells of agencies all the time; when space informs about possibilities of interaction even when one is not consciously looking for counterparts, and when space connects practice to further practice.

The referential perspective to society-space introduced in Chapters 4 and 5 suggested that it is so because the communicative infrastructure of practice – the eventful and relational production of meaning – refers practice and its effects to space like a network of referential strings built and rebuilt at every moment. Agencies relate spatially to agencies because their spaces are part of their knowledge of their lifeworld, at the moment of knowing about and actualising practices, so that they relate participating and accessing spaces (p.154, section 3.2. “Space in the connectivity of practice”). The referentiality of meaning asserts the convergence of flows of people, actions, information into urbanised spaces and places, and mediated by these spaces without any sense of order. These flows of course imply the production and appropriation of space in the form of cities as a form of interaction at the level of social integration (converging/diverging agencies), as “gates” to other media of interaction, and as flows of agency between regions, in broader and interrelating chains of reference and self-reference. Thus, the production of social space in the form of cities (the context of much of our daily practices) means a form of defining possibilities of action and interaction among a universe of possibilities. And conversely, the actualisation of those possibilities into action consists of *the moment of social structuration, the irruption of daily, bodily-mediated communication*. The communicative continuity of practice requires the reference between agency, its effects and space as a way to refer to other agencies, effects and spaces; the production of such continuity drives interacting agencies into the production of space. Space *and* these material and semantic exchanges become the “in-between” of communication. Referentiality therefore lies at the heart of the unfolding flows of actions – it represents the structural, connecting feature that ensures the continuity of relations between socialities, their surroundings, and the effects of their actions; it constitutes the continuity of communication both recursively and unpredictably. Space will be part of the production and reproduction of these real and virtual, latent and possible constellations of practice – constellations of potentially endless self-referentiality. These differentiated networks converge to and from urbanised space; they are substantially produced in and through the spaces of the city. But what are these “referential spaces” of the city? How do they look like?

1.5. Social production: connecting materiality and immateriality

Chapter 6 “Space and the (Improbability) of Social Reproduction” raised the questions “what is the spatial condition of referentiality?” “What material structures would a spatially referential practice produce?” or, more emphatically, “could referentiality ‘shape’ city space?” Surely the idea of space active at the level of social reproduction developed in Chapter 5 takes a pre-structured, urbanised space as a given. In order to avoid a static reduction, Chapter 6 moved into the description of the process of production of practice and space – and into problems frequently overlooked in theory: whether there is a mutual structuration of space and practice at all; and if there is, whether a mutual structuration would simply imply a semantic structuration of space, or would it irrupt in dimensions of space beyond the semantic – say into the very dimension that defines space and differentiates it from everything else. In other words, the chapter verified *whether the referential emergence of social action would irrupt into and shape the very physicality and semantic order of urban space, or whether it could happen under any physical and semantic condition*. It reached the level of social production asking questions like “how is space produced to be referential to practice” or “what is the strength of referentiality in the way humans produce their environments” and moving our view from the reproductive referentiality between communicative practices and space into its effects in the very production of space.

Nevertheless, the possibility of a “spatial structuration of action” and a “semantic, physical and practical structuration of space” is based on a more fundamental question also addressed in Chapter 6: what is the social role of a structured space? Would it have effects over or a part in the general problem of social reproduction? Certainly the traditional idea of an active place for space in the social (indeed reasserted throughout this thesis, and readdressed through Luhmann’s notion of referentiality) coupled with his counterfactual stance inherent to an approach that focuses on the ontological relation or passage from the “possible” to the “actual” lead to questions on the *improbability of social reproduction*. Accordingly, the question “what is the social role of space” leads into its reverse: *“could the vanishing structures of communication be enough to keep society reproducing itself?”* My argument aimed at disclosing the possibility of a place for the durability of space as a fundamental counterpart to the elusiveness of purely semiotic exchanges (i.e. based on language and other sonic and visual media of communication). It is the very possibility of space as communication (beyond a merely physical space) that this work searched to unveil and place as central in social reproduction.

Referentiality consists of a concrete process. The relational fluidity of practice (the changeability and elusiveness of acts that “move” towards something simultaneously through the bodily and the duality of meaning) relates to space concretely; it happens through space and could not ignore the materiality and the rigidity of space. The fluidity of practice could indeed be in shock with material rigidity, and collapse. It could be rendered ever non-fluid by “difficult spaces.” This is an appealing question especially if one raises images of spaces that could not stimulate interaction processes or the access to interaction media: dispersed human landscapes, labyrinth-cities. The problems social beings deal practically if they are to interact with one another relate to broader problems such as “how social practice generates urban structures” and “how urban structures may be part of the social emergence of practice” dealt with in a number of theories – including the Marxist socio-spatial dialectics. More commonly, they have been confined to theories which have rendered them an exclusive and reified object domain (e.g. economic approaches). Notwithstanding, the chapter attempted to take the problem of how practice generates urban structures and urban structures are part of practice beyond limited notions of spatial agglomeration and an exclusively teleological view of economic action (p.173-6). Moreover, a referential relation between society and space at the level of production cannot be fully explained through a general notion of a “socio-spatial dialectic” or be contained within a Marxist dimension of production. In Marxist accounts, the relation of communicative practice and space at the level of production is still not clearly visible (Chapter 1, p.31-46) – a relation that, if it is to happen at all, firstly implies the relation between different structures at the level of reproduction, and, secondly, a form of “mutual structuration” at the level of production. The social emergence of action cannot imply generic notions of spatial agglomeration “sparking” human activity (p.172), for it involves communicative, referential forms of production and reproduction of social relations. A framework which intends to add the missing communicative condition of practice to the socio-spatial dialectic aims instead at disclosing *networks of communication as potentially driving forces at the moment of structuration of space as much as it aims at revealing the production of urbanised space as an active medium in the communicative emergence of practice*. Chapter 6 raised such problems in order to unveil whether or how social structures, if they are to constantly emerge and fade away as communicative accomplishments, would involve a particular geographical condition: the production of actual “spatial structures” of a particular kind or configuration within the spatialities we call “cities.”

Beyond the teleology of economic action: the referential structuration of space

Economic approaches have certainly been providing strong evidences that there is a relation between a particular realm of action (the realm of work and production) and spatial structures.

Chapter 6 extended that argument to those internal spatialities of cities usually ignored in human geography, and did so beyond the structures usually seen in economic geographies (p.173-7), asserting that the spatiality of social communication at the level of the habitat, with implications beyond the city itself, can hardly be overestimated. Crisscrossing findings of distinct research areas like urban and economic geographies and space syntax, it looked into a referential configuration inside the city building sociological interpretations of the strong empirical correlations between the distribution of spatial densities found in a diversity of cases and regions and notions like *nodalities and centralities* identified in economic geography, and *the spatial core of axialities* mapped in space syntax (p.175-181). It followed the idea that such structures, from the social contents of architectural spaces to the distribution of activities and mobilities in the form of cities, have to do with the transmission of social information about possibilities of action and communication, becoming an active part in the production of the relationality of practice. Seeing action beyond the economic realm, and seeing spatiality beyond the limited concept of space found in economic geography, it proposed the possibility of a “structured space” as the “structuration of possibilities of acting and communicating” with a potential role in rendering materially fluid our bodily-mediated communications (p.182, section 2 “A referential production”). The development of a referential approach to society-space thus involved the analysis of urban structures of occupation, mobility and communication as a condition for social production and reproduction – a view to *the social reason of cities as a material counterpart to changing social systems. It searched the possibility of vanishing actions momentarily structured through the production and appropriation of a spatial structure: a puzzling relation between elusive and rigid structures.*

Indeed, distinct temporalities and changeabilities constitute the very heart of a socio-spatial relation performed at the level of practice, and result in an extraordinary, if underestimated, problem: how to understand a relation between media of different materialities. A “mutually structuring relation” may turn into a problematic relation – to be sure one ignored in current approaches in human geography – when it involves on the one hand rigidity and resistance to change of the physical and, on the other hand, the boundless fluidity of sequences of semiotic and linguistic events – of sequences of action itself. The problem of materiality perhaps may become clearer if translated into questions like “how do fast-changing structures of action relate to slow-changing structures of space?” or “does that difference imply that action could turn space obsolete or too rigid for its ever-changing nature?” The relationship between these different structures – between unstable structures of action and stable structures of space – is, therefore, a delicate one. Heavy spatial constraints over practice such as urban labyrinth-like spaces, fragmented cities or dispersed spatial landscapes could

impose difficulties to mobility and connections of actions, and to the intensity and fluidity of encounters and exchanges in space (pg.191); it could mean less exposition to the distributed intensities of social information in space, and more human energies invested in turning individuals into actual socialities immersed in bodily-mediated communication. In short, certain spatial structures could impose difficulties to the immersion of agencies into communication networks, or, in more general terms, to the communicative emergence of action. Oppressive spaces of this kind seem the opposite of what most urbanised spaces mean to daily practice – cities rarely look like difficult, non-fluid spaces. Generally, the complexes of architectural spaces we call “the city” seem to be naturally part of how social beings enact their daily lives. Labyrinthine cities are both denied by the everyday experience of enacting and appropriating our urban spaces and by the historical record of cities (p.179-181; see also Hillier 2001), and merely consist of counter-factual images useful to show that social reproduction is, from a spatial theoretical perspective, far from unproblematic. The internal structuration of cities therefore extends spatial effects well beyond the realm of economic action. *Spatialities of proximity and articulation between social situations (in the form of “spatial cores of nodalities and axialities” found in cities across the world) potentialise practicability when shaping the material constraints of rigidity and distance over the body, having effects over the possibility and intensity of bodily-mediated interaction. The structuring of space (in the form of cities) becomes part of the communicative immersion of agencies in urban environments.*

Chapter 6 asserted that this problem has clearly to do with the different temporalities involved in the actualisation and permanence of things of distinct materialities involved in the practice-space relation. It attempted to clarify these different temporalities (p.184, section “Time and change in different material realms”): (i) the instability of action as vanishing communication structures; (ii) the relative stability of recursive action in institutionalised relationships and organisations; (iii) the relative stability of social contents of spaces institutionalised through practice, which project practice beyond the temporal boundaries of a single event – asserting such practices as ongoing acts within a lifeworld; (iv) the rigidity of the physical dimension of space. A material analysis of this type was intended to reveal rather explicitly the conditions of a relation between “spatial structures” and “action structures” – the conditions socialities face if they are to materialise themselves in space and through space. These conditions include potential collisions, tension, and might mean the difficulty or impossibility of agency (or relations between agencies) in the case of material difficulties to the communicative emergence of action at the level of the habitat. That is a problem where differences in materialities may become structural problems and, ultimately, problems to

social reproduction.

Accordingly, Chapter 6 addressed such a theoretical challenge. It argued that urbanised space is a referential system produced to relate social beings quite differently from other systems such as language. Rigidity, produced to constantly support, inform and connect practice, may become subject to destruction precisely by changing practices. Space is certainly defined by its resistance – and its resistance to change. Changes in spatial forms become issues in the dynamics of social systems. Of course this is a problem only visible to approaches which take material differences as active ontological features – and which take a counterfactual stance to see the impossibility of social reproduction under specific material conditions. The chapter proposed that urban space, in order to accommodate social change or manifest it to the lifeworld as spatial information, must indeed change itself (p.187-190). It pointed to solutions to this conundrum. At the *architectural level of practice and appropriation of space*, the problem of durability is solved through changes of semantic and practical contents, or through transformation, destruction and substitution of buildings. Nevertheless, at the *urban level of the structure of axial formations and linkages between social activities*, durability becomes indeed more problematic. Cities cannot change their physical structure so easily. Indeed, if social and material processes were as fluid as recent accounts seem to claim, there would be no tension, no conflict, no contradiction between practice and space; there would be no unproblematic emergence of practice, and no agency fighting for power over the spatialities of the city (as Marxist approaches appropriately revealed). However related through the referentiality of practice and meaning – turning space and practice into never fully independent phenomena – material differences are always at work. Clearly against certain positions in human geography, such an argument affirmed an “*inherent relation*” that does not make differences disappear into undifferentiated flux; it rather involves difference: the material specificities that make space a peculiar form of interaction, and connection to other interaction media.

So how could durable urban structures deal with the changing universe of social systems? Chapter 6 asserted that, if there is an intertwined production of action and space (i.e. if the communicative emergence of social practice and the structuration of space find any kind of interpenetration or mutual effect), this relationship would simply have to have room for change – both in action and in space (p.188). A step further, it also asserted that *the mutual structuration of action and space could not imply a specific, closed relation* – say a particular spatial configuration produced to attend only certain agencies, a pattern of actions, or a fixed collection of interactions or social activities institutionalised as architectural spaces. That would be a spatial structure that brings in itself a

constant set of possibilities of social relationships, pre-defined agencies enforced by a fixed structure of space (say, a pre-defined set of locational patterns), and that of course cannot be the case. A pre-defined way into spatial structuration could only fix a set of possible complementarities, turning diverse and new possibilities of interaction between changing activities more difficult – i.e. not latent in the relative positioning of activities in space. That would deny the mobility of the body, the possibility of new agencies and experiences, and new relations of complementarity and exchange between activities rendered more difficult or invisible due to poor spatial connectivity or articulation. The argument went on to suggest that spatial structures therefore must admit changing interactions if they are to be part of the referentiality of practice; they must be *flexible* enough for changing socialities, which clearly depend on a physical linkages between different social situations; buildings must be re-appropriated, transformed or substituted; the channels between them must be *generic* enough for supporting these changing activities and their changing densities and relations. Also, considering the specific materialities of the city, it suggested that the only possibility of a space beyond an obstacle to social change is a non-labyrinthine space, a space structured enough to cope with changing sets of interactions – a generic structure of activity location and accessibility structuring spatial densities (nodes and axialities) and interstitial spaces without any sense of order. Thus, these structures may become accessible (or the opposite, hidden) social information (i.e. information useful in social performances) and be part of the fluidity of movement, communication and interaction of differentiated groups – in the form of what we call “cities.” In other words, my argument certainly took a controversial position, and proposed that the *improbable relation between a reproduction medium that changes all the time (communication) and a medium that changes only occasionally (space) is only possible through meaning – so that action and space may refer to one another, and action may refer to action through space. And such possibility depends on a space structured (and unstructured) in a way to be part of and reproduce the referential fluidity of practice, and accommodate the possibility of change.*

In this perspective, urbanised space is produced as a projection of possibilities of interaction within a lifeworld, and more: it is produced as material connections between agencies, as possibilities of bodily-mediated exchanges, of physical mobility between social situations, channelled by structures of open space. These structures are meant to allow any reference of practice to practice, any relation between ongoing agencies, and any relation of interacting subjects and material effects of practice. A step further, they may even suggest performing agencies potentially complementary activities and interactions required in her daily performances, as social information structured and distributed in different levels of mobility and activity location within the city. Spatial structures emerge as a

mediation of realms of human practice, a medium of communication in their own right. This question clearly relates to *the strength of referentiality of human practice in shaping the emergence of space structures* – a question that seems underestimated in orthodox sociology or positivist geographies as these handle either social or spatial aspects exclusively, as it is in human geography due to its problematic relation to the physicality of space.

I would like to conclude Chapter 7 “The Referential Approach to Society and Space” discussing these controversial assertions, along with possibilities for further development of this particular framing of the society-space relation.

2. Reflections on a referential approach

I shall finally offer a brief summary of the main ideas developed above, along with a definition of what the referential approach to society-space actually is. The referential approach consists initially of a view into the spatiality of social structures emphasising processes of “sociation of practice” through communication and its relation to space, and relating them to more general problems of social production and reproduction, and ontological reflections on the conditions of the social and material world. It is a first step in moving on from a spatial theory towards a theory of the materiality of the social, by *showing how at each stage of practice the semanticised space of the city is present*. The passage *from an account of the physical city to an account of the society that occupies it* must not only show how the very nature of human practice invokes and engages space, but that it invokes it beyond the temporal and spatial boundaries of the social event, in a non-local way. This view is intended to redefine the concept of space as “environment” in social theory away from the notion of environment as what “surrounds an individual,” structurally rendering invisible its true nature – which the referential approach has attempted to explain: a semantic-practical environment deeply, actively interlaced with action and communication through both physical (configurational) and meaningful (referential) dimensions of space.

The key stages in the argument by which the work has explored the nature of the “built environment” to the social are: (i) it shows the necessity of a semantic dimension of space (Chapter 3), (ii) it shows what is the connection between “social action” and “space”, and how the notion of “structuration” can be extended through the dual concept of meaning as “event” and “reference” (Chapters 4 and 5); and (iii) it shows how space becomes the unconscious but referential substrate which provides a certain form of available organisation to the semantic field where communication

networks are reared (Chapters 5 and 6). Or more fully, it explores a *semanticised space* (which is the sign that space has participated in turning individual acts into “social action”) as a part of communication firstly in mutual interpretations at the level of the event and place; secondly, in further communication beyond the event, between places and surrounding and future agencies. It shows a space related to communication through “meaning,” the only possible *intrinsic* connection between things as different as “human action” and “space.” The *duality of meaning* is therefore a concept able to objectify such a relation: it sees meaning as an element which asserts “inherent relationality” and continuities brought to light in current approaches in human geography, while defining them as intrinsic to the vitality of differences between things and recognisable boundaries within a social and material reality. Referentiality and identity were shown as operations at the level of a “fundamental ontology.” Indeed the referential approach points to an ontology of social and material, semantic and practical referentialities – the *interpenetrations of the social and the spatial*, the very structures that keep the social world together.

These considerations on “ontological foundations of social reality” – clearly a controversial subject – disclose themselves as a necessary theoretical step for understanding how space matters in social reproduction, and lead into a particular look into society-space. It addresses social structuration as a “referential structuration” centred on the relation of action, cognition, and space via dual meaning and communication. Space is proposed as a *form of structuring the semantic field* which socialities are immersed in; as a semantic field in its own right, it is produced to mediate social exchanges and relate practices as pervasively as language as a means to turn daily acts part of larger social constructions within and between situated social systems. It is shown as a system of communication that materialises the possibilities of acts available in a lifeworld, and the experience, cognition, selection and actualisation of such possibilities as the actualisation of acts themselves – a present and durable semantic field that asserts the connectivity of practice. Of course such referential structuration of social systems through space of course could not happen only at the level of ‘social reproduction:’ an inherent referential relation between space and practice cannot come from a given space or exist only when agents appropriate space in order to act and enact socially; if social action emerge referentially through connections in space, referentiality must be active in the moment when spaces are produced, generated, slowly arranged into urbanised spaces. The referential approach explores the problem of *how architectural space and the city become part of social production*: penetrating a delicate, improbable “mutual structuration” of things of different materialities (only possible through the connection of meaning), showing the strength of referentiality in our practices and cognition in shaping the material world, along with the influence of informational space in the

cognition and construction of practices, which again will produce and shape and change space as part of their very referentiality – a “mutual referentiality” active at the moment of production of communicative practice and space. Localised socio-spatial systems (or cities) grow being shaped as diverse agencies act over space – as actions of differentiated referential streams *shape* differentiated spaces – occupying them through architecture and through channels of open spaces, progressively expanding these channels and boundaries as a habitat over a particular geography, increasing its architectural densities as new agencies emerge, increase, exchange within such spatial environment, and with the region and socialities beyond its visible horizon in space-time – in an always ongoing process.

In building such a conceptual scheme, the approach aimed at, first, clarifying space as a semantic and practical field; second, clarifying its role in society, showing the “referential city” as a means to the recursive sociation of action, with a relevant role in social reproduction; and third, *clarifying society itself by showing how profoundly and pervasively it depends on the semantic organisation of space* – showing it deeply as a material phenomenon.

Observations on (the limits of) the present approach to society-space

Nevertheless, some of these considerations might be interpreted as a reduction of practice-space relations to teleology. Especially in order to avoid a teleological reduction, the development of a referential framework must consider the aspects that follow, in order to make clear its own scope. First, it certainly should have no interest in proposing the existence of a purely teleological relation between practice and space, or any fixed spatial relation between optimal sets of social exchanges in the fashion of old economic approaches. It rather denies the existence of equilibrium in social systems, in order to assert the variability of interacting agencies. Second, it must include the complexities of practice and experience that elude rational action, intelligible meaning – i.e. include those contingent, unpredictable decisions and actions motivated by desires and affect, by the enigmatic and the “undecidable” in human action correctly asserted in post-structuralist and performative approaches. On the other hand, it cannot afford to ignore the possibility of human agency manifesting spatially its relations (including interests or needs) to other agencies, as do some current approaches geared to see space and practice as fluid circular processes with no tension between agencies or between the spatiality of their practices and the very materiality of space. That would mean to ignore practical issues faced in everyday life and in the lives of economic groups and institutions. Accordingly, the emergence of spatial structure is accounted for as a spontaneous process of constant tensions of agencies finding forms to materialise themselves in space, and

thereby participate and produce possibilities of interaction that bring space as a form of communication.

Different socialities would find conditions to communicate and reproduce themselves through the semantic and physical structuring of space – and do so in a diversity of possible spatialities. In this perspective, urban spaces are produced to reproduce the fluidity of bodily-mediated communication. Nevertheless, these slow, successive spatial structurations are not subject to a form of collective strategic action; they are produced mostly through agencies specialised in the production of architectural and urban spaces obviously unable to find any rationalised standard to the tremendous possibilities of human action – a problem that came under theoretical attention mostly in spatial economics, and most inappropriately. Theory seems to be failing to grasp these structures: from the spatial densities and centralities and activity location in urban economics to the axialities of the movement economy in space syntax theory, we lack powerful descriptions able to show their mutual relation in the form of the rich spatialities of the city, including differences in architectural morphologies.

Certainly more is needed on the description of how spatial structures emerge through the material referentiality of practice. At this stage, the framework may only point out the possibility that such processes are actualised through the referential condition: socialities must project themselves spatially; they recursively occupy, produce, and destroy the geographies of cities as they change. However, the idea of meaning as constitutive of practice-space relations allows additional propositions. The practical requirement of meanings and actions to be made readily accessible in space – a requirement apparently frequent in our daily lives, as agencies know and relate to other agencies and their effects – leads into the idea that *the rigidity of space would be structured as an expression of the communicative referentiality of practice, as a constellation of meanings and possibilities of acts that will be summoned in practice. Referentiality is materially accomplished through the spatial structuration of cities, a process that in turn stimulates the actualisation, diversity, and change in the universe of practice.*

The process of spatial structuration therefore is deeper than most works in economic and cognitive geographies seem to assume: it relates to constraints and potentialities of the body appropriating space and communicating as true ontological conditions. The rigidity of space exists to us, and imposes itself in our experience. Urbanised space is produced as a way to place the rigidity of space on our side (p.191); it is structured semantically and physically by practice so that it may become

part of practice. But neither is it so in a deterministic manner nor is space anything but structured. Even physically, the city is a changing phenomenon; its spatial features change in different temporalities. The “structured city” is a partial city within the actual city, *a material sign of referentiality*, a way to render in an endless variety of spatial forms the diversity of practices and spaces addressable, potentially referential – spaces that are referential possibilities to practice. The referential city is a form of social space that each person knows and performs in a particular way, and this certainly requires taking into account the relation between the “structured” and the “unstructured” in social and material reality – and how spaces may be produced, changed and appropriated in order to be a material manifestation of and a referential counterpart to the diversity of human practice.

2.1. The “unstructured”

A framework developed from the viewpoint of the material reduction of the improbability of social reproduction is likely to focus firstly on “structuration” rather than on the “unstructured;” it is likely to focus firstly on actions reared in the course of material reproduction rather than on actions embedded in non-communicative experiences. In other words, the emphasis has been on how the referentiality of practice produces space as a means to ensure the transmission of information and actualisation of action. That is an objectively constituted problem of preservation and reproduction rooted in specific fundamental conditions of the self-constitution of socialities, solved by different cultural forms of social existence which space itself is a part – i.e. a structural condition of social reproduction. These self-formative processes are constituted through bodily-mediated communication structured in situations of work and interaction, instrumental action and symbolic exchanges (see Habermas 1972, Luhmann 1990), and through experiences beyond the intentional or “the origins of action in human consciousness” (Gregory in Johnston et al 2000). The research of spatial processes of social reproduction therefore naturally includes the conditions of material reproduction and how strongly complementary actions produce and shape space as “referential space.” By “strongly complementary actions” I mean actions directly concerned with fundamental teleologies of everyday life such as daily routines, work and the realm of production, and consumption – i.e. actions connected to differentiated functional institutional frames. Accordingly, actions with strong roles in material reproduction tend to involve heavier material conditions: the friction of distance and time hardly could be suspended over daily performances, related to work or not. At the same time, these actions involve dense referentiality: they imply chains of action that will be fundamental to the self-maintenance of the individual and the reproduction of agency. The referentiality of these particular realms or chains of practices is more likely to require and produce

structured spaces of accessibility and density described above. But these spaces are not structured in the sense of predictable spaces of predictable actions. They rather involve “concentrated spaces” where the contingency of actions may be reared – from the raw intensity of unpredictable encounters, interactions, exchanges – along with the controlled performances within routines and institutional organisation. The reproduction of social activities along certain centralities and axialities more easily knowable, accessible and referential in social performances still happens unpredictably in the localised growth of a social system, for one’s exposition to them is still personal and, to a significant extent, contingent – however intentional it might occasionally be.

Absent in the framework developed here is the role of space in the reproduction of possibilities of *practice beyond communication*. Space indeed must be seen beyond a mere function of the material reproduction of social life. Along with the structured spaces of controlled and uncontrolled referential actions involved in routines and the realm of production, there are referential appropriations of space to quite different purposes: the acts (and the spaces) of desire, of art, of seduction, of passion, of heated discussions around bar tables, of protest; spaces leading into the unpredictable, into mystery or into the “forbidden” – the symbolic practices of particular social groups or individuals, including conflictual agencies. These possibilities lead into a question: would acts beyond an orientation to material reproduction have anything to do with the apparent structuration of space? Or would non-instrumental acts or “the ways in which desire and fantasy animate action” (Gregory in Johnston et al 2000:363) relate to “unstructured spaces” instead? Acts related directed to the bodily, the affective, the aesthetic, or the interactions belonging entirely to symbolic practice and consciously avoiding institutionalised instances in order to produce and experience social “underworlds” or particular realms of interaction, however, are not less subject to meaning and communication *whenever* they emerge as *social acts* in social situations, and merge into interaction processes. Even the bodily and the enigmatic, experiences which in principle may elude “meaning,” become meaningfully-mediated exchanges *once socialised*, once translated into communication. Indeed the notion of communicative practice bridges instrumental and non-instrumental acts, and includes diverse possibilities of reproduction. Although it is outside the moment of purely individual aesthetic experience or purely sensual contact or even in “the ways in which desire and fantasy animate human action” (Gregory), it is *there* at the moment *when these experiences are shared or socialised through symbolic exchanges*. Symbolic interactions and non-instrumental practices are therefore also likely to consist of “referential practices” – i.e. produced through semantic references that, along with perceptual experiences beyond consciousness and intelligible meanings, will eventually imply relations to other practices through the duality of

meaning as identity and relation.

Furthermore, symbolic interactions also irrupt into *localised* communicative events. As referential acts, they are also likely to be referential to space: they happen through relations to space in continuities and discontinuities of practice if they are to be performed at all. But their referentiality to space seems to be of a different nature from those activities involved in material reproduction: the form of information to be found in space about those practices is of a quite different kind, and so is the kind of space to find such social information – i.e. hardly the “instrumental spaces” of urban axialities and centralities. A step further – and even if these acts did not include a referential relation to a “structured space” as part of their referentiality – the very referential structuration that generates spaces of fluid exchanges seems to produce, simultaneously, *less accessible* or even *virtually secret spaces*. The structuration of space therefore could not merely express the rationalisation of material processes exclusively, or in fact any supposedly pure or substantively *a priori* teleology of interaction. The material requirements of fluidity of practice may co-exist with social processes that elude those possibilities in a same city – and indeed frequently do. These “other socialities” seem to produce and shape their own spaces through very distinct spatial conditions: indeed very distinct spaces – even “hidden spaces” like Lefebvre’s spaces of bodily and art performances and creative transgression; unpredictable or secret spaces, not quite visible to everyone, and not strongly related to linked routinised performances. So along with the “spaces of daylight performances” of people, organisations and institutions, there are the spaces of the idiosyncratic, the non-instrumental, the spaces of secrecy – *interstitial spaces* perhaps overlapped with those spatial cores of nodalities and axialities (perhaps in their basements, their “underworld”), or perhaps just around their corners, or in between them, in less visible or obvious areas. The “unstructured” (or perhaps structured according to other social processes, or unstructured by being *partially disconnected* to the instrumental spaces of high densities and accessibilities) seems to exist along with the structured spaces of controlled and uncontrolled materially-oriented exchanges in our cities. Therefore, agencies moved by desire or affection or the aesthetic may be fully and actively included in particular studies or empirical cases of the referential approach to society-space.

2.2. Future development of the framework

Extensions of the framework must therefore make clear that the idea of a referential approach does not exclude alternative dimensions of the social. The view to the referential constitution of social acts (as act unfolds into other acts and interaction leads to further interaction through their spaces) is not restricted to practices that relate directly to material production, including the production of

space itself. Nevertheless, one may assert that the improbable relation between materiality and immateriality, space and practice, a relation only possible at the moment of doing through the duality of meaning, goes to a deeper level: space seems produced, structured and unstructured to spread information about practice, to expose the diversity of agency to diverse social information, and to render differentiated flows of practice fluid. And this does not imply that social beings are teleological machines and cities, teleological devices for the “chronically fatigued.” *The connection between different ontological realms (a relation between what is rigid and what is fluid) shows a deeper level of relationality. The social and the spatial seem to be deeply interconnected also at the level of production.* Nevertheless, the development of an approach to the spatial emergence of social practice should pursue descriptions accurate enough to reach more explicitly “the materiality of structure” i.e. grasping the elusiveness of the social world and its embodiment in space. More work is certainly needed in order to verify the spatial referentiality of particular realms of practice. Empirical studies surely are an essential step in that direction.

Empirical work on the material referentiality of practice: connections to urban features

If everything spatially cognised and performed is referential, where do we look for isolated cases of referentiality between practice and space? In other words, how can we isolate a part, even a “material part,” a spatial sample of referentiality, if precisely that means breaking down endless connections of experienced and performed referentiality? Yet it would be useful to suspend for a moment the complex chains that connect bodily-mediated, communicative practice to places inside the city analytically (or artificially) disengaging its connections to those actions performed or to be performed in other places and times. Such an analysis could certainly take a number of different directions, starting with empirical work on (i) *the general level of the city* (the level addressed theoretically in this thesis), probably the most complex example of a “material referentiality” between practice and space: the very emergence of cities – and a step further, the internal formations of cities. Empirical work may artificially isolate material pieces of referentiality within the socio-spatial world addressing the practical role of the *distribution of spatial densities within the city*, and the different social processes active within them – for example, the “busy-ness” of certain areas, i.e. the intensities of occupation of certain streets and urban densities. These densely referential spatialities become more appropriated by people or perhaps “closer” to more lives and routines; they become paths into *densities of social performances* – spaces that connect more practices, or spaces which become strong expressions of the connectivity of practice to the perceptions of larger parts of an urban population. Empirical work may isolate particular areas in order to verify how referential they are to certain streams of practice inside and outside a city.

Once considering the differentiated spatialities of the city and differentiated streams of practice, the approach may also address empirically (ii) the differentiated *social and economic expectations over the urban system*. Another sign of the strength of referentiality as the bridge in the “inseparable relation of practice and space” may be seen in the expectations around uses and activities over particular positions or places in urban space – be it in the emergence of a new town, or within an already densely populated area. These social expectations bring along pressure, competition and socio-economic tensions, and may be read as a direct expression of the role and potential of different places in the landscape of referentiality of situated practices and the internal structures in a city. Theoretically, the referential framework outlined above suggested that these social and economic potentials or expectations tend to relate to spatial cores of nodalities and axialities as distributions of bodily movement and social appropriation (or “densely referential spaces”) and may do so positively or negatively, i.e. stimulating agencies to either search these positions in order to actualise themselves, or intentionally place themselves outside this core, as forms of appropriating and controlling space performed by different social groups. Empirical work should therefore focus on identifying these socio-spatial potentials in specific cases, connecting them to different socialities or differentiated spatially-referential performances and expectations.

From the general urban condition, the framework may be empirically connected to (iii) the actual spaces of practice and their specific features. In other words, if referentiality is a social construction that cuts across every act or thought; if it is actively part of processes of “structuration” and “unstructuration” of the social and material world; and if it constitutes a bridge between the social and the material, then it must be found at work in the very architectural structures of a city. Certain architectural densities might prove intensely referential in the connectivity of actions, or with interesting effects over bodily-mediated interaction and the intensity of urban experiences. In this sense, the study of spatial conditions of *different typologies of buildings and the configuration of blocks* (say compact or eroded blocks) as they might have to do with different social effects such as densities of encounter and potential communication is strong a possibility for empirical work.⁶⁸

And finally, it must address (iv) *the referentiality of the social event and the architectural artefact or place* defined to situate the event, including the connection between the eventfulness of practice and the experience of physical (and social) boundaries, signs and contents of architectural space.

⁶⁸ My recent work on Brazilian cities has addressed the effects of different architectural densities and block configurations over levels of pedestrian movement and the busy-ness of streets – see Netto (2006).

The first purpose of such level of empirical research is to clarify the *blending of meanings in space into communication* starting with the methodological apparatus of research on the contextuality of action and speech, and seeking to find traces of spatial referentiality or the crisscrossing of spoken words and spaces in the contextual use of language. A second purpose is to clarify the cognitive impact of intensely referential or *remarkable places* on socialities and daily practices within a city – or in other words, the processes through which certain spaces become, to different extents, socially relevant to different agencies – say, due to intense social appropriation or intense visual impact over the perception of large numbers of people, or over particular groups and differentiated agencies.⁶⁹

Unfolding communication as empirically differentiated agencies

The framework defined above certainly addresses the relation between space and practice as networks of communication. These referential networks are seen as relatively differentiated flows of interaction – i.e. courses of practice differentiated only at the level of bodily-mediated communication, namely as differences of speech and interaction contents, spatial contexts and architectural and urban structures. Of course the production of communication should also relate to another level of practical differentiation: the unfolding of relatively organised and recursive complexes of practice – complexes which seem produced and reproduced with specific roles in material reproduction. However, as it stands, the framework developed so far is unable to turn explicit such differentiation process – i.e. connect the differentiation of communication to material and informational processes of institutional organisation, processes which are clearly strongly related to the shaping of communication itself (beyond Toulmin’s differentiation of speech into institutionalised contexts of action or “rational enterprises,” and functional types of argumentation). In other words, the actual contents and flows of communication were not turned explicit as empirical and practical formations neither were they related to specialised practice as an element of social organisation. Probably the most important possibility to advance the framework consists of a systematic study of the unfolding of communicative practice into such differentiated realms or institutionalised instances of practice, and their referential relations to places of practice.

A way to do so is through Luhmann’s particular developments of systems theory into *a description of the relations between functionally differentiated social subsystems*: a description of the distinct way in which modern society has evolved, differentiated by means of function through principles of self-selective formation. According to Luhmann, subsystems are autonomous – they are assigned

⁶⁹ The impact of places on cognition has been the subject of research in architecture and in cognitive geography (e.g. Portugali and Casakin 2003).

their own separate functions (“function systems”) in a way that they cannot substitute for or perform the function of another, and must be at the same time of equal access for all other function systems. Function systems constitute themselves self-referentially through the development of their own codes and programmes as specific modes of operation, and they operate *exclusively* on the basis of these codes and programmes, being closed to other systems, however reacting to them. The understanding of the emergence of referential and recursive courses of action may clearly relate to the historical and structural conditions of emergence of these systems, and, accordingly, with the systematic differentiation of linguistic contents and symbolic media (unfolding networks as institutionalised forms of speech and interaction that produce/reproduce subsystems of actions as much as the richness and unpredictable variety of everyday life) and the progressive specialisation of space itself – a problem indeed far from unexplored in social and spatial theories (from Durkheim and Weber to Henri Lefebvre and David Harvey). It is the relation between the differentiation of practice and the differentiation of space that future studies should focus on and unveil from the viewpoint of socio-spatial referentiality.

Such extensions would certainly allow the possibility of empirical research on the referentialities of practice as active processes which take and produce the city as their material, referential counterpart, say in the stabilities and instabilities of social exchanges between agencies engaged in material reproduction, or in localised processes of social integration and conflict. A key aspect would be the study of tensions between agencies specialised in the production of (specialised) spaces and other agencies or subsystems. Indeed, empirical research on the referential construction of differentiated agencies mediated by the appropriation and production of space could advance the theoretical approach and render the referentiality of practice more evident as a spatial process. The extension of the framework into actual institutional formation, organisation and conflict certainly is a way to reach more deeply and overtly the “materiality of structure” – the knowledge of the relations between social and spatial structures also from the viewpoint of a referential approach to communicative practice and space. It should reduce substantially the abstraction of the approach as developed so far.

The spatial actualisation of the social in its elusiveness brings us to a problem unexplained in the thesis: the role of other material, non-elusive symbolic systems as forms of societal integration and disintegration, both tied to and independent of linguistic communication in spatial situations of co-presence – say, written language travelling across space and distinct socialities through printed texts and images, or those texts accessed and exchanged in electronic spaces; oral communication in

situation of absence and the invisible complex spaces of mobile communication (see Lash and Urry 1994; Amin and Thrift 2002; Urry 2003); networks of production and distribution of objects, goods, and money (Leyshon and Thrift 1997) and other material systems of social reproduction, power and conflict. Of course the production and reproduction of these systems are certainly not independent of language; in fact they are frequently accompanied and mediated by networks of communications. Money itself is produced to mediate interactions and closely relates to language: the exchanges mediated by money are frequently permeated by linguistic assertions, propositions, attempts, rejections, agreements, disagreement, and conflict. On the other hand, it ensures the fluidity of exchanges of things, physical or not, in a quite different form from language. These communication systems are not all the time coupled. They eventually penetrate specific instances of practice and distinct corners of the lifeworld, and surely are not enacted always simultaneously. Therefore, they must be addressed in their own right, as much as the crisscrossing of these systems as referential connections must be rendered explicit, and explicitly connected to space.

Finally, there are *pre-linguistic experiences* in situations of co-presence. The pervasiveness and richness of these realms of human existence and sociality could hardly be overestimated. Surely missing in the approach introduced above is how *the body also mediates human practice*. The bodily is a form of experience that relates directly to communication in a diversity of forms, and may also be an extraordinarily rich form of communication quite distinct from the possibilities of language. Therefore the body must be turned into an explicit subject in the referential perspective, not least due to the growing attention given to it in post-structuralist and performative approaches, but especially due to the fact that it is not disconnected from the linguistic and the interpretive. These connections, rendered almost invisible by epistemological differences, must be brought to light. The concept of a duality of meaning introduced in this thesis contemplates the possibility of *a strong connection between perception and interpretation, sensation and meaning*. Space seems a key factor here: space seems to relate these different flows of experience. Such relations indeed point to another horizon in theory formation.

References

- Adorno T, Horkheimer M 1997 *Dialectics of Enlightenment* (Verso, London) Originally published 1944
- Amin A, Thrift N 2002 *Cities: Re-imagining the Urban* (Polity Press, Cambridge)
- Andersson C, Lindgren K, Rasmussen S, White R 2001 "Urban Growth Simulation From 'First Principles'" (<http://ees.lanl.gov/staff/steen/papers/prepaper08061.pdf>) working paper
- Baecker D 2004 "Niklas Luhmann (1927-1998)" (www.uni-wh.de/baecker) accessed October 2004
- Baker P 1993 "Chaos, order, and sociological theory" *Sociological Inquiry* 63 123–49
- Batty M, Fotheringham A, Longley P 1989 "Diffusion-Limited Aggregation and the Fractal Nature of Urban Growth" *Papers of the Regional Science Association* 67 55–69
- Batty M 1991 "Generating Urban Forms from Diffusive Growth" *Environment and Planning A* 23 511-544
- Batty M 2003 "The emergence of cities: complexity and urban dynamics" (www.casa.ucl.ac.uk/publications/full_list.htm) working paper
- Bauman Z 1991 "A sociological theory of postmodernity" *Thesis Eleven* 29
- Bauman Z 1992 *Intimations of Postmodernity* (Routledge, London)
- Bell D 1994 "Reference, experience, and intentionality" in L Haaparanta (ed) *Mind, Meaning and Mathematics: Essays on the Philosophical Views of Husserl and Frege* (Dordrecht, Kluwer) pp. 185–209
- Benko G, Strohmayr U (eds) 1997 *Space and Social Theory* (Blackwell, Oxford)
- Bernstein R 1983 *Beyond Objectivism and Relativism* (Blackwell, Oxford)
- Bingham N, Thrift N 2000 "Some new instructions for travellers" in Crang M, Thrift N (eds) *Thinking Space* (Routledge, London) pp 281–301
- Blomley N, Delaney D and Ford R (eds) 2001 *The Legal Geographies Reader* (Blackwell, Oxford)
- Bourdieu P 1990 *The Logic of Practice* (Polity Press, Cambridge) Originally published 1980
- Butler J 1997 *Excitable Speech* (Routledge, London)
- Brenner N, Jessop B, Jones M and MacLeod G (eds) 2003 *State/Space* (Blackwell, Oxford)
- Carlstein T, Parkes D and Thrift N (eds) 1978 *Timing Space and Spacing Time Vol.2: Human Activity and Time-Geography* (Edward Arnold, London)
- Castells M 1996 *The Information Age: Economy, Society and Culture Vol.1 The Rise of the Network Society* 2nd Ed 2000 (Blackwell, London)
- Castree N, MacMillan T 2004 "Old news: representation and academic novelty" *Environment and Planning A* 36 469–480
- Cooper R, Law J 1995 "Organization: distal and proximal views" *Research in the Sociology of Organizations: Studies of Organizations with European Tradition* 13 237–74
- Crang M, Thrift N (eds) 2000 "Introduction" in Crang M, Thrift N (eds) *Thinking Space* (Routledge, London) pp 1–30
- Couclelis H, Gottsegen J 1997 "What maps mean to people: denotation, connotation, and geographic visualization in land-use debates" in *Spatial Information Theory* (Springer, Berlin) pp 151–162
- Dear M 1997 "Postmodern bloodlines" in G Benko, U Strohmayr (eds.) *Space and Social Theory*

- (Blackwell, London) pp 49–71
- Dear M, Flusty S 2002 “Introduction” in M Dear, S Flust (eds) *The Spaces of Postmodernity* (Blackwell, Oxford) pp 1–12
- Dear M, Flusty S (Eds) 2000 *The Spaces of Postmodernity* (Blackwell, Oxford)
- Deleuze G 1991 *Bergsonism* (Zone Books, New York) Originally published 1968
- Deleuze G 1993 *The Fold: Leibniz and the Baroque* (Athlone, London) Originally published 1988
- Deleuze G, Guatarri F 1988 *A Thousand Plateaus: Capitalism and Schizophrenia* (Athlone, London) Originally published 1980
- Deleuze G, Guatarri F 1994 *What is Philosophy?* (Verso, London) Originally published 1991
- Deleuze G, Parnet C 1987 *Dialogues* (University of Chicago Press, Chicago) Originally published 1977
- Derrida J 1973 *Speech and Phenomena and Other Essays on Husserl’s Theory of Signs* (Northwestern University Press, Evanston) Originally published 1967
- Derrida J 1974 *Of Grammatology* (John Hopkins University Press, Baltimore) Originally published 1967
- Derrida J 2001 *Writing and Difference* (Routledge, London) Originally published 1967
- Dixon D, Jones J 2004 “Guest editorial” *Environment and Planning A* 36 381–90
- Donald M 1991 *Origing of the Modern Mind* (Harvard University Press, Cambridge MA)
- Douglas J (ed) 1971 *Understanding Everyday Life* (Routledge, London)
- Ernste H 2004 “The pragmatism of life in poststructuralist times” *Environment and Planning A* 36 437–50
- Eyles J, Cosgrove D 1989 “Geography is everywhere: culture and symbolism in human landscapes” in D Gregory, R Walford (eds) *Horizons in Human Geography* (Macmillan, London) pp. 118–35
- Fairclough N, Jessop B, Sayer A 2001 “Critical realism and semiosis” published by the Department of Sociology, Lancaster University (<http://www.comp.lancs.ac.uk/sociology/soc030ju.html>)
- Faria A, Krafta R 2003 “Representing urban cognitive structure through spatial differentiation” *Proceedings of 4th Space Syntax International Symposium* (ed) J Hanson (UCL Press, London) pp 53.1–18
- Føllesdal D 2001 “Bolzano, Frege, and Husserl on Reference and Object” in J Floyd, S Shieh (eds) *Future Pasts: The Analytic Tradition in Twentieth-century Philosophy* (Oxford University Press, Oxford)
- Forty A 2000 *Words and Buildings: A Vocabulary of Modern Architecture* (Thames & Hudson, New York)
- Foucault M 1980 *Power/Knowledge* (Pantheon, New York)
- Frege G 1984 “On sense and meaning” in G Frege *Collected Papers: On Mathematics, Logic, and Philosophy* edited by B McGuinness (Blackwell, Oxford) pp 157–177 Originally published 1892
- Fujita M, Thisse J F 2000 “The formation of economic agglomerations: old problems and new perspectives” in J-M Huriot and J-F Thisse (eds) *Economics of Cities: Theoretical Perspectives* (Cambridge University Press, Cambridge)
- Gadamer H-G 1977 *Philosophical Hermeneutics* (University of California Press, Berkeley)
- Gadamer H-G 1989 *Truth and Method* (Sheed & Ward, London) Originally published 1960
- Garfinkel H 1967 *Studies in Ethnomethodology* (Prentice-Hall, New Jersey)
- Gibson J 1979 *The Ecological Approach to Visual Perception* (Houghton-Mifflin, Boston)
- Giddens A 1976 *New Rules of Sociological Method* (Hutchinson, London)

- Giddens A 1979 *Central Problems in Social Theory* (Macmillan, London)
- Giddens A 1984 *The Constitution of Society* (Polity Press, Cambridge)
- Giddens A 1987 "Structuralism, Post-structuralism" in A Giddens, J Turner (eds) *Social Theory Today* (University Press, Stanford) pp 195–223
- Giddens A 1990 *The Consequences of Modernity* (Polity Press, Cambridge)
- Giddens A 1993 "Preface" in B Werlen *Society, Action, and Space: An Alternative Human Geography* (Routledge, London)
- Goffette-Nagot F 2000 "Urban spread beyond the city edge" in J-M Huriot and J-F Thisse (eds) *Economics of Cities: Theoretical Perspectives* (Cambridge University Press, Cambridge)
- Gomart E, Hennion A 1999 "A sociology of attachment: music amateurs, drug users" in J Law, J Hassard (eds) *Actor-Network Theory and After* (Blackwell, Oxford) pp 220–247
- Gravonetter M, Swedberg R 1992 *The Sociology of Economic Life* Westview Press, Oxford
- Gregory D 1978 *Ideology, Science and Human Geography* (Hutchinson, London)
- Gregory D 1981 "Human agency and human geography" *Transactions of the Institute of British Geographers* 6 1-8
- Gregory D 1989 "The crisis of modernity? Human geography and critical social theory" in R Peet and N Thrift (eds) *New Models in Geography Vol.2* (Unwin Hyman, London) pp 348–385
- Gregory D 1994 *Geographical Imaginations* (Blackwell, Oxford)
- Gregory D 1997 "Lacan and geography: The production of space revisited" in G Benko, U Strohmayr (eds) *Space and Social Theory* (Blackwell, London) pp 203–231
- Gregory D, Urry J (eds) 1985 *Social relations and spatial structures* (Macmillan, London)
- Habermas J 1972 *Knowledge and Human Interests* (Polity Press, Cambridge). Originally published 1968
- Habermas J 1984 *The Theory of Communicative Action Vol.1* (Polity Press, Cambridge). Originally published 1981
- Habermas J 1987a *The Theory of Communicative Action Vol.2* (Polity Press, Cambridge). Originally published 1981
- Habermas J 1987b *The Philosophical Discourse of Modernity* (Polity Press, Cambridge). Originally published 1985
- Habermas J 1988 *On the Logic of the Social Sciences* (Polity Press, Cambridge). Originally published 1967
- Habermas J 1992 *Postmetaphysical Thinking* (Polity Press, Cambridge). Originally published 1988
- Habermas H, Luhmann N 1971 *Theorie der Gesellschaft oder Sozialtechnologie – Was leistet die Systemforschung?* (Frankfurt am Main)
- Hägerstrand T 1978 "Survival and arena: on the life-history of individuals in relation to their geographical environment" in T Carlstein, D Parkes, N Thrift (eds) *Timing Space and Spacing Time Vol.2: Human Activity and Time-Geography* (Edward Arnold, London) pp 122–45
- Haken H, Portugali J 1995 A synergetic approach to the self-organization of cities and settlements *Environment and Planning B Planning and Design* 22 35–46
- Hall P 1998 *Cities and Civilization: Culture, Innovation, and Urban Order* (Phoenix Giant, London)

- Harvey D 1973 *Social Justice and the City* (John Hopkins University Press, Baltimore)
- Harvey D 1978 "The urban process under capitalism" *International Journal of Urban and Regional Research* 2 101–31
- Harvey D 1982 *The Limits to Capital* (Blackwell, Oxford)
- Harvey D 1985 *The Urbanisation of Capital* (Blackwell, Oxford)
- Harvey D 1989 *The condition of Postmodernity* (Blackwell, Oxford)
- Harvey D 1996 *Justice, Nature and the Geography of Difference* (Blackwell, Oxford)
- Harvey D 2000 *Spaces of Hope* (Blackwell, Oxford)
- Harvey D 2001 *Spaces of Capital* (Blackwell, Oxford)
- Heidegger M 1962 *Being and Time* (Harper & Row, New York)
- Heidegger M 1985 "Phenomenology and fundamental ontology: the disclosure of meaning" in K Mueller-Vollmer (ed) *The Hermeneutics Reader* (Continuum, New York) pp 214–240
- Herod A, Wright M (eds) 2002 *Geographies of Power: Placing Scale* (Blackwell, Oxford)
- Hetherington K 1998 *Expressions of Identity: Space, Performance, Politics* (Sage, London)
- Hill J 2003 *Actions of Architecture: Architects and Creative Users* (Routledge, London)
- Hillier B 1996 *Space is the machine*. Cambridge: Cambridge University Press.
- Hillier B 2001 "A theory of the city as an object" in *Proceedings of III International Space Syntax Symposium* (GeorgiaTech Press, Atlanta)
- Hillier B 2003 "The human city beneath the social city" in *Proceedings of IV International Space Syntax Symposium* (UCL Press, London)
- Hillier B, Hanson J 1984 *The social logic of space* (University Press, Cambridge)
- Hillier B, Netto V 2002 "Society seen through the prism of space: outline of a theory of society and space" *Urban Design International* 2
- Hinchliffe S 2003 "Inhabiting landscapes and natures", in *The Handbook of Cultural Geography* Eds. K Anderson, M Domosh, S Pile, N Thrift (Sage, London) pp 207–226
- Hodder I 1987 *The Archaeology of Contextual Meanings* (University Press, Cambridge)
- Honderich (ed) 1995 *Dictionary of Philosophy* (Oxford University Press, Oxford)
- Honneth A 1987 "Critical theory", in Giddens A and Turner J (eds) *Social Theory Today* (Polity Press, Cambridge) pp 347–382
- Husserl E 1976 *Logical Investigations* (Routledge, London) Originally published 1906
- Isard W 1956 *Location and Space-economy: A General Theory Relating to Industrial Location, Market Areas, Land Use, Trade, and Urban Structure* (Chapman & Hall, London)
- Jacobs J 1969 *The Economy of Cities* (Random House, New York)
- Jackson P 2000 "Rematerializing social and cultural geography" *Social and Cultural Geography* 1 9–14
- Johnston R, Gregory D, Pratt G and Watts M (eds) 2000 *The Dictionary of Human Geography* (Blackwell, Oxford)
- Katznelson 1988 "Foreword" in *Social Justice and the City* D Harvey (Blackwell, London)
- Knodt E 1995 "Foreword" in N Luhmann *Social Systems* (University Press, Stanford) pp ix–xxxvi

- Kracauer S 1990 "Über Arbeitsnachweise: Konstruktionen eines Raumes" In *Schriften*, Bd.5 (Aufsätze, Frankfurt am Main)
- Krafta R, Portugali J, and Lemos J, 1998 "Cognition, automata and urban symbolic order" In *Proceedings of the 4th International Conference on Design and Decision Support Systems in Architecture and Urban Planning* (Mastricht)
- Krugman P 1991 *Geography and Trade* (MIT Press, Cambridge MA)
- Krugman P 1995 *Development, Geography and Economic Theory* (MIT Press, Cambridge MA)
- Krugman P 1996 *The Self-Organizing Economy* (MIT Press, Cambridge MA)
- Lacan J 1977 *Écrits* (Tavistock, London)
- Lash S, Urry J 1994 *Economies of Signs and Space* (Sage, London)
- Latham A, McCormack D 2004 "Moving cities: Rethinking the materialities of urban geographies" *Progress in Human Geography* 28, 6 701 – 724
- Latour B 1993 *We Have Never Been Modern* (Harvester, Hassocks)
- Latour 1997 "Trains of thought. Piaget, formalism and the fifth dimension" *Common Knowledge* 7 177–91
- Latour B 1999 "On recalling ANT" in *Actor-Network Theory and After* Eds J Law, J Hassard (Blackwell, Oxford) pp 15–25
- Law J 1994 *Organizing Modernity* (Blackwell, Oxford)
- Law J 1999 "After ANT: complexity, naming and topology" in J Law, J Hassard (eds) *Actor-Network Theory and After* (Blackwell, Oxford) pp 1–14
- Law J, Hassard J 1999 (eds) *Actor-Network Theory and After* (Blackwell, Oxford)
- Law J, Urry J 2002 "Enacting the Social" published by the Centre for Science Studies and Sociology Department, Lancaster University (<http://www.comp.lancs.ac.uk/sociology/soc099jlju.html>)
- Lees L 2002 "Rematerializing geography: the 'new' urban geography" *Progress in Human Geography* 26 101–12
- Lefebvre H 1991 *The Production of Space* (Blackwell, Oxford) Originally published 1974
- Levi-Strauss C 1963 *Structural Anthropology* (Allen Lane, London)
- Ley D 1978 "Social geography and social action" in D Ley, M Samuels (eds) *Humanistic Geography: Prospects and Problems* (Maaroufa Press, Chicago)
- Leyshon A, Thrift N 1997 *Money Space: Geographies of Monetary Transformation* (Routledge, London)
- Linge D 1977 "Editor's introduction" in H-G Gadamer *Philosophical Hermeneutics* (University of California Press, Berkeley)
- Luhmann N 1990 *Essays on Self-Reference* (Columbia University Press, New York)
- Luhmann N 1995 *Social Systems* (Stanford University Press, Stanford) Originally published 1984
- Luhmann N 1998 *Observations of Modernity* (Stanford University Press, Stanford) Originally published 1992
- Luhmann N 2002 *Theories of Distinction: Redescribing the Descriptions of Modernity* (Stanford University Press, Stanford)
- Mandel E 1975 *Late Capitalism* (Verso, London)
- Marcuse P, Kempen R V (eds) 2000 *Globalizing Cities: A New Spatial Order?* (Blackwell, London)

- Marshall A 1920 *Principles of Economics* (Macmillan, London)
- Massey D 1984 *Spatial Divisions of Labour* (Macmillan, London)
- Massey D 1994 *Space, Place, and Gender* (Polity Press, Cambridge)
- Massey D 1999 "Cities in the world" in D Massey, J Allen and S Pile (eds) *City Worlds* (Routledge, London)
- McCarthy T 1984 *The Critical Theory of Jürgen Habermas* (Polity Press, Cambridge)
- Mead G 1934 *Mind, Self and Society* (University Press, Chicago)
- Merrifield A 2000 "Henri Lefebvre: a socialist in space" in M Crang, N Thrift (eds) *Thinking Space* (Routledge, London) pp 167–182
- Michell T 2002 *The Psychastenia of Deep Space: Evaluating the 'Reassertion of Space in Critical Social Theory'* unpublished PhD thesis, The Bartlett School of the Built Environment, University College London
- Mitchell W 1995 *City of Bits: Space, Place, and the Infobahn* (The MIT Press, Massachusetts)
- Mol A, Law J 1994 "Regions, networks and fluids" *Social Studies of Science* 24 641–671
- Moore S, Faulconbridge J, Blake C, Westhead D, Slater T, Brown G, Davidson M, Huxley M and Huijbens E 2003 "Reflections on current developments in contemporary urban geography" *Area* 35.2: 217–222
- Morril R 1972 *The Spatial Organization of Society* (Duxbury Press, Belmont CA)
- Munro C 1987 "Semiotics, Aesthetics and Architecture" *British Journal of Aesthetics* 2 2 115–28
- Netto (2006) "O efeito da arquitetura: impactos sociais, econômicos e ambientais de diferentes configurações de quarteirão" in *Vitruvius – Arqutextos* (<http://www.vitruvius.com.br/arquitextos/arq000/esp397.asp>)
- Olsson G 1993 "Chiasm of thought-and-action" *Environment and Planning D: Society and Space* 11 279–294
- Oxford Dictionary 2002 (Oxford University Press, Oxford)
- Parsons T 1947 "Introduction" in M Weber *The Theory of Social and Economic Organization* (Free Press, New York) Paperback edition 1964 pp 3–86
- Parsons T 1968 *The Structure of Social Action Vol II* (Free Press, New York) First published 1937
- Pile S, Thrift N 1995 *Mapping the Subject: Geography of Cultural Transformation* (Routledge, London)
- Philo C 2000 "More words, more worlds: Reflections on the cultural turn and human geography" in I Cook, D Crouch, S Naylor, J Ryan (eds) *Cultural turns/geographical turns: perspectives on cultural geography* (Prentice Hall, Harlow) pp 26–53
- Portugali J, Casakin H 2003 "Information communication and the design of cities" *Proceedings of the Conference on Creating Communicational Spaces* Ed J Frescara (Edmonton, Canada)
- Poulantzas N 1978 *State, Power, Socialism* (Verso, London)
- Rabinow P 1999 *French DNA: Trouble in Purgatory* (University of Chicago Press, Chicago)
- Rapoport A 1982 *The Meaning of the Built Environment* (Sage, London)
- Rawls J 2001 "Afterword: a reminiscence" in J Floyd, S Shieh (eds) *Future Pasts: The Analytic Tradition in Twentieth-Century Philosophy* (Oxford University Press, Oxford) pp 417–430
- Reed M, Harvey D 1992 "The new science and the old: Complexity and realism in the social sciences" *Journal for the Theory of Social Behaviour* 22 353–80
- Rose M 2004 "Reembracing metaphysics" *Environment and Planning A* 36 461–68

- Sassen S 2001 *The Global City* 2nd edition (University Press, Princeton) First published 1991
- Schechner R 1988 *Performance Theory* (Routledge, London)
- Schutz A 1962 *Collected Papers I: The Problem of Social Reality* ed. M Natanson (The Hague)
- Schutz A 1967 *The Phenomenology of the Lifeworld* (Northwestern University Press, Evanston) First published 1932
- Schutz A, Luckmann P 1973 *The Structures of the Life-World Vol.1* (Northwestern University Press, Evanston) Originally published 1959
- Schutz A, Luckmann P 1989 *The Structures of the Life-World Vol.2* (Northwestern University Press, Evanston) Originally published 1983
- Scott A 1988 *Metropolis: From the Division of Labor to Urban Form* (California University Press, Berkeley)
- Scott A 1998 *Regions and the World Economy* (University Press, Oxford)
- Serres M with Latour B 1995 *Conversations of Science, Culture and Time* (University of Michigan Press)
- Simonsen K 1991 "Towards an understanding of the contextuality of social life" *Environment and Planning D: Society and Space* 9 417 – 32
- Smith T, Lundberg C 1984 "Psychological foundations of individual choice behaviour" in M Fischer, P Nijkamp (eds) *Recent Developments in Spatial Data Analysis* (Gower, Aldershot)
- Soja E 1989 *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (Verso, London)
- Soja E 2000 *Postmetropolis: Critical Studies of Cities and Regions* Blackwell, Oxford
- Soja E 2001 "In different spaces", in *Proceedings of III International Space Syntax Symposium* (GeorgiaTech Press, Atlanta)
- Storper M 1997 *Regional World* (Guilford Press, New York)
- Storper M, Salais R 1997 *Worlds of Production: Action Frameworks of the Economy* (Harvard University Press, Cambridge MA)
- Sullivan L 1956 *The Autobiography of an Idea* (Dover Publications, New York) Originally published 1924
- Swedberg R (ed) 1990 *Economics and Sociology* (Princeton University Press, Princeton)
- Swedberg R 1990 "Introduction", in M Weber *Essays in Economic Sociology* (Princeton University Press, Princeton)
- Thrift N 1983 "On the determination of social action in space and time" *Environment and Planning D: Society and Space* 1 23–57
- Thrift N 1996 *Spatial Formations* (Sage, London)
- Thrift N 1999 "The Place of Complexity", *Theory, Culture and Society* 16 31–70
- Thrift N 2000 "Afterwords" *Environment and Planning D: Society and Space* 18 215–255
- Tito J 1990 *Logic in the Husserlian Context* (Northwestern University Press, Evanston)
- Toulmin S, R Rieke and A Janik 1979 *An Introduction to Reasoning* (Macmillan, New York)
- Tschumi B 1996 *Architecture and Disjunction* (The MIT Press, Cambridge MA)
- Tuan Y 1977 *Space and Place: The Perspective of Experience* (Edward Arnold, London)
- Tversky A, Kahneman D 1981 "The framing of decision and the psychology of choice", in *Science* vol.211
- Urry J 2002 "Connection and Mobility", working paper (<http://perso.wanadoo.fr/ville-en->

[mouvement/telechargement](#)

- Urry J 2003 *Global Complexity*
- Vygotsky L 1978 *Mind in Society* (Cambridge University Press, Cambridge)
- Weber M 1947 *The Theory of Social and Economic Organization* edited and translated by T. Parsons (Free Press, New York)
- Weber M 1991a “The Social Psychology of World Religions”, in *From Max Weber* (eds) HH Gerth and CW Mills (Routledge, London) pp 267–301 First published in English 1948. Originally published 1922
- Weber M 1991b “Religious Rejections of the World and their Directions”, in *From Max Weber* (eds) HH Gerth and CW Mills (Routledge, London) pp 323–359 First published in English 1948. Originally published 1915
- Weber M 1968 *Economy and Society Vol.1 & 2* (University of California Press, Berkeley) Originally published 1920
- Weber M 1999 *Essays in Economic Sociology* edited by R Swedberg (Princeton University Press, Princeton)
- Weber M 2002 *The Protestant Ethic and the Spirit of Capitalism* (Blackwell, Oxford) Translated from the 1920 revised version. Originally published 1904–1905
- Wenger E 1998 *Communities of Practice: Learning, Meaning, and Identity* (Cambridge University Press, Cambridge)
- Werlen B 1993 *Society, Action, and Space: An Alternative Human Geography* (Routledge, London)
- Werlen B 2005 “Regions and everyday regionalizations: from a space-centred towards an action-centred human geography”, in *B/ordering space* Houtum, Henk van; Kramsch, Olivier, and Zierhofer, Thomas W (Eds). Aldershot, Hants, England
- Wheaton W 1982 “Urban spatial development with durable but replaceable capital” *Journal of Urban Economics* 12 53–67
- Wilson T 1971 “Normative and interpretive paradigms in sociology”, in J Douglas (ed) *Understanding Everyday Life* (Routledge, London) pp 57–79
- Winch P 1951 *The Idea of a Social Science and its Relation to Philosophy* (Routledge, London)
- Wise J 1997 *Explaining Technology and Social Space* (Sage, London)
- Wittgenstein L 1953 *Philosophical Investigations* (Blackwell, London)
- Zimmerman D, Power M 1971 “The everyday world as a phenomenon”, in J Douglas (ed) *Understanding Everyday Life* (Routledge, London) pp 80–103