

**The Salience of Boundaries: Strategies of Distinction, Boundary
Reification, and Knowledge Sharing in a Nascent Field of Practice.**

By

Katarzyna Anna Zdunczyk

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Abstract

The practice of knowledge sharing across socio-epistemic boundaries is one of the key areas of inquiry in Practice-Based Studies of knowledge and learning. A considerable body of work dedicated to issues of boundary transcendence has been developed by scholars working in this tradition. The main themes of this literature focus on the idea of bridging boundaries and include boundary-spanning practices, boundary spanners and brokers, and boundary objects. Due to its disproportionate reliance on a consensual and harmonious view of the practice of knowledge sharing, this approach has resulted in (implicitly) treating boundaries as structural givens. Such a conceptualization runs contrary to the predominant view of social and symbolic boundaries in social science, where they are commonly acknowledged to be enacted and relational phenomena. This thesis seeks to contribute to the considerably less developed strand of Practice-Based Studies of knowledge and learning that draws upon these insights and explores the themes of boundary salience, distinction, and reification.

The empirical foundation for the thesis is a case study of a Regional Innovation Strategy (RIS) project, funded by the European Commission as part of the Lisbon Strategy for Europe and based in one of the New Member States that acceded to the European Union in 2004. The project was a partnership between three European regions and eight organisations. The key premise of the project was the idea of knowledge transfer from regions with experience of developing regional innovation strategies under the EC aegis to the focal New Member State region. As such, the project represented a heterogeneous knowledge-sharing context, where multiple boundaries could be expected to come into play.

The main findings of the thesis reveal a far from harmonious nature of the practice of knowledge sharing associated with the project. The most salient boundary was found to be a pragmatic knowledge boundary, which polarised the nascent field of regional innovation development in the focal region. ‘Knowledge sharing’ took the form of a struggle over the definition of competence within the field, and thus over field dominance. The study identifies first-order and second-order strategies of distinction

deployed by each of the opposing parties: the former included perspective-pushing, exploitation, and opportunity hoarding; the latter were knowledge transfer, consensus building, and collaboration. The study also identifies a set of six paired practices which constituted both the boundary work and the practice work between the two opposing groups. These practices were found to fall into two categories associated with the relative position of power of those practicing them, i.e. strong and weak practices. Eventually, the struggle for field dominance ended in the concession of defeat by one of the parties, which was immediately followed by the euphemization of the relations across the pragmatic boundary.

To My Mother, Father, and Brother

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Chapter I. Introduction

I.1. The Premise of the Thesis

Practice-Based Studies (PBS) of knowledge and learning constitute one of the main strands of practice theory research within organisation studies (Gherardi, 2009). A core theme within that strand is knowledge sharing across communities of practice (Carlile, 2002; Kellog et al, 2006). The concept of *boundaries* is central to the study of cross-communal knowledge sharing and learning (Levina and Vaast, 2008; Osterlund and Carlile, 2005; Wenger, 2000). It is therefore of considerable importance for this strand of research to develop a sound understanding of boundaries. Nevertheless, boundaries are rarely explicitly conceptualised or even specified by researchers studying cross-communal learning. When attention is given to specifying the boundaries involved in such studies, a variety of boundaries are taken into account: organisational, cultural, national, geographic, and temporal boundaries, as well as boundaries of communities of practice and knowledge boundaries are considered (Carlile, 2004; Levina, and Vaast, 2008; Orlikowski, 2002; Oborn and Dawson, 2010a; Barratt and Oborn, 2010).

With the exception of the seminal works of Carlile (2004) and Wenger (1998) little attention is given to defining or indeed studying and explaining the relevant boundaries in their own right. As a result, the concept of boundaries in the PBS literature on knowledge sharing tends to be treated in structural terms – as an objective entity ‘out there’ to be crossed or bridged in order to facilitate the sharing of knowledge across social sites. This, in turn, creates a theoretical concept that is static and rigid and cannot cope with the challenges that practice theory promises to address in the study of knowledge sharing in organisation studies.

Taking boundaries for granted in this way constitutes a considerable oversight in terms of the practice-theoretical pedigree of the PBS strand of organisation studies: one of the key precepts of practice theories being the idea of structuration (Giddens, 1984) or mutually constitutive relationship between structure and agency, whereby objective structures are recognised as enduring patterns of practice and practices are both enabled

by and constrained by the structures they produce, reproduce, and challenge (Bourdieu, 1977, 1990). In order for the concept of boundaries to be consistent with the practice theory perspective therefore requires that both the structural and the enacted aspect of boundaries be considered. Such a construct has indeed been developed on the foundation of Pierre Bourdieu's theory by Michele Lamont and colleagues (Lamont and Molnar, 1992; Lamont and Molnar, 2002; Pachucki et al., 2007), whose ideas regarding social and symbolic boundaries are also indebted to Gieryn's (1983) ideas on boundary work, i.e. the discursive enactment of boundaries in pursuit of distinction. Symbolic and social boundaries and boundary work have been at the centre of attention of sociologists interested in distinction and exclusion (Fuller, 2003; Pachucki et al., 2007; Vallas, 2001). A similar view of boundaries also underpins Charles Tilly's (2004, 2005) relational theory of boundary change, which arose from his interest in inequality and which addresses the all-important issue of the mechanisms precipitating and constituting boundary change and posits the question of the reasons behind the salience of boundaries.

Thus the concept of boundaries, whilst central to the study of knowledge sharing from the practice perspective, has thus far been largely neglected in Practice-Based Studies of knowledge and learning across social sites. As a result it remains both under-theorised and in need of empirical investigation. The prevalent tendency in PBS of knowledge and learning has hitherto been to focus on the processes and practices associated with transcending boundaries as a means of achieving cross-boundary knowledge sharing and collaboration. Boundaries have thus been implicitly treated as structural givens and little attention has been devoted to the socially constituted, practice-based, and relationally enacted nature of boundaries that has long been recognised in the studies of social and symbolic boundaries, boundary work and boundary change in other areas of social science. There is therefore a need to bring these broader theoretical developments to bear on the PBS of boundaries in knowledge sharing and learning. In so doing, it may also be possible to make a reciprocal contribution to the study of social and symbolic boundaries by establishing a link to the significant insights regarding the nature of knowledge, learning and organising developed in organisation studies through practice-theory-informed research.

I.2. The Aims and Objectives of the Thesis

This thesis aims to bridge the two strands of research (on social and symbolic boundaries and on boundaries in knowledge sharing) so as to develop a framework for the study of knowledge boundaries defined as the boundaries that shape the knowledge-sharing relations within and across different social sites. It is argued that in order to understand the salience of knowledge boundaries and their impact on knowledge-sharing initiatives across social sites, it is necessary to study them as dynamic, relationally enacted symbolic manifestations of objectified patterns of practice and interaction within and across different social sites (Bourdieu, 1991; Lamont and Molnar, 2002; Tilly, 2004). It is further argued that thus understood knowledge boundaries also describe and are influenced by relations of power within and across the same social sites (Bourdieu, 1984, 2004). Moreover, a focus on knowledge sharing dictates that emphasis be given to interactions between social sites attempting cross-boundary knowledge sharing. This means that in addition to seeing boundaries as demarcations of difference and means of distinction, it is also necessary to develop an understanding of knowledge boundaries as *interfaces* (Shields, 2006) that both connect and separate social sites, their respective ways of practicing and knowing.

Accordingly it is proposed that the following objectives should define the scope of the thesis:

1. To identify the dominant principle of demarcation that defines the salience of boundaries within the empirical setting in relation to knowledge sharing.
2. To investigate and understand the stakes behind the salience of the boundaries shaping the knowledge-sharing relations within and across the relevant social sites (i.e. knowledge boundaries).
3. To identify the strategies of distinction that shape knowledge relations within and across the relevant social sites, i.e. shape the salient boundary dynamics.
4. To identify the practices through which knowledge boundaries are enacted and made salient.
5. To understand the relationship between the patterns of interaction described by these strategies and practices and the knowledge-sharing agenda driving these interactions.

6. To understand how thus described knowledge boundaries influence and are influenced by the power relations between the relevant social sites.

In setting out to achieve the above objectives, the thesis will build on the nascent strand of PBS of knowledge which tackles the issues of boundary salience in relation to struggles for distinction (Levina and Vaast, 2008), closure strategies (Metiu, 2006), and reification of boundaries through both discursive and non-discursive practices (Barratt and Oborn, 2010; Bechky, 2003b; Mørk et al., 2010, 2012). Although still in the early stages of development, this strand of research begins to fill in an important gap in PBS of knowledge sharing and distributed organising. The commonalities apparent in these few studies of distinction and reification of boundaries conducted in the PBS tradition include an interest in interactions between social sites, sensitivity to power relations and research settings characterised by a high degree of heterogeneity, often in inter-organisational and distributed organisational contexts.

I.3. The Empirical Setting and Methods

In order to meet the aims and objectives of the thesis the empirical study had to fulfil the same criteria as the ones highlighted above in relation to the seminal studies of knowledge sharing in the context of distinction and boundary reification. A heterogeneous context was necessary to study the salience of knowledge boundaries, i.e. identifying and understanding the distinctions that would have the most impact on the knowledge relations within and across different social sites. Attempting to identify the dominant principle of distinction (Bourdieu, 2004) in a homogeneous setting would not be conducive to advancing the understanding of the knowledge-sharing aspect of the problem. As the selected case proved to be an extreme case, i.e. a case where the phenomenon under investigation is particularly prominent and thus offers new in-depth insights where too few similar cases have been studied for a comprehensive theory to have been developed (Yin, 2003), the requirement of a high degree of heterogeneity was satisfied. This allowed for the adoption of a single-case-study design. A single-case-study design was chosen due to the demanding nature of practice-theory-informed inquiry, where an ethnographic field study is deemed most appropriate (Kellogg et al., 2006). The implications of this approach to data collection in terms of time and financial resources (Eisenhardt, 1989) as well as the scope and limitations associated

with the requirements of doctoral research (such as e.g. the need to work as a sole investigator and time constraints regarding the completion of the thesis) meant that a single-case-study design was considered to be the optimal choice.

A suitable research setting for the present study was found in a Regional Innovation Strategy project sponsored by the European Commission in Poland – one of the New Member States to enter the European Union in May 2004. The purpose of sponsoring the Regional Innovation Strategy (RIS) Projects in the New Member State regions was to help them develop an innovation agenda that would enable them to achieve parity with the existing EU member state regions in terms of innovation as well as to ensure their competitiveness in relation to regions outside Europe. A big part of the RIS agenda was ‘knowledge transfer’ understood as the sharing of the RIS experience and innovation and business support practice between the ‘old’ member state regions (that had already taken advantage of the EC’s RIS sponsorship in a previous edition of the programme) and the new ones.

The particular project that became the research setting for the thesis was based in the region of Western Poland (the names of regions have been changed for reasons of confidentiality). The project included eight different organisations: two of these organisations were the ‘foreign experts’ from partner Western European regions – North UK and South UK – and the remaining six represented diverse stakeholders in the regional innovation agenda in Western Poland. The latter included two universities, a think tank, an industrial research and development centre, the regional development agency, and the regional governor’s office. The research setting thus fulfilled the criteria of a focus on knowledge sharing and a high degree of heterogeneity. In addition, the research setting also presented an opportunity to study the development of a new field of practice – that of regional innovation development in Western Poland. As such it offered a particularly rare insight into the nascent stages of the development of a new field of practice.

Data was collected using five of the six data sources recommended by Yin (2003), i.e. documentary, interviews, direct observation, participant observation, and physical artefacts (but not archival). This broad range of data sources allowed for both triangulation of evidence across data sources and building a more complete case study based on complementary information between the various sources. The data collection

process extended over a period of two years including the 12-month period of project development (preceding the actual approval of the project proposal by the EC) and the 13 months of the actual project work, which coincided with the period covering the knowledge-sharing agenda integral to the project. Whilst there was some field work involved at the project development stage, the main data collection effort took place in the 13 months since the approval of the project for EC funding. This was consistent with the level of activity of the participating organisations and covered the entire period of knowledge-sharing activity involved in the project.

Data analysis proceeded in parallel with data collection and was continued after exiting the field until theoretical saturation was reached (Eisenhardt, 1989). Details of the data collection and analysis are discussed in Chapter III of the thesis. Here the general approach is presented to offer an early overview of the research process. Data collection and interpretation was conducted in an iterative way, alternating between the field and the collected data on the one hand and the extant literature and the emergent theoretical understanding of the phenomena under study on the other (see Figure 3.1.). The analysis involved multiple readings of the available project documents, project e-mails, records of meetings and interviews, notes from the field, and research diary entries. The data was interrogated against the existing conceptualisations of boundaries in the PBS literature in order to identify overlaps and discrepancies between the patterns observed in the data and the established models of boundaries in knowledge sharing.

In particular, the theories of knowledge boundaries pertaining to cross-communal learning were closely examined (Carlile, 2004; Wenger, 1998) at the beginning of the process and found to be lacking in explanatory power. Working models reflecting the observed boundary patterns and characteristics were also produced both as visual representations and written accounts. As both the existing and developmental models continued to fall short of either empirical or theoretical scrutiny, the search for relevant theory continued both in terms of literature search and theory building from the data. This process eventually reached theoretical saturation following the adoption of the theoretical framework derived from the work of Bourdieu (1984, 1990, 1991), Tilly (2004), and the work of researchers studying social and symbolic boundaries (Lamont and Molnar, 2002; Gieryn, 1983), which was briefly discussed in Section I.1. above and is presented in detail in Chapter II of the thesis. This framework allowed for a

sufficiently accurate representation of the relevant patterns of practice evident in the data in order to meet the objectives set for the thesis.

I.4. The Findings of the Thesis

The findings obtained from the present research project are consistent with those arising from previous practice-based studies into distinction and boundary reification in relation to knowledge sharing in heterogeneous inter-organisational contexts (Barratt and Oborn, 2010; Levina and Vaast, 2008; Metiu, 2006). At the same time, the findings from the present research project give more prominence to issues of power and offer a significantly greater degree of insight into boundary strategies of distinction. The study also identifies a set of paired types of practices through which knowledge boundaries – defined as the boundaries that shape knowledge relations within and across social sites – were reified depending on the relative position of power of those enacting the boundaries. Compared to the prevalent theories of knowledge boundaries or boundaries of practice (Carlile, 2004; Wenger, 1998) the present study reveals a much more dynamic model of boundaries that is also consistent with the key premises of leading practice theories (Bourdieu, 1977, 1984, 1991, 2004; Giddens, 1984) and theories of boundary enactment (Gieryn, 1983) and change (Tilly, 2004, 2005).

Due to the fact that the research setting represented a case of the emergence of a new field of practice, the findings also inform the study of boundary change patterns in the course of new field development and highlight the issues of the salience of boundaries over time and in relation to both exogenous and endogenous influences (Zietsma and Lawrence, 2010). The emergence of the new field and the struggle over field dominance (Bourdieu, 1991) is tracked and explained over time through the focus on boundary change (Tilly, 2004) and the enactment of boundaries in interactions between the participating stakeholders. The EU RIS case study reveals a particular scenario of the development of a nascent field of practice under conditions of exogenous change followed by endogenous challenge to the emergent field orthodoxy, i.e. heretical subversion (Bourdieu, 1991). As such, in relation to the study of fields, field dynamics, and principles of domination (Bourdieu, 1984, 1991, 2004) the EU RIS case represents a unique case (Yin, 2003) offering insights into rarely studied phenomena.

I.5. The Structure of the Thesis

The thesis is structured as follows:

I.5.1. Chapter I. Introduction

Chapter I. presents an overview of the thesis, the rationale behind it, its aims, objectives, and contribution. It also outlines the approach taken to the empirical research conducted in fulfilment of the objectives of the thesis, commenting on the choice of the research setting and design, as well as the methods of data collection and analysis. The structure of the thesis is introduced and each of the chapters is briefly discussed in relation to its contribution to the thesis itself.

I.5.2. Chapter II. The Conceptual Framework and Literature Review

Chapter II lays the theoretical foundations for the entire thesis. To this end, a tripartite conceptual framework is first developed that brings together Bourdieu's theory of practice and distinction (1977, 1984, 1990), the literature on social and symbolic boundaries accumulated through studies informed by Bourdieu's theory (Lamont, 2012; Lamont and Molnar, 2002), and Tilly's (2004, 2005) theory of inequality and boundary change. The first element of the tripartite framework and the main theoretical foundation of the thesis is Bourdieu's (1977, 1984, 1990) theory of practice and distinction. Bourdieu's work provides a systemic way of thinking about practice, knowledge, power, and distinction which constitutes a sound basis for studying boundaries. The key concepts of Bourdieu's theory are explained in so far as they are relevant to the study of boundaries: the field, the habitus, the forms of capital, symbolic power and struggle for distinction, heretical subversion, and conditions of change are all discussed in preparation for the remaining review of the literature and in anticipation of the need to draw upon these concepts extensively in the presentation of empirical findings in Chapters IV and V and in the discussion of those findings in Chapter VI.

Bourdieu's ideas on distinction have inspired a whole field of research on social and symbolic boundaries (Lamont, 2012; Lamont and Molnar, 2002), which constitutes the second element of the tripartite framework. Social boundaries are explained as

institutionalised patterns of symbolic distinctions enacted in practice, inherent in the habitus, and demarcating enduring patterns of relations of power and powerlessness, inclusion and exclusion. Gieryn's (1983) concept of boundary work is integrated into the discussion of symbolic boundaries as a useful way of talking about the symbolic enactment of distinction through practices of inclusion and exclusion, comprising discursive practices, which are the focus of Gieryn's attention. It is also noted that in situations of interaction between different social sites, boundaries become interfaces (Shields, 2006) – connecting as well as dividing and enabling as well as blocking flows of people, objects, information and ideas. The final element of the tripartite framework is provided by Charles Tilly (2004, 2005), whose relational theory of inequality and boundary change completes the theoretical foundation for the thesis by providing a conceptual toolkit for studying the mechanisms precipitating and constituting boundary change and its effects.

The above theoretical insights are used to develop a model mapping the demarcation and interface aspects of boundaries against their inclusionary and exclusionary dimensions, which helps systematise the literature on boundaries into four categories: bonding/bounding, distinction, transcendence, and reification as shown in Figure 2.2. This model is subsequently used to structure the review of the literature on social and symbolic boundaries in conjunction with the Practice-Based Studies literature on knowledge and learning within the organisation studies domain. The themes of distinction, social and symbolic boundaries, and boundary change are each explored. their own right and in relation to the other themes in order to capture the main aspects of the concept of boundaries as it is used within the broadly understood practice theory tradition in social science and, in particular, in PBS of knowledge and learning. The application of the model ensures that focus is maintained at all times on the theme of boundaries and helps identify the representative themes and contributions to the study of boundaries as well as the prevalent trends in the study of boundaries in relation to knowledge sharing and learning.

Two areas of intensive research are thus revealed: the bonding and bounding aspect of boundaries prevails in the Communities of Practice (CoP) literature and is indebted to Wenger's (1998) efforts at conceptualizing boundaries; the transcendence theme dominates discussions of knowledge sharing and learning between variously defined social sites (CoPs, communities of knowing, occupational communities, professions,

etc.) and draws extensively on Carlile's (2004) theory of knowledge boundaries. The other two aspects of boundaries – distinction and reification – are shown to be considerably less developed in PBS studies of knowledge and learning. The contributions to the latter strand of research (Barrett and Oborn, 2010; Bechky, 2003a, 2003b; Levina and Vaast, 2008; Oborn and Dawson, 2010a, b) are related to the transcendence literature in that they draw upon some of the same key themes such as boundary spanners and boundary objects. Importantly, however, these studies highlight the fact that such themes are implicated in relations of power, status, and dominance and thus can divide as well as connect, exclude as well as include, facilitate as well as block learning.

In its conclusion, Chapter II highlights the fact that studies of distinction and reification of boundaries, although few in number, represent a strong and rising trend in PBS of knowledge and learning and have already yielded some noteworthy themes, including the ideas of privileged knowledge (Barrett and Oborn, 2010; Oswick and Robertson, 2009), turf-wars (Oborn and Dawson, 2010b); closure strategies (Metiu, 2006), and the salience of status boundaries (Levina and Vaast, 2008). Both the key themes developed within this strand of literature and its theoretical indebtedness to the ideas of Pierre Bourdieu (Levina and Vaast, 2008; Levina and Orlikowski, 2009) and to some extent also the work of Charles Tilly (Metiu, 2006) invite contributions regarding strategies of distinction and practices of exclusion as well as the salience of boundaries and boundary change. Thus the tripartite framework proves its usefulness by highlighting an underexplored area of research in need of further development, namely the problem of strategies and practices of distinction and boundary reification in the context of knowledge sharing.

I.5.3. Chapter III. Research Setting, Methodology, and Methods

Chapter III moves the discussion on to the issues of research setting, research design, and data collection and analysis. The research setting is identified as the Regional Innovation Strategy (RIS) project in the region of Western Poland (the name of the region is disguised for reasons of confidentiality as are all the other proper names in the thesis except for the names of countries) sponsored by the European Commission (EC) as part of the 2005 edition of the RIS programme under the 6th European Framework. The details of the project, the composition of the partnership, the governance structure,

aims and objectives, scope and funding are all discussed in Chapter III. The project's premise of knowledge transfer and the heterogeneous composition of the project consortium are argued to be good grounds for choosing the EU RIS Western Poland project as a suitable case for the study of boundaries in relation to knowledge sharing.

Having introduced the research setting, it is then possible to formulate the following set of research questions guiding the research design and execution:

1. What defines the salience of boundaries in a heterogeneous knowledge-sharing context?
2. What is the relationship between the salience of boundaries and the knowledge-sharing agenda?
3. What strategies of distinction shape knowledge relations across the social sites demarcated by the salient boundaries?
4. What are the practices through which these strategies are enacted and boundaries are made salient?
5. How do the salient knowledge boundaries (i.e. the boundaries shaping knowledge relations across the social sites they demarcate) influence and how are they influenced by the power relations between the relevant social sites?

These research questions help focus the chapter on the relevant research problems and the need for a research design capable of delivering relevant and insightful answers to the research questions and thus also of fulfilling the research objectives and taking the best possible advantage of the research setting.

The chapter then moves on to consider the ontological and epistemological underpinnings of the research project underpinning the thesis. These considerations are informed by the allegiance to practice theory in general – and to Bourdieu's (1977, 1990) theory of practice in particular – that was made in choosing the topic and the literature within which to position the thesis. Consequently, the methodological approach taken in the thesis is informed by a relational ontology (Nicolini, 2009) and the epistemology of practice (Cook and Brown, 1999). Subsequently, the research design – a single 'extreme' case study (Yin, 2003) – is discussed. The choices made regarding data collection methods (ethnographic fieldwork) and sources of evidence (documentary, interview, direct observation, participant observation, artefacts) as well

as the application of data-sources triangulation to achieve converging lines of enquiry (Yin, 2003) are then explained in some detail and reflections are offered on the researcher's experience in the field.

Following on from the discussion of data collection, the chapter focuses on the analysis and interpretation of data. Here the analytical process is explained, drawing upon the advice of Kostera (2007), Creswell (2007), Miles and Huberman (1994), and Stake (1995), amongst others. Consideration is given to the need to establish the chronology of events (Yin, 2003), to the search for pattern correspondence (Stake, 1995), as well as the relevance of single instances and direct interpretation. The specific methods and tools of text analysis are also discussed, such as semiotic reading (Eco, 1990), writing notes, theoretical memos, and narratives (Kostera, 2007). The chapter argues that there is a need to reconcile discipline with imagination (Weick, 1989) in analysing case study data and to balance analysis with synthesis (Stake, 1995). The iterative nature of the research process is conceptualised as a learning cycle (Figure 3.1). The writing style adopted for the writing-up of the findings of the thesis is identified as a critical tale and some thoughts are offered on the approach taken and the difficulties encountered in attempting that textual strategy. Chapter III concludes with a reflection on the ethical issues implicated in the study and the study's limitations.

I.5.4. Chapter IV. The Story of the EU RIS Project

Chapter IV is the first of the two chapters presenting the research findings in this thesis. It takes the longitudinal perspective and charts the emergence of the nascent field of practice of regional innovation development in Western Poland and follows a chronological narrative logic along the pathway laid out by Tilly's (2004) model of boundary change. In order to develop a thorough account of these developments events as they unfolded throughout the studied period, the other two elements of the tripartite conceptual framework are also used to present the findings. In particular, Bourdieu's (1991) logic of distinction proved useful in accessing the intricate web of dependencies and contradictions underpinning the dynamics of the field which Tilly's process approach kept opaque. On the other hand, Tilly's specific attention to boundaries and the mechanisms behind their salience helped focus the conceptual finesse of Bourdieu's ideas on issues of boundary dynamics, which, admittedly, are not as such a central feature of his theory.

Thus the development of the field of regional innovation development in Western Poland is traced from the initial incentive shift (Tilly, 2004) brought about by the politico-economic changes in Poland. This provided the stimulus for *boundary imposition* (Tilly, 2004) by a forward thinking community of practice, who subsequently managed to establish a monopoly in the nascent field and *fortify* its boundaries through legislative means. Another exogenous change is then noted: Poland's accession to the EU and the associated availability of funding for RIS projects under the aegis of the European Commission. This is argued to have created a new *incentive shift* which encouraged the previously excluded stakeholders to attempt entry into the field by forming – together with the original incumbents in the field – a consortium of stakeholders for the purpose of applying for funding for the EU RIS project from the EC. In Tilly's terms (2004) this coming together of all interested parties represented an *encounter*, i.e. one of the mechanisms precipitating boundary change. The success of the EU RIS bid meant that new, more inclusive, field boundaries were thus *inscribed* (Tilly, 2004).

The inscription of new boundaries, however, did not have the integrative influence that was the premise of the EU RIS funding application. To the contrary, the encounter between the incumbents and the new entrants took the form of an attempt at *heretical subversion* (Bourdieu, 1991) of the field's nascent orthodoxy by the new entrants. This was reflected in the boundary work of the EU RIS participants, who *activated* (Tilly, 2004) a boundary between the orthodox (the original incumbents) and the challengers (the new entrants), effectively *polarizing* (Fuller, 2003) the field from within. This boundary, it is argued, was a *knowledge boundary* as it organised knowledge relations within each of the social sites and across the sites, demarcating the distinction between two competing visions of the field of practice held by each of the antagonists.

The chapter continues by analysing the symbolic struggle for field dominance that was played out in the course of the EU RIS encounter between the orthodox and the challengers. The strategies of distinction used by either the challengers or the incumbents or both to aid their symbolic struggle for field dominance are identified as: *knowledge transfer*, *consensus building*, *collaboration*, *perspective pushing*, and the learning strategies of *opportunity hoarding* and *exploitation*. The chapter then returns to the theme of boundary change in the development of a new field of practice. Having

examined in detail the struggle for field dominance as it unfolded through the boundary work of distinction and reification, the chapter tells the story of a failed attempt at *reconciliation of perspectives*, followed by the challengers' *concession of defeat* as the salience of the knowledge boundary subsides in favour of the *euphemisation* of the symbolic violence effected by the orthodox community of practice in relation to the challengers.. The story is brought to its conclusion in the Epilogue, which outlines the effects of boundary change in terms of both the further developments associated with completing the project and the aftermath of the project with regard to the field of regional innovation development in Western Poland and its lasting polarization.

I.5.5. Chapter V. Boundary Dynamics: a Thematic Analysis

Chapter V builds on the foundations laid in Chapter IV to deepen the analysis of the findings from the EU RIS project along four key themes: the habitus, the field dynamics, the shifting capital, and the strategy of perspective-pushing as realised through the associated boundary reifying practices. The first theme discussed in detail in this chapter is that of the habitus: the distinction between the incumbents (labelled as the “Technocrats”) and the challengers (the “Cosmopolitans”) is explained in relation to the salience of the pragmatic knowledge boundary identified in Chapter IV and further elaborated in relation to the differences of practice, knowledge, ideology, values, beliefs, and styles of thought, as well as bodily hexis and taste that were discernible between them. This discussion is concluded by a reflection on the efficacy of the dispositions of the two habitus in relation to the contested field and the state of the transformation of the politico-economic circumstances in Poland at the time of the project.

The chapter then moves on to the theme of the field dynamics and the associated transfers of capital between the (hybrid) focal field and other fields of practice implicated in the EU RIS project as well as strategic conversions of different forms of capital within and between fields by the participants seeking to increase the value of their own portfolio of capital to earn symbolic capital in the focal field and, ultimately, improve their position in their primary fields of practice. These dynamics are analysed in relation to the original balance sheet of different forms of capital possessed by the Technocrats and the Cosmopolitans at the outset of the EU RIS project; the task content and budgetary provisions of the Consortium agreement; as well as the political interests

of the participants and their largely heteronomous orientation towards the focal field of practice. The analysis concludes that the Cosmopolitans were belatedly trying to counteract unfavourable structural and financial provisions of the consortium Agreement to improve their position in the hybrid field through capital investments and strategies aimed at maximising the value of the European brand of intellectual capital in the focal field.

The intellectual capital and the struggle over its value is at the core of the next section of Chapter V, which offers an analysis of the perspective-pushing strategy described in Chapter IV. Perspective pushing is explained as a strategy which aims at taking control of the cross-boundary flows at the interface between social sites involved in knowledge exchange so as to accomplish a unilateral knowledge transfer equivalent to achieving the indoctrination of the other party. The point of perspective pushing is argued to be the establishment of one's own definition of the field, its doxa, and its dominant principle of domination by 'educating' or 'converting' the other party to one's own vision of the field.

Perspective pushing in the EU RIS case is further shown to have developed into a *contest* with stakes and logic diametrically opposite to those described by Hamel (1991) in his discussion of the 'learning races', where each partner tries to 'outlearn' the other before exiting the alliance. The *boundary reification practices* through which the strategy of perspective pushing is enacted are identified and classified into *strong* (available to the dominant) and *weak* (available to the dominated) depending on the amount of field-specific symbolic capital backing them up. These pairs of practices are the following: *preaching* (strong) and *teaching* (weak), *telling* (strong) and *selling* (weak), and *intimidating* (strong) and *bullying* (weak).

In the final section of Chapter V consideration is given to other types of boundaries that were observed in the data: organisational, national, language, and gender boundaries are briefly discussed in relation to their salience in the EU RIS project and in relation to the pragmatic knowledge boundary that had been identified as the most salient.

I.5.6. Chapter VI. Discussion and Conclusions

Chapter VI of the thesis offers a synthesis of the findings reported in Chapters IV and V and discusses them in relation to the relevant theories. It elaborates on the key themes and concepts developed in the findings and positions them within the specific debates in the literature from which they arise and to which they contribute. The overlaps with findings from previous research are identified as are the discrepancies and novel ideas. This final chapter of the thesis revisits the research objectives and provides an account of how they have been met in this study. The thesis' contribution to knowledge is stated and suggestions are made regarding further opportunities for research arising from the study.

Chapter II. The Conceptual Framework and Literature Review

Introduction

The purpose of this chapter is to provide the anchorage for the relevance and contribution of this thesis. To this end the Practice-Based Studies (PBS) literature on knowledge is first introduced and the treatment of boundaries within it is briefly outlined. This is found in need of further elaboration by means of establishing a connection to the literature on social and symbolic boundaries. In order to achieve that goal, a conceptual framework is then derived by bringing together three major theoretical contributions: Pierre Bourdieu's theory of practice (1990, 1977) and distinction (1984), the literature on social and symbolic boundaries which builds on his work (Lamont, 2012; Lamont and Molnar, 2002; Lamont and Fournier, 1992), and Charles Tilly's (2004, 2005) relational theory of social boundaries, which complements the former two by focusing on boundary salience and change. Taken together, these theories constitute a conceptual 'tripod' which is then used to examine the focal strands of literature with regard to their treatment of the theme of boundaries with the view to identifying the scope and direction for making a relevant contribution.

The chapter establishes that social boundaries are conceptually and discursively demarcated and symbolically enacted. When two or more social worlds come into contact (directly or virtually) symbolic boundaries are reciprocally enacted in interaction with the other, which may heighten or lessen their salience, depending on the circumstances of the interaction. The interactive, reciprocal enactment of difference, dependence, and status between different social groups constitutes an interface through which flows of information, ideas, objects, people, etc. may occur. The ease and direction of these flows, and thus boundary permeability, will depend, among other things, on the kind of boundary work that constitutes the interface: whether it is focused on boundary placement – through practices of exclusion – or transcendence – through practices of inclusion (Nippert-Eng, 2003).

With regard to Practice-Based Studies of knowledge and learning the application of the tripartite framework reveals areas of intense research activity – bounding and transference – and highlights the less developed subfields of distinction and reification.

A review of the latter strands of the literature yields the key themes of status and the salience of status boundaries, privileged knowledge, and practices and strategies of exclusion. Significant potential for the advancement of the field is identified in the exploration of boundary dynamics and the salience of boundaries. The chapter concludes by identifying the scope for making such a contribution to knowledge through an inquiry focused on distinction, reification, and boundary salience in an inter-organisational context.

II.1. Practice-Based Studies of Knowledge and Learning

“We hold that knowledge is a tool of knowing, that knowing is an aspect of our interaction with the social and physical world, and that the interplay of knowledge and knowing can generate new knowledge and new ways of knowing.”

(Cook and Brown, 1999: 381)

II.1.1. Practice Theory in Organization Studies

The term ‘practice theory’ has been applied to diverse strands of social theory which hold that practice is the site of the social and the means of the constitution of the individual (Schatzki, 1996). This diverse family of theories includes: Bourdieu’s theory of practice (1977, 1990), Giddens’s structuration theory (1984), Schatzki’s (1996) Wittgensteinian approach, and learning theories inspired by the thought of the American Pragmatists (Mead, Dewey) – situated learning theory (Lave and Wenger, 1991) – and by Russian psychologists (Vygotsky, Leonte’ev) – Activity Theory (Engeström, et al., 1999). Symbolic interactionism, ethnomethodology, Actor-Network Theory, and performative gender studies are also classified as members of the praxeological family of theories (Reckwitz, 2002). Whilst divergent in their philosophical and disciplinary origin, as well as their specific focus and emphasis, practice theories share in common a relational logic based on the idea that practice is the locus of meaning, knowledge, identity, change, and power. The ‘practice lens’ (Orlikowski, 2002) is constituted by three general principles: “(1) that situated actions are consequential in the production of social life, (2) that dualisms are rejected as a way of theorizing, and (3) that relations are mutually constitutive” (Feldman and Orlikowski, 2011: 1241).

Practice theories have been informing research in the organisation studies domain in three ways: as an empirical approach, as a theoretical approach, and as a philosophical approach (Feldman and Orlikowski, 2011). The latter two, i.e. the theoretical and philosophical approach to practice, form the mainstream of Practice-Based Studies (Gherardi, 2009), which have been exerting an increasing influence in organisation studies for over two decades now. Within this literature, the term ‘practice’ is variously used to mean ‘an array of activities’, ‘knowledgeable collective action’ (Gherardi 2009) or, “action informed by meaning drawn from a particular group context” (Cook and Brown, 1999: 387).

In an attempt to systematise the meaning of the concept of practice Corradi et al (2010: 277) propose a three-dimensional construct of practice as a ‘set of interconnected activities’, ‘a sense-making process’ and ‘the social effects of practice’, arguing that shifting emphasis from one dimension to another reveals different aspects of organizing and organisations. Thus a focus on practice as a set of interconnected activities reveals the routine production of work, coordination of effort and situated learning-in-doing. An emphasis on the sense-making process highlights the values implicated in the ‘doing’ of a practice as well as the discursive practices through which power and knowledge are continuously enacted and legitimated. Studying the social effects of practice highlights the dynamics of practice development, adaptation, and change, thus offering insights into how practices are reproduced and how they are interconnected with other practices.

The theoretical framework developed in this chapter focuses on the latter two of Corradi et al.’s (2010) dimensions of practice, i.e. the processes of sense-making and social effects of practice. By drawing on the literature on symbolic boundaries and boundary work it addresses the sense-making processes and allows for the study of (both discursive and non-discursive) practices of inclusion and exclusion that constitute boundaries. Through the use of Tilly’s (2005, 2004) framework of boundary change, it incorporates the ‘social effects of practice’ dimension, which allows for the study of the salience of boundaries in the course of the development of a field of practice over time. Both these areas of investigation are connected and informed by Bourdieu’s (1990, 1984, 1977) theory of practice and distinction. Specifically, Bourdieu’s theory provides the conceptual underpinning relating practice, knowledge, and power, i.e. the core themes which bind together the focal PBS literature on boundaries in knowledge

sharing, the study of symbolic boundaries, and social boundary mechanisms (Tilly, 2004).

II.1.2. The Practice Perspective on Knowledge and Learning in Organization Studies

Practice theories have stimulated the development of a number of sub-disciplines dedicated to Practice-Based Studies of various aspects of organizing and organisations, including: knowledge and learning, science and technology, and gender (Gherardi, 2009) as well as strategy (Corradi et al, 2010), each of which has developed into an autonomous field of study. This thesis is grounded in the knowledge and learning stream of Practice-Based Studies and, in particular, draws upon the situated learning and the knowledge-sharing strands of the literature, from which discussions of boundaries arise.

Authors studying knowledge and learning from the practice perspective oppose the substantialist view of knowledge as an objective entity which can exist independent of the practice in which it was developed and be transferred to a different setting without a loss of meaning or a change to its nature (Osterlund and Carlile, 2005; Yanow, 2004). This point is emphasised by the frequent use of the term ‘knowing’, meaning the “ongoing social accomplishment, constituted and reconstituted in everyday practice” (Orlikowski, 2002: 252). Knowing is synonymous with practice and involves the activation and use of a variety of cognitive, physical and relational faculties such as memory, sensory perception, imagination, routine behaviour, reasoning, social interaction, emotional response, and empathy. Thus, the practice perspective on knowledge aims to shed light on the way knowing and learning are dynamically constructed in the course of human interaction (Østerlund and Carlile, 2005).

The promise of Practice-Based Studies of learning then is to uncover the social aspects of learning, i.e. explain how learning is accomplished through collective engagement in practice. The situated learning perspective (Wenger 1998, Lave and Wenger, 1991) pursues this agenda by blurring the distinction between practice and learning and between participation and identity, proposing that it is through continuous engagement in the practice of a community and gradual progression from peripheral to central participation that individuals develop their identity and acquire the knowledge and

competencies which make them legitimate participants in communities practice. The discussions of boundaries in the situated learning tradition focus on the boundaries of communities of practice – primarily on the bonding and bounding aspects of participation in a community’s practice.

Knowledge sharing between communities is another significant theme in Practice-Based Studies where the issue of boundaries comes to prominence. Here, again, the idea that practice and knowledge are intrinsically interrelated is the basic premise of research, which investigates knowledge-sharing practices (Osterlund and Carlile, 2005). The focus is on cross-communal organising, learning, and sharing of knowledge and the key areas of investigation are the development of common understanding through the negotiation of differences and dependencies. The main focus is on overcoming the difficulties associated with differences in perspectives and different ways of knowing and practicing. With regard to boundaries the prevalent imagery is that of fault lines, i.e. discontinuities in practice: between different communities of practice (Wenger, 1998), communities of knowing (Boland and Tenkasi, 1995), or fields of practice (Levina and Vaast, 2005). Boundary spanning, boundary objects and practices facilitating working and learning across boundaries dominate the agenda.

II.1.3. The Theme of Boundaries in PBS of Knowledge and Learning

The theme of boundaries is one of the main areas of interest within the practice-based studies of knowledge and learning. The predominant focus of this stream of research is on practices which facilitate cross-boundary collaboration and learning (e.g. Lingo and O’Mahony, 2010; Kellogg et al, 2006; Levina and Vaast, 2005; Orlikowski, 2002). Boundaries themselves, their nature and dynamics largely escape the attention of researchers. As a result, there are considerable differences between studies with regard to what counts as boundaries: Orlikowski (2002), for instance, studied coordination practices in distributed organising across seven different types of boundaries: temporal, geographic, social, cultural, historical, technical, and political. Balogun et al (2005) were concerned with intra-organisational boundaries in their study of boundary-shaking practices. Similarly, Kellogg et al. (2006) looked at structural, cultural and political boundaries in heterarchical organisations. Boundary organisations between open-source projects and commercial software firms were the focus of O’Mahony and Bechky’s (2008) study, whilst Barrett and Oborn (2010), also in the software development

context, studied cultural and knowledge boundaries. Overall, the boundaries of communities of practice and knowledge boundaries have received the most explicit theoretical attention in practice-based studies of cross-boundary learning, largely due to Wenger's (1998) and Carlile's (2002, 2004) respective contributions.

II.1.3.1. Boundaries of Communities of Practice: Discontinuities and Spaces for Engagement

Wenger's (1998) is the most elaborate discussion of boundaries arising from the situated learning strand of PBS to date. It is focused on the boundaries of communities of practice – a concept that was first broadly sketched by Lave and Wenger (1991) but became the main focus of Wenger's later work (Wenger, 1998; Wenger, 2000), in which he develops a theory of learning, meaning, and identity around it. Lave and Wenger (1991:98) define a community of practice (CoP) as “*a system of relationships between people, activities, and the world; developing with time, and in relation to other tangential and overlapping communities of practice*”. Apart from the concept of communities of practice there is a number of other, associated ideas in circulation, including: *communities of knowing* (Knorr-Cetina, 1999), *thought worlds* (Dougherty, 1992), *discursive communities* (Gherardi and Nicolini, 2002), and *collectivities of practice* (Lindkvist, 2005). All these concepts share in common the central idea of the situated and mutually constitutive nature of knowledge and practice. Unless referring to a specific author's contribution, the term *communities of practice* (CoPs) will be used for the sake of clarity throughout the following discussion.

The key elements of Wenger's theory can be summarised as follows: boundaries of communities of practice are *emergent spaces* where discontinuities between practices are manifested through reification and barriers to participation. The existence of boundaries is a sign of a community's maturity and distinctiveness: it implies that participants have developed idiosyncratic relationships, a complex understanding of their enterprise, and an advanced repertoire of resources. They only become apparent when attempts are made to cross them, i.e. when boundaries are reified and barriers to participation become apparent. Boundaries have the effect of binding a community together and allowing for in-depth engagement which enables learning. At the same time, they constitute spaces for engagement with external ideas, where the (potentially) creative tension between competence and experience happens. However if a community

adopts a highly introspective attitude, boundaries become rigid and impermeable and the community may implode – in the sense of losing its learning capability. Consistent with their functionalist view of communities of practice, Wenger and his followers treat barriers to participation as objective discontinuities in practice and do not address the issue of why or through what mechanisms boundaries are reified.

II.1.3.2. Knowledge Boundaries in Cross-Communal Learning

Communities of practice do not exist in isolation. As well as boundaries (and through the same processes of reification and participation) they develop and maintain connections to other communities, and institutions (Wenger, 1998). Cross-boundary learning is most common between communities belonging to constellations of interrelated practices or networks of practice (Brown and Duguid, 2001). The latter concept refers to dispersed clusters of practitioners who share significant commonalities in their practices despite differences in organisational or geographical location. Brown and Duguid (2001) argue that knowledge can flow relatively freely between communities belonging to the same network of practice. By contrast, knowledge flows across significantly different practices are constrained even if the communities involved are part of a single organisation. Thus, knowledge can be difficult to transfer between different communities within the same organisation (sticky) and equally difficult to contain within the boundaries of the firm (leaky) as it spreads through the grapevine of an institutionally unbound network of practice.

The most systematic and comprehensive theory of boundaries in the context of cross-communal learning is offered by Paul Carlile (2002, 2004). Carlile's focus is specifically on developing a theory of *knowledge boundaries*, i.e. boundaries which inhibit knowledge flows between communities of practice and which result from the properties of knowledge. Based on his study of new product development, Carlile (2002) identifies three relational properties of knowledge which define boundaries in cross-communal knowledge sharing: *difference* (specialisation of knowledge), *dependence* (the extent to which the accomplishment of task requires the knowledge of other participants) and *novelty* (inability to draw upon existing knowledge in assimilating or developing new knowledge).

Carlile does not go into the detail of the relationships between the three relational properties of knowledge, though he does note that without dependence, difference is of no consequence. He also points out that novelty makes it difficult to understand either differences or dependencies, i.e. recognise what knowledge is needed, why, where from, how to proceed, or whose interests will be affected and how. Thus, Carlile argues, as novelty increases, the overall ambiguity of the situation increases as well. Accordingly, it is the novelty involved that drives the emergence and complexity of boundaries in cross-communal knowledge-sharing endeavours.

Based on the above analysis, Carlile (2004) proposes a hierarchy of knowledge boundaries (Figure 2.1.) which incorporates three different traditions in studies of knowledge transfer. In order of increasing complexity these are: the *syntactic* boundary (associated with the information-processing tradition), the *semantic* boundary (based on the interpretive view of knowledge), and the *pragmatic* boundary (derived from the pragmatic approach to knowledge). The syntactic boundary arises under conditions of relatively straightforward differences and dependencies associated with a low level of novelty. As novelty increases, it becomes necessary to interpret the differences and dependencies of knowledge across participating communities – this is when the semantic boundary appears. The most complex is the pragmatic boundary, which arises largely due to the fact that knowledge is path-dependent and invested in practice.

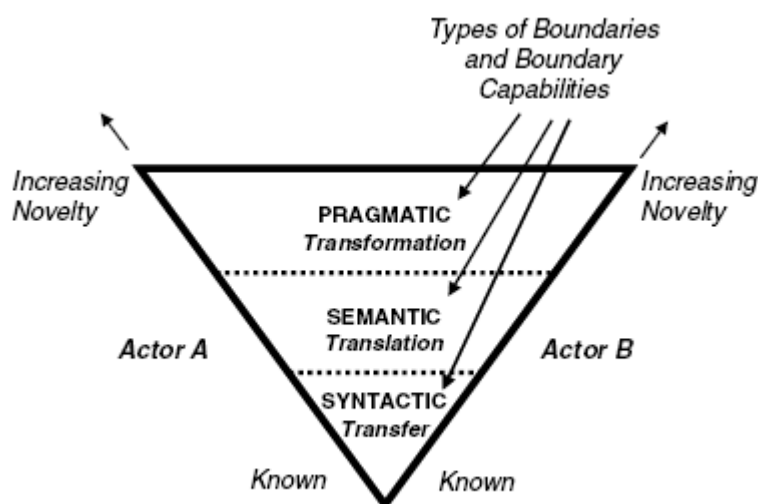


Figure 2.1. An integrated framework for managing knowledge across boundaries.
(Source: Carlile, 2004: 558)

The pragmatic level of boundary complexity, Carlile (2004) argues, is reached when novelty is so significant that participants need to negotiate trade-offs and changes to their respective perspectives, i.e. when knowledge is ‘at stake.’ The higher-level boundaries do not simply replace the lower-level ones but incorporate them. Carlile notes that each of the levels of boundary complexity requires a more sophisticated approach to facilitating cross-boundary knowledge flows: from simply *transferring* knowledge across the syntactic boundary, through *translating* across the semantic boundary, to *transforming* across the pragmatic boundary.

Carlile’s framework is not without its shortcomings. By taking the relational properties of knowledge as dimensions of boundaries it shifts attention away from the idea that practice and knowledge are reciprocally linked in a mutually generative way. The three different perspectives on knowledge combined in the model – the information processing, interpretive, and pragmatic view – sit together uncomfortably. The model may be interpreted to imply that knowledge boundaries are related to practice or affected by power only at the highest level of complexity, i.e. under conditions of high novelty. Equally, the fact that boundary dimensions are defined as properties of knowledge does not fully reveal the rich texture of boundary work understood as inter-subjective enactment of not just difference and dependence but also status. Similarly, the emphasis on novelty as the main driver behind boundary complexity downplays the impact of relations of power and the competition for distinction, which are very strong themes in the wider literature on social and symbolic boundaries.

On the other hand, in a well-established and highly structured intra-organisational setting such as the one studied by Carlile, a high degree of novelty may indeed have to occur before deep-seated power relations between those who participate in cross-boundary interactions can be revealed or revised. Carlile (2004) does indeed emphasise this effect when he notes that knowledge is ‘at stake.’ Thus the novelty-induced ambiguity in Carlile’s model refers not only to the need to re-interpret differences and dependencies of knowledge between participating communities: it also puts into question the participants’ relative status and ability to influence the process of sharing knowledge. Justifiably then, the prevalent view seems to be that Carlile ought to be credited with creating a theoretical space, developing a vocabulary and a heuristic tool for discussing issues of power in cross-communal knowledge sharing – a contribution

which becomes apparent in the work of Bourdieusian scholars drawing on Carlile's framework (Levina and Vaast, 2008; Bechky, 2003b).

II.1.3.3. Social and Symbolic Boundaries in Knowledge Sharing and Learning

“While it is important to appreciate how particular forms of knowledge are socially situated and negotiated, the focus on the conditions for shared understanding can easily be misconstrued as being excessively quiescent and consensual.”

(Marshall and Rollinson, 2004: S74)

Knowledge – ideas, solutions, methods, paradigms, and ideologies – is a source of symbolic capital – a key resource in the symbolic struggle for distinction, the foundation of social status and an investment of identity. Knowledge transfer or sharing is therefore not value-neutral or apolitical but open to conflict and contestation. Knowledge is inseparable from practice and practice is strategic and driven by the principle of distinction (Bourdieu, 1977). Therefore knowledge, practice and power are inextricably connected. By conceptually isolating knowledge and its properties the idea of knowledge boundaries, whilst conceptually useful, downplays that relationship and leads to an artificially neutral concept of boundaries based purely on objectively identifiable difference. Consequently, this approach produces a disproportionate amount of research into consensual and collaborative processes of overcoming difference by building bridges of common ground across practice boundaries. Notwithstanding the findings of Bjørkeng et al. (2009), Habermas's (1979) 'ideal speech situation' – deciding on the strength of the better argument in the absence of all force – remains a theoretical ideal and not the rule for knowledge-sharing interactions.

There is therefore a need to bring the idea of knowledge boundaries into the fold of the theory of social and symbolic boundaries so as to fully explore the social and not just epistemic aspect of boundaries in knowledge sharing. The tripartite framework developed below is meant to achieve just that: by taking into account issues of status, values, and power relations it aims to facilitate inquiries into the meaning of boundaries in knowledge sharing partnerships and interaction. Through this approach, the socially constructed nature of barriers to participation and the motivations, practices, and

strategies behind boundary work of distinction and reification in knowledge sharing should be made more accessible to investigation.

The framework, which draws together Bourdieu's theory of practice and distinction, Tilly's work on inequality and boundary change, and the rich literature on social and symbolic boundaries, brings to the foreground the symbolic enactment of boundaries and the strategic character of barriers to participation and practices of exclusion and inclusion behind issue of degrees of boundary permeability. Importantly, it goes beyond the immediate concerns of practice as a 'set of interconnected activities' and the 'sense-making' dimension of practice and reaches into the social consequences of practice (Corradi et al, 2010) as it helps trace boundary dynamics over time. Ultimately, therefore, when applied to the field of PBS of knowledge and learning, the conceptual framework should help to see the issue of knowledge boundaries in a new light.

II.2. Bourdieu's Theory of Distinction

"Social identity is defined and asserted through difference."

(Bourdieu, 1984: 172)

The concept of boundaries is used in social sciences as an analytical tool which makes accessible for theorizing a broad range of issues associated with spatial, temporal, and social stratification (Shields 2006); classification (Zerubavel, 1991; Bowker and Star, 1999); inclusion and exclusion (Bourdieu and Passeron, 1977), inequality (Tilly, 2004, 2005) and barriers and limitations (Lamont and Molnar, 2002) – to mention just a few key themes. A common thread running through the studies of social and symbolic boundaries is the logic of distinction – a theme most fully developed in the work of Pierre Bourdieu (1984), whose work has become the foundation of a prolific area of social studies of boundaries (Lamont, 2012).

According to Bourdieu (1984) distinction is the organising principle of society: individuals and groups compete for status within multiple autonomous fields of competence. A field is a social space, a matrix of objectively distributed relational positions of power. Status is determined by the position occupied in the field as well as

the trajectory of power positions over time. It is defined relationally in terms of the differentially distributed volume and composition of accumulated capital as well as the degree and direction of change in both volume and composition of that capital over time. Capital is ‘a social relation’, i.e. an energy which only exists and only produces its effects in the field in which it is produced and reproduced’ (Bourdieu, 1984: 113). Different types of ‘social relations’ are described by different species of capital, with economic, social, cultural, and symbolic capital being the most generic species of capital, i.e. those that retain efficacy in all fields.

Bourdieu (1991: 215) uses the analogy of a ‘game’ to explain the relational dynamics structuring the field, which is “an autonomous universe, a kind of arena in which people play a game which has certain rules, rules which are different from those of the game that is played in the adjacent space.” The relative value of a species of capital depends on its effectiveness in playing the game which defines the specific field – “both as a weapon and as a stake of struggle” (Bourdieu and Wacquant 1992: 98). A species of capital is a ‘weapon’ as it is a means of achieving a position of power and it is a ‘stake’ because each position of power corresponds to a specific bundle of different species of capital defined both in terms of volume and composition. Consequently, the struggle within any given field may be played out either to maximise the accumulation of the dominant species of capital in that field or to change the rules of the game by establishing a different species of capital as the defining social relation in the field. The latter amounts to waging a struggle over ‘the hierarchy of the principles of hierarchization’ (Bourdieu, 1991: 168).

The specific position one occupies in the social space corresponds to a set of objective conditions, which, in turn, corresponds to a habitus: a set of embodied, durable, interest-laden, generative and transposable dispositions, which orient one’s perceptions and actions – a ‘practical sense’ (Bourdieu, 1977). The objective conditions that shaped the habitus are visible in the embodied dispositions of the habitus as bodily hexis revealed in physical appearance, facial expressions and body language, posture, gait, language, taste, the way one eats, conducts oneself, and even feels and thinks (Bourdieu, 1991). In this way, habitus objectifies social structure in the human body (Friedland, 2009).

Dispositions are not immediately acquired within objective conditions nor do they directly perpetuate objective conditions; rather, both these processes are mediated

through practice. Participation in the practices of one's habitus is enabled by and, at the same time, transmits the dispositions that comprise the habitus. Practice thus gives sense to the actions that constitute it, or as Schatzki (1996: 139) puts it, "the actions that habitus selects thus make sense given the situation and also given the objective conditions and practices familiar to and inhabited by the actor." Practice is thus the carrier of objective conditions, the means of transmission of dispositions, and the locus of embodied habitus. It is also the means of establishing and maintaining distinctions.

The fields of distinction and competence are fields of practice, wherein agents make strategic choices regarding the selection of variants of practice available to them in any given situation. Thus a field of practice is not a static, objective structure, where positions are determined or clearly demarcated. Rather, it is a "network of competitive relations which give rise, for example, to conflicts of competence – conflicts over the qualifications for legitimate practice of occupation and the legitimate scope of the practice – between agents possessing different qualifications" (Bourdieu, 1984: 244). The dispositions of the habitus define the range of possibilities available to the agents best to realise their strategic objectives regarding their symbolic struggle for status within the pertinent fields of practice. These strategic objectives represent a twofold interest in a given field: an orientation towards the ends, i.e. to advance in the field by playing the game and competing for positions, and the 'illusio' (Bourdieu, 1990) – an investment in the game itself, an unquestioning belief in the value of the stakes and a tacit acceptance of the way it is played (Friedland, 2009).

The autonomy of Bourdieu's fields is relative: whilst each represents a specific logic and competence, each is also influenced by external forces. A field of practice is autonomous to the extent that entry into the field is restricted to those with high level of field-specific competence and the fundamental laws governing the field (the 'nomos') are distinctive and adhered to by participants in the field (Bourdieu, 2004). Fields may subsume one another creating nested sets of related fields (e.g. the field of science includes the subfield of psychology, which includes the subfield of organisational psychology) or they may partially overlap (e.g. the field of biology and the field of chemistry overlap producing the hybrid field of biochemistry). Moreover, subfields and hybrid fields may evolve into autonomous fields in their own right. Equally, movements of individuals and groups between fields are also possible, e.g. scientists can move from one subfield to another seeking a more rewarding intellectual challenge or anticipating

better career prospects (Panofsky, 2011). Depending on the relative autonomy of the target field, such moves may present significant difficulties in terms of the transferability of the dispositions of the habitus acquired in the old field. They are also likely to require a significant investment in terms of loss of symbolic capital and/or the need to accumulate a different form of capital.

Given the relative autonomy of the fields, the transfer of value across fields is dependent on the degree of commensurability of the kinds of capital used as currency in each of the fields (Panofsky, 2011; Hall, 1992). The transmutation of one kind of currency into another is a key requirement in the symbolic struggle for dominance, where success depends on the ability of social groups or individuals to acquire and accumulate symbolic power, i.e. the power to construct the reality and define the order of things – the doxa – to suit their interests. Symbolic power, Bourdieu (1991: 170) notes, is “a power of constituting the given through utterances, of making people see and believe, of confirming or transforming the vision of the world and, thereby, action on the world and thus the world itself, an almost magical power which enables one to obtain the equivalent of what is obtained through force (whether physical or economic), by virtue of the specific effect of mobilization.” It is important to note that symbolic power is the power of the position in the social matrix, backed up by the accumulated social capital.

The legitimacy of symbolic power is derived from euphemization: by converting other types of power into symbolic power it is possible for both the dominant to misrepresent and for the dominated to misrecognise symbolic violence as orthodoxy, i.e. the natural or ‘obvious’ order of things. It is this complicity on both sides that is the condition of maintaining consensus through the use of symbolic power. Consequently, politics begins with heresy – the imagining of a novel vision of the world against the established order. In Bourdieu’s own words, “heretical subversion exploits the possibility of changing the social world by changing the representation of this world which contributes to its reality, or, more precisely, by counterposing a paradoxical pre-vision, a utopia, a project or programme, to the ordinary vision which apprehends the social world as a natural world” (Bourdieu, 1991: 128).

Thus, in Bourdieu’s theory, the potential for change lies in the tension between orthodoxy and heresy. Because of the ‘urgency of practice’ (which dictates that

conscious reflection is costly and only undertaken when dispositional practice fails to produce the anticipated outcomes) such a challenge is more likely to originate from the outside than from within a practice. As Schatzki (1996: 137) put it, “the main source of social change in his [Bourdieu’s] theory appears to be the collision of different practices and nexuses thereof”. Newcomers – either social climbers or horizontally expanding or migrating individuals, groups or entire classes – endowed with different dispositions bring with them divergent ways of practicing, and potentially conflicting sets of interests. A different force for change is in action when there’s an external change in the objective conditions such that the practical sense of the habitus no longer ‘fits’ the circumstances. As a result of sudden fundamental changes in the objective conditions – such as e.g. the radical changes in the economic and political system that took place in Eastern and Central Europe at the beginning of the 1990s – there will be a corresponding shift in social relations, which may involve a lasting redefinition of social boundaries.

The attention given by Bourdieu to theorising change is commonly criticised as insufficient and lacking in finesse (Hall, 1992). This is where the second arm of the conceptual ‘tripod’ supporting this thesis – Tilly’s (2005, 2004) theory of boundary change – comes into prominence. However, for the sake of the consistency of the argument, it is best to consider the symbolic dimension of boundaries first as this field of research draws heavily on Bourdieu’s theory.

II.3. The Study of Social and Symbolic Boundaries in Social Science

“The social positions which present themselves to the observer as places juxtaposed in a static order of discrete compartments, raising the purely theoretical question of the limits between the groups who occupy them, are also strategic emplacements, fortresses to be defended and captured in a field of struggles”

Bourdieu (1984: 244).

II.3.1. Bourdieu’s Theory as a Foundation for the Study of Social and Symbolic Boundaries

Bourdieu's work forms a widely accepted theoretical foundation for the study of boundaries in social science. Social boundaries are demarcations of position within the social matrix, which means that they bind together (and thus simultaneously separate out) those of similar status, capital volume and structure, values, competence, and interests: they "freeze a particular state of the social struggle, i.e. a given state of the distribution of advantages and obligations" (Bourdieu, 1984: 477). The binding glue is practice and the bounded commonality is the commonality of the habitus, which is revealed through bodily hexis (one's physical appearance and the way one carries oneself), through language (accent, dialect, discourse, and ease of expression), as well as through aesthetic and other dispositional choices (clothing, art, music, food, leisure activities, education, profession, etc.).

Thus social boundaries have symbolic manifestations and are subject to symbolic struggles: the incumbents defend their position against the threat of new entrants. The logic of distinction demands exclusivity: people aspire to belong to privileged social categories and seek to disassociate themselves from those whom they wish to be seen to be better than. The greatest threat of entry comes from those who are located directly below in the social hierarchy, which is why they are often subject to the greatest disdain. Conversely, it is desirable to seek association with those perceived as one's social betters in the hope of sharing in their privilege. The politics of boundaries is such that the dominant seek to preserve the status quo and the dominated strive to abolish, shift, or increase the permeability of the existing boundaries or else to downplay their significance.

II.3.2. Social and Symbolic Boundaries

Reflecting on the ontological status of boundaries in social sciences, Lamont and Molnar (2002) draw upon Bourdieu's ideas to distinguish between symbolic and social boundaries. Symbolic boundaries are defined as "conceptual distinctions made by social actors to categorize objects, people, practices, and even time and space" whereas social boundaries are "objectified forms of social differences manifested in unequal access to and unequal distribution of resources (material and nonmaterial) and social opportunities [...] revealed in stable behavioural patterns of association" (Lamont and Molnar, 2002: 168-169). Symbolic boundaries exist at the intersubjective level and take on the constraining properties of social boundaries (i.e. effectively become objectified)

only when they are generally agreed upon and translated into stable patterns of social interaction. The relationship between social and symbolic boundaries, Lamont and Molnar (2002:169) emphasise, is such that symbolic boundaries are “a necessary but insufficient condition of the existence of social boundaries.”

Such conceptualisation of boundaries brings into focus the second of Corradi et al.’s (2010) dimensions of practice, i.e. practice as a sense-making process – and in particular, the discursive and non-discursive practices involved in establishing the patterns of social interaction through which symbolic boundaries are enacted and social boundaries are established, maintained, and changed. Boundaries have been studied in this vein e.g. in the context of class identity distinctions as enacted through choices related to aesthetic preferences, e.g. pertaining to home décor (Southerton, 2002). The limits of the collective are set through within-group interaction: boundaries do not just divide – they also bind social groups together.

The research which engages with this aspect of boundary construction largely revolves around issues of collective identity and investigates themes of inclusion: belonging, unity, integration, and cohesion. On the other hand, as Zerubavel (1991: 41) notes, “social identity is always exclusionary, since any inclusion necessarily entails some element of exclusion as well.” Accordingly, symbolic boundaries are also constructed through a vast array of exclusionary practices – sometimes explicit and often very subtle – which follow boundary strategies dictated by the logic of distinction.

Equally, boundaries need to have a degree of permeability to allow for exchanges, flows, and coordination between social groups. Thus boundaries are also interfaces between fields: enacted through practices of inclusion and exclusion they connect as well as divide (Shields, 2006). The conceptualisation of boundaries as interfaces bears significant implications for research in the areas of social mobility (Gueveli et al, 2012; Pini et al, 2012), immigration (Phelps et al, 2012), cross-cultural relations (Benediktsson, 2012), and miscellaneous collective ventures (Morrill, 2012; Watson-Manheim et al, 2012; Fujimura, 1992).

II.3.3. Boundary Work

Symbolic boundaries are instantiated through the enactment of practices of inclusion and exclusion (Shields, 2006; Lamont and Molnar, 2002; Giddens, 1984) in interaction between social groups. These relational practices have been studied as aspects of inequality and discrimination as well as identity formation, integration, and coordination in a variety of contexts including gender, ethnicity, organisations, science and professions (Pachucki et al, 2007; Lamont and Molnar, 2002; Lamont and Fournier, 1992). Below, the boundary dimensions of inclusion and exclusion and demarcation and interface are explored in more detail by considering the nature and significance of boundary practices and strategies of distinction.

In his seminal paper on boundary work Gieryn (1983) demonstrates how symbolic boundaries are erected and maintained by scientists through strategic deployment of discursive practices to differentiate themselves from non-scientists (monopolization), to lay a claim to a specific field or discipline (expansion), or to protect their field from external interference, incursion or pollution by competing ideologies (protection of autonomy). Through boundary work, Gieryn argues, identities of science are discursively constructed and reconstructed as ideologies best suited for the purpose of establishing authority and obtaining resources under given circumstances. Gieryn's work has generated a prolific stream of research into the practices of demarcation in contexts ranging from studies of science and professions to social movements. Gieryn's concept of boundary work emphasises the cognitive and discursive aspects of judgment and discrimination but much of the research inspired by it also highlights the intersubjective enactment of symbolic boundaries within and between social groups.

The demarcation of science from non-science and the symbolic struggle between different scientific sub-disciplines remain topical issues (Cadge, 2012; Bonneuil and Levidow 2012; *Science, Technology, and Human Values*, 2005). There is also a significant spillover of boundary work research into other contexts such as the study of occupations and professions (Thomas and Hewitt, 2011; Burri, 2008; Bechky, 2003b) as well as religion and social movements (Ecklund et al, 2011; Granqvist and Laurila, 2011), and industry fields (Zietsma and Lawrence, 2010; Zietsma, 2003). The concept itself has evolved to include not just the work of distinction but also the inclusionary practices at the interface between social groups: it is thus possible to talk about boundary work focusing on boundary placement as well as boundary transcendence

(Nippert-Eng, 2003). The latter is commonly referred to as boundary spanning (Levina and Vaast, 2005; Ancona and Caldwell, 1992).

II.3.4. The Four Dimensions of Boundary Work

The above overview of the various approaches to the study of symbolic boundaries has highlighted four key aspects of the concept, which are depicted in Figure 2.2. below. *Symbolic boundaries* are defined as practices of inclusion and exclusion (conceptual, discursive or representational) enacted at the intersubjective level in accordance with social actors' respective theories and strategies of distinction. The figure differentiates between *boundaries-as-demarcations* and *boundaries-as-interfaces*. The former entail *boundary work* involved in defining identities and differences and establishing status hierarchies along such dimensions as may be salient in a given context of interaction, e.g. gender, ethnicity, nationality, class, culture, ethics, competence, etc. This kind of boundary work may or may not involve the co-presence of 'the other' as boundary demarcation may be accomplished through negotiation or imposition, explicitly or implicitly - depending on the existing position of the relevant players in the social hierarchy and the type and volume of capital available to them. *Boundaries-as-interfaces* are enacted in interaction with the relevant other social actors in situations of physical or virtual co-presence. The boundary work involved is orientated towards facilitating or hindering exchanges and flows between the bounded entities: be it the flows of people, objects, or knowledge.

	DEMARCATION	INTERFACE
INCLUSION	BONDING AND BOUNDING	TRANSCENDENCE
	Cohesion Identity Construction Bounding	Coordination Integration Boundary Spanning/Brokerage
EXCLUSION	DISTINCTION	REIFICATION
	Status Segregation Boundary Work	Insulation Isolation Gatekeeping

Figure 2.2. Boundaries in social science: a conceptual framework

Boundary work may consist of routine, situated enactment of patterns of social interaction resulting in the reproduction of a given structure in a recursive way akin to Giddens’s (1984) idea of instantiation. Alternatively, boundary work may be improvisational in character and consist in the enactment of difference and/or dependence (and thus barriers and connections) precipitated by novelty. These boundary change practices are deployed by social actors (individual or collective) in order to construct or re-construct boundaries in accordance with their own theories of autonomy and dependence. Whether the patterns of social interaction are being maintained or changed, through remote demarcation or at the interface between social worlds, they will be marked by the influence of the relative positions of power of the parties involved. Accordingly, different strategies and practices will be deployed by the dominant than by the dominated group – either to bridge or to widen the gap between them. The dotted lines between the different dimensions are meant to indicate the fuzzy and overlapping nature of the depicted boundary configurations. As pointed out by Hernes (2004), in practice we are always dealing with composite boundaries, though different aspects may be relevant and emphasised (i.e. salient) at different times, places, and situations.

Similarly, any selective inclusion is also, by default, an act of exclusion (Zerubavel, 1991). Practices which help establish and maintain coordination across some boundaries may simultaneously enforce and maintain exclusion along a different line of distinction – be it purposefully, or, often, as an unintended by-product of coordination – as evidenced for instance by the gendered character of cultural coordination practices in market-oriented organisations (Lizardo, 2006). Similarly, practices which help establish control over any given interface to the exclusion of cross-boundary flows of people, objects or ideas are also likely to have the effect of consolidating the dominant group (Vallas, 2001) and possibly mobilizing the opposition (Fuller, 2003) – thus exerting an integrative influence on either or both sides of the interface. Consequently, there will be a feedback effect between interface practices and demarcation practices. The latter, will influence the desirability, feasibility and difficulty of cross-boundary collaboration and coordination, thus completing the loop.

The interpenetration of the four types of boundary work reveals the complexity of social and symbolic boundaries supporting the view that these are best thought of as composite boundaries (Hernes, 2004). The challenge is then to study the dynamics of boundary work practices in the interplay between the strategies of inclusion and exclusion, within and across social groups, in interaction and in isolation. Crucial to the study of the salience of boundaries will be the understanding of boundary dynamics, i.e. the processes of activation and deactivation associated with increases and decreases in boundary permeability and the easing and impeding of cross-boundary flows.

II.4. Tilly's Theory of Boundary Salience and Change

Bourdieu's theory of distinction does offer a theoretical foothold for the study of the issue of the salience of boundaries, pointing to the symbolic struggle for distinction, the possibility of heretical subversion, and exogenous change in circumstances affecting the field as the backdrop to boundary change. This potential is being explored in the study of symbolic boundaries. However, the main thrust of this research is directed towards revealing the strategies and practices of inclusion and exclusion in relation to the second dimension of practice in Corradi et al's (2010) framework, i.e. the enactment and legitimation of status, power, and knowledge. When change is considered in these

studies, it mostly appears as a trigger for the enactment of boundaries (e.g. Burri, 2008; Vallas, 2001).

Studies of social and symbolic boundaries which follow boundary changes as they unfold over time through the deployment of those strategies and practices and in relation to the development of fields of practice are rare (notable exceptions include: Zietsma and Lawrence (2010) and Fuller (2003)). There is thus a relative lack of theorising within this literature regarding the third dimension of practice proposed by Corradi et al (2010), i.e. ‘the social consequences of practice.’ This state of affairs may be attributable to the commonly expressed criticism regarding the coarse-grained reflection on change offered by Bourdieu (Hall, 1992), whose theory informs the study of social and symbolic boundaries. For the purpose of constructing a conceptual framework for the study of boundaries in the context of practice development, learning, and change, it is therefore necessary to look for a more specific theory of boundary salience and change.

A comprehensive theory of these issues was developed by Charles Tilly (2004, 2005). Tilly (2005: 134) defines social boundaries as “*any contiguous zone of contrasting density, rapid transition, or separation between internally connected clusters of population and/or activity for which human participants create shared representations.*” This definition presumes distinctive relations between members of the bounded categories on each side as well as distinctive relations across the boundary. It also supports Lamont and Molnar’s (2002) view that symbolic boundaries are constitutive of social boundaries by highlighting the need for shared representations of the boundary on each side. The specific focus of Tilly’s theory is on the causal mechanisms of boundary change within episodes of social interaction, where *episodes* are defined as “continuous streams of social life”, *mechanisms* are a “class of events that change relations among specified sets of elements in identical or closely similar ways over a variety of situations” (Tilly, 2005:28), and *social interaction* is assumed to be guided by available scripts but enabled only through constant situated improvisation of the participants.

II.4.1.Mechanisms Constituting Boundary Change

Following the above definition of boundaries, boundary change occurs when there is a change in relations and/or shared representations on either side or across sites. Thus, boundary *inscription* occurs when relations on either side of the boundary become more distinctive, when relations within sites become more dissimilar to the relations across sites, or when there is an increase in the contrast of the shared representations of the boundary on either or both sides. The opposite mechanism – boundary *erasure* – takes place when existing distinctions become less influential in organising social relations, e.g. when after a merger, employees eventually begin to identify more with the new entity and less with their respective pre-merger organisations. Similarly, a boundary can be *activated* or *deactivated*, i.e. become more or less salient as the organiser of social activity. Other mechanisms constituting boundary change include *site transfer*, i.e. the movement of individuals or categories of individuals in relation to an existing social boundary, e.g. as a result of promotion or retirement, and *relocation*, i.e. a shift in the orientation of social relations towards a different set of distinctions, e.g. when one boundary deactivates as another activates.

II.4.2. Mechanisms Precipitating Boundary Change

Apart from the mechanisms constituting boundary change – inscription/erasure, activation/deactivation, site transfer, and relocation – Tilly also distinguishes mechanisms precipitating boundary change. The latter do not directly constitute boundary change but trigger (individually or in combination) one or more of the former. *Precipitating mechanisms* include:

- *Encounter*: occurs when “members of two previously separate or only indirectly linked networks enter the same space and begin interacting” (Tilly 2005: 218), e.g. when a new field of practice is being formed by competing or collaborating stakeholders, or when an existing field of practice attracts newcomers. Existing boundaries are thus challenged and new boundaries may be formed.
- *Imposition*: an authoritative act of categorization, which results in the reification of social boundaries where there were none, e.g. when organisations are restructured or new population classification systems are introduced.
- *Borrowing*: the replication of existing boundaries, either intentional or unintended, which happens when existing distinctions are transplanted to new settings, e.g. a new organisation is designed based on the template of an existing one, carrying forward the embedded distinctions and inequalities.

- *Conversation*: routine exchanges of information in interactions across a social boundary, which can change perceptions of the other as experience consistently challenges prejudice. Tilly (2005) offers the example of women gaining recognition in male-dominated occupations as they regularly demonstrate effective performance.
- *Incentive shift*: occurs when there is a change to the rewards and penalties accruing from maintaining existing boundaries. Relations across or within social sites may become more or less desirable and/or more or less risky. For instance, rising costs of research and development combined with market pressures may create incentives for competing companies to engage in joint new product development. A change of political regime may render trade relations with a country more or less attractive.

Together, mechanisms precipitating and constituting boundary change form sequences, configurations and loops, which produce the effects of boundary change. At the same time, the precipitating mechanisms also produce non-boundary effects as illustrated in Figure 2.3. below.

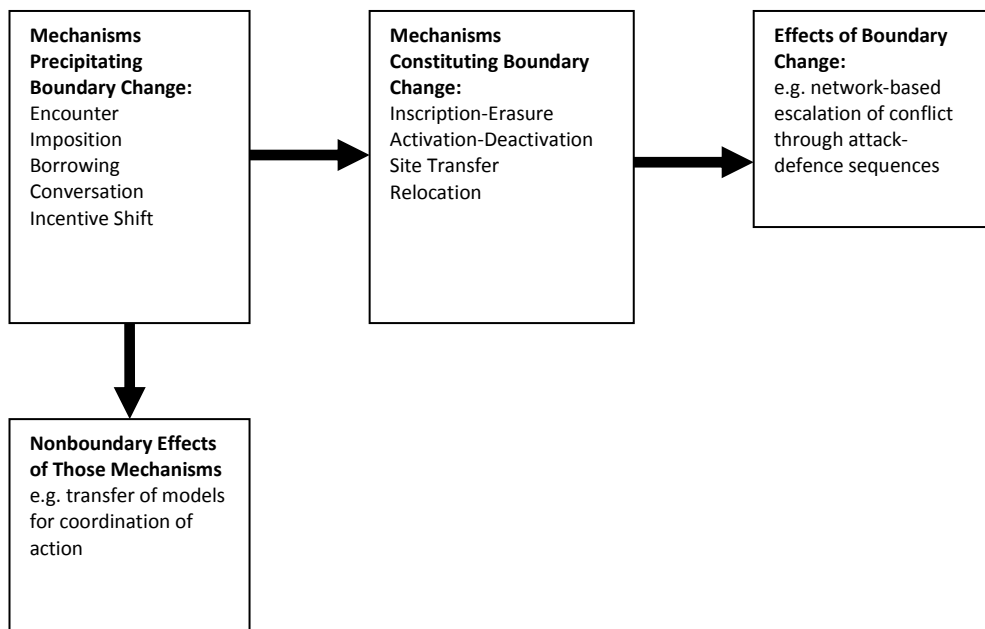


Figure 2.3. General Causal Relations in Social Boundary Mechanisms (Tilly, 2005: 136)

II.4.3. The Fit of Tilly's Theory with the Other Two Elements of the Conceptual Framework.

Tilly (2005: 14) describes his theory of boundary change as relational, i.e. focusing on “persistent features of transactions between specific social sites” and “treating both events at those sites and durable characteristics of those sites as outcomes of interaction”. This position, which Tilly differentiates from cultural, functional, coercive, and competitive models of inequality, is consistent with the practice theory perspective in general (vis Mead's ‘interactions’ and Dewey's transactions (Simpson, 2009)) as well as with Bourdieu's theory of practice (Emirbayer, 2010). Tilly's theory of boundary change complements the work on social and symbolic boundaries in the tradition of Lamont and Molnar (2002) and Gieryn (1983). Importantly, the emphasis given to social interaction in Tilly's relational theory of boundary change positions it well as a foundation for a theoretical elaboration of the interface view of boundaries, in particular with regard to explaining the dynamics of cross-boundary relations and flows. Thus, Tilly's theory complements Bourdieu's theory of practice and distinction and the study of social and symbolic boundaries in the vein established by Lamont and colleagues to form a stable theoretical ‘tripod’ for the study of boundaries in the context of practice, learning, and change in the tradition of PBS of knowledge and learning as outlined by Corradi et al (2010).

II.5. The Four Dimensions of Boundary Work: A Review of Empirical Research

Empirical research conducted within the broadly understood area of symbolic boundaries (Lamont and Molnar, 2002) offers informative insights into how boundaries are enacted through practices of exclusion and inclusion (Espirito Santo, 2010; Burri, 2008; Vallas, 2001). Boundaries are considered as distinctions and interfaces: the different strategies of distinction and their relation to power feature prominently in this literature (Fuller, 2003; Lan, 2003) as do the difficulties implicated in and means of facilitating collaboration between social worlds (Fox, 2011; Fujimura, 1992; Star and Griesemer, 1989). The study of social and symbolic boundaries thus addresses the issues of power, knowledge and values implicated in the sense-making dimension of practice (Corradi et al, 2010).

The ‘conceptual architecture’ (Robinson and Kerr, 2009) necessary in pursuing such lines of investigation is derived from Bourdieu’s theory of practice and distinction (1990, 1984, 1977). It is also Bourdieu’s theory that provides the theoretical link to the study of boundaries in knowledge and learning in the PBS tradition. Both those related strands of literature are reviewed together against the four categories of boundary work identified in Figure 2.2. above, i.e. bonding and bounding, transcendence, distinction, and reification of boundaries. The resulting conclusions reveal that more work still needs to be done on those aspects of boundaries to produce a systematic body of knowledge. In particular, the key questions of the salience of boundaries and boundary change invite further investigation in both strands of research, pointing to the application of Tilly’s theory of boundary change as a useful approach to making a meaningful contribution.

II.5.1. Identity Construction: Bonding and Bounding

A significant proportion of boundary work studies focus on how competing ideologies are played out and resolved through discursive and symbolic means. The ideological aspect of boundary work is highlighted e.g. in Espirito Santo’s (2010) account of competition between two doctrines within the Afro-Cuban religion (santer a and palo monte) and the divergent discourses of accreditation (cosmological versus scientific) they use to establish their respective claims to spiritual superiority in relation to each other. Similarly, Hunt’s (2002) study of the West African Pentacostals reveals the distinctions the church members (mostly Nigerian immigrants in the United Kingdom) draw between their own religious and moral stance and the corrupt morals they see as prevailing in their country of origin.

Equally prominent in Hunt’s study, however, is the identity construction aspect of “purity boundaries”: they offer a sense of belonging and ethnic cohesion in a foreign country. Cohesion, Eder (2006: 258) argues, is accomplished through discursive construction of boundaries, which is a path-dependent process based on narrative plausibility. He notes that, “boundaries emerge in social interaction in which people constantly check whether they share stories to be told about the world they live in.” That identity is subject to negotiation and redefinition is well illustrated by Yuval-Davis and Stetzler’s (2002) study of women immigrants, who achieve a measure of liberation from role-specific cultural constraints by re-imagining rather than breaking the

traditional boundaries that bear on their identities. Similarly, Gamson (1997) reveals how entire sub-groups of a gender movement are formally rejected and informally accepted, sometimes simultaneously.

The bounding aspect of boundaries – their constitution from within the group – is a by-product of collective identity construction. It is therefore a subject matter which falls within the domain of identity theory and cannot be thoroughly considered within the scope of this work. From the point of view of its relevance to the present discussion, it needs to be noted that collective identity construction and maintenance impacts boundary work by strengthening the perceived distinctness of the group and therefore also the perception of disparity between its interests and those of other social groups. This, in turn, renders social boundaries salient through symbolic activation (Tilly, 2005).

The bounding and bonding aspect of boundaries enters the PBS debate primarily via the situated learning theory and is given particular prominence in the work of Wenger (1998), who develops a theory of boundaries in the context of the emergence, maintenance, and development of communities of practice. Identification with a community is established through *engagement* with other members, *imagination* (developing a mental image of the community and self in relation to the community), and *alignment* – ‘a mutual process of coordinating perspectives, interpretations, and actions’ (Wenger, 2000: 228). CoPs originate from learning: they are emergent structures owing their existence to the ongoing process of negotiation of meaning.

The context for the negotiation of meaning is provided by *mutual engagement* of members (doing things together, building relationships) around a *joint enterprise* (negotiated purpose resulting in mutual accountability) and the creation of a *shared repertoire* of routines, symbols, tools and other resources. Thus the process of developing a community’s coherence is akin to Boland and Tenkasi’s (1995: 355) *perspective making*, i.e. a process of refining the community’s “vocabulary, its methods, its theories and values and its accepted logics through language action.” The idea of perspective making highlights the importance of language, narrative cognition, and reflexivity in the process of developing a common way of knowing and practicing but does not take into account the relations of power or forces of inertia which play a key role in the maintenance of a community and influence its development trajectory.

This theme is picked up by Roberts (2006), who argues that communities of practice will be influenced by the predispositions of their members. Over time, CoPs can be expected to develop their own predispositions which will influence their ability to learn. Lave and Wenger (1991) and Wenger (1998) acknowledge that forces of inertia contribute to the maintenance and reproduction of CoPs by preventing members from engaging with ideas which might threaten their community's claim to competence and influence. Thus, communities of practice might also be described as communities of domination and the constitutive process of within-community learning – perspective making – as directed by the power-imbued process of *sense giving* (Huzzard, 2004), which both normalizes and constrains discourse within a community. Between perspective making and sense giving, CoPs create their own *regimes of competence* (Wenger, 1998), i.e. define their own terms of reference for what constitutes knowledgeability or ignorance.

II.5.2. Transcendence: Coordination and Collaboration

The idea of boundaries as zones of interaction or interfaces underpins research on boundaries and boundary practices in broadly understood collaborative and/or competitive endeavours. It is therefore not surprising that much of this research is placed in organisational contexts: as Hernes (2004: 10) notes, “boundary setting is intrinsic to the very process of organizing” and the commercial and social purposes of organisations can only be accomplished through a balance between differentiation and integration across multiple and diverse boundaries. Indeed, Hernes (2004) argues that organizing consists of working with and changing boundaries. Similarly, Heracleous (2004: 96) sees organisational boundaries as “complex, socially constructed and negotiated entities that have fundamental effects on organisational life.”

Organizing and organisations are interesting research sites for the study of boundaries-as-interfaces due to the twofold nature of the boundary work that is involved: on the one hand boundaries need to be maintained and on the other there must be sufficient boundary permeability to allow for the desired degree of flow and coordination across them. Boundary work of transcendence lies at the core of Practice-Based Studies (PBS) of knowledge sharing and learning and the key themes in boundary transcendence

studies that inform that work originate in the Social Studies of Science (SSS) and it is to this literature that we now turn.

II.5.2.1. Sociology of Translation versus the Social Worlds Approach

Achieving effective collaboration between diverse contributors is a central problem in SSS. The primary purpose of such collaboration is the development, sharing, dissemination, adoption, testing, and refinement of ideas, technologies, and, in the broadest sense, scientific knowledge. Such collaboration requires that interests be aligned, perspectives be translated, that efforts be coordinated, and, often, that knowledge be transformed (Parker and Crona, 2012; Fox, 2011; Fujimura, 1992; Star and Griesemer, 1989). These themes are explored within the sociology of translation (Latour, 1987; Callon, 1986; Law and Hassard, 1999) which highlights the need to enrol various actors by translating their diverse interests so that ideas can be successfully stabilised as facts across social worlds, time, and space.

This line of thinking has been criticised for its excessive concern with how dominance is established in a network of actors at the expense of recognising the multiple translations of perspectives between actors representing diverse social worlds interested in enrolling one another (Fujimura, 1992). Thus understood boundary work of transcendence (or boundary spanning) involves “the processes of translation, triangulation, debating, and sometimes even coercion” (Fujimura, 1992: 171) and represents the antithesis of the concept of ‘boundary work’ as originally defined by Gieryn (1983) (Fox, 2011).

The latter perspective, known as the ‘social worlds approach’ (Albert and Kleinman, 2011), draws on the symbolic interactionism tradition and its seminal work is a study of cross-domain collaboration and translation of perspectives in the context of heterogeneous scientific work by Star and Griesemer’s (1989). Based on their archival case study of the creation of the Museum of Vertebrate Zoology at the University of California at Berkeley the authors argue that the coordination of effort necessary to establish a shared context between the multiple social worlds involved in this large-scale venture was accomplished through the use of ‘*boundary objects*.’ A boundary object is “*an object which lives in multiple social worlds and which has different identities in each*’ and which is ‘*simultaneously concrete and abstract, specific and*

general, conventionalized and customized” (Star and Griesemer, 1989: 408-409).

Boundary objects’ internal heterogeneity, their simultaneous existence in different worlds, and their ‘plasticity’ allow each social world to relate to them and represent its own perspective to others. They ‘*act as anchors or bridges, however temporary*’ (Star and Griesemer, 1989:414) and enable diverse communities to establish a common language, represent their differences and dependencies, and negotiate their interests (Carlile, 2002).

It is important to note, however, that boundary objects can have a negative as well as positive effect on cross-boundary collaboration depending on the intrinsic properties of the objects, the meaning they hold for different communities, the way they are used, and the context in which they are used (Fox, 2011; Oborn and Dawson, 2010a,b; Barrett and Oborn, 2010; Kimble et al, 2010). Fujimura (1992: 169) argues that “because boundary objects are more easily reconstructed in different local situations to fit local needs, they are equally disadvantageous for establishing the kind of “stabilization” of allies behind “facts” which Latour discusses.” He develops the concept of ‘*standardized packages*’, which, he argues, captures both aspects of cross-boundary collaboration. ‘Standardized packages’ consist of several boundary objects and standardised methods which are ‘codefined’ and ‘corestricted’ so as to limit complexity through standardisation. In this way, Fujimura (1992: 170) explains, standardized packages “serve as *interfaces* between multiple social worlds which facilitates the flow of resources (concepts, skills, materials, techniques, instruments).” By contrast, Fox (2011) argues that technologies (such as standardised methods) can be considered to be boundary objects in their own right.

Discussions of cross-boundary collaboration in the SSS tradition continue to be dominated by actor-network theory and the social worlds approach. Only very recently has there been an interest in this field in exploring the potential of Bourdieu’s theory for the study of science and technology (Albert and Kleinman, 2011). This surprising state of affairs – given Bourdieu’s significant interest in the subject matter (Bourdieu, 2004) – has been attributed by SSS scholars to the scolding tone of some of Bourdieu’s polemic with their work, which discouraged engagement with his theory (Panofsky, 2011). The early signs are that this new theoretical ground should yield interesting empirical work and offer rich theoretical rewards (see *Minerva*, 2011). This would align boundary-related research in SSS with the trends visible in organisation studies, where

the PBS tradition favours approaches informed by the pragmatic tradition, structuration theory, and Bourdieu's theory of practice (e.g. Kellogg et al, 2006; Orlikowski, 2002; Levina and Vaast 2008).

II.5.2.2. Building Bridges and Seeking Common Ground

Within the transcendence stream of research into boundary issues in practice-based studies of knowledge and learning the main focus is on identifying practices which facilitate cross-boundary interactions, coordination, and learning. Boundary-spanning practices can be defined as activities and routines which enable cross-boundary coordination and knowledge sharing. Studies which provide insight into those practices are mainly concerned with intra-organisational contexts and focus on project work (Pawlowski and Robey, 2004; Kellogg et al., 2006), product development (Carlile 2002, 2004), and distributed organizing (Orlikowski, 2002). Carlile (2002) develops a typology of boundary-spanning practices relative to the complexity of the boundary being negotiated. Thus, transferring information is suitable under the conditions of working across a syntactic boundary, translating meanings is necessary to navigate the semantic boundary, and transformation of knowledge (i.e. incorporating new insights into one's own practice) is a condition of negotiating the pragmatic boundary. Similar conclusions are reached by Betchky (2003a) in her study of transformation of understanding between occupational communities engaged in product development, which also draws attention to the crucial role of developing a *common ground* for cross-boundary knowledge work.

The need for creation of a degree of common ground between participants in cross-boundary interactions emerges as a strong theme in studies concerned with boundary transcendence and cross-boundary knowledge flows. Thus, Durant and Cashman (2003) argue that learning across boundaries requires that effort be made to understand the perspective of the other and warn that "imposing meaning on others – through refusal to take their experiences, perceptions, and interpretations into account – is a form of colonization." In order to create common ground in cross-boundary collaboration participants need to engage in perspective taking (Boland and Tenkasi, 1995), i.e. attempt to imagine each other's way of knowing, acknowledge differences as well as similarities of perspectives, and accept diversity. Like its mirror process of perspective making within a community of knowing, perspective taking between communities is

accomplished through communication, narrative sense-making, and rationalization (Boland and Tenkasi, 1995). Efforts at establishing common ground can be limited to the identification of similarities of interests and competencies (Balogun et al., 2005; Bechky, 2003a) or extend as far as the constitution of communal boundaries driven by the development of common practice and identity among participants in a boundary practice (Bjørkeng et al, 2009).

There is no universal common platform that enables diverse communities of knowing to work together, exchange knowledge, coordinate and innovate. Different contexts and modes of working require different degrees of alignment and joint participation, ranging from taking advantage of the strength of 'loose ties' (Granovetter, 1973) to close-knit, community-building practice. Thus, in a study of a globally distributed product development, Orlikowski (2002: 269) identifies the practices which are routinely performed by members of the same organisation across the globe to accomplish coordination of effort and "knowledgeably navigate and negotiate the multiple boundaries that they routinely encounter in their daily work – boundaries of time, space, culture, technology, history, and politics." Orlikowski argues that through their engagement in the practices of sharing identity, interacting face-to-face, aligning effort, learning by doing, and supporting participation, remote collaborators were able to create a common platform of trust and respect.

Oborn and Dawson (2010a: 848) studied cross-boundary learning between CoPs in multidisciplinary work in a clinical setting. As a point of departure, they acknowledge that identity and power influence cross-boundary learning and that "isolation and mistrust are part of the historical articulation with other groups." Learning across boundaries therefore requires "interactions that build bridges which foster collective and shared elements of practice to develop." Accordingly, Oborn and Dawson's focus is on the boundary practices which facilitate learning between different specialisms involved in the development of a new multidisciplinary practice. They find three such practices: organising discussions by aligning skills and actions; acknowledging other perspectives through interrelating meaning; and challenging assumptions through juxtaposing different views, negotiating and broadening meaning. It is noteworthy that learning in a multidisciplinary nexus of practices does not imply developing a common understanding but reaching "complementary and interrelated understandings" such that

each participating community is able to contribute its own perspective to the joint practice based on how it is related to the interests of other disciplines.

A similar conclusion is reached by Gherardi and Nicolini (2002) with regard to learning in a constellation of related practices. They find that learning across CoP boundaries requires on-going comparison among various perspectives, such that both similarities and differences are acknowledged and incorporated into the joint discursive practice between participating communities. The result is not a harmonious synthesis of diversity but rather an alignment of perspectives through discursive production of both harmony and dissonance.

An extreme form of coping with dissonance in cross-boundary knowledge work is described by Kellogg et al (2006: 39) as enacting a trading zone, i.e. a coordination structure which allows the interacting communities to share knowledge and coordinate diverse activities “temporarily and locally, navigating their differences in norms, meanings and interests only as needed.” A trading zone provides a shared protocol for exchanging contributions without the need for negotiation of meaning or transformation of knowledge. Instead, participants in a trading zone rely on practices of display (making one’s work available to others), representation (making one’s work accessible to others through the use of shared genres), and assembly (recombining, reusing, juxtaposing and aligning existing output). Whilst Kellogg et al highlight problems of identity, control, and accessibility occurring within the trading zone, they also argue that it enables dynamic cross-boundary collaboration under uncertain, rapidly and continuously changing circumstances.

At the other end of the integration spectrum, participants may begin to develop a common understanding of competence associated with their joint enterprise and a common identity around their membership in a boundary practice. Thus, Bjørkeng et al (2009), who studied an inter-organisational alliance, find that the emergence of a new practice occurs through the concurrent engagement of participants with three kinds of mechanisms: authoring boundaries (establishing norms of legitimacy and deviance), negotiating competencies (on-going development of goals and measurements), and adapting materiality (grounding practice in the materiality of a relevant context).

They emphasise the mutually constitutive way in which a new practice and its boundaries emerge simultaneously in the continuous process of becoming – a process bearing resemblance to “the interplay of boundary work and practice work” that was observed by Zietsma and Lawrence (2010) in their study of the transformation of the organisational field in the forest industry in British Columbia. Whilst the emergence of a strong identity around a new practice is conducive to the realisation of the joint enterprise behind that practice, it may not always be entirely desirable from the point of view of the contributing communities or organisations. Indeed, Scarborough et al (2004) note that the emergence of new divisions in practice may cause problems of knowledge integration back to the contributing communities of practice. Similarly, Bjørkeng et al (2009) report that the alliance participants have developed a common way of knowing and practicing to the extent that their different organisational identities lost salience and the interest of the alliance received priority.

Drawing on Bourdieu’s (1977) discussion of the modes of practice production, Levina and Vaast (2006) distinguish between community-like and market-like boundary-spanning practices. The former rely on embodied relationships between agents in different fields and the latter are characteristic of objectified relations between fields, which can be consistently reproduced independent of the participation of specific agents. They argue that under the embodied mode of practice production, boundary spanners from different fields develop a degree of common identity and interests through joint engagement in relationship building and production of objects. By contrast, market-like relationships based on the objectified mode of practice production involve the exchange of objects which are produced separately and ‘traded’ between fields by brokers. Accordingly, boundary spanners, as legitimate peripheral participants, build bridges between fields whereas brokers, who act as intermediaries between fields, reinforce existing boundaries.

II.5.3. Distinction: Establishing Status Hierarchies

By contrast with transcendence studies, the theme of distinction receives significantly less attention from PBS scholars. When it is explicitly addressed, it tends to serve as background context for the study of boundary reification. Therefore the PBS literature on distinction will be reviewed in conjunction with research on boundary reification in

Section II.5.4 below whilst here boundary work of distinction will be considered with reference to the broader literature on social and symbolic boundaries.

Thus, Mizrachi and Shuval (2005), who investigate the formal (policy) and informal (practice) strategies deployed by the medical profession in Israel to distinguish biomedicine from alternative medicine, find that epistemic authority of science is asserted through procedures of exclusion and control over actors in the field (as carriers of knowledge). Procedures of exclusion are instituted along the distinction between medicine as science and alternative medicine as non-science. The subordinate group, i.e. the alternative medicine practitioners experience spacelessness, interdiction, and marginalization in daily professional interactions. The dominant biomedical professionals emphasize laboratory experiments, scientific methods, on-going research, and ethos of skepticism as boundary markers for biomedicine in relation to complementary medicine. Control over agents in the field is crucial to maintaining the boundary as biomedical practitioners who work alongside alternative medicine practitioners develop a measure of appreciation and respect for their colleagues' professionalism. If left unchecked, such developments might weaken and in time even dissolve the social boundary between the two professional groups (Tilly, 2005).

Similar conclusions are reached by Vallas (2001), who notes that boundary work is largely accomplished through informal relations and symbolic constructions which depend on the group's own coherence for their consistency and effectiveness. The main focus of Vallas's study is nevertheless on workplace inequality: it highlights the differences in the strategies of distinction (cultural, moral, and socioeconomic) deployed by the privileged and the subordinate groups. The privileged group – the engineers – protect their own influence through “boundary-defining acts of exclusion” (Vallas, 2001: 11), such as referring to the factory workers in derisive terms, questioning their work ethic, or equating the workers' knowledge with superstition (in contrast with the superior scientific pedigree of their own expertise).

In an effort to hold on to the little influence they have, the subordinate group – the production workers – resort to mocking the engineers, deliberately allowing them to make mistakes, and mystifying the nature of their own expertise. Interestingly, that last strategy turns against the workers when used by the engineers as evidence of the inferior nature of the workers' knowledge. The overall picture of symbolic boundaries that

emerges from Vallas's analysis is that of a relational process of enactment supported by differentially distributed power resources and influenced by the technological and cultural shifts within the industry. The same kind of dynamic is observed by Burri (2008) in her study of the introduction of new imaging technology in radiology and the ensuing boundary work and distinction practices.

In a similar vein, Fuller (2003) addresses the issue of heresy and orthodoxy competing for status in a conflict over boundaries of practice among climbers in America. She takes the view of boundaries as emergent: constructed, maintained, modified, and contested in an interactional nexus. She notes that boundary work occurs mostly tacitly as existing boundaries are consistently enacted, and thus reproduced along the same lines of distinction. When a novel practice emerges within an established field, the tacit boundary becomes the focus of a deliberate strategic struggle to change the traditional distinctions, redefine the relative positioning and relationship between the bounded entities, and the meaning of the boundary separating them.

Boundary change occurs in a path dependent way, in a six-stage process of interactive negotiation of meaning. First, *differentiation* occurs as traditionalists seek to distance themselves from and establish their superiority over the heretics. In response to this, the minority seeks to establish legitimacy by *blurring the boundaries*, which provokes the traditionalists to repudiate the new practice as heresy through *exclusion and polarization*. The heretics then attempt to maintain legitimacy by *denying the logic of distinction* and eventually settle for *reciprocal segregation*, i.e. accept the segregation but attribute the opposite status distinction in relation to the traditionalists. In the final stage of *normalization* a new status quo is established, whereby the contested boundary loses its political salience whilst retaining its cognitive relevance. The relative positions of power and powerlessness between the heretic and the orthodox group have a significant bearing on the progress through the sequence and the outcome at every stage. Fuller (2003: 27) explains:

“The structure of the boundaries reflected in part the structural position of the disputants, and others similarly situated are likely to engage in similar kinds of boundary work. Differentiation and exclusion are logical responses for those threatened with something new, with more extreme positions correlated with greater threat. Those excluded by a boundary will look for ways to counter it,

and the choice between defensively blurring the boundary, aggressively challenging or transgressing it, or re-enacting it with subverted meanings reflects in part one's relative strength."

Fuller's study is a story of endogenous heretical subversion (Bourdieu, 1991) whereby novelty is introduced at the margins of an established field of practice, spreads, and eventually threatens the doxa of the field. Such developments constitute a threat to the symbolic power of the 'old-timers' in the field, whose status is put at risk by alternative claims to legitimacy, triggering a defensive response. The enactment of symbolic boundaries by both parties reflects different strategies of distinction dictated by their differential access to resources (capital volume and structure). The outcome of the boundary work within the field is shaped by these strategies and practices as well as by the exogenous circumstances (such as the developments in climbing practices in Europe combined with the popularization of intercontinental leisure travel).

II.5.4. Reification: Gatekeeping and Policing

Fuller's method of textual analysis of published material does not allow for the examination of the interpersonal enactment of the practice boundary in the field. This aspect of the symbolic struggle for distinction is noted by Bourdieu in passing and dismissed as the concern of micro-sociology. It is nevertheless a recurring theme in research on boundaries and boundary work, even when it is not its main focus: the above mentioned boundary-defining acts of exclusion reported by Vallas (2001) are a good example as is Mizrachi and Shuval's (2005) account of the marginalization of alternative medicine practitioners in everyday professional interactions. Contrary to the integrative influence of close long-term interaction between social groups noted by the latter study, Lan (2003: 526), whose focus is on interpersonal cross-boundary relations, finds that "interactions between social groups do not always undermine, but often enhance the boundaries that divide them." The symbolic enactment of boundaries at the interface between social worlds reifies the boundary in the sense that it becomes a real obstacle to any flows between them.

II.5.4.1. Unequal Power Distribution

The common thread running through studies of boundary work – whether their focus is on conceptual or discursive demarcation or on controlling the interface – is the

significance of unequal power distribution with regard to the available range of strategies of exclusion. Lan (2003) puts this power differential at the centre of her analysis of boundary work in households employing migrant domestic workers. She develops a paired framework of four dimensions of boundary work based on the attitudes of the dominant and the dominated towards boundary rigidity and permeability (dimensions (1) and (2)) and in relation to the status position supported by the boundary (dimensions (3) and (4)). The four dimensions are: (1) *inclusion* (dominant) or *integrating* (dominated), versus (2) *exclusion* (dominant) or *segmenting* (dominated); and (3) *highlighting* (dominant) hierarchical difference versus *accepting* (dominated) hierarchical difference; and (4) *downplaying* (dominant) status divides versus *objecting* (dominated) to them. Based on this framework, Lan further identifies corresponding boundary strategies which the employers and employees follow in playing out their identity politics – relative to their view of the relationship and their respective power position.

Lan's study draws attention to the fact that the reification of social boundaries is not simply a matter of domination: while the dominant group are those richer in the capital resources most emphatically defining a given social relationship, the dominated are not entirely lacking in either resources or consciousness required for self-determination. Accordingly, the dynamics of boundary reification are (in all but the most extreme cases of imposition) reciprocally defined. The interactional reification of social boundaries is well documented in gender studies: gender-specific behaviour, both within and between genders, maintains the social boundary between men and women and the associated relations of domination and subjugation. At the same time, this boundary is also subject to shifts and changes resulting from relations of negotiation and accommodation as well as those of control and coercion (Gerson and Peiss, 1985:319) and thus, "boundaries mark the social territories of gender relations, signalling who ought to be admitted or excluded. There are codes and rules which guide and regulate traffic, with instructions on which boundaries may be transversed under what conditions."

II.5.4.2. Privileged Knowledge

Reification of boundaries, i.e. the enactment of exclusionary practices in interaction between different social groups seeking to establish domination in a field of practice,

has entered the research agenda of Practice-Based Studies of knowledge and learning relatively recently but has already produced some interesting results. The theme of unequal power distribution and associated differential strategies of distinction and practices of exclusion is equally prevalent in this literature. A related theme is that of privileged knowledge as both giving rise to symbolic power and being sustained by it. Studies conducted in this vein also draw attention to the use of artefacts not as boundary objects helpful in transcending boundaries but as symbols of status and objectifications of power relations which are used to emphasise symbolic boundaries and render social boundaries more salient.

One of the seminal studies in this area is the work of Bechky (2003b) on ‘interactional boundaries’ in the context of conflict over task jurisdiction between three occupational groups – engineers, technicians and assemblers – within a single organisation in the semiconductor equipment manufacturing industry. Bechky (2003b: 721) notes that “because the task domain is the means of continued livelihood, occupations fiercely guard their core task domains from potential incursions by competitors”, which results in jurisdictional conflict whereby boundaries are reified in a dynamic and simultaneous enactment of knowledge, authority, and legitimacy. The study focuses on boundary interactions around shared artefacts and draws attention to the fact that artefacts may be used to enforce control, emphasize status, and inhibit understanding as much as they can be used to develop shared understanding and consensual alignment. Thus, as well as being used as boundary objects, artefacts can also play a significant part in the reification of boundaries due the fact that they symbolize group membership, embed knowledge, and represent authority.

The three occupational communities in Bechky’s study interacted around two artefacts: engineering drawings and machines. The engineers, who were the ‘superordinate occupational group’ sought to maintain their status by retaining physical control over their drawings whilst ensuring that they be used by all the occupational groups involved in design, prototyping, and assembly. This secured the superiority of the abstract engineering knowledge represented in the drawings over the ‘workmanship’ of the technicians and the assemblers. Thus the legitimacy associated with the drawings extended onto the engineering knowledge embedded in them and enabled the engineers to maintain authority over the design - prototyping - assembly process and sustain their dominant position in relation to the other two occupational groups.

The superordinate group in Bechky's study – the engineers – used their symbolic power actively to exclude the dominated groups by creating barriers to participation, e.g. through retaining physical control over drawings and manipulating circumstances such as the timing of meetings they were able to protect their reputation and avoid the risk of any mistakes being traced back to engineering. The barriers to participation which the dominated occupational groups faced were thus not just structural or resulting from the lack of understanding of the abstract engineering knowledge but also relational and implicated in the boundary work of reification.

The dominated communities deployed their own strategies to protect their own status and reputation. Just as the engineers devalued the legitimacy of the 'tribal knowledge' and the 'tricks of the trade' of the technicians and assemblers, the latter also relied on their physical control and intimate tactile knowledge of the machines in their struggle to undermine the dominance of the engineers and secure a degree of jurisdiction over their own work. Furthermore, the two dominated groups were also engaged in boundary work between them, each drawing on their respective resources in terms of knowledge and control over the work process and the artefacts.

Reporting on their study of social and symbolic boundaries in cross-cultural software development teams, Barrett and Oborn (2010) echo Bechky's (2003b) conclusion that boundary objects, due to their symbolic nature, can be used to reify boundaries, silence divergent voices and devalue other perspectives and ways of knowing, thus establishing and maintaining status difference and legitimizing jurisdiction. Also consistent with Bechky's study is Barrett and Oborn's observation that the type of knowledge privileged by the use of a given boundary object can have the effect of shifting power dynamics between the participating communities to the detriment of those whose knowledgeability is not adequately represented. As a result, the disenfranchised community is likely to become disengaged and resist knowledge sharing.

Barrett and Oborn (2010: 1214) found that a shift from interdependence to the privileging of only one type of knowledge meant that "collaboration was replaced by relational conflict with negative emotions being exhibited and explained by cross-cultural differences." Thus, they argue, the privileging of one type of knowledge over another reinforces symbolic boundaries between the contributing groups and increases

the salience of social boundaries. In the cross-cultural team they studied these effects took the form of ‘culturizing’, i.e. derogatory stereotyping based on cultural differences, which, in turn led to heightened conflict over status differences along cultural lines resulting in the escalation of culturizing into a spiral of conflict.

Similar findings are reported by Hong and O (2009) who studied social and relational aspects of learning in the context of an information technology outsourcing project. They found that an acrimonious relationship developed between the in-house staff and the outsourcing staff. Hierarchical and social status differences between the two groups consolidated and congealed conflicting norms and identities and brought about reciprocity of exclusion. The in-house staff, who enjoyed a privileged status in relation to the outsourcing staff, excluded their outsourcing colleagues from decision-making, supervision and control. The resulting apathy and withdrawal amongst the outsourcing staff meant that they would not share their knowledge with the in-house staff.

The theme of privileged knowledge features prominently also in the work of Oborn and Dawson (2010b), who studied knowledge generation and translation across occupational boundaries in a multidisciplinary team in healthcare context. Their focus was specifically on the discursive resources of sense-giving deployed by multidisciplinary team members in the process of co-construction of meaning. They find that the knowledge of some of the members was consistently being privileged in the course of team discussion and that the privileged members represented the historically privileged occupational groups contributing to the multidisciplinary forum. Consequently, they conclude that “the creation of a multidisciplinary structure may support rather than challenge existing power hierarchies” as “privileged knowledge is reconstituted in the practices of the group that is authoritatively structured as multidisciplinary” (Oborn and Dawson, 2010b: 1835-6). The integration of meaning was blocked by ‘processes of struggle and accommodation’ – a fact which did not escape the attention of the team members, who openly joked about ‘tribalism’ and ‘turf wars.’

Similar effects of privilege on knowledge sharing are found by Oswick and Robertson (2009: 190), who argue that boundary objects do not only support change but, being the product of pre-existing power structures and hierarchical relations, they can also be tools for reinforcing the privileged position of the dominant groups and their

perspectives in relation to other, less influential, groups. Thus boundary objects need to be seen in the context of the power distribution and the divergence or convergence of interests between different participants: they can act as ‘anchors or bridges’ but they can also limit plurivocality and “be far more ambiguous, fragmented and contested than the existing literature would have us believe.” Similarly, Kimble et al (2010) find that brokers choose and use boundary objects strategically: either to facilitate information sharing and work towards a balance of perspectives or to control the flow of information and promote their own political agenda.

II.5.4.3. The Salience of Boundaries

In order to understand the dynamics of boundaries and the influences behind the enactment of reification practices, Levina and Vaast (2008) draw upon Bourdieu’s concepts of the field and forms of capital (economic, intellectual, social, and symbolic). Their case study of Global Bank focuses specifically on the issue of the salience of boundaries in the context of distributed knowledge work. To that end they studied social and symbolic boundaries in software development by onshore and offshore contributors (working for captive and independent vendors) across three sites (the United States, Russia, and India). They trace the multiple boundaries associated with organisational membership, cultural background, competence in software development, business competence, English proficiency and access to decision makers, also taking into account time and distance separation resulting from the globally distributed nature of the work.

Levina and Vaast’s (2008) analysis revealed that the boundaries associated with the country background were the most salient and inhibited collaboration across sites – an effect which was compounded by the temporal and geographic distance separating the sites. The social boundaries also demarcated the most pronounced status differences and reflected the greatest differentials in accumulated capital between the contributing groups. The higher status group (U.S.A.) members used their symbolic capital to reify status differences by using negative stereotyping consistent with the culturizing effect observed by Barrett and Oborn (2010) and by raising barriers to participation such as denying the offshore developers from contributing to the periodic evaluation of the quality of collaboration, which resonates with Hong and O’s (2009) findings. By contrast, some managers were able to alleviate status differences between groups by sharing their symbolic capital with the lower status groups to warrant recognition of

their contribution. The lower status groups were also able to renegotiate their position by drawing on the forms of capital they had accumulated through their membership in different fields of practice, e.g. their academic credentials.

The impact of status on the salience of boundaries in inter-group collaboration features prominently also in Metiu's (2006) study of globally distributed software development. Metiu (2006:420) was interested in how status influences both the initial conditions and outcomes of interaction through the deployment of 'closure strategies' or informal 'microprocesses of exclusion and closure', where 'closure' refers to the monopolization of access to valuable resources, or, in Tilly's (2005) terms, opportunity hoarding. Closure strategies or practices are equivalent to boundary reification practices due to the fact that they increase the salience of boundaries. Metiu identifies a number of closure strategies: lack of interaction, use of geographic boundary, nonuse of work performed by the low-status group, and criticism of the work performed by the low-status group – all insidiously deployed by the higher-status group (American software developers) to appropriate ownership of higher-status tasks belonging to the lower-status group (Indian software developers). The symbolic resources used to achieve status closure included: negative stereotyping, blocking access, and isolating the lower-status group.

Metiu (2006) reports that geographic boundaries were deliberately used to enhance the salience of status-based boundaries, which supports Levina and Vaast's (2008) findings and echoes Bechky's (2003b) observations regarding the deliberate creation of temporal barriers to participation by the higher-status group. Consistent with Hong and O (2009) and Barrett and Oborn (2010), Metiu notes that as a result of status degradation, Indian developers experienced emotional depletion and withdrawal. Interestingly, Metiu (2006: 429) finds that the prejudice against the Indian developers "persisted in the face of clear demonstrations of competence and dedication from the part of Indian developers", which stands in contradiction to Tilly's (2005) ideas regarding the effects of 'conversations', i.e. routine exchanges of information across a social boundary, on the salience of boundaries.

II.6. Conclusion

The picture of boundaries that emerges from the above overview of empirical research is anything but that of clearcut faultlines or purely conceptual demarcations. Instead, symbolic boundaries are revealed as complex and sometimes contradictory projections of multiple worldviews, identities, aspirations, and political interests. Boundaries are instrumental in identity formation. By binding and bonding individuals into groups, professions, organisations, communities or even imagined communities such as nation or class, boundaries offer a sense of belonging, togetherness, and support but also normative and hierarchical control and collective bargaining power. By selectively including or excluding others, they provide a means of social advancement and defence against heresy and other unwanted influences, which might jeopardise the unity of the group or threaten its collective interests.

Boundaries are dynamic sites of the struggle for distinction. For the most part, they are enacted following well-established patterns, i.e. instantiated, to use Giddens's (1984) term. Occasionally, a change in circumstances (social, economic, political) will present itself which will trigger a change in boundary patterns such that a boundary may be shifted, become more permeable, disappear altogether, or just the opposite – new boundaries may appear where there have been none and existing boundaries may become fortified. There is convincing evidence that symbolic boundary practices (whether integrative or exclusionary) will differ according to the relative positions of power occupied by the respective interacting parties. The interplay of the key dimensions of difference, novelty, power, and dependence shapes boundary dynamics in complex and subtle ways. The common denominator – the issue at the heart of the matter – is the question of the salience of boundaries.

At the same time, the issue of the salience of boundaries receives little attention from scholars studying knowledge and learning in the PBS tradition. Only three studies – Barrett and Oborn (2010), Levina and Vaast (2008), Metiu (2006) – explicitly consider the issue of the salience of boundaries. Being concerned predominantly with intra-organizational and client-vendor relationships, authors focus mainly on boundary work of reification at the interface of different communities and only include the distinction aspect as a backdrop against which to explain the symbolic enactment of boundaries and barriers to participation.

By contrast, a significant amount of PBS research is dedicated to the study of boundary transcendence: boundaries need to be bridged in order to share knowledge and learn in collaboration with others. Much of this interest is a derivative of the pursuit of insights into effective ways of distributed organising (Orlikowski, 2002), product development (Carlile, 2004), or project work (Levina and Vaast, 2005). Accordingly, attention is largely centred on identifying and overcoming difficulties represented by boundaries through boundary-spanning practices and the use of boundary objects. Collaboration is taken for granted and questions about the origin of boundaries, the mechanisms governing them and the practices involved in boundary construction and maintenance, are largely left unasked.

The transcendence literature largely neglects the issue of the salience of boundaries in knowledge-sharing contexts. A focus on the salience of boundaries reveals a more antagonistic dimension to knowledge-sharing interactions: the activation of boundaries according to the logic of distinction. Here, turf wars replace common ground as agents engage in the symbolic struggle for field dominance and seek to maintain or enhance their status. Symbolic struggle for distinction is played out between higher- and lower-status groups and is particularly fierce when the entrenched positions of the higher status group within a field of practice are under threat from a lower-status group seeking to enhance their status. The ‘turf war’ dynamics of distinction and reification of boundaries have been found to have a detrimental impact on the knowledge-sharing agenda of affected partnerships.

Boundary work of reification is found to intensify the salience of boundaries between different social groups, such as occupational groups or communities of practice depending on the status differential and the distribution of relevant resources between the interacting groups (Barrett and Oborn, 2010; Bechky, 2003a, b). The salience of social boundaries reified through the symbolic enactment of difference pronounces the privileged status of the dominant group and their knowledge to the detriment of knowledge sharing and integration (Oborn and Dawson, 2010b; Hong and O, 2009), which is the espoused purpose of many cross-boundary initiatives.

Overall, studies that investigate the exclusionary aspect of boundary work – either as distinction or reification – or explicitly tackle the issue of the salience of boundaries in knowledge-sharing contexts are not many but form a growing field of research. They

focus on issues of distinction, reification and boundary salience. The contributors to this research project (Barrett and Oborn 2010; Levina and Vaast 2008; Metiu, 2006; Bechky, 2003b) draw upon the wider sociological literature on social and symbolic boundaries, including Bourdieu's theory of distinction (Burri, 2008; Levina and Vaast 2008; Bechky, 2003a, b) and Tilly's (2005) theory of boundary change (Metiu, 2006). Given the limited number of studies in this area, there is significant scope for further research aiming to uncover the exclusionary aspects of boundary work in knowledge sharing, especially in more heterogeneous, inter-organisational contexts. The most significant themes which require further attention from PBS researchers are distinction, reification and the salience of boundaries.

Chapter III. Research Setting, Methodology, and Methods

Introduction

This chapter discusses the ontological, epistemological, and methodological approach to the design and conduct of research underpinning the present study. All three aspects are informed by the theoretical framework developed in Chapter II of the thesis and by the objectives specified for the thesis in Chapter I. The latter are further elaborated into two sets of research questions which relate the research objectives to the specific empirical setting selected for the study. The chapter starts by presenting the research setting and questions. It then turns to the discussion of the ontological implications of Bourdieu's (1977, 1990) theory of practice and the epistemology of practice underpinning Practice Base Studies of knowledge and learning. The methodological implications of studying practice in its different dimensions are then considered in relation to the solution of 'zooming in/out' proposed by Nicolini (2009). By juxtaposing Nicolini's ideas with Bourdieu's epistemological position and Tilly's (2004, 2005) model of boundary change, an overall methodological approach underpinning the present study is then formulated. The chapter subsequently moves on to the presentation of the research design and the specific research methods deployed in collecting, analysing, interpreting, and writing-up the data. Finally, the chapter concludes by addressing the limitations of the study and the ethical considerations involved in the study.

III.1. Research Setting

A suitable context for the realisation of the research objectives specified for this study in Chapter I (see section I.2.) was identified in the European Commission's (EC) Regional Innovation Strategy (RIS) initiative, part of the Lisbon strategy for Europe. The particular RIS project which served as a setting for the present study was part of the 2005 edition of the RIS programme, which was a knowledge-diffusion and economic development initiative sponsored by the EC for the benefit of the new member states. It was based on the idea of transplanting regional-level innovation support tools, systems,

and methodologies from advanced (Western) regions to novice regions (New Member States). The RIS programme was realised by funding inter-regional projects focused on a region from a new member state and involving the participation, in the form of knowledge-transfer, of regions with RIS experience gained in the previous editions of the RIS programme.

Each RIS project brought together multiple stakeholders from the focal novice region and partner institutions from advanced regions under a collaborative framework structured according to the EC guidelines and procedures. The two main guiding tenets for collaborating on a RIS project were consensus building and knowledge transfer. Each new project was in effect a new boundary practice (Wenger, 1998), participants in which declared the intention to work together jointly to develop a strategy for the development of a sustainable and effective regional innovation support system.

III.1.1. EU RIS Western Poland

EU RIS Western Poland (EU RIS) was the particular RIS project which provided the research setting for this study. EU RIS was based in the region of Western Poland, with the regional capital in the city of Portovo (the name of the project and the names of participating regions, cities, organizations, and individuals have been disguised for reasons of confidentiality). Apart from Western Poland, two other European regions also took part in EU RIS, both from the United Kingdom: North UK and South UK. Both North UK and South UK participated in the EU RIS project as ‘foreign experts’, i.e. their role was to be that of advisors, trainers, sources of expertise in regional innovation and business support systems, as well as of practical experience with developing and implementing regional innovation strategies. The partnership came into being around the aim of developing a Regional Innovation Strategy (RIS) for the Region of Western Poland which would serve the purpose of developing the economic potential and competitiveness of the region.

The EU RIS project was an international partnership among eight organisations (see Table 4.1). The ‘foreign expert’ regions were represented by their respective regional development agencies: the North UK Development Agency (NDA) and the South UK Development Agency (SDA). The Western Poland partners included: the Western Poland Development Agency (WDA), the Office of the Governor of the Western Poland

Region (GWP) representing the regional authorities, two universities: Portovo University (PU) and the Portovo University of Technology (PUT), an independent (commercial) research institute - Portovo Institute for Market Economics (PIME), and the Industrial Design and Research Centre (IDRC).

The stated purpose of the EU RIS partnership was to create a regional innovation support system through knowledge sharing and joint knowledge creation as well as through consensus building among multiple stakeholders in the region. It was a weakly structured context based on voluntary participation, which was in turn based on the financial incentives associated with access to European funds. The structure was designed according to the European Commission (EC) guidelines, with the dominant role assigned to contractual arrangements and project management controls such as budgets and progress reports. The core idea behind EU RIS is depicted in Figure 4.1.

Apart from the coordination between contributors from three European regions and eight key organisational partners, collaboration was required between two project teams: the team working on the EU RIS project funded by EC and the team working on the implementation of a 'local' RIS project (RIS-A), which had been developed in the focal region independently of the European RIS framework prior to the EU RIS bid being submitted to the European Commission. The official aim of the 'European' project was to complement and extend the 'local' project. Further details of the EU RIS partnership and its participants are discussed in Chapters IV and V.

III.1.2. Empirical and Theoretical Suitability

In significant ways, the RIS programme presented an opportune setting for the realisation of the stated research purpose. Firstly, the RIS' emphasis on knowledge transfer between stakeholders provided a suitable ground for a study of knowledge-sharing interactions. Secondly, the international dimension of RIS projects brought with it geographical, temporal, and cultural differences in addition to the usual organisational and practice differences present in inter-organisational settings. This added complexity and thus depth to the consideration of the issue of the salience of boundaries. Thirdly, the inter-organisational dimension of the RIS programme and the EC's insistence on building consensus among RIS stakeholders helped make transparent the power dynamics and engagement strategies which tend to be more obscure in intra-

organisational contexts. Finally, the EU RIS project provided an opportunity to observe a new boundary practice in the process of being formed by the participating stakeholders. This highlighted participants' strategies in relation to knowledge and status and enabled a focus on boundary reification practices as opposed to boundary transcendence practices, which might be expected to be more evident in established domains.

III. 2. Research Questions

Having identified the research setting and discussed its characteristics and suitability with regard to the objectives specified for this study, it is now possible to formulate the research questions that guided the research process throughout the data collection, analysis, and interpretation stages. The development of the research questions was a gradual and iterative process (Eisenhardt, 1989), which started with a broad interest in knowledge sharing in a heterogeneous context. The tentative question guiding the research at that stage could be phrased as follows:

“What insights into the issues of knowledge sharing might be revealed through the study of the EU RIS project?”

This open curiosity about the knowledge sharing involved in the project was soon reduced to a broad interest in boundaries affecting the knowledge sharing activity of the participants in the project, resulting in the following statement of interest:

“What can be learnt from the EU RIS project about the nature of boundaries involved in knowledge sharing endeavours in heterogeneous contexts?”

In the course of the data collection, the above interest was gradually refined and focused to produce the following research question:

“What are the reasons, practices, and strategies behind the salience of boundaries in a heterogeneous knowledge-sharing context like the EU RIS project?”

Finally, following a thorough literature review, the research objectives specified for the

study were formulated and the following set of research questions was developed to guide the research:

6. What defines the salience of boundaries in a heterogeneous knowledge-sharing context?
7. What is the relationship between the salience of boundaries and the knowledge-sharing agenda?
8. What strategies of distinction shape knowledge relations across the social sites demarcated by the salient boundaries?
9. What are the practices through which these strategies are enacted and boundaries are made salient?
10. How do the salient knowledge boundaries (i.e. the boundaries shaping knowledge relations across the social sites they demarcate) influence and how are they influenced by the power relations between the relevant social sites?

Following the advice of Creswell (2007), a set of topical questions related specifically to the research context and setting, i.e. to the RIS project under investigation, was also developed and addressed in the course of the study:

1. Why did the local and Western stakeholders get involved in the EU RIS project?
2. Do the participating stakeholders subscribe to the European RIS ideology regarding knowledge transfer, collaboration, and consensus building?
3. Whose interests would be served if these principles were realised in practice?
4. Is there any evidence of significant political tensions between stakeholders participating in the EU RIS project?
5. How are these tensions related to the knowledge sharing and collaborative learning agenda of the European RIS methodology?
6. How are economic, social, and intellectual resources mobilised by stakeholders in practice in support of their knowledge politics?

The theoretical background for this study was established by developing a framework incorporating Bourdieu's (1977, 1990) practice theory, the studies of social and

symbolic boundaries – including Tilly’s (2004, 2005) theory of boundary change – and the PBS literature on boundaries in knowledge sharing and learning. The identified issues of boundary salience and change in knowledge-sharing and learning informed the development of the research objectives specified in Chapter I. These were then situated in an empirical setting characterised by a high degree of heterogeneity and novelty. This was argued to help optimise the conditions for the realisation of the objectives specified for the study, which could then be translated into two sets of research questions linking the theoretical premise of the thesis to the empirical setting of the study. All these choices have been informed by specific ontological and epistemological considerations and incurred methodological and ethical implications that are discussed in the remaining sections of this chapter.

III. 3. Ontological and Epistemological Considerations

Bourdieu dedicated a considerable amount of attention in his opus to explaining his views on ontology. He expressed an equal degree of dissatisfaction with nominalist relativism and the ‘realism of the intelligible’ (Bourdieu, 1991: 232) and argued that the traditional choice between the objectivist and subjectivist position is a false one. He sought to redress that false dichotomy by subordinating “all operations of scientific practice to a theory of practice and of practical knowledge” (Bourdieu, 1977: 4). He saw this pursuit as a search for the conditions of practical knowledge of the social world, i.e. not an inquiry into the phenomenological ‘lived experience’ but into “the mode of production and functioning of the practical mastery which makes possible both an objectively intelligible practice and also an objectively enchanted experience of that practice” (Bourdieu, 1977: 4). Thus, Bourdieu located the key to achieving the right balance between the objective and the subjective ‘moment’ in practice as that which constitutes the objective social space within the limits of which subjectivity is realised.

“The social world is, to a great extent, something which the agents make at every moment; but they have no chance of unmaking and remaking it except on the basis of a realistic knowledge of what it is and of what they can do to it by virtue of the position they occupy in it.”

(Bourdieu, 1991: 242)

Bourdieu's is thus a relational ontology that also informs much of contemporary research in the practice theory tradition (Nicolini, 2009). Practice theory has been exerting a significant influence on organisation studies for over two decades now and has been discussed under terms such as Practice Based Studies (Gherardi, 2009), 'return to practice' (Miettinen et al, 2009) or 'the bandwagon of practice' (Corradi et al, 2010). Within this research tradition the concept of practice is treated both as an empirical object of study and as an epistemology (Corradi et al. 2010: 268; Geiger, 2009; Cook and Brown, 1999). As an empirical object practice is as a set of interconnected activities underpinned by a shared way of knowing and understanding, which, by virtue of being interconnected with other practices, exerts far-reaching social effects (Corradi et al., 2010).

Practice as epistemology follows Wittgenstein's (1953) insight that practice is intrinsically social, not private. It highlights the mutually constitutive, dynamic, relational, and situated nature of knowing and practice (Orlikowski, 2002), where knowing is "the epistemic work that is done as part of action or practice" (Cook and Brown, 1999: 386-387). It reveals the situated, provisional and path-dependent nature of practice, and the dual role of learning in both affecting its reproduction and change. The epistemology of practice (Cook and Brown, 1999) thus represents a "non-cognitive, non-positivist and non-rationalist" approach to organisation studies (Geiger, 2009: 129).

The three-dimensional nature of practice noted by Corradi et al (2010) places sophisticated demands on research design: not only is it necessary to understand the macro-level aspect of practice as a social institution interconnected with multiple other practices but it is also crucial to access the two aspects that together constitute practice at the micro level, i.e. the minutiae of the activity *and* the knowing-in-practice. Nicolini (2009) proposes a solution: the 'zooming in/out' approach to research whereby the researcher shifts between the macro- and the micro- perspective changing theoretical 'lenses' in the process so as to sequentially background one aspect of practice and foreground the other. Nicolini argues that this solution addresses the entirety of the problem set above, i.e. covers all three aspects of practice and avoids any form of reductionism so that practice can be revealed as a 'seamless web'.

The zooming in/out approach certainly goes a long way towards establishing the

balance between the subjective and the objective moment that Bourdieu (1977) argues for. Nicolini's advocacy of ethnomethodology in the 'zooming in' phase, however, goes against Bourdieu's (1991) vehement criticism of that approach:

*“The structure of class relations is only ever named and grasped through the forms of classification which, even in the case of those conveyed by ordinary language, are never independent of this structure (something forgotten by the ethnomethodologists and all the **formalist** analyses of these forms).*

(Bourdieu, 1991: 147, original emphasis).

The sharp end of Bourdieu's criticism is the treatment of language as the site of the social and the source of insight into social relations *in and of itself*, i.e. in separation from the relations of power which imbue discourse with meaning. The criticism extends to symbolic interactionism: Bourdieu (1991: 67) argues against taking interaction between people as a self-contained unit of analysis on the grounds that “the whole social structure is present in each interaction (and thereby in the discourse uttered).” Thus, in Bourdieu's view, the immediacy of interaction detracts attention from the underlying structures:

“Interactions which bring immediate gratification to those with empiricist dispositions – they can be observed, recorded, filmed, in sum, they are tangible, one can ‘reach out and touch them’ – mask the structures that are realized in them. This is one of those cases where the visible, that which is immediately given, hides the invisible which determines it. One thus forgets that the truth of the interaction is never entirely to be found within the interaction as it avails itself for observation.”

(Bourdieu, 1987, in: Haugaard, 2002: 233)

Although Bourdieu takes it upon himself to convey similar sentiments in relation to ‘micro-sociology’, ‘interactionism’ and ‘empiricism’ on numerous occasions in his writings, his is not a wholesale dismissal of the empirical evidence to be gained from observing interaction but a sensitizing warning to look beneath the obvious, the immediately visible, the obtrusively explicit and treat these as manifestations of deeper

influences exerted by the relations of power structuring the social space. In this sense, his cautionary attitude to drawing conclusions from empirical observation of interactions is a call for a more holistic and critical analysis: a semiotic as well as semantic reading (Eco, 1990) of the observed situation.

III. 4. Research Design

III.4.1. Studying Practice

As previously mentioned, the field of PBS of knowledge and learning is not a homogeneous one and has been developing along several strands, each with its own methodological framework, e.g. ethnomethodology and Activity Theory have both developed strong theoretical and methodological positions. At the same time, there are significant overlaps in the approach to research methods deployed across PBS strands. All these approaches are heavily indebted to ethnography in terms of the common use of ethnographic data collection and analysis methods. The key early contributors to PBS of knowledge and learning drew on ethnographic work: either based on original empirical research (Wenger, 1998; Cook and Yanow, 2003) or on published ethnographic accounts (Lave and Wenger, 1991; Brown and Duguid, 1991, 2001; Cook and Brown, 1999). Traditional ethnographic accounts inspired by symbolic interactionism, i.e. setting out to represent the meanings of the actors through thick description, have proven very fruitful as a ground for theorising about practice.

The debt owed to ethnography by PBS scholars is hardly surprising: ethnographers have traditionally sought insight into the perspectives and practices of people in their social settings from the 'inside' (Crotty, 1998; Hammersley, 1992). Notwithstanding the widespread use of ethnographic research methods, the preferred research design in PBS of knowledge and learning is the case study. The emphasis tends to be on the analytical rather than the descriptive, there is a lesser reliance in data collection on the ethnographic observation in favour of diversifying data sources and triangulation, and a lesser emphasis is given to the study of culture in favour of practice: all traits consistent with the distinction made between ethnographic and case study research by Creswell (2007). The above account of the use of case studies in PBS of knowledge and learning is of course a broad generalization and many exceptions could be quoted in its contradiction, not the least of which would be what Kellogg et al (2006) term 'the

cultural perspective' (e.g. Cook and Yanow, 2011; Yanow and Tsoukas, 2009; Yanow, 2000), where the emphasis is on the understanding of cultures through the study of practice following the anthropological ethnographic tradition. Nevertheless, the vast majority of publications mentioned in Chapter II fit this generalized description.

The methodological approach to research which guides this study is informed by the relational ontology of Bourdieu's theory of practice and the epistemology of practice underpinning Practice Based Studies of knowledge and learning. It further acknowledges the need to zoom in/out on practice (Nicolini, 2009) changing theoretical lenses so as to access both the micro- and macro- dimensions of practice without recourse to reductionism. However, in a departure from the detail of Nicolini's solution, it follows Bourdieu's call for an empirical investigation that never loses sight of the structural context of symbolic interaction. This problem is approached by making a commitment to semiotic reading (Eco, 1990) in recording and analysing empirical data. On the macro side of Nicolini's 'telescope', the approach taken is to follow the advice to 'follow the actors themselves' that Nicolini borrows from Actor Network Theory. In so doing, however, the study uses Tilly's (2004, 2005) model of boundary change in order to maintain relevance and structure the inquiry. Finally, the study follows the established practice in PBS of knowledge and learning in obtaining data through ethnographic field methods and adopting a case study research design.

III.4.2. The Qualitative Case Study

The case study is a widely used research design, also referred to as methodology, approach, or strategy (Creswell, 2007; Yin, 2003; Eisenhardt, 1989). Creswell (2007: 73, original emphasis) defines the case study as "a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving *multiple sources of information* (e.g. observations, interviews, audiovisual material, and documents and reports), and reports a *case description* and case-based themes." Others, e.g. Stake (1995) and Yin (2003), distinguish between qualitative and quantitative case studies. Case studies are also classified according to intent: the single instrumental, the multiple case study, and the intrinsic case study (Creswell, 2007). An instrumental case study is one that investigates a theoretical problem within a particular empirical setting as opposed to exploring an intrinsic interest in a particular case in its own right. The case

study design adopted for this research project is a single instrumental qualitative case study, which is also consistent with the majority of case studies discussed in Chapter II.

The single case study design is prevalent in PBS of knowledge and learning because the theoretical problems posed by researchers working in this tradition typically require in-depth and sustained access to practice as discussed in Section III.4.1 above. This requirement often precludes the possibility of undertaking a multiple case study research project due to the prohibitive implications regarding access, funding and time commitments. This was also true of this research project: the timeline was constrained by the regulations regarding the period of registration for PhD programmes and research was funded entirely from own resources. Both constraints were amplified by the demanding geography and timelines associated with the research setting.

A case study usually draws on multiple data sources and data collection methods. Triangulation is a common approach (Creswell, 2007): researchers seek to increase the internal validity of their findings by applying triangulation of data sources and methods (Yin, 2003), i.e. comparing data obtained, e.g. from interviews, observation, and documentation. Data sources typically include two or more of those listed by Yin (2003), i.e. documentary, archival, interviews, direct observation, participant observation, and physical artefacts Yin (2003). Data analysis is done at two levels: identification of themes within data and interpretation of data by reference to extant literature (Creswell, 2007). Details of the data collection and analysis undertaken for the purpose of this research project are discussed below: in Sections III.6 and III.7 respectively.

The standards of validation recommended for qualitative case studies cover a spectrum from developing equivalents of positivist standards of objectivity, internal and external validation, and reliability (Creswell, 2007) to questioning the usefulness of validation as a guiding concept for qualitative research (Wolcott, 1990). This study was guided by the recommendations of Whittermore et al (2001) who identified four primary and six secondary validation criteria: the former include credibility, authenticity, criticality, and integrity; the latter are: explicitness, vividness, creativity, thoroughness, congruence, and sensitivity.

III.4.2.1. The Choice of the Case

Whilst generalizability is not one of the aims of qualitative case study research (Creswell, 2007), it is important to choose a research setting that would support the achievement of the objectives set for the research project, i.e. enable the researcher to advance the understanding of the theoretical issue or issues driving the research. The possibilities for this kind of purposeful sampling (Creswell, 2007) include choosing a critical case, a typical case, a unique or extreme case, or an accessible case (Creswell, 2007; Yin, 2003).

The selection of the case for the present project was intended to be that of a typical or representative case study (Yin, 2003) that would also be accessible (Creswell, 2007). Consistent with the original formulation of the research interest specified in Section III.2 above, the intention was to identify a research setting that would offer a good chance of studying knowledge and learning in distributed organising from the practice perspective. This required gaining access to a setting characterised by a commitment to knowledge sharing/transfer and/or a collaborative learning agenda. A significant degree of heterogeneity was also required: preferably including an inter-organisational and an international dimension and involving diverse participants working together under conditions of some geographic and temporal distance. The EU RIS project satisfied these requirements and had the added benefit of being accessible.

As it transpired during the course of the research, the studied project would be better described as an extreme case study (Yin, 2003), i.e. one where the relevant characteristics are exaggerated. This allowed for a sharper and more rapid definition of the research focus. A flexible, responsive approach to developing a research focus in the course of the research project is one of the characteristics of case study research (Eisenhardt, 1989). A researcher examines the data to identify emergent themes and then verify those themes progressively as the data accumulates (Yin, 2003; Stake 1995). Data collection can be gradually focused on the salient themes and the researcher can probe deeper into the issues by adjusting data collection sources and methods as appropriate – an approach known as ‘progressive focusing’ (Stake, 1995; Hammersley and Atkinson, 1983). Whilst a degree of flexibility is beneficial in the sense of helping ensure the relevance of the study, it can also be a hindrance in that too many shifts of focus may result in a lack of focus – a threat that is less likely in studying an extreme case. The gradual development of the research focus for the EU RIS case study was

described in Section III.2 above.

III.5. Issues of Access, Role, and Bias Mitigation

Access to the EU RIS project was granted to me in return for making an occasional contribution to the project activities by representing one of the foreign partners in the project (RDAR) in some of the meetings, liaising between the partners to help fulfil one of the project tasks (SME matching event) and helping with the organisational effort regarding project-related events (such as the scoping visit of the South UK delegation to Portovo before official talks about the EU RIS consortium had even started or looking after the Western Poland delegation during their study visit to Riverton towards the end of the data collection period). In fact, the nature of my involvement in the project was initially described to me as ‘something like a boundary spanner’.

Indeed, I was uniquely positioned to be asked to act as a boundary spanner: firstly, as a native of Poland from Portovo who, at the time the project was being discussed as a possibility, had recently started studying and working in South UK. Secondly, as someone with management consulting background and a beginning researcher I was at the time literally at the threshold of the two practice perspectives involved in what would become the EU RIS project. Thirdly, as someone who had no prior knowledge or experience of regional development, innovation, or indeed regional public sector politics, I was not burdened with any preconceptions or allegiances.

Having said that, I was acting on behalf of the South UK partner and that would have influenced both my perception of the situation and the way I was being perceived by the particular participants. I accepted that as a known risk of bias that I could deliberately mitigate: in the first instance by declining any form of remuneration. Another potential source of bias did not become apparent until long after I commenced my study: I clearly shared more characteristics – my age, gender, professional background – with one of the two groups which, as it transpired, stood in conflict with each other. This could not have been predicted prior to embarking on the study because neither the project composition nor the mutual relations between the eventual project participants were known at the time the research project was commenced.

There were three moderating factors in relation to that particular source of bias: firstly, I had already become a researcher, which provided a strong connection to the group with which I shared fewer commonalities (PUT representatives) in terms of establishing a common ground – one that granted me their acceptance. Secondly, my primary involvement was as a researcher and I refrained from any participation in the normal proceedings of the project beyond the absolute minimum that I had committed to, which did not include day-to-day involvement in the work of the project participants or any decision-making authority with regard to the project. This type of engagement in the field is described by Adler and Adler (1987) as ‘peripheral member researcher’, i.e. the least ‘active’ on their three-point scale of ‘membership roles’ in field research. My ‘peripheral membership’ meant that, for the most part, I was an observer rather than a participant. I could therefore retain a comfortable degree of detachment, which was helpful in my efforts to detect and check my own biased responses to the unfolding project events.

The third moderating factor was the fact that my purpose as a researcher largely coincided with my purpose as a boundary spanner: I made deliberate efforts to understand the perspectives of all the project participants and empathise with their specific circumstances. I also made it clear from the start that my interest in the project was academic and that I did not have the competence, the desire, or the ability to be involved in the development of the regional innovation strategy for the Western Poland region. My role as a researcher was accepted and respected by all the project participants who allowed me full freedom of access.

III.6. Data Collection

III.6.1. Fieldwork Duration and Scope

The period of data collection extended over two years, including twelve months of the ‘preliminary phase’, when the project bid was being first discussed as a possibility, a consortium was being formed, and the funding bid was being prepared (beginning in May 2004) and thirteen months of the actual project duration, counting from the date of the approval of the project proposal by the EC in May 2005 until June 2006 when the consensus building and knowledge-sharing phase of the project ended. This was seen as an appropriate point to terminate the data collection as the project moved on to the

implementation stage which was not directly relevant to the research agenda. It was also seen as economically inefficient and professionally untenable to sustain involvement after the project had ceased to yield relevant data.

The intensity of data collection reflected the intensity of the work done by the participants in relation to the project: in the first twelve-month period the participants were hardly active and the available data consisted mostly of e-mail exchanges. The most intense period of fieldwork during this 'preliminary phase' occurred at the beginning, i.e. between May and July 2004. This was when the South UK region became involved as a potential partner in a future EU RIS consortium. During that period there was a peak of activity around the organisation of an international event promoting Western Poland as an innovative region, which was attended by a delegation from South UK.

During the three months surrounding that event, I had the opportunity to participate in seventeen meetings between various representatives of both regions and in two plenary meetings including all the potential EU RIS participants. I also observed the proceedings of a two-day conference on innovation, including presentations by the South UK delegates and Western Poland stakeholders. Apart from following the official agenda, I also accompanied members of the South UK delegation during their 'time off' and participated in social occasions, such as lunches or dinners. On those occasions I took the opportunity to speak with all the delegates about their respective organisations, their interests in coming to Portovo and potential involvement in the EU RIS partnership. In the remaining months of the 'preliminary phase,' I met with the lead delegate from RDAR in Riverton on five different occasions to talk about the developments regarding the EU RIS project bid and was also included in all relevant e-mail traffic.

Once the funding for the EU RIS project had been granted, the involvement of the participants intensified and so did my fieldwork. During those thirteen months I conducted direct observation and participant observation of the EU RIS project: I took part in all the meetings and events associated with the project with the exception of some local meetings that took place in Western Poland in relation to specific tasks during the time in between scheduled plenary events. However, I also took part in those kinds of meetings when they were concerned with the SME matching task, in which

South UK' RDAR was formally involved – those were the occasions when I acted on behalf of Winfields as a liaison onsite in Protovo. Overall, during the 13 months following the commencement of the EU RIS project, I participated in:

- four plenary Project Management Unit Meetings;
- three two-day events, including the project launch during a regional innovation conference, an 'off-site' plenary workshop in Western Poland, and the Western Poland delegation study visit to South UK;
- twenty-two bilateral meetings with the Western Poland partners as South UK liaison;
- four 'behind-the-scenes' meetings;
- six local RDAR meetings in Riverton;
- two research meetings with PUT representatives (better to understand their RIS-A strategy);
- four formal dinner events;
- a significant number of informal conversations and social gatherings of various sorts.

My overall approach to data collection was to take every opportunity to find out more – whether it was by chatting during a comfort break in a meeting, or taking part in lunches, dinners, and any other social gatherings 'after hours'. Apart from data generated from direct and participant observation I also had access to all project-related e-mail traffic and project documentation. I also gathered data from official project documentation and related European Commission documents, as well as from six formal interviews with key project participants. This approach ensured data sources triangulation (Yin, 2003) so that it would be possible to identify converging lines of inquiry arising from different sources of data and to verify evidence across data sources, thus strengthening the validity of the findings. Having access to multiple sources of data also made it possible to cross-reference between different pools of data to trace complementary information necessary to build a holistic picture from the case study (Stake, 1995). The diversity of the methods of data collection also provided a good degree of method triangulation (Yin, 2003), which helped strengthen the validity of findings (Creswell, 2007; Yin, 2003).

III.6.2. Participant Observation and Direct Observation

The bulk of the data was collected by means of direct and participant observation, which is also consistent with the practice research tradition (Marshall and Rollinson, 2004). By ‘participant observation’ I mean the ethnographic field research method whereby the researcher (and not the practitioner) engages in the practice of academic interest to her and takes an active role in the production of that practice (alongside other participants) in order to reach an intimate understanding of that practice in the light of her research interests and, through that understanding, to advance theory. Participant observation offers the kinds of intimate insights that are of utmost relevance to researchers interested in studying knowing in practice. It allows one to develop abstract academic knowledge from knowing as it is tacitly experienced in practice (Kostera, 2007). This relational knowledge (Park, 1999) is as close as one can get to understanding knowing: once disengaged from practice, one no longer has direct access to knowing but only to the knowledge derived from knowing, both tacit and explicit.

I took the approach of being a ‘peripheral member researcher’ (Adler and Adler, 1987), i.e. participating only in non-core activities (as explained in Section III.5. above). Even in the course of participation I was very much focused on the observation: the ultimate objective was to gain a relational understanding of the practice, the facilities and frustrations that the participants experienced in their work. However, at no point did I attempt to ‘go native’ or to set aside my own social conditioning to be able to represent the ‘true meanings’ of others. Rather, I followed the advice of Churchill (2005: 6, emphasis added), who argues that the ethnographer “must possess the empathetic capacity to enter the mindset of these people [the participants] and see the world both as they do and as he or she does *simultaneously*.” This kind of conscious cultivation of empathetic understanding proved to be a valuable resource both in directing my attention in collecting the data and in disciplining and safeguarding my analysis against the temptation of formulating theoretically attractive but far-fetched interpretations.

Aside from the bilateral meetings in Western Poland and Riverton, my fieldwork took the form of direct observation. Kostera (2007: 128) describes the position of a researcher conducting direct observation as that of a ‘guest’ and recommends direct observation as a method that “provides the researcher with the possibility of keeping a distance and, at the same time, getting closer to the field.” This was exactly the approach I took to direct observation: I was being a ‘guest’ and was accepted as such by the participants. I enjoyed unconstrained access to all project proceedings, both formal

and informal, and any requests for additional information or documents were always granted. At the same time, I did not take part in the discussions or become involved in any of the proceedings but tried to maximise opportunity for observing, noticing, and recording as much as possible without being unnecessarily obtrusive and breaching the conduct becoming a guest.

The most valuable data was obtained from direct observation, for instance the transcripts of interactions during Project Management Unit (PMU) meetings yielded the best examples of boundary reification through discursive practice, which would have been difficult to capture by other means. Apart from PMU meetings I observed other plenary, multilateral and bilateral working meetings, workshops and presentations as described in Section III.6.1 above. I also participated in ‘behind-the-scenes’ meetings devoted to political manoeuvring and coalition building. In addition to that, I took part in a number of informal meetings, such as lunches, dinners, chats over coffee or drinks. With regard to these informal occasions, the distinction between direct observation and participant observation was admittedly more blurred in the sense that I did take an active part in those informal conversations and social occasions. The difference was that I was still being a guest and was being treated as such.

III.6.3. Writing in the Field

I recorded the data from direct observation of formal meetings and events ‘live’ by taking notes and close-to-verbatim transcripts of the most relevant fragments of the meetings by touch-typing on my laptop. Laptops were commonly used by the EU RIS participants in meetings so that did not constitute a disruption. I was also able to take detailed ‘live’ notes of one of the ‘behind-the-scenes’ meetings. When taking simultaneous transcripts or notes was not possible, e.g. during participant observation and on most of the social occasions, I took detailed notes as soon as possible after those meetings. After all meetings and discussions, I took notes of the semiotic clues (Atkinson and Delamont, 2008) offered by the participants’ behaviour, tone of voice, body language, appearance, the general atmosphere of the meeting, the seating arrangement, décor, artefact, etc. I also made annotations commenting on anything that might be useful in understanding what was hidden between the lines, e.g. an earlier comment which seemed relevant or a previous event that may have been causally related.

In addition to the above, I also wrote a research diary, which included my impressions, intuitions, associations with theory, and questions arising. The diary helped contain and make explicit any sources of bias, deal with any perceived contradictions or confusion and gave an outlet to distractions arising from thoughts and observations unrelated to the research agenda. Research or fieldwork diaries are commonly used for such purposes in ethnographic research (Kostera, 2007). Thus data from observation was not only recorded in the field but also already undergoing the process of progressive focusing, analysis and interpretation (Stake, 1995).

III.6.4. Interviews

I conducted six semi-structured interviews with representatives of the organisations participating in the EU RIS project. The reason why there were not as many interviews as partners in the project was that I did not have access to the Governor's Office, which was an 'arms-length' partner and only sporadically delegated different representatives to EU RIS meeting. Consequently, there was no-one who would be willing or able to talk about the project from an insider's perspective. A maternity leave taken by the representative of PU was the reason why there was no available interviewee from that organisation who would be familiar enough with the project to be able to provide relevant information. All the interviewees were the lead representatives of their organisation who had knowledge of the entire history of the project and participated in most or all of the relevant meetings. They were all at middle-management level and held significant responsibilities in their organisations, which meant that they were experienced in working on inter-organisational and inter-national projects and supervising the work of others on such projects.

Taking advantage of the fact that I was equally competent in both the natural languages used by the participants in the EU RIS project, I took the decision to conduct each interview in the native language of the interviewee. Welch and Piekkari (2006) recommend this approach to cross-cultural interviewing on the grounds that it helps establish rapport with the interviewee and facilitates contextualization between the interviewer and the interviewee. It was also my intention to make sure the participants' freedom of expression would not be inhibited by the need to use a foreign language. Finally, I took the approach of seeking an equal power relationship with the

interviewees, which may have been compromised if the interviewees' linguistic competence was not on par with my own (Welch and Piekkari, 2006).

The interviews provided the opportunity to verify my interpretations and intuitions about the events against the explicit statements of the participants' perspectives as well as to gain some insight into the events in which I was unable to participate directly. Thus I was interested in both obtaining some factual information and insights into the interviewees' authentic experience. I was aware of the fact that each of the participants had access to different aspects of the project and had different attitudes, levels of involvement, and different insights to offer. Consequently, I took the approach of conducting semi-structured interviews to allow the participants to offer information and to make sure they would not be constrained in formulating their own perspective (Silverman, 2001; Denzin, 1970). For the same reasons, I tried to be as unobtrusive as possible in conducting the interviews and to allow the interviewees to speak freely about the issues that were interesting to them. At the same time, I chose not to go to the extreme of being entirely passive so as not to impose silence on the interviewees or cause them interpretive problems (Silverman, 2001). I was also aware of the tense political atmosphere on the project and did not want the interviewees to feel pressured to talk about things they may not have felt comfortable with.

Due to these considerations I decided to start each interview by asking the interviewee to tell me the story of the project from its conception to the moment of the interview (six months into the duration of the project). I also asked everybody to tell me about any critical incidents they could recall that might have occurred during the project. This proved to be a good strategy as it allowed each interviewee to tell their own story of the project and did not make them feel pressured by the questions. Other questions I asked were directly related to what was being reported by the interviewees and were aimed at clarifying their statements, deepening their accounts, and relating the information they provided to issues of particular interest to me, such as collaboration, knowledge sharing and the experienced difficulties.

Whilst I had prepared an interview guide (see Appendix 1), this was primarily for my attention and I was careful not to constrain the flow of the interviews by insisting on asking the exact questions I had prepared. I predominantly used the guide as a reference for me to check on the progress of the interview and mentally 'tick off' the issues that

had already been covered during the course of the interview. This open approach to the semi-structured interview is recommended by Silverman (2006) as suitable for supplementing data from prior participant-observation. Indeed, I found that the open approach to interviews resulted in the interviewees' volunteering thoughts, reflections, and stories through free associations that shed far more light onto the pertinent issues than could have been gained through a more formal and structured framing of the interviews.

The interviews lasted from 45 minutes to 2.5 hours. All interviews but one were taped, transcribed and translated into English. The two participants from IDRC who were involved in the EU RIS project wished to be interviewed together and preferred for the interview not to be recorded. This interview was documented by taking notes during the conversation, and the notes were translated into English. I started each of the interviews by thanking the interviewee for their time and informing them that the purpose of the interview was purely academic and that the information obtained from the interview would only be used for academic purposes and not in any way disclosed to other EU RIS participants. I informed them that 'academic purposes' would include my doctoral thesis, conference papers and presentations and possibly peer-reviewed journal publications. I also explained that their names would never appear in print or be mentioned in any other way and that the names of the project and all the organisations participating in it would be changed for the sake of ensuring maximum anonymity.

I also assured the interviewees that they were free to terminate the interview at any point and refuse to answer any question that they might not be comfortable with. None of them did. I then asked for permission to record the interview using a tape-recorder, which was granted by all interviewees except those from IDRC. Notwithstanding that, the most interesting insights were offered after the tape-recorder had been switched off at the end of the interview. These insights were treated as confidential and not included in the transcribed material though, unavoidably, they would have influenced my thinking about the relevant issues. Prior to beginning each interview and after finishing the interview, I also gave the interviewees the opportunity to ask any questions they might have, which none of them did.

III.6.5. Documentary Sources and Physical Artefacts

The documentary sources I was able to draw upon in collecting data included the EU RIS project proposal submitted to the EC together with its appendices, the consortium agreement and appendices, the GANT chart specifying the timelines for completion of work packages and tasks, budgets, memos, minutes of meetings, official reports, EU RIS website content, brochures, RIS-related European Commission documents and website content, e-mails and e-mail attachments, training materials, and PowerPoint presentations.

Data from e-mail exchanges served the purpose of clarifying and confirming or disconfirming insights from other data sources regarding the explicitly stated intentions, hopes, difficulties and limitations of the participants and their organisations, their priorities and differences of opinion. They also helped establish a clear timeline of events. The official project documentation (including the original proposal, the consortium agreement, the minutes of meetings and periodic reports) was also useful to the monitoring of the temporal aspects of the partnership but the key value of this type of data was the semiotic insights it provided, e.g. by exposing the contrast between the rhetoric of collaboration, knowledge transfer, and consensus building and the actual practice of boundary work and symbolic struggle for distinction apparent from the field observations.

The artefacts that informed the data collection and analysis varied from the project logo to the food served at official dinners. The project logo caused a lot of controversy, highlighting the inherent tensions in the project; exemplifying the differences in habitus between two groups of participants; and revealing in an explicit way the boundary work that was being done between them. Similar insights were gained from the discussions around the artist's design of a statuette to be used as a reward in a competition organised as part of the project for the SMEs in the region. Other interesting artefacts were the PowerPoint presentations used by the participants, in particular one that was shown numerous times and became known as 'the green boxes.' These slides, which did include prominent rectangular green graphics, came to represent the rigidity of thinking and lack of good will of those using them. The very venues that were chosen for meetings and other events were also revealing of the habitus of the organisers. Personal use objects like laptops, digital recorders, mobile phones, and even smoking and snuff paraphernalia, as well as the differences in participants' attire all provided valuable clues about the social and symbolic boundaries salient in the EU RIS project. The

insights from the semiotic analysis of artefacts (Atkinson and Delamont, 2008; Silverman, 2001) proved useful in giving some tangibility to the presentation of findings.

III.7. Data Analysis and Interpretation

III.7.1 Data Analysis in Qualitative Case Studies

Both quantitative and qualitative tools of analysis are useful in analysing case study data: the former involves the use of categorical aggregation through the coding of data and the latter relies on direct interpretation (Stake, 1995). Both approaches are commonly used in combination to search for patterns and pattern correspondence. Patterns can be predetermined (derived from the literature) or emergent. Pattern correspondence is the consistent occurrence of a given pattern within a certain set of circumstances (Creswell, 2007). Apart from the search for patterns, the qualitative case study also relies on identifying single instances of relevant phenomena which reveal significant insights into the issues investigated through the case study (Stake, 1995).

Qualitative methods of case study analysis include: multiple readings of textual data, developing and interpreting data displays, writing theoretical memos and narratives, developing and testing of assertions, application of thought trials, triangulation, and reflection (Creswell, 2007; Charmaz, 2006; Kostera, 2007; Stake, 1995; Miles and Huberman, 1994, Eisenhardt, 1989; Weick, 1989). All these forms of analysis serve the purpose of identifying the salient themes and relationships in the data, linking them to frameworks of interpretation, cross-checking and verifying and integrating findings (Carney, 1990, in: Miles and Huberman, 1994) in a structured and disciplined way. All these solutions were utilised in analysing the data from the RIS project and are discussed in the following sections.

III.7.2. Semiotic Interpretation

This study is positioned within the interpretive paradigm and relies on qualitative data analysis. The search for meaning which constitutes the core of qualitative analysis of case study data (Kostera, 2007) primarily involves text analysis due to the fact that the bulk of the data generated from fieldwork exists in text form. Text analysis can take a

variety of forms and draw on a number of different approaches, e.g. Silverman (2001) distinguishes content analysis, analysis of narrative structures, ethnography, and ethnomethodology and Kostera (2007) lists culture analysis, rhetorical analysis, and semiotic analysis as the key approaches to text analysis. The approach taken here is informed by semiotic analysis (Atkinson and Delamont, 2008; Kostera, 2007) derived from Eco's theory of semiotics (1990, 1979).

Semiotic analysis is the study of signs, codes, and signifying practices (Chandler, 2007) – a metalinguistic activity “which aims at describing and explaining for which formal reasons a given text produces a given response” (Eco, 1990: 54). Semiotic analysis opens texts for critical interpretation as opposed to semantic reading which is anticipated by the intention of the text (Eco, 1990). This argument relies on the idea of the Model Reader (Eco, 1979) who is produced by the text by means of its ‘textual strategy.’ The model reader and the empirical reader are not the same: every empirical reading is an interpretative cooperation between the intention of the text and the intention of the reader. Thus every text can be interpreted in multiple ways though some interpretations are encouraged by the text itself whilst others are discouraged by it (Eco, 1990).

All texts are first read at the semantic level and the semiotic reader “is such on the grounds of a mere interpretive decision” (Eco, 1990: 55). The semiotic reader is inquisitive and critical in their reception of what ‘meets the eye,’ self-aware enough to understand how their own responses are being influenced by it and familiar with the means through which invisible influence is exerted (Kostera, 2007). It is important to note that in social science the application of semiotic analysis extends beyond text analysis and into the analysis of interaction and artefacts, including visual images (Atkinson and Delamont, 2008; Silverman, 2001). Similarly, the means of influencing the reader are not simply textual devices but have to be seen in the broader social context: as Wittgenstein (1953: 115e, § 337) reminds us, “An intention is embedded in a setting, in human customs and institutions.” As such the production of the model reader relies on euphemization, misrepresentation and misrecognition of symbolic violence (Bourdieu, 1991). Hence, semiotic analysis makes accessible the ideological connotations of texts, images, and other artefacts (Silverman, 2001).

III.7.3. The Process

As is common in case study research, the fieldwork and the search for relevant theories proceeded in an iterative fashion throughout the duration of the research project (Creswell, 2007; Stake, 1995). Consequently, my engagement with outstanding research and theory was strongly guided and influenced by my fieldwork. The research followed an iterative cycle of interpreting the literature, intuiting from practice (data collection and data analysis), integrating insights from literature and practice (writing, discussions), internalising (developing a new understanding of integrated knowledge from practice and literature), and back to interpreting the literature in light of the new understandings reached throughout the previous stages (see Figure 3.1). The ‘circle of learning’ could be described as turning in two different cycles: the day-to-day cycle of incremental progress, which was both rapid and hardly noticeable; and the macro-cycle, which marked milestones in the progress of the research.

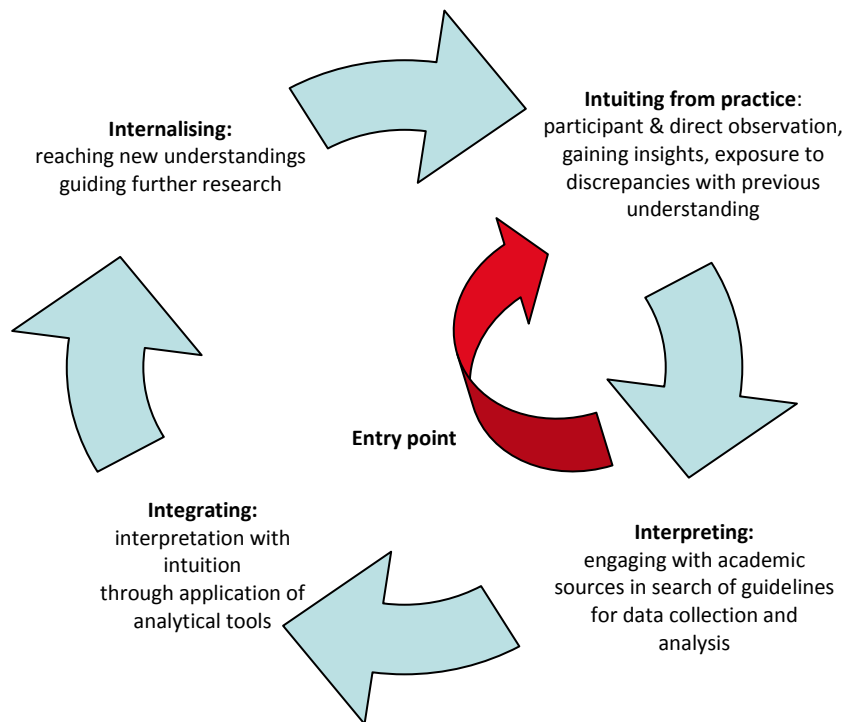


Figure 3.1. Case study research as a learning circle.

The analysis followed the overall scheme outlined in Carney’s ‘ladder of abstraction’ (1990, cited in Miles and Huberman, 1994: 91). Miles and Huberman (1994: 91) summarise it thus: “You begin with a text, trying out coding categories on it, then moving to identify themes and trends, and then to testing hunches and findings, aiming first to delineate the “deep structure” and then to integrate the data into an explanatory framework.” Thus the progression is from the production of text, through analysis to

synthesis (Stake, 1995). Again, this is not a linear progress but a cyclical and iterative one, combining a search for extant theory and a search for confirming/disconfirming evidence in the data. The outcome that is sought is to make an incremental contribution to the relevant theory.

III.7.3.1. Establishing Chronology

As recommended by Yin (2003), I started the formal analysis of the EU RIS case study by establishing the chronology of events overall and in relation to the specific issues guiding the research. The latter was particularly important with regard to developing an understanding of the changes of boundaries in the course of the emergence of the field of practice under study. Establishing a chronology is typically done with the use of data displays such as timelines and charts (Miles and Huberman, 1994) and by writing narrative accounts of events (Kostera, 2007). Once established, chronology becomes one of the tools of analysis, particularly useful in the interpretation of findings and structuring the narrative account of the case study.

This was the approach taken here: the process started in the field, with the field notes depicting the chronology of recorded events; documentary analysis included tracing timelines by reference to dates on documents and e-mails; interview data provided missing elements with regard to the events that were not directly observed (mainly during the ‘preliminary phase’ of the project); after the completion of the fieldwork, detailed write-ups were used to make sense of the sequence of events and the connections between them. With regard to the example of tracing the boundary changes in the course of the emergence of the field of practice under study, the use of Tilly’s (2004) model of boundary change was particularly useful: by adapting the model, I was able not only to establish the chronology of relevant events but also, eventually, to represent the development of the field, thus achieving a more theoretical purpose (see Figure 6.1).

III.7.3.2. Data Coding

As mentioned above, data was processed by going up and down the steps of Carney’s (1990, in: Miles and Huberman, 1995) ‘ladder of analytical abstraction’ numerous times, as each theoretical framework was being matched against the data in search of

meaning. In the first instance, this involved coding the data, which was a very effective way of becoming familiar with the data, identifying salient issues, and sorting through theories in search of relevance. Thus, I tried out coding categories developed from relevant frameworks, e.g. the very first trial used the typology of boundaries in distributed organising offered by Orlikowski (2002) to identify the kinds of boundaries that were salient in the data. This did not yield satisfactory results in terms of answering the question but was useful in highlighting the themes that were not salient, thus directing further analysis. The benefits of coding thus included the ability to see what was *not* apparent in the data as well as what was there.

As well as trying out coding categories derived from the extant literature, I also looked for emergent themes. For instance, at one stage in the process, I established that the most salient knowledge boundary was a ‘pragmatic knowledge boundary.’ This was the result of searching data for instances of syntactic, semantic, and pragmatic difference, as well as novelty and dependence (Carlile, 2002, 2004). However, I also needed to account for the emergent themes of power, emotions, and trust, which Carlile’s theory of knowledge boundaries did not explain. Thus the analysis proceeded with the search for a more holistic theory or a compatible theory of boundaries to explain the salience of these themes – a process which eventually led to the development of the theoretical framework presented in Chapter II. The conceptual constituents of the framework were used as coding categories, e.g. the various forms of capital: symbolic, economic, intellectual, and social were used to conduct a means-ends analysis to identify the various stakes and investments of the participating organisations (see Section IV.2.2).

In conjunction with semiotic analysis, the identification of patterns and pattern correspondence through multiple readings and coding of data also allowed for the identification of boundary reification practices used by the participants. These were both discursive and non-discursive so the analysis also benefited from contextual clues and analytical notes produced during fieldwork. Again, the search for patterns also produced interesting results by highlighting the absence of patterns whose presence had been anticipated by the relevant literature, e.g. boundary objects or practices associated with boundary transcendence.

Overall, coding proved useful in building the foundations of the analysis, i.e. identifying the salient themes, searching for relevant theories, and formulating problems for further

investigation – predominantly by asking ‘why am I finding what I am finding?’ and/or ‘why am I not finding what framework X or theory Y indicates I should be finding?’. Such questions lend themselves to analysis by developing and testing assertions (Stake, 1995) and by ‘thought trials’ Weick (1995) rather than coding. Thus in order to investigate more complex issues, such as connections between the immediately apparent and the hidden (Bourdieu, 1987, in: Haugaard, 2002) or the dynamics of boundaries and boundary change, the analysis had to move on beyond the search for stable patterns in favour of a more holistic, relational way of thinking, which is better supported by semiotic analysis, data displays, and analytical writing.

III.7.3.3. Semiotic Analysis

The semiotic reading of the data from the EU RIS project was informed by the theoretical framework developed in Chapter II of this thesis, with Bourdieu’s (1990) theory of practice at the centre. This provided a system of sensitizing concepts, such as ‘strategies of distinction’, ‘symbolic power’, or ‘boundary reification’, which was fed into the analysis via the research questions specified in Section III.2 above so as to question the intentions of the text in a consistent and structured way. The data was also interrogated with the use Corvellec’s (1997, in: Kostera, 2007) guide to semiotic analysis (see Appendix 2). For instance, the analysis of documentary data juxtaposed with the analysis of data obtained from observation led to the identification of the second-order strategies of distinction which were used by the participants in the EU RIS project and to the theoretical framing of the EU RIS project as a case of heretical subversion. This was aided by the following key questions:

- Who is the Model Reader?
- Who is the Model Author?
- What textual strategies are used and what do they achieve?
- What is meant by collaboration/consensus building/knowledge transfer in the official documents and in practice?
- Who benefits from which interpretation and how?

Apart from the critical reading of the documents and transcripts, the analysis also included the style and aesthetics of the documents, e.g. the slides used in presentations, the EU RIS website, and the published material revealed traits of the habitus of the authors and through that also some insight into who was in a position to exert more

symbolic power over their preparation. Similarly, the analysis of the environment, non-verbal clues, and non-documentary artefacts also provided clues regarding the habitus of the participants, the relations of power between them, and the salient symbolic boundaries (Atkinson and Delamont, 2008; Lamont and Molnar, 2002; Silverman, 2001).

I was uniquely positioned for conducting this kind of analysis on the data from the EU RIS project. This was due to the same considerations that were mentioned in Section III.5 above with regard to my suitability for the role of ‘boundary spanner’: my membership in both cultures represented in the project, as well as in both epistemic communities, my equal fluency in both languages, and even my age allowed me the sensitivity to semiotic clues across many of the social boundaries which were salient in the EU RIS project – both in terms of noticing them and interpreting them. Probably the most remarkable manifestation of this semiotic competence took place during a stay in a hotel during one of the EU RIS workshops: having stayed at that exact same hotel some 20 years earlier, I was able to gain some very unique insights about the physical environment of that workshop and the associated social events.

The interview transcripts as well invited semiotic reading. Although the interviews had been designed following the ‘emotionalist’ approach (Silverman, 2001) with elements of positivist inquiry, upon reading the transcripts, the co-constructed, ‘localist’ (Alvesson, 2003) character of the obtained data became apparent. Particularly striking was the way in which some of the interviewees managed to give a ‘politically correct’ account whilst inviting a critical interpretation. This was achieved by the heavy use of the vocabulary of partnership supplemented with euphemisms, condescension, and hypercorrection (Bourdieu, 1990) and betrayed by the tone of voice, an occasional wry smile, and similar clues. The pretence was dropped after the tape recorder had been stopped with the interviewees speaking in ‘plain text’ again. Thus the very strategies of distinction I was studying were present also in the recorded interviews.

III.7.3.4. Data Displays

I found data displays particularly useful in structuring and focusing the analysis and made extensive use of a variety of such devices to organise the data and direct my thinking. These included mental maps, drawings, tables, and analytical memos. I also

created multiple variations of models to describe and help explain the dynamics I was observing in the field. The most successful of those displays survived to be included in the thesis (see Chapters III, IV, V and VI). Others helped highlight gaps in understanding, test assertions, and integrate the data and theory in a disciplined, structured, canonical, and logical way. The key value of data displays was their ability to look at the data relationally, to identify and test connections between different categories, events, and statements both within and across data sources.

III.7.4. Interpretation

“While interpreting the empirical material, one is defining the notions and words one applies: hence, one is naming things. It is, in a way, a process of translation; translating the language of practice into the language of the chosen framework of interpretation.”

Kostera (2007: 196)

Wolcott (2001) distinguishes interpretation from analysis by arguing that interpretation is a ‘freewheeling’ activity, which cannot be proved to be right or wrong, whilst analysis is a more rigorous process that relies on adherence to generally accepted procedures. He does acknowledge, however, that there is certain inevitability to the tendency for the two processes to become intertwined. In case study research, interpretation permeates the whole research process – from data collection through to and including the writing up stage (Stake, 1995). For this reason, it has thus far been discussed here in parallel with the analytical process. Despite this, it is important to address the issue of interpretation in a direct and explicit way, not the least because of its intangible nature that defies precise description.

The theoretical position on interpretation taken here has already been presented in this chapter (Section III.7.2) in discussing Eco’s (1990, 1979) theory of interpretative cooperation, which holds that while multiple interpretations are possible some are more encouraged by the intention of the text than others. Interpreting qualitative data is undeniably an elusive process of sensemaking, imbued with intuitions and affective judgments, and influenced by the experience and theoretical affiliation of the researcher, their politics, and even their personal characteristics (Denzin, 2008; Wolcott, 2001;

Weick, 1989). It is also a creative process (Richardson and Pierre, 2008; Kostera, 2007; Stake, 1995; Weick, 1989). Nevertheless, it need not be a ‘freewheeling’ process if it is guided by the principle of disciplined imagination (Weick, 1989), i.e. based on applying consistent selection criteria (discipline) to diverse problem statements and thought trials (imagination) to discover meanings within contexts and interactions and translate those meanings into theoretical constructs, categories and causal relationships.

Taken together, Weick’s idea of disciplined imagination and Kostera’s (2007) reflection quoted at the beginning of this section capture the essence of the approach to interpretation attempted here. Translation presupposes discipline and imagination. Imagination is stimulated through exposure to new ideas, which can be gained both from theory and practice as well as from *practicing* interpretation. As far as discipline is concerned, I found the relational knowledge derived from fieldwork to be a good source: trying to be faithful to that direct experience of practice imposes constraints on how ‘open’ the theoretical interpretation can be. A thorough process of analysis and engagement with the data also provided an important source of resistance to overly-imaginative or insufficiently subtle interpretation. As a means of interpretation, writing was an invaluable source of reflection and discipline: it made the thought process tangible, demanded an adherence to logic and imposed the need to work with a structure. Finally, the institution of the ‘devil’s advocate’ (Eisenhardt, 1989), was also used as a way of testing assertions and helped both to reign in and stimulate creativity of interpretation.

III.8. Writing-up the Findings: A Critical Tale

In his early work on the subject of ethnographic writing styles Van Maanen (1988) distinguishes three canonical ethnographic templates – realist tales, confessional tales, and impressionist tales. Authenticity of representation is the primary concern in realist tales (Kostera, 2007): they are matter-of-fact accounts of cultures which tend to be produced in a detached manner, using third-person narration and passive voice, and putting forth an authoritative interpretation based on the experiential authority of the author. Such tales have been subject to considerable criticism, primarily directed at the authorial omnipotence and the silencing of voices that characterises classical tales of this sort. As a result, this template has evolved into a more reflexive and more open

convention, and the position of those studied has evolved “from subjects to informants to members to interlocutors to (maybe someday) coauthors” (Van Maanen, 2011a: 160). Confessional tales are characterised by authorial presence and reflexivity: the ethnographer offers an account of their methods and experiences in the field. As a result, critical tales focus more on the ethnographer than on the studied culture (Van Maanen, 1988). Finally, impressionist tales are written in the first person and use a range of artistic literary devices to give personalized, evocative, and emotive accounts of the field. They tend to be incorporated into realist, confessional, and other ethnographic writing as a subgenre.

Mixing, blending, and weaving different textual strategies and styles is indeed a strong contemporary trend in ethnographic writing (Van Maanen, 2010) as is evident in the three more recently established types of tales Van Maanen (2010) identifies, i.e. critical tales, poststructural tales, and advocacy tales. These types of tales draw on the various canonical templates, blending genres and mixing textual styles in pursuit of specific theoretical, representational, affective, and normative ends. Of these, critical tales are of particular interest here as the writing style I attempted to achieve in writing up my findings. Critical tales are “typically less an ethnography of a specific social group than an ethnography of specific, highly contextualized cultural processes – meaning-making – taking place among those studied” (Van Maanen 2011a: 166). Critical ethnography is analytical and theoretically focused and aims to bridge the macro-micro and the general-particular divide. As such, it is an obvious choice for an instrumental case study focused on answering theory-driven research questions informed by practice theory and the work of Pierre Bourdieu.

The key difficulty I encountered in writing my critical ethnography was the weaving together of different writing styles to achieve both a sustained analytical focus and a disciplined but evocative presentation of findings that would enable me to advance my theoretical interpretation and, at the same time, enable the reader to engage with the empirical material so as to make their own judgment regarding its meaning. To that end, I combined realist and impressionist tales: the former for the sake of clarity, coherence, and a degree of theoretical closure; the latter for its evocative power and ability to express intangible and affective responses and impressions. I followed the realist writing strategy by offering a matter-of-fact, detached, third-person account of participants, events, settings, actions and utterances. In constructing my realist tale, I

was setting out to put forth a convincing interpretation of my own that I would be able to defend whilst making every effort to leave enough scope for the reader to take a critical stance towards that interpretation. I sought to achieve that effect by presenting as much empirical material as possible without losing sight of the overarching theoretical argument.

I used impressionist writing to convey aspects of the recounted situations that were less easy to illustrate with quotes from interviews or extracts from the discussions between participants. This writing strategy was particularly useful when evocative description of settings (e.g. the Coats of Arms Hall, the 'reconciliation' workshop hotel), people (e.g. their tastes, personal appearance, etc.), or affective impressions (e.g. atmosphere of a meeting, bullying behaviour) were of particular relevance to the story-telling and/or the theorizing of the case study. I used metaphors, similes, informal register, active voice, irony, subjective associations, affective responses, and personal memories to construct my impressionist tales. I believe that the use of impressionist writing enhanced the readability of the account, gave the findings more depth, and, by speaking to the reader's imagination, also increased the scope for their own interpretative engagement with the findings.

I decided not to include confessional tales in writing-up the finding so as not to detract from the overall coherence of the presentation and theoretical clarity of argument. Instead, I followed the more traditional approach (and one I felt was more in line with the canons of PhD theses in the area of organization studies) of including reflexive accounts of my fieldwork, headwork, and textwork in the Methods chapter of the thesis (Van Maanen, 2011b).

III.9. Ethical Considerations

Doing qualitative research involving participant observation and direct observation requires particular ethical sensitivity on the part of the researcher (Angrosino, 2008; Silberman, 2001). These include, but are not limited to, issues of power imbalances between the researcher and the participants, potential for exploitation, issues of informed consent, deception, confidentiality, privacy, reciprocity, respect, placing participants at risk (Creswell, 2007; Hatch, 2002). Not all of these issues will be

pertinent to all research projects and a lot depends on the nature of the inquiry (Creswell, 2007). I have been referring to ethical considerations throughout the discussion in this chapter. Here, I would like to offer a summary of the most salient ethical issues experienced in the course of this study.

Given the range of issues and the gravity of some of the possible consequences, it is important to observe appropriate guidelines for ethical conduct in doing research. Angrosino (2008: 171-172), who argues that ‘proportionate reason’ should be the key guideline for evaluating the ethical dimension of decisions made by researchers, specifies the following criteria:

1. “the means used will not cause more harm than necessary to achieve the value”
2. “no less harmful way of protecting the value currently exists”
3. “the means used to achieve the value will not undermine it”

Whilst these are useful reminders of what needs to be taken into consideration, my own guiding principle in ethical matters was simpler and less pragmatic: “*primum non nocere*”, i.e. if in doubt, I preferred to err on the side of caution. In the first instance this meant being open with the participants about my role as a researcher, the general research interest that I had in the EU RIS project, the intentions regarding the use of the information they offered, the arrangements regarding confidentiality and (non-) participation (Silverman, 2001). It also meant making an effort not to disturb the work of the participants or take advantage of their good will and time, or private information (Creswell, 2007). In the course of data analysis and interpretation, sensitivity to ethical issues meant that I tried to develop a balanced account of the studied issues, to develop an equal understanding of all the perspectives, and be conscious of any potential bias arising from my own personal background or my role as a ‘peripheral member’ (Angrosino, 2008; Silverman, 2001).

The key issue was sensitivity to matters of confidentiality: the EU RIS project was the site of conflict between two groups of participants and I was very conscious of the potential to do harm by careless disclosure of confidential information. I was also mindful of the fact that I could not afford to lose the trust the participants had given me in allowing me to study this politically sensitive project. For these reasons, it was necessary to provide full anonymity not just of the individuals but also of the participating organisations. Due to the small number of RIS projects and the fact that

the configuration of each consortium was unique, this meant that also the names of the participating regions had to be disguised.

In choosing the pseudonyms I tried to retain some of the contextual relevance and ensure good readability of findings, e.g. the pseudonyms of the individuals involved are first names that are country-specific and gender-specific but are also all easy to read in English. The labels for the regions and cities were chosen with reference to geographic terminology but do not reflect the actual geography of the regions. The key city in the focal Polish region was given a simpler pseudonym indicative of its main industry in the interest of readability and contextual relevance. The names of the two projects and the participating organisations are labelled with the same kind of acronyms that were used to refer to them throughout the project.

However, I felt that the goal of ensuring adequate anonymity of the participants would not be compromised by disclosing the countries involved, i.e. Poland and the United Kingdom. Disguising the names of countries would do little to safeguard the interest of the participants but would make for an awkward reading and significantly detract from the empirical accuracy and relevance of the EU RIS case study. This, in turn, would lessen the empirical contribution of the thesis to the study of countries in Eastern and Central Europe at a very interesting historical juncture, i.e. in the years immediately following their accession to the European Union.

III.10. Limitations

The interpretation offered here is admittedly one among many possible interpretations. I tried to do justice to the participants of the EU RIS project by providing a balanced account of their practice. I felt a responsibility towards them and the research community to offer interpretations that were well-supported by the data. At the same time, I make no claim to objectivity: the entire research process would have been inevitably influenced by all the sources of bias mentioned in Section III.5 as well as by my 'peripheral membership' in the project. Whilst I hope that this research will be judged as relevant (Hammersley, 1992) and credible (Whittermore et al, 2001), I make no claims to generalizability or transferability of the findings beyond what is afforded by the extreme case study characteristics of the research setting (Yin, 2003) and the

focus on generic research issues (Stake, 1995; Lofland, 1974, 1976).

Due to the tense political atmosphere of the project, there was no possibility of validation of findings by the participants, which is a commonly recommended validation strategy (Cresswell, 2007). This was because the benefits of that practice were considered to be overridden by the ethical considerations of confidentiality. Instead, I sought to present a balanced account, sympathetic to the different perspectives and inclusive of the participants' own voices and reflections (Angrosino, 2008).

Practical considerations played a role in deciding the scale and scope of data collection. Both direct and participant observation, even if based on 'interrupted involvement' (Vinten, 1994) as was the case here, requires a considerable investment of the researcher's time and is financially demanding, especially where long-distance travel is involved. I took every opportunity to be in the field and whilst there, I was mindful of the need to collect good quality data. Nevertheless, it would have been beneficial to have an even greater presence in the field, which would have been helpful in overcoming some of the access problems, such as those experienced with the participants' availability for interviews.

Chapter IV. The Story of EU RIS

Introduction

The purpose of this chapter is to present the research findings with the view to tracing boundary changes and explaining the salience of boundaries implicated in the EU RIS project. The boundary dynamics of the project are explained with reference to Tilly's (2004, 2005) theory of boundary change and Bourdieu's (1984, 1991) theory of distinction. The former highlights the developments in the field of regional innovation development in Western Poland by structuring the findings in a way that maintains the focus on the organisation of social relations across and within social sites. It helps reveal the dynamic nature of the salience of boundaries in a systematic way and build a comprehensive case study of the development of a field of practice: the field of regional innovation development in Western Poland. Bourdieu's logic of distinction provides insight into the rationale behind boundary dynamics and allows for an in-depth questioning of data to position the focal field of practice within the political landscape of the region.

The chapter is structured as follows: First, in Section IV. 1 the events leading to the inception of the EU RIS project are presented in so far as they are relevant to the symbolic struggle for field dominance that ensued with the launch of the EU RIS initiative. These are analysed as 'mechanisms precipitating boundary change' and enable further analysis of the unfolding boundary change in Section IV.2, which consists of the discussion of the origins of the EU RIS initiative and its stated aims and intentions regarding the conduct of the project. This section also presents the configuration of the partnership behind the project with particular attention given to the understanding of the motives and contributions brought into the EU RIS project by each of the partners.

Section IV.3 outlines the impact of the original inscription of new field boundaries that was brought about by the EU RIS project on further boundary dynamics leading to the polarization of the field. These boundary dynamics are explained in relation to an attempt at heretical subversion of a weakly-established orthodoxy in the emergent field

of regional innovation development. Following on from these insights, Section IV.4 gives an account of the boundary work and practice work involved in the EU RIS project in the course of the symbolic struggle for distinction between the incumbents and the challengers. Particular attention is given to the strategies of distinction associated with the conflict over the definition of the focal field's practice. The conclusion of the struggle for field dominance is discussed in Section IV.5. Finally, Section IV.6. is a postscript offering an insight into the further developments associated with the EU RIS project and the field of regional innovation development in Western Poland.

IV.1. Mechanisms Precipitating Boundary Change

The purpose of this section is to identify the mechanisms precipitating boundary change (Tilly, 2005) associated with the bid for and the implementation of the EU RIS project in Western Poland region. Following Bourdieu (1984), this requires the examination of the change in the objective circumstances surrounding the emergence of the field of regional innovation development in Western Poland prior to the EU RIS bid. Such change was brought about by the political and economic transformation which took place in Poland at the end of the 1980s and the beginning of the 1990s, i.e. during the period of radical change of the political and economic regime in Central and Eastern Europe. The transformation involved a democratisation of the political system and a transition from a centralised to market economy. Just over a decade later, in 2004, Poland joined the European Union as one of the first 'New Member States' from Central and Eastern Europe. It is against this background that the field of regional innovation development was emerging in the region of Western Poland.

IV.1.1. The Emergence of the Field of Regional Innovation Development in Western Poland

Regional development and business support systems were non-existent in Central and Eastern European countries at the onset of the politico-economic change and part of the transformation was to put such systems in place. Regional Innovation Strategies had been developed in other EU member states as part of the European Commission's Regional Development Strategy. In Western Poland region the possibility of creating a

regional innovation strategy was first considered towards the end of 2002 and at the beginning of 2003. When the idea was first raised in the regional development circles of Western Poland, it was conceived as an economic development study funded by the regional government. The initiative was soon noticed by a group of entrepreneurial academics from Portovo University of Technology (PUT), who thought that a regional innovation strategy ought to have “a more concrete, substantive character, where things would be named from A to Z – the engineering way” as stated in one of the interviews by a PUT academic member of staff involved in those early developments.

IV.1.2. Imposition and Fortification

The social capital PUT were able to tap into in pursuing their interest in RIS included access to the then Governor of Western Poland Region (an active member of the PUT Alumni Association) and was significant enough to grant them a leading role in the newly fledged project. The project was developed by PUT academics with some participation from the regional development agency and experts brought in on individual contracts from other institutions, including from an independent ‘think tank’ – PIME (Portovo Institute for Market Economics) – an institution that had hoped to be involved in the project as an official partner. The economic capital necessary for the development of the RIS project was provided primarily by the Poland Academy of Sciences and the Western Poland Governor’s Office. The resulting *Regional Innovation Strategy for Western Poland Region (RIS-A)*, which was commonly acknowledged to be the PUT vision of regional innovation development, was granted official legitimation by being accepted as the binding innovation strategy for the region by the Regional Assembly.

Although the RIS-A project had started its existence as a consortium-type initiative, it was eventually taken over entirely by the PUT team. Other contributors were either marginalised or left out of the project altogether, e.g. PIME had initially been invited to participate in the RIS-A project but ended up being excluded from it and only some of its experts were hired on individual basis to prepare economic analyses in support of the project. The RIS-A Strategy was published as a pamphlet outlining the aims, principles, and targets of what was described as the ‘algorithm for innovation’. The ‘algorithm’ was based on a top-down, institutional approach to innovation: regional innovation would be both driven and controlled by a number of institutions, including science

parks, business incubators, formalised ‘branch groups’ and a competition for innovative firms organised by PUT.

Thus, PUT was able successfully to lay a claim to the regional innovation strategy agenda, inscribing the boundary of a new field of practice in the region so that it would be subsumed within the boundaries of their own practice. In Tilly’s (2005) terms this represents an *imposition* – a mechanism precipitating boundary change that consists in enforcing a new way of categorization. In this case the new field of practice that was Regional Innovation Strategy was classified as part of the engineering science domain despite some claims having been raised by other stakeholders, including the Regional Development Agency (WDA) and PIME (an independent regional economics ‘think tank’). Moreover, as part of the legislation regarding RIS-A, the Regional Assembly also approved a project called the Office for the Implementation of RIS-A, which was designed to implement the vision of regional innovation represented by the RIS-A strategy. The implementation project was contained within PUT and run by some of the same people who had developed RIS-A. The role of overseeing the implementation of RIS-A was given to the Steering Committee, with a PUT Chancellor at the helm. Thus PUT managed to fortify their boundary around the nascent field of regional innovation development in Western Poland.

IV.1.3. Incentive Shift

The stakes involved in boundary change are associated with reward and opportunity understood in terms of the degree of access to desirable resources (intellectual, economic, social and symbolic capital) and boundary change results from shifts in the balance of struggle over these resources and/or the value of the resources themselves (Bourdieu, 1984; Tilly, 2005). As was already clear in the case of the RIS-A project, the field of regional innovation development was attractive to a variety of actors in the region as it offered a number of opportunities for the advancement of the political and economic interests of institutions and individuals alike. Consequently, the boundary imposed and fortified by PUT, incorporating the regional innovation agenda into the field of practice of engineering science, would soon be challenged. This was prompted by the fact that due to the then immanent accession of Poland to the EU, an incentive shift occurred in the form of the availability of economic capital, namely the funding for the development of regional innovation strategies by New Member State regions under

the 6th European Framework. The opportunity to bid for European funds for a new RIS opened the door for assorted regional players who may have felt left out of an attractive field in the region to try and enter it by joining forces in a consortium of stakeholders.

The regional players first became aware that there would be an opportunity to bid for the 6th Framework funding for RIS around the same time as the RIS-A document was being ratified by the Regional Assembly and the Office for the Implementation of RIS-A was being formed, i.e. in the second half of 2004. PUT's field dominance was thus short-lived: no sooner had they been able to impose and fortify the boundaries of the field, when the need to defend them had arisen. At least initially though, PUT perceived the 6th Framework as an opportunity further to advance their cause and help them realise their RIS-A vision.

Rich in social and intellectual capital, PUT had also been able to secure enough economic capital to command a significant degree of symbolic capital in the new field. This made them formidable players and no new RIS bid could be made without their approval and participation: PUT had become an 'obligatory point of passage' (Callon, 1986) for anyone wishing to enter and/or influence the field of regional innovation development in Western Poland. However, as a state university operating in a developing economy, PUT were also always in need of economic capital, which meant that funding opportunities like the 6th Framework were always desirable and invariably pursued. Based on the interview with a PUT representative, there was no anticipation at the time that a consortium bid for the 6th Framework funding might constitute a threat to the RIS-A vision.

IV.1.4. Encounter

One of the first meetings including most of the partners in the emerging new RIS consortium took place on the occasion of civic celebrations hosted by Portovo City Council to mark Poland's accession to the EU. A delegation from South City Council in the South UK Region, United Kingdom, consisting of representatives from two South City universities, two Regional Development Agencies, South City Council and the regional Government Office visited Portovo with the official purpose for the delegates to explore opportunities for co-operation with partners from Western Poland. The members of the South UK delegation came to Portovo with vaguely defined

expectations of establishing some links with their counterparts in Portovo (in the case of the university representatives) or identifying promising SMEs to match with businesses in the South UK region. Most of them, however, were not entirely sure why they had been invited to go to Portovo.

The actual key event was a meeting hosted by the Western Poland Governor's office, at which all the local partners involved in the preparation of the RIS bid were present. The venue was the 'Coats of Arms' Hall in the Regional Government building. It was a huge room with cathedral-like windows and walls decorated with wooden panelling and symbols of the state and of the region. It was furnished with dark wooden furniture: enormous conference tables organised into a rectangle were surrounded by rows of large chairs. One could barely recognise the facial features of the people sitting opposite, so far were the tables apart. At the presidential table sat the members of the Governor's office, including some high-ranking officials. The representatives of the Western Poland regional institutions sat opposite the South UK delegation along the two longer sides of the rectangle. Opposite the presidential table sat the representatives of the RIS-A project team. The ambiance was that of a courtroom.

At that meeting, a draft of the EU RIS bid was presented, followed by a presentation of the original RIS-A project by its lead author from Portovo University of Technology (Romuald). The general impression among the South UK delegation was that the state of preparation for the 6th Framework bid was extremely poor. The parties involved had not been able to achieve an agreement on the contents or the schedule of preparation. The draft had been prepared by junior members of staff and did not seem to have been endorsed by all of the decision makers. The parties involved did not manage (possibly for lack of trying) convincingly to hide the animosities between them. The initiator of the South UK visit from South City Council (Frank), commented after the meeting that he felt embarrassed and that he did not see the project taking shape in the time left before the bid had to be submitted.

Other members of the delegation also commented on the strange atmosphere of the meeting and expressed their confusion regarding the purpose of the meeting and their scepticism regarding the preparedness of Western Poland for the submission of a bid. Nevertheless, the report summarising the South UK visit in Portovo and its results mentioned RIS among six other points in the 'Recommendations' section:

*To consider the proposal to be prepared by the Western Poland Governor's Office, the Regional Innovation System Project and Portovo Technical University – European Office for participation of the South UK Region in the call for FP 6-2004 Innov 4. **Action:** South City Council to co-ordinate delegation responses.*

[South City Delegation Report from the Visit to Portovo]

The Western Poland partners were aware of the fact that the meeting revealed their lack of common ground. One of the Western Poland representatives present at the meeting offered this comment:

That was an unfortunate meeting. It was really an attempt let's say at discussing the collaboration on the project – a failed one, I think. At least that's how I was evaluating it then: not much was agreed, it was very formal. The venue was wrong, you see, it absolutely didn't project an atmosphere of collaboration... And most of all it was badly organised [...] A good partnership and a responsible partnership was what was missing and I am under the impression that it still is missing.

[Interview with Anna, WDA Representative]

A couple of weeks after the visit, an official offer of partnership in the bid for the project was sent from the Western Poland Region to South City Council and distributed by Frank, the South UK representative, to all delegates together with a request for suggestions. The three-page document, entitled "RIS Offer", outlined the rationale for undertaking the bid, the planned work packages, and specified the envisaged prominent role of the foreign partners as sources of expertise and knowledge transfer. It also emphasised the need for collaboration and consensus building between the local stakeholders:

There is a great number of innovation-oriented institutions in Western Poland region such as universities, research institutes, business supporting organisations but there is very weak cooperation among them. If they will be

encouraged to work together for the same purpose their resources will be used better and additional value will be created. The most important issue is consensus building among regional decision makers – who create policy and environment for innovation development – and local enterprises, research institutions and institutions, which support enterprises. The basis of some preliminary analysis shown that there is a great need to stimulate dialog between representatives from research, political and enterprise area.

[RIS Offer:1]

Encounter, in Tilly's (2005) terminology, refers to the coming together of previously unconnected or only indirectly connected social sites – it is therefore a much broader notion than a single face-to-face meeting. In the case of the EU RIS project, encounter starts with the first expressions of interest to participate in the bidding consortium, continues with the preparation of the consortium bid, extends throughout the duration of the bidding process and includes the actual realisation of the EU RIS project, following the EC's approval of the Western Poland bid. The 'Coats of Arms Hall' meeting is but one episode in a series of many interactions contributing to the EU RIS encounter. It was an important meeting nevertheless, and a symptomatic one: it revealed a lack of common ground between participants, which – absent the knowledge of the history of boundary imposition by PUT and the incentive shift affecting the field of regional innovation development in Western Poland – might be dismissed as 'teething pains' attributable to the early stage in the preparation for the bid or the partners' relative lack of experience in bidding for European funds. Given that knowledge, the exposed weakness of the partnership at this early stage of encounter prompts questions regarding the strong rhetoric of collaboration and consensus building in relation to the state of the game in the field of regional innovation development in Western Poland and the associated boundary dynamics.

IV.2. Boundary Change

The actual boundary change may consist in inscription of new and/or erasure of old boundaries; activation and/or deactivation of new or existing boundaries; site transfer, whereby social relations remain organised along the same demarcation lines but the

position of specific persons in relation to those boundaries changes; finally, there may be a combination of some of the above in various configurations amounting to boundary relocation (Tilly, 2005). In the case of the RIS initiative in Western Poland, new boundaries were inscribed for the purpose of obtaining 6th Framework funding. The newly circumscribed field of regional innovation development in Western Poland would be the site of symbolic struggle for distinction from which the salience of different potential boundaries would emerge through strategies of distinction and boundary reification and/or transcendence practices.

IV.2.1. Inscription

Eventually, towards the end of 2004 a bid was made by the Western Poland Region for RIS funding under the 6th Framework Programme in partnership with the Western European regions of South UK and North UK. The bid was submitted by the Governor's Office of the Western Poland Region as a 'complement and action plan' for the existing Regional Innovation Strategy for Western Poland Region (RIS-A). The proposal submitted to the European Commission referred to the existing RIS-A document as "Basic RIS-A", arguing that Basic RIS-A was narrow in focus and more "*akin to a traditional technology transfer strategy than the by now commonly accepted EU RIS methodology*" (Annex 1, Description of work: 3) and therefore the aims of the proposed new project (EU RIS) would be to "*extend and upgrade [Basic RIS-A] in line with EU methodology and experience of partner regions and on that basis further develop the regional innovation system with the aim of supporting innovativeness, technology transfer and SMEs creation and functioning*". The proposal also referred to the need to put more emphasis on coordination of business and innovation support systems and on exchange of knowledge and experience with the partner regions. The following were stated as the main objectives to be achieved:

(1) Develop a framework for the region where innovation can prosper and where all key actors collaborate and work towards common goals;

(2) Create the conditions for inter-regional and trans-national collaboration and strengthen cooperation with other regions in Europe.

The key aspect of the EU RIS project will be consensus and awareness building and knowledge transfer from supporting EU regions. In the long run the Project

should result in improving competitiveness and socio-economic situation of the region and linking it in European networks.

[Annex 1, Description of Work: 3]

The proposal had been prepared by a consortium of institutions and organizations from the three partner regions (see Table 4.1. for list of partners), which represented the key expertise sources (in the case of the foreign partners) and the key stakeholders in the regional innovation development field in Western Poland. The Project Coordinator role was entrusted to Portovo University of Technology.

Partic. Role*	Participant name	Participant short name	Country
CO	Portovo University of Technology	PUT	Poland
CR	Office of the Governor of the Western Poland Region	GWP	Poland
CR	Western Poland Development Agency	WDA	Poland
CR	Portovo Institute for Market Economics	PIME	Poland
CR	Industrial Design and Research Centre	IDRC	Poland
CR	University of Portovo	PU	Poland
CR	North UK Development Agency	NDA	United Kingdom
CR	South UK Development Agency	SDA	United Kingdom

Table 4.1. List of Participants in EU RIS. Source: Adapted from Annex 1, Description of Work: 7. *CO = Coordinator; CR = Contractor

The project proposal document specified five Work Packages (WP) to be realized through the EU RIS project, together with the constituent tasks and timelines:

management (WP1), building a regional consensus and co-operation with partners (WP2), deepening the analysis of the regional economy and current state of innovation (WP3), preparation and implementation of pilot projects (WP4), and preparation of a paper on “*Modification & amendments to the Regional Innovation Strategy for the Western Poland Region*” (WP5). The document was prepared in strict adherence to the EC methodology and with full use of the EC RIS rhetoric. Innovation was presented as “*a co-operation platform for business and R&D sectors*”. A lot of attention was given to stressing the benefits of knowledge transfer from the foreign partners, the importance of developing a coherent regional innovation system and establishing an interactive innovation environment. Figure 4.1. presents the general idea of RIS Western Poland as a common platform for innovation development through joint participation of all relevant stakeholders and partners. The proposal was highly ranked by the European Commission and the funding was awarded with only minor adjustments recommended.

*As one can notice from the Scheme **The RIS project for Amberfields Region** will play a key role with establishing cooperation, joint research projects, information dissemination networking and base for experiences and best practices exchange.*

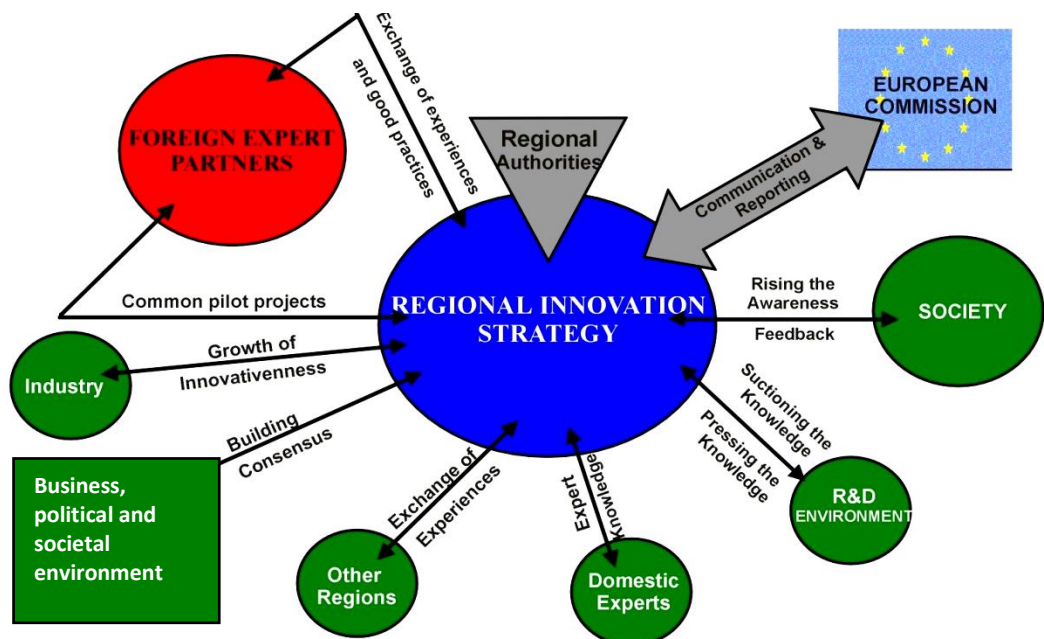


Figure 4.1. The idea behind RIS Western Poland. Source: EU RIS Project Proposal.

In the act of submitting the bid for the 6th Framework funding a new boundary was inscribed around the field of regional innovation development in Western Poland: it

now included all the consortium partners, who would be expected to engage in the boundary work of transcendence between them and take on brokerage activities (Tilly, 2005) to bring in expertise and address the interests of other stakeholders as recognised in Figure 4.1. above. In the act of accepting the bid, the EC also stepped into the role of a broker, putting economic (the funding of work packages) and intellectual resources (the RIS methodology and expertise of other European regions) at the disposal of the consortium partners in return for their commitment to use these as well as their own economic (own contribution) and intellectual (own expertise) resources in order to develop a Regional Innovation Strategy for Western Poland that would consolidate the various strands of expertise and reconcile the interests of key stakeholders.

IV.2.2. Particular Interests and the Joint Enterprise

In order to understand the nature of the boundary work the partners would engage in during the course of the project, it is necessary to understand the reasons for their involvement, their interest in the joint enterprise of RIS Western Poland, and their mutual dependencies. As outlined in Table 4.1, the consortium partners represented different stakeholders in the broadly understood regional development of Western Poland as well as foreign partners from associated regions, who had their own rationale for participation and whose prescribed role was to facilitate the process of Regional Innovation Strategy development by providing guidance on the process based on the relevant knowledge grounded in their previous RIS experience.

IV.2.2.1. Office of the Governor of the Western Poland Region (GWP)

The involvement of the Office of the Governor in EU RIS was necessary to lend the project sufficient gravitas and formal support of the region's authorities. Their key role was in bringing the consortium together and acting as the advocate and coordinator of the bid during the time of its development. GWP would be involved in regional-level initiatives in an official capacity as a matter of fact and an initiative of such considerable significance to the region was actively supported. At the same time, there was little operational involvement from GWP in the day-to-day project activities. GWP therefore primarily saw both their contribution and benefit from participating in the EU RIS project as symbolic capital.

IV.2.2.2. Portovo University of Technology (PUT)

PUT had successfully positioned themselves as the key player in the regional innovation development field. Being very well connected within the region, they had the social capital to enable them successfully to claim leadership over both RIS projects: in addition to the ownership of the Office for the Implementation of RIS-A, they also became the coordinator of the EC-funded EU RIS project. The Office for the Implementation of RIS-A, consisted of the former members of the first 'local' RIS-A project, the key difference being that the leader of the original project had stepped down and his young protégé took over as Project Manager. The same Steering Committee, headed by a PUT Chancellor, was put in charge of both the Office for the Implementation of RIS-A and the EU RIS project. The formal owner of the EU RIS initiative was GWP but their involvement was remote and the operational leadership of the project was ceded to PUT.

The motivation for PUT to support and be involved in the EU project was threefold: firstly, they needed to protect their symbolic capital by ensuring continued domination of the regional innovation development field in Western Poland and that meant involvement in any significant developments in the field. Secondly, there was symbolic capital to be obtained by a successful bid for EC funding to further their work in the field. Both these ambitions were secured by framing the proposal for the EC in terms of building on and extending the 'local' RIS-A. Thirdly, they wanted to take advantage of the opportunity of increasing their economic capital by obtaining some of the European funds made available under the 6th Framework. The hopes associated with the funding were somewhat disappointed when the university, used to the 100% financing principle of the European structural funds, became aware of the fact that under 6th Framework they would have to make a 25% contribution to the realisation of their share of the project tasks.

The necessity to bear this expenditure, combined with the lengthy process preceding the first payment from the EC, contributed to the perception within PUT of the EU RIS project being a 'necessary evil'. A compliant Project Manager (PM) was nominated (from amongst the academics previously involved in RIS-A) for the EU RIS project. Hardly any resources were deployed to support the project other than an almost empty office (two desks and a PC), which was something the PM talked about at length in his

interview: “*we have one shelving unit and we wanted four, you know, we don’t even have enough folders to organise things, you know [...]*” The PUT Chancellor in charge of the Steering Committee only ever appeared once at a Project Management Unit (PMU) meeting, and then only for 10 minutes. He usually delegated his authority to the Project Manager of the Office for the Implementation of RIS-A on such occasions. As far as PUT were concerned, the EU RIS project was entirely subjugated to The Office for the Implementation of RIS-A. Given the limited economic and symbolic value of the EU RIS to PUT, the primary reason for the university to participate was to maintain a firm hold over the regional innovation development field and to advance the implementation of RIS-A by taking advantage of any opportunities that the EU RIS project might occasion for that cause. As transpired later, the EU RIS bid was an ‘insurance’ bid, one made to secure funds for the Office of the Implementation of RIS-A should PUT be unsuccessful in applying for structural funds.

IV.2.2.3. The Western Poland Regional Development Agency (WDA)

The initiative to prepare a RIS bid under the 6th Framework came from the Regional Development Agency (WDA), which saw it as an opportunity to loosen the PUT hold on the RIS agenda in Western Poland and strengthen their own position among the key players in the field. WDA wanted to give EU RIS a direction more compatible with their primary concern, i.e. the economic development of the region, and more specifically, WDA’s own vision of it. The WDA approach to EU RIS was to link it to the creation of a business support network in the region, which at the time immediately preceding the initiation of the EU RIS project was one of their key lines of activity. WDA had been able to secure generous political support and funding for the development of a business support system. The idea was based on Western-European models and, in particular, on the experience of the South UK region, with which WDA had a long-standing working relationship.

Symbolic capital associated with co-developing, with the backing of the European Commission, a new sub-field of practice of high relevance to their primary field of regional development was the main reason for WDA to initiate and participate in the EU RIS project. Like in the case of all the partners, the economic capital derived from participating in a successful 6th Framework funding bid was also of some importance. The monetary value of the funding was not large for WDA standards and, as will

transpire in the following discussion, they were willing to sacrifice some of their share of the funding to support project activities favourable to promoting their vision of EU RIS, and thus, indirectly, build up their symbolic capital in the regional innovation development field.

IV.2.2.4. South UK Development Agency (SDA)

SDA was invited to participate in the EU RIS project on behalf of the United Kingdom region of South UK. As South UK had former experience of developing a RIS project of their own according to the EU RIS methodology, their involvement was sought as advisors and contributors of knowledge about how regional innovation development systems and solutions worked in practice. The participation of experienced regions was a formal requirement in bidding for RIS funding under the 6th Framework. The choice of South UK as a partner region for the EU RIS project was largely due to the fact that there had been a history of successful collaboration between the two regions on other projects, including the development of a business support system in Western Poland (with WDA). On the occasion of the EU RIS project, the participation of SDA was secured largely thanks to the goodwill of one individual – Frank – who had been involved in those earlier collaborations and had a long-standing professional association with Western Poland.

In the short-term, SDA's motivation for participating in EU RIS was to develop business links between the two regions, particularly if they involved supporting SME development and high-technology businesses. In the longer term, the goal was to establish a platform for a 7th Framework bid: South UK would no longer be able to obtain European structural funds so a partnership with a new-member region was attractive as an alternative source of European funding. SDA's key objective as far as the EU RIS project was concerned was the realisation of two tasks: matching events, which might serve the development of business links between SMEs from the two regions; and study visits, which due to the way the project budget was structured were the most viable way for South UK to provide a contribution. Thus SDA saw their participation in the EU RIS project largely as a way of securing social capital (in the form of links with Western Poland) to enable them to obtain economic capital (7th Framework funding) in the future so that they might advance their pursuit of symbolic capital in the field of regional development in South UK. Their contribution to the

project – both in letter and in conviction – was intellectual capital in the form of their experts' time and advice.

IV.2.2.5. North UK Development Agency (NDA)

The North UK Development Agency (NDA) represented the other foreign partner on the EU RIS project, the North UK region. Their involvement, however, was weaker than SDA's and, although there had initially been a familiar contact within NDA, their representatives changed once every few months. The reasons for the NDA involvement were even more strongly associated with the hopes of building a partnership for a 7th Framework bid. North UK had benefitted greatly from European structural funds and it was felt that the region still needed funding if it were to continue its successful development. As in the case of South UK, however, the structural funds were no longer available to North UK. NDA were less concerned with proactive involvement in the EU RIS project than SDA represented by Frank. Their priority was to limit the expenditure of time and funds on travel to Portovo whilst ensuring that they were delivering on the obligations contained in the consortium agreement. They were thus willing to invite the Western Poland partners to their region and provide them with opportunities to learn and network. They were much less willing to get involved in the administration of the project – a limitation resulting from the way funds had been budgeted. Overall, North UK too sought to gain social and economic capital with the intention of converting it in due course into symbolic capital through their work in the regional development field in North UK.

IV.2.2.6. Portovo University (PU)

Portovo University was a marginal partner, both in terms of their contribution and involvement in the EU RIS project. Their participation was more a matter of being seen to be part of the regional development agenda than of making a difference. Innovation was not a central theme for them, either in terms of research expertise or vested interest. The people delegated to participate in the project on behalf of PU came from the university's European Projects Office and were junior administrative staff, not academics as in the case of PUT. Their participation was hardly noticeable: they did not get involved in the decision-making process and their contribution was limited to a single minor (in terms of the associated budgetary allocation) task.

At the official launch of the project, where both the Dean of PU and the PUT Chancellor were present, the former specifically told the latter that having just taken over as Dean, he noticed that PU was not quite as involved in the EU RIS project as PUT was and that if PU were to get involved more, it would have to be as an equal partner. Thus although there may have not been an ambition at PU to co-constitute the field of regional innovation development before, now that it had become clear that there was symbolic capital to be gained there, PU were keen to secure a share of it in the future. Although PU's share of the EU RIS funds was small, it was important in status terms for them to be able to demonstrate successful activity in obtaining European funds. The primary motivation behind Portovo University's participation was therefore the cultivation of symbolic capital.

IV.2.2.7. Portovo Institute for Market Economics (PIME)

PIME was an independent institute specialising in economic analyses whose main priority was to secure continued sources of funding. They were commercially minded and entrepreneurial in outlook, much unlike the typical public sector academic institutions in Poland at the time. In order to survive and prosper they needed to accumulate significant volumes of intellectual capital (by keeping abreast of the developments in their areas of expertise) as well as social capital (in order to secure access to public funds for their activities). They were thus keen to learn, network, and maintain good relationships with the key regional players. Their main priority in participating in the EU RIS project was to accumulate symbolic capital by partaking in important regional developments and economic capital by accessing the pool of funding invested in the EU RIS project. Their ticket to the partnership was their intellectual capital, specifically their familiarity with a proprietary cluster-formation methodology together with property rights to a simulation exercise for entrepreneurs aimed at 'selling' the idea of clustering.

IV.2.2.8. Industrial Design and Research Centre (IDRC)

IDRC represented a heavy industry group of high importance to the region. They were a public limited company with a state-ownership tradition and a culture deeply rooted in that tradition, whose core business was research and development. They saw themselves

as guardians of the interests of their industry and were interested in forming a regional cluster of companies within that sector. They had considerable expertise in bidding for European funds and working on international projects, the EU RIS project being a relatively small one in their portfolio. Nevertheless, the funding associated with the project was significant enough for IDRC to be an important motivating factor behind their participation. Thus IDRC sought to secure their future in terms of both economic and symbolic capital in the region and in their industry field.

IV.2.3. The Circumscribed Field

As a mechanism constituting boundary change inscription would normally be expected to have the effect of heightening the mutual identification and facilitating mutual relations within the new boundaries (Tilly, 2005) – provided the principle of inscription reflected a strong joint purpose (Wenger, 1998) and mutual dependence between the joint entities (Carlile, 2004). At the same time, the overall picture that emerges from the examination of who the partners in the project were, what motivated them to participate and what they were willing and able to contribute is rather different from what one might assume by considering the stated aims of the project. Only for PUT and WDA was the field of regional innovation of immediate relevance to their respective fields of practice; to other local partners the field of regional innovation was only relevant in so far as it could be related to their strategies for advancement in their primary fields of practice. Therefore, as a ‘joint enterprise’, regional innovation constituted a weak bond.

For all the partners in the EU RIS project the key incentives for participation were symbolic and economic capital. Significantly, none of the interviewees mentioned knowledge or learning when asked about the benefits they expected to derive from the project. As will be shown in the following sections, intellectual capital was more of a ‘weapon’ (to use Bourdieu’s metaphor) in the symbolic struggle for distinction that shaped the interactions between the partners than a coveted resource. Even though knowledge was the primary source of distinction, most partners believe that theirs should be the privileged knowledge (Barrett and Oborn, 2010). Similarly, there was little interdependence between the partners with regard to completing the tasks they had undertaken as part of the consortium agreement as most of these tasks did not require more than one type of specialised input. There was thus little incentive or need for the participating organisations to make a significant investment in building common ground

and engaging in demanding boundary-spanning practices that the transcendence literature suggests are necessary for knowledge-sharing across boundaries in collaborative enterprises (Bjørkeng et al, 2009; Carlile, 2002, 2004; Levina and Vaast, 2005). Considering also the radically different views of regional innovation and opposing political interests regarding the field of regional innovation in Western Poland between the key players – i.e. PUT and WDA – there was little chance of the newly inscribed boundary resulting in successful constitution of a new joint field of practice

IV.3. The Impact of Boundary Change

"Polarization in the underlying social structure becomes reflected in the polarization of claims in the intellectual and ideological domain, as groups or collectivities seek to capture what Heidegger called the "public interpretation of reality." With varying degrees of intent, groups in conflict want to make their interpretation the prevailing one of how things were and are and will be. The critical measure of success occurs when the interpretation moves beyond the boundaries of the ingroup to be accepted by Outsiders."

(Merton, 1972: 19-20)

IV.3.1. Field Polarization and Boundary Activation

Inscription, in Tilly's theory of boundary change, is a mechanism constituting boundary change which ought normally to result in processes of integration between the social sites brought together within a new social category. Thus, the theory predicts that boundary inscription is followed by boundary erasure, where boundaries distinguishing the previously separate sites gradually lose salience and, in time, disappear. Tilly also points out that more than one type of boundary change may occur simultaneously, e.g. boundary inscription may be accompanied by the activation of previously non-active boundary or by movement of individuals or groups across social sites, i.e. site transfer. Such combinations of boundary changes may amount to a relocation of boundaries, i.e. boundaries are altered along more than one dimension so that social interaction within a set of social sites is reconfigured.

The situation in the newly inscribed field of regional innovation development in Western Poland was rather different: the inscription of a new – more inclusive – boundary – did not bring about the deactivation of the boundary which before defined the field itself, i.e. between PUT and ‘others’. Quite to the contrary, now that the groups had been brought together, the same old boundaries were reified in direct interaction, polarising the newly inscribed field along the same lines of opposing interests and ideologies that had previously excluded the ‘others’ altogether. Two mechanisms constituting boundary change were simultaneously affecting the field in opposite ways: integrative effects of inscription were being counteracted by the divisive dynamics of boundary activation, maintaining a rift between two very different social sites now composing the field: the ‘*Technocrats*’ (PUT) and the ‘*Cosmopolitans*’ (the remaining participants).

IV.3.2. The Technocrats and the Cosmopolitans

The PUT participants were a distinct community of practice, which simultaneously shared organisational boundaries and spanned the boundaries of the two RIS projects. In Wengerian terms, this community, which will henceforth be referred to as the ‘Technocrats’ could be characterised as an extremely coherent one, i.e. sharing a strong identity (engineering academics and innovation specialists), strong joint enterprise (their vision of regional innovation), strong engagement (their jobs and their careers), and a well-developed shared repertoire (language, knowledge base, values, symbols, resources). The remaining participants also shared important characteristics and can be described as belonging to a network of practice (Brown and Duguid, 2001), henceforth referred to as the ‘Cosmopolitans’ to highlight a shared similarity which stood in most vivid contrast to the Technocrats’ insular attitude and ‘traditional’ national values. This is a much looser grouping based on similarities of practices (European project specialists), identities (modern professionals and cosmopolitans), values (professionalism, market economy), views on innovation (market pull, network approach), and commonality of interests (gaining influence in the regional innovation development field).

	Technocrats	Cosmopolitans
Practice	technology and innovation academics	European project specialists
Identity	scientists, innovation experts, patriots	modern professionals, business experts, cosmopolitans
Knowledge	technology, innovation	regional economy and development,
Values	science, patriotism, formal authority, status, career	professionalism, market economy, progress, collaboration, career
View of innovation	technology push, top-down approach	market pull, network approach
Interest in EU RIS	sustaining field dominance, economic capital, symbolic capital	gaining influence in the field, economic capital, symbolic capital

Table 4.2. Two Worldviews: Technocrats and Cosmopolitans

IV.3.3. Heretical Subversion

“Every field is the site of a more or less openly declared struggle for the definition of the legitimate principles of division of the field. The question of legitimacy arises from the very possibility of this questioning, from this break with the doxa which takes the ordinary order for granted.”

(Bourdieu, 1991: 242)

The polarization of the field was vivid from the very beginning of the EU RIS project and had its origins in the events preceding boundary change: the successful boundary imposition by the Technocrats, the incentive shift that occurred as a result of the availability of European funds, and the encounter of the interested parties instigated by the preparation of the project bid. As this statement from a representative of the Western Poland Regional Development Agency illustrates, at the core of the conflict over field boundaries was the difference in the vision of what represented a ‘good’ regional innovation strategy:

At the beginning, when we were writing the application for funding for the 6th framework project, it was obvious to us that that project [the ‘local’ RIS-A project] was needed, that it was fantastic that a regional innovation strategy for the region was being created, that experts were involved. BUT, in our

opinion not the right experts, because they were mostly the representatives of the academia and we thought that that strategy had to be improved and changed. The 6th framework programme offered a way of doing this, i.e. of creating a second project, which would introduce certain corrections to the first strategy and automatically make it more practical. So that's why we decided to work intensively in that task force and apply for funding. We wanted to build an international partnership, we were trying to ensure that in the future our system of innovation and business support system would be able to work with other systems in Europe and we wanted to start with our partner regions. That was our intention and we saw that as sensible – especially as a regional development agency.

[Interview with Anna, WDA Representative]

Although carefully worded and ‘politically correct’, the statement clearly reveals the polarization of the field focused on the issue of what regional innovation is and according to what criteria it should be developed in the region. There were two different perspectives on innovation within the region: one was the ‘technology push’ view, espoused by the academic community associated with Portovo University of Technology; the other was the internationally orientated and ‘market driven’ approach promoted by the EC and subscribed to, among others, by RDA. The former was the established view – the orthodoxy – and it had the backing of the regional authorities and the legitimacy of being the official and binding strategy, ‘the law’, as was stressed by the Technocrats on numerous occasions.

The latter, in Bourdieu’s terms, was the inspirational pre-vision, a heresy, competing with the orthodox view of the development of innovation in the Western Poland region. It was supported by the Cosmopolitans, who objected to the PUT dominance in the field and wanted to exert their own influence on the region’s innovation strategy. The Cosmopolitans also subscribed to the EU ideology and accepted the western model of regional development in general and regional innovation in specific as ‘best practice’. WDA was the dominant player among the challengers, who, as evidenced by the comment quoted above, had not been able to have a significant say in the matter until the incentive shift associated with the 6th Framework had occurred. The bid, officially a ‘complement and action plan’ for RIS-A, was an attempt at gaining entry into the

regional innovation development field by the Cosmopolitans and thus also a threat to the Technocrats' dominance in the field. The EU RIS project was thus an attempt at heretical subversion of PUT's orthodoxy in the regional innovation development field in Western Poland. Consequently, the struggle over the field's boundaries was also a struggle over the definition of the field's practice. Boundary work was intrinsically amalgamated with practice work.

IV.4. Symbolic Struggle for Distinction: Boundary Work and Practice Work

The study into the boundary dynamics of the EU RIS project revealed a symbolic struggle for distinction in the newly inscribed field of regional innovation development between a strong community of practice (the Technocrats) and a network of related practices (the Cosmopolitans). The focus of the struggle was an attempt at heretical subversion by the Cosmopolitans, who sought to replace the Technocrats' RIS-A orthodoxy with their own vision of RIS for Western Poland region, informed by the European RIS methodology. Therefore, the EU RIS project was the site of boundary struggle between the Cosmopolitans and the Technocrats with regard to the field of regional innovation development. In light of this, the EU RIS participants' stated intentions of collaboration, consensus building, and knowledge sharing take on a different significance: they are strategies of distinction in the symbolic struggle for field dominance.

IV.4.1. The Janus Face of Collaboration

Neither 'collaboration' nor 'consensus building' are neutral concepts. They mean different things to different parties depending on their relative interests, stakes, and position in the relevant fields. For those who are in a position of field dominance collaboration means ceding power and consensus building means losing control. For those who have not been successful in their attempts to influence the same field, collaboration and consensus building are a strategy in their struggle for field entry and/or dominance. That the field of regional innovation development in Western Poland was one in which such duality of meaning of 'collaboration' and 'consensus' applied transpired already in the discussion of the mechanisms precipitating boundary change. Although there was a lot of expression of the will to collaborate, there was also

evidence of lack thereof. Even before the project officially started, conflicts arose between the Cosmopolitans and the Technocrats over suspicions of plagiarism of ideas:

At the beginning [...] we had energy and ambition and we really wanted it to happen. Later, our enthusiasm disappeared when we found out about the duplication of the project, the use of the same proposals in another partnership by PUT for the purposes of [name of project] where the money was easier, especially that the refinancing was 100% (here only 75%). We were all disgusted and the collaboration stopped working. There were many unpleasant meetings in the region when it turned out that they submitted a competitive project, and to tell you the truth, harmful for the big one from the 6th framework programme

[Interview with WDA Representative 1]

Because of this ‘rival bid’ by PUT, the actual content of the EU RIS proposal submitted to the EC turned out to be problematic. A duplication of efforts financed from European funds is an impermissible situation from the point of view of the European Commission, which quickly picked up on the issue:

I have been also informed that there is a danger of some overlapping with the project submitted to chapter [number of chapter] of the [name of institution] [...] In this context we will have to make sure that such overlapping does not appear. There is always a possibility to adapt the project during its implementation (through amendments or amendment letters). Therefore, I would kindly ask that the consortium regularly meets and discusses any problems of overlapping and if during the project’s implementation such a danger appears, the consortium should be ready to submit a proposal to avoid the overlapping by adapting / changing some activities foreseen in the projects so they complete each other and not duplicate.

[e-mail from EC]

The issue of overlaps and duplication of efforts added considerably to the difficulties of collaboration experienced by the partners in the EU RIS project. It amplified the power

struggles by creating ambiguous dependencies between the two projects, which could be manipulated by both parties to increase their say in the EU RIS project. The fact that PUT had submitted similar proposals in a different bid also significantly decreased the Cosmopolitans' willingness to share ideas with the Technocrats.

As the project progressed, the participants found it increasingly difficult to communicate and make progress. Slippage due to organisational difficulties occurred very early on and project tools such as the Gantt chart became useless before they could be deployed. There was little coordination of effort and project management meetings were occasions for conflicts to surface, which impeded the progress on the realization of tasks. Six months into the official duration of the project (much of which had passed without any activity taking place), a Problems and Suggestions Report was prepared by the project manager compiled from the reports submitted by all the partners. According to this document the key problems were lack of communication, ineffective coordination of activities, lack of clear definition and division of tasks, and excessive number of man-days going into the work package devoted to project administration compared to contract and relative to other work packages. The suggestions stressed the need to focus on solving problems rather than just proceed with the formal execution of tasks, improving communication and efficiency of task realisation.

The problems identified in this early report persisted and the improvement suggestions remained just that – suggestions. Frustration set in and eventually, even though they were adamant about collaboration in their rhetoric, some of the Cosmopolitans attempted to proceed with the completion of their tasks independently, without waiting for the resolution of the outstanding issues. This caused further misunderstandings and conflicts around issues of exclusion and lack of 'good citizenship'. The following two statements were made spontaneously by a representative of the Technocrats and by a representative of the Cosmopolitans within the space of one hour:

People have their problems with the old RIS team [the 'local' RIS-A project], they feel they haven't been involved. But when we want to organise a meeting, they say, "Not another meeting!"

[Comment from Dorota, PUT Representative, made in the break of the 2nd Project Management Meeting]

There is no common platform for cooperation, which is strange because these institutions all know each other and have been working on projects together for years. Everybody thinks that they have a separate task to do and they don't involve other people. People are hiding projects from one another. When we at WDA discuss an idea for a project, word gets out and people get upset with us for not letting them know, even though it's just an idea, not a real project. At the same time, they don't inform us about their plans. They want a meeting for everything. How many meetings can we have? When I develop a project, I inform everybody and they can send their feedback on the e-mail, I get plenty of those, but PUT won't send us anything and then they say that we don't consult them.

[Comment from Ola, WDA Representative, after the 2nd Project Management Meeting]

The Cosmopolitans used the rhetoric of collaboration as a 'Trojan horse' for gaining influence in the field of regional innovation development. At the same time, it has to be acknowledged that collaboration was indeed more than just espoused value for the Cosmopolitans: they were skilled networkers, actively pursuing links and opportunities for collaborative ventures. In a very real sense, collaboration was their 'theory-in-use' (Argyris, 1978). However, collaboration meant something very different to the Technocrats: for them it was the 'necessary evil' strategy of retaining field dominance and the price they had to pay for the chance to increase their symbolic and economic capital. In the light of this disparity in meaning, collaboration on the EU RIS project takes on a Janus face: it is at the same time a strategy of heretical subversion for the dominated and a strategy for maintaining field dominance for the dominant.

IV.4.2. Consensus Building as a Strategy of Heretical Subversion

The problems with collaboration were not limited to the initial stages but persisted throughout the project. The following example is a fragment of a discussion that took place at the first Project Management Unit meeting, seventeen months after the 'Coats of Arms Hall' meeting. The participants are talking about agreeing the principles of decision making:

Ian [North UK representative]: *We should endeavour to make decisions by consensus. I would like a way of reaching decisions by consensus.*

Marek [Project Manager & PUT representative (stunned, struggling to find words)]: *Consensus? Really?! This is going to be very hard.*

Frank [South UK representative]: *It is very hard – it's called partnership – it's very hard but it works!*

Marek: *You know there are some problems. I remember our decision about logo: there were different voices and if we wanted to decide by consensus, we probably wouldn't do it. It's necessary to establish this logo and if there are different approaches I don't know if we'd be able to have as a way always consensus.*

Ian: *Why don't we say that the aim should be to reach a consensus.*

Frank: *Other than in exceptional circumstances. There will always be an exception but...So in other words, if we end up going into a vote every time we're here, we will have breached our Consortium Agreement – that is not by exception, that means we're going against our consortium agreement because what we should be doing is reach an agreement between the partners on a common approach, not imposing things on people.*

SOMEONE [a Cosmopolitan]: *It is also part of the aims of the project: consensus building*

Frank: *Exactly, that is exactly my point.*

The Project Manager, a Technocrat, refers here to the issue of deciding on the graphical form of the official logo of the EU RIS project. Initially, several designs were commissioned from a local artist and e-mailed to all the partners for comments. An exchange of e-mails addressed to all participants ensued, creating a public forum for

debate. Different views were expressed but there were clearly two preferred options – both included some elements of the EU imagery. To everybody’s surprise, the project manager concluded the debate by sending out an e-mail in which he explained that the Chair of the Steering Committee (a PUT Chancellor) had “rightly pointed out that there already is a RIS logo” associated with the RIS-A project and that this logo should also be adopted by the EU RIS project. This incident, although seemingly of little consequence, does offer an insight not just into the attitude to consensus building at that stage of the project but also into where the objection to consensus came from and how it was backed up by formal authority. It was an explicit manifestation of symbolic power by the Technocrats.

As can be seen from the reaction of the project manager, the very idea of voting by consensus is quite shocking to him and he has difficulty grasping the idea behind it as relating directly to the principle of consensus building on which the EU RIS project methodology and rationale are built. It is important not to be judgmental about his scepticism towards the idea of voting by consensus. The Project Manager is not a ruthless type who will not settle for anything other than strict control of the decision making process. What his reaction mainly reveals is his genuine concern about his ability to keep the project on track given the persistent difficulties in cooperation between the partners which have by now become aggravated. Nevertheless, his utter disbelief that such a suggestion would be made, also suggests that the very idea of consensus was alien to the Technocrats’ habitus.

Consensus building was a strategy of heretical subversion: up until the EU RIS project had been initiated, there had been no need for building consensus as the field of regional innovation development in Western Poland had been defined in its entirety by the Technocrats. It was the EU RIS project that introduced the principle of ‘consensus building’ (sanctioned by the EC as the funding body and the broker between the participating stakeholders) into the nascent regional innovation development field in Western Poland. By claiming the principle of consensus building as their platform for negotiation with the Technocrats, the Cosmopolitans thought that their vision could compete with the Technocrats’ orthodoxy on equal terms. Even though the Technocrats officially espoused the principle of consensus building, in practice they quietly ignored its implications and proceeded regardless with the enforcement of their own vision of RIS. When this was proving difficult, they resorted to silencing divergent voices

through manifestations of power – as was the case with the logo incident described above. This strategy of ‘perspective pushing’ deployed by the Technocrats rendered consensus building ineffective as a subversion strategy for the Cosmopolitans.

IV.4.3. Perspective Pushing as a Strategy of Distinction

“The reality of the social world is in fact partly determined by the struggles between agents over the representation of their position in the social world and, consequently, of that world.”

(Bourdieu, 1984: 253)

Consensus building requires that the involved parties build common ground by engaging in perspective taking (Boland and Tenkasi, 1995) and is best achieved under conditions approximating those of the ‘ideal speech situation’ (Habermas, 1979). In the case of the EU RIS project each party refused to give consideration to the other’s ideas whilst forcefully promoting their own. Instead of perspective taking and consensus building, the Cosmopolitans and the Technocrats were locked in a *perspective-pushing contest*, whereby the competing visions were stated but not engaged with by the opponents, leading to a kind of ideological ‘tug-of-war.’ This perspective-pushing contest had all the characteristics of Tilly’s (2004) attack-defence sequences, which he describes as an example of the possible effects of unwelcome boundary change. Given the ineffectiveness of consensus building as a strategy of heretical subversion, perspective pushing was the predominant strategy used by both sides in the struggle over field dominance around the EU RIS project.

The rift between the Technocrats and the Cosmopolitans was perhaps most sharply reflected in the undisguised contempt held by the latter for the ideas developed by the former. The Western Poland Cosmopolitans were familiar with the Technocrats’ ‘algorithm’ on account of the numerous presentations made by the Technocrats, and the official status of their vision as the binding regional innovation strategy for the region. However, they were not at all interested in engaging with these ideas. The assumption was that there was no value in the Technocrats’ ‘algorithm’. Its existence had to be ‘suffered’ but it would not be suffered gladly.

The only party who was at all interested in understanding the Technocrats' vision was the South UK representative, Frank. In a meeting in South City soon after the first project management unity meeting, Frank said that one of the first things to do would be to talk to Adam, the 'local' RIS-A Project Manager, on the phone *"for us to understand what that project is all about. We need to find out which bits of it they already have funding for and when he expects other parts of it to be funded."* According to Frank, the reason why it was necessary to understand that was that 'their' (the Technocrats') RIS was the project that had the backing of the Governor and everybody else in the region so:

"while we don't want to have anything to do with their 'algorithm thinking' and don't want to be taking part in whatever is to be analysed through that, we want to establish what it is they are doing to be able to offer to connect it to what we are doing. We want to get their contacts, if they have any, and include them in our SME exchange events."

[Frank, South UK representative, a Cosmopolitan]

As the quotes above show, however, even Frank was not so much concerned about trying to take the Technocrats' perspective and reach a common understanding as he was interested in assessing the opposition's strengths and weaknesses. There was no genuine interest in the Technocrats' ideas, no giving them the benefit of the doubt, no reflection on the knowledge they represented or effort at revising their own ideas about RIS. The South UK representative's engagement with the Technocrat's perspective was instrumental: dictated by the need to be able to manoeuvre the political minefield of the project so as to achieve the outcomes of importance to South UK. Thus, without exception, the Cosmopolitans dismissed the Technocrats' ideas as either irrelevant or harmful to their own vision of what the regional innovation strategy for the Western Poland region should be. As far as the Cosmopolitans were concerned, the 'algorithm' of regional innovation represented inferior knowledge.

The Technocrats too firmly believed that their perspective was the superior one and should be acknowledged as such by the remaining participants of the EU RIS project, just as it had been acknowledged by the Regional Assembly before. Even before the

project consortium agreement had been signed, the lead author of the ‘local’ RIS-A strategy, Romuald, took the first opportunity to inform me that he had been a consultant for fifteen years, that he “knew his stuff”, and that the strategy he had written was a very good document (“and I’m not bragging!”). He went on to say that:

“These foreign experts think they can come here and tell us what to do and expect us to implement it. They think they can tell us everything starting with the ABC and it’s not what we need. There was a time in the early 90’s when perhaps we didn’t know everything but those days are gone. We won’t be taking this kind of attitude.”

[Romuald, lead author of the RIS-A strategy, a Technocrat]

Romuald’s statement poignantly expresses the lack of intention to learn on the part of the Technocrats. It was a strong and deliberate statement of intention NOT to engage in the process of knowledge sharing if that involved learning from the foreign experts. The corresponding field notes describe this speech as an ‘emotional outburst’. The tone of voice, the body language and the facial expressions of the speaker all betrayed a high-level of agitation. There was pride in his own achievements; there was annoyance, anger even, at the possibility of outsiders coming to tell him what to do; there was a desire to clearly state his superior status and to pre-empt any attempts by those ‘foreign experts’ to challenge their position as THE regional innovation strategy experts in Western Poland. This sentiment stands in stark contrast to the ‘knowledge transfer’ and ‘consensus building’ intentions stated in the EU RIS bid and Consortium Agreement.

The person making this statement, Romuald, was the ‘brain’ behind the Technocrats’ RIS-A algorithm. Therefore, his investment in the vision it represented was substantial and, until the EU RIS project had come about, the payoffs from this investment had been very promising: the official status of his strategy had given him and the Technocrats associated with him control over the innovation development field in Western Poland and opened possibilities of developing further high-profile initiatives. That anyone should question the value of their orthodoxy by implying that there might be other solutions was a direct threat to their hard-earned symbolic capital: their sense

of achievement, their reputation and their careers. That those alternative solutions should also be represented as ‘best practice’ was an insult.

When juxtaposed, the quotes from Frank and Romulad above capture the quintessence of the relationship between the Technocrats and the Cosmopolitans. Each party mistrusted the other and neither was willing to collaborate or learn from the other, at least not in the sense of learning through mutual engagement, perspective taking or boundary spanning. Not only were the two sides radically different in terms of their perspectives, values, understandings, interests, and intentions behind participation in the project; each party also held a strong belief in the superiority of their own worldview and knowledge in general, and their vision of regional innovation development in particular. Both the Technocrats and the Cosmopolitans saw their respective interests best served through the imposition of their own paradigm onto the other party. This clash between the Technocrats’ orthodoxy and the Cosmopolitans’ heresy was played out in their mutual interactions in the course of their practice work and enacted through boundary reification practices, which will be discussed in detail in Chapter 5.

IV.4.4. Knowledge Transfer as a Strategy of Distinction

For the Cosmopolitans the EU RIS project was an opportunity to attempt to transform the RIS-A vision so as to align it with their own worldview. It was thus in their best interest to engage in boundary spanning practices – as reflected by their strategies of collaboration and consensus building. However, their scornful attitude to the knowledge represented by the Technocrats’ ‘algorithm’ prevented them from accepting the need to transform their own knowledge (Carlile, 2004) so that a joint vision of regional innovation strategy for Western Poland could truly be accomplished. Thus they would not engage in transformation of knowledge, i.e. the one boundary-spanning practice that might have been effective at the pragmatic boundary they were experiencing in their ‘knowledge transfer’ efforts with the Technocrats.

For the Technocrats the investment they had made in their own vision of RIS and their hegemony over regional innovation development field in Western Poland meant that consensus building would have serious negative implications. They needed to protect their own knowledge against the attempts of the Cosmopolitans at transforming it. They truly believed that theirs was the ‘best’ vision, not only for them but also for the region,

and they did not trust the intentions of the foreign experts. They also realised that the changes proposed by the Cosmopolitans targeted precisely what they held most precious: the dominant position of their university in the regional innovation development field.

Moreover, the Technocrats were convinced that any acknowledgement of the value of the Cosmopolitans' knowledge would constitute an acknowledgement of the imperfection of their own expertise. Consequently, following the strategy of perspective pushing, they would try to raise and sustain impermeable barriers to inward flows of knowledge as well as attempting to enforce their view of the field on the Cosmopolitans. Given the fact that knowledge, represented by the Technocrats' RIS orthodoxy (RIS-A) and the Cosmopolitans heresy (EC RIS methodology), was at the heart of the matter in the boundary dispute that was the EU RIS project, 'knowledge transfer' emerges as another strategy of distinction.

IV.4.5. Learning as a Strategy of Distinction: Common versus Private Benefits

Given the gulf-like differences between the Technocrats and the Cosmopolitans, the dynamics of the symbolic struggle for distinction between them and, in particular, the perspective-pushing contest in which they had locked forces, it would be easy to assume that there was little chance of learning taking place among the EU RIS partners. However, the data shows that learning was indeed taking place, though not necessarily the kind of learning that would have been implied by the proclamations of intentions contained in the Project Proposal and Consortium Agreement.

Firstly, although there was little evidence of reciprocal learning (Lubatkin et al, 2001) for the common benefit (Khanna et al, 1998) of the EU RIS learning partnership, opportunistic learning in pursuit of private benefits (Khanna et al, 1998) was taking place both among the Cosmopolitans and the Technocrats. In so far as this opportunistic learning behaviour reinforced the pragmatic boundary between the Technocrats and the Cosmopolitans, it constituted another strategy of distinction in the struggle over field dominance between the Technocrats and the Cosmopolitans. Secondly, because of the explicit distinctive role of the foreign partners as sources of knowledge transfer the clear-cut distinction between the Technocrats and the Cosmopolitans, although still salient, did not apply to learning in the same way it did to collaboration. The EU RIS

consortium was specifically constituted as a learning partnership in that all the ‘local’ partners were explicitly committed to learning from the foreign partners, who, on their part, were dedicated to meeting the learning needs of the Western Poland partners – as much as was possible given the project structure and budgets.

PROPOSITIONS OF CONTENT OF STUDY VISIT	
WDA	<ul style="list-style-type: none"> - system of structural funding implementation to SMEs - examples of the best projects which support of SMEs development - examples of projects implementing idea of public-private partnership - partners’ experience in R&D and SMEs sector cooperation - creation of system supporting SMEs - creation of business support network - effective tools of supporting SME development - methods of financing of supporting SME development - entrepreneurs incubators - instruments and structures supporting export
PIME	<ul style="list-style-type: none"> - organisation of foresight activities - management of cluster development policy (programs, self-government level, regional development agency) - monitoring of SMSs innovativeness - internal regulations at universities stimulating and supporting academic entrepreneurship and technology commercialization - innovativeness of administration and model of function in relations with business and universities

IDRC	<ul style="list-style-type: none"> - structural funds as a tool supporting entrepreneurship and development of firms - (mechanisms, decision making system, cooperation between branch organisations and local or regional government); - procedure of making decisions connected with directions of development – central decisions or branch consultations; - role of branch organisations in programming of regional development – consultation or lobbying?)
PUT	<ul style="list-style-type: none"> - supporting international cooperation in development of innovations: <ul style="list-style-type: none"> ▪ regional and local SMEs, branch groups, clusters ▪ R&D institutions ▪ procedures and institutional solutions - „good practices” examples in international cooperation of firms with partners from East Europe in innovations - activating of cooperation: science-industry - university education for innovations – examples of projects and curriculum of study - creating of proinnovative culture: <ul style="list-style-type: none"> ▪ in firms ▪ at the universities and R&D sector ▪ „good practices” examples
PU	<ul style="list-style-type: none"> - Get acquainted with pilot projects realized in Partner’s country
GWP	<ul style="list-style-type: none"> - building system implementing RIS-institutions involved and relationships - review of accessible operational programs in area of innovations and entrepreneurship development - building system implementing operational programs in area of innovations development - “good practices” in implementing RIS projects - cooperation of local authorities with organisations implementing RIS - cooperation of local authorities with enterprises

Table 4.3. Proposition of contents of study visit to partner regions. Source: EU RIS Project Documentation.

Table 4.3. was compiled by the EU RIS Project Manager from statements of interest submitted to him by all the project participants. As the table demonstrates, all partners, including the Technocrats from PUT, were able to list things which they could usefully learn from the foreign partners. Interestingly, the ‘weakest’ submission comes from the weakest partner, Portovo University, i.e. the organisation which was only marginally involved in the project, and not from the Technocrats. Although a similar document was not prepared by the foreign partners, there is ample evidence that at least the South UK

representative was keen to learn from the Technocrats on the 'local' RIS-A team. However, based on the responses from the interviews, there was very little interest among the 'local' partners to learn from other 'local' partners, be they Cosmopolitans or Technocrats. At the same time, all the respondents were able to give examples of what others might want to learn from them.

The examination of the budgets and the 'knowledge transfer' expectations of the EU RIS partners from Western Poland points towards an opportunity hoarding (Tilly, 2005) attitude on their behalf. On the one hand, they chose to take maximum possible advantage of the economic capital put at the project's disposal by the European Commission in pursuit of their private benefits as organisations – in this case funding salaries. Notwithstanding thus created shortages of funding for experts' time and travel, they still expected the foreign partners to make a substantial contribution of intellectual capital to the project. This highlights the fact that there was a reversal of priorities between economic and intellectual capital with regard to the EU RIS practice as compared to the declarations of intention stated in the Project Proposal.

Much of the learning that the EU RIS participants engaged in can be described as strategic learning: they would try and take advantage of those learning opportunities that would advance their cause in the symbolic struggle for distinction in the field of regional innovation development in Western Poland and/or in their particular primary fields of practice. Learning thus was used as a strategy of distinction alongside the strategies of collaboration, consensus building, perspective pushing and knowledge transfer. Two distinct types of strategic learning stood out in the data: *opportunity hoarding* and *exploitation*.

Based on Tilly's (2005) ideas regarding relational mechanisms of reproducing inequality, both these approaches to learning can be described as strategies of learning aimed at reaping private benefits from others' knowledge without making a contribution towards the common benefits of the learning partnership (Khanna et al, 1998), with exploitation additionally being accomplished at the expense of the party providing the knowledge. The lack of contribution to common benefits may be the result of three sets of circumstances: firstly, the gained knowledge may be irrelevant to the joint enterprise; secondly, private benefits may outweigh common benefits; and thirdly, private and common benefits may be contradictory. From the point of view of the learning

partnership, opportunity hoarding is thus nonreciprocal or irrelevant and constitutes a waste of resources whereas exploitation can be detrimental to some of the partners' and/or the accomplishment of the partnership's aims.

IV.4.5.1. Opportunity hoarding

'Opportunity hoarding' is a relatively benign form of learning for private benefits. It is orientated towards maximising one's own learning in return for minimum possible knowledge contribution to the alliance. Among the EU RIS partners the PIME representatives exhibited this type of learning behaviour most clearly. PIME stood out amongst the EU RIS partners for two reasons: because it was the most profit-driven and entrepreneurial organisation, and because its representatives (mainly Arek) were the most proactive in their attitude to learning. PIME had identified regional foresight and cluster policy as two very promising areas in which to develop expertise and Arek never missed an opportunity to learn about these issues. As early as the official launch event for the EU RIS project, Arek approached the South UK representative to express an interest in coming to South UK for a 'private' study visit – he had funds for that from another project. Arek also consistently sought to involve Frank as an expert in his numerous other ventures related to regional foresight and cluster policy.

At the same time, PIME showed very little interest in sharing their expertise with the other EU RIS partners. As mentioned before, PIME's unique contribution to the project was supposed to be a cluster-simulation exercise and the cluster-stimulation methodology underpinning it. However, despite repeated questioning by the other partners, PIME representatives were elusive in their answers and managed never to reveal the details of either. They were also the only partner who sought copyright protection for their input to the EU RIS project:

For request of PIME we changed the notice in point [number of the point], added text is in red [here underlined]: ...” The copyright of the Project logo and other Project products will belong to all Project Partners, with the exception of:

- the methodology of the Task realization applied by the Party.

- name of the product made in accordance with this methodology
that belong solely to the Party of the Project.

[EU RIS Documents: “Comments and Suggestions to the Consortium Agreement and Annexes”]

PIME’s opportunistic attitude did not go unnoticed by the other partners, who eventually confronted them about it during the third PMU meeting. At that meeting PIME representatives gave a presentation on “Regional Studies of Innovation” outlining two commercial initiatives which the institute was developing at the time. Although clearly related to the EU RIS objectives, these initiatives seemed to be run in parallel to the project. The suspicion that PIME was pursuing their own interests without due consideration of how they might add value to the realisation of the project was shared equally by all parties. A lengthy dispute ensued when one of the PUT representatives demanded explanation from PIME. The South UK representative joined in, lending support to PUT and concluding the exchange:

***Frank:** Brutal question: I completely see why you might want to do this, both for strategic and commercial uses but how are you going to use the results of that for the benefit of the people around this table? I’m not disagreeing with the academic reasons or with your business idea behind it. My question is why have we spent the time to listen to you, how are these two projects going to contribute to our project? I’m not being aggressive with you...*

***Arek:** We want to contribute to the RIS project. We see this as complementary activity to the content of EU RIS.*

***Frank:** Can you prepare a page saying where the possible contribution of all these activities is for this project, and particularly if something can be seen as an associated product of this project.*

[3rd Project Management Unit Meeting]

PIME’s opportunity hoarding clearly did not stand in accord with the RIS philosophy of knowledge sharing and collaborative learning amongst partners with the aim of joint creation of common benefits. However, theirs was a minor breach of the project’s etiquette compared to the allegations of appropriation of ideas repeatedly raised against

the PUT Technocrats. Some of those allegations were exaggerated or even unsubstantiated; however, there had been at least two instances of serious misconduct on behalf of the Technocrats which were construed by the Cosmopolitans as appropriation of ideas. The impact of the assumption of the Technocrats' ill intent on the EU RIS project was strong and lasting, which is why it deserves a more thorough discussion.

IV.4.5.2. *Exploitation*

*“In **exploitation**, the clique enlists value-producing effort from people on the opposite side of the boundary, but allocates, to those others less than the value added by their effort.”*

(Tilly, 2005: 112-113)

Much ill will was created between the Technocrats and the Cosmopolitans due to the fact that the former had submitted an independent bid containing proposals which were also part of the EU RIS project. That complicated the project realisation by introducing ambiguous dependencies, such as the need to avoid overlaps with the 'local' RIS-A project. The Technocrats used these dependencies to their advantage and to the detriment of the Cosmopolitans by insisting that their 'local' RIS-A strategy needed to be awarded a superordinate position in relation to the EU RIS project so that any such overlaps could be eliminated. This was a strong theme in the struggle over field dominance between the Technocrats and the Cosmopolitans.

In the Cosmopolitans' view, PUT's independent bid constituted a significant breach of trust and an appropriation of their ideas. Moreover, they maintained that this type of behaviour on the part of the Technocrats was not an isolated incident. The story of the 'stolen competition' was often repeated in support of this opinion:

“We came up with an idea to promote innovation in the region by organising a competition for SMEs called Western Poland Leader of Innovation. We told them about it and sometime later they presented the same idea at a formal meeting as their own!”

[Ola, WDA representative]

This incident happened at the stage of deciding on the tasks to be realised under the broader work packages of the EU RIS project, i.e. before the project proper even started. It created fertile ground for further suspicions of appropriation of ideas. The resulting atmosphere of mistrust and resentment persisted throughout the project and permeated the participants' interactions. However, the Technocrats saw it differently:

This is a European project, which was under preparation for several months, then it was under review and undergoing corrections for a year before the 'go ahead' moment came, right, this is a long time and in the meantime a lot has changed in the environment and this is a problem and a challenge – how to avoid the project becoming obsolete and also prevent it from slowing down other actions because others do not really want to take into account that because something is included in this project, e.g. that there will be a competition “Western Poland Leader of Innovation”, then this cannot be touched. And others say, “But incentivising firms to innovate depends on this to a significant extent, we can't just wait, it's not certain that this project will get funding, etc., we must act, these incentives must be there.”

[Interview with Marek, EU RIS Project Manager, PUT]

The Cosmopolitans developed an aversion towards sharing ideas with the Technocrats. The assumption of ill intent was pervasive and dominated the logic of discussions in informal 'behind the scenes' meetings amongst the Cosmopolitans. One such meeting was particularly informative; it happened after the first project management meeting and included representatives from North UK, South UK, and WDA. Reflecting on the events of that day, Frank, the South UK representative, said that he had been watching the PUT VIPs' reactions throughout his presentation at the Innovation Forum (a conference which marked the start of the EU RIS project) and noted that they had got what they wanted when he had been talking about a high-profile innovation-related project in South City. “That's what they [i.e. PUT] want”, he said, “a project where they could take the dominant role.”

Also during that same meeting, there was a brief conversation about the WDA's plans for developing a business support system (BSS) in Western Poland. Frank was under the impression that Romuald (the lead author of the 'local' RIS-A strategy) intended to have a BSS of his own. He was convinced that when he had been talking about the BSS in South UK during his presentation at the Innovation Forum, Romuald rose to speak to the PUT VIPs present there to say 'we need to organise a BSS'. That again wasn't perceived as a positive, i.e. Romuald and his colleagues wanting to join in so as to help with the BSS initiative but rather as another 'hijacking'. It seemed that Frank was saying 'hurry up with it before they beat you to it and ruin it.'

In a sense it does not matter whether those and other similar allegations and suspicions were substantiated or not. From the point of view of practice work and boundary, their effects were very real: the Cosmopolitans felt they were being deprived of the benefits of their own ideas and needed to protect themselves. The mistrust towards the Technocrats had reached conspiracy theory proportions. The assumption of dishonesty and propensity to appropriate ideas on behalf of a partner excludes the possibility of openness and knowledge sharing and results in gatekeeping behaviour, further reifying the pragmatic knowledge boundary.

Appropriating ideas is a form of exploitation, i.e. a learning strategy which seeks to capitalise on the knowledge of others not only without fair reciprocation but also to the actual detriment of the 'donor' and/or the partnership. The Technocrats' endeavours to learn from the Cosmopolitans were motivated by the wish to advance their own agenda rather than support the joint enterprise of the EU RIS project. Rather than accept the knowledge offered to them by the Cosmopolitans, they would learn selectively about the things they felt would bring them the most benefit. They tended to learn in a covert way, taking advantage of arising opportunities without openly acknowledging that this was the case.

Romuald, the 'brain' behind the 'local' RIS-A project explicitly stated that, as far as learning was concerned, the foreign experts had little to offer other than rudimentary knowledge ('ABC' as he put it), which was not what he and his colleagues needed. Thus, the Technocrats did not want the kind of knowledge that they believed was being offered to them and which, if accepted, would require a transformation of their own knowledge and practice. However, they also realised that their RIS was not a finished

product: it was a theoretical model which the ‘local’ RIS-A project team were in the process of trying to implement. They realised that there were things that they could usefully learn from ‘these foreign experts’ but they also assumed that the kind of things they wanted to learn would not be made available to them, or more precisely, would not be made available on their own terms. Given the antagonistic nature of their relationship with the Cosmopolitans, the Technocrats were acting on the premise that it was not in the Cosmopolitans’ best interest to share the kind of knowledge that would advance the realisation of the vision that they contested. An open acknowledgement of foreign expertise would also mean exposing weaknesses and negotiating differences. It was easier and safer not to do that.

The Technocrats’ exploitative learning undermined the Cosmopolitans’ ability to reap the benefits of their own intellectual capital by using it to develop new projects and initiatives which might advance their accumulation of symbolic and other types of capital in their respective fields of practice as well as in the wider, regional development field. Consequently, the Cosmopolitans were also determined not to let the Technocrats appropriate any more ideas and had no intention of learning from the Technocrats either as they considered the Technocrats’ ‘algorithm thinking’ inferior to their European models. Thus the practice work on the EU RIS project consistently took the form of a perspective-pushing contest and became closely entangled with boundary work of distinction and reification.

IV.5. ‘Reconciliation’

*Frank: “There obviously already is a RIS project in place which everybody in the region recognises as **the** RIS. It happens to be the first one so who are we to say that we’ll just have our own RIS? We need to work to contribute what is missing from the first project, we must add to the existing framework and be complementary to it rather than do parallel things. The project has been hijacked by the PUT people.”*

[‘Behind the scenes’ meeting between WDA and foreign partners’
representatives]

The above quote was not an expression of support for the RIS-A team or a gesture of good will, nor was it an attempt to get the WDA people to be more positive about cooperation. Rather, it was a simple statement of fact, a concession of defeat. The others agreed in a monosyllabic way ('yeah') and nodded but no directly related discussion ensued. The quote reveals that the South UK representative recognised very early on and communicated to the WDA representatives the fact that the balance of power between the Technocrats and the Cosmopolitans was tilted towards the former. Interestingly, the Cosmopolitans, despite acknowledging Frank's point in this instance, did not seem to be fully aware of the Technocrats' dominant position – as was evidenced e.g. by their surprise at the various manifestations of dominance by the Technocrats. This misrecognition of the situation led to attack-defence sequences akin to those mentioned by Tilly (2004), which will be described in the discussion of the perspective-pushing in the next chapter.

The atmosphere of the project was becoming tenser with almost every interaction episode. Hostility would be expressed in e-mail exchanges, in meetings, and behind the scenes. Eventually, at the end of the 2nd Project Management Meeting, the difficulties with collaboration were addressed on the general forum. The exasperation with the inability to collaborate and make progress had reached its culmination point. The participants acknowledged there were issues of lack of trust and respect. They agreed to hold the next project management meeting as part of a weekend workshop in the countryside in order to try and develop a better working relationship and improve communication between the Technocrats (in this case the RIS-A project team) and the Cosmopolitans. The following exchange took place in a break during one of the meetings at that 'reconciliation workshop' – it shows that the idea of 'consensus building' around the direction of the project had by then become a standing joke between the project participants:

Frank [referring to a group of schoolchildren staying at the same hotel]:

Did you know we have a school here?

Karol [humorously]: *Perhaps we should invite them to learn about innovation.*

Frank [jokingly]: *Rather about consensus building...*

[Everybody laughs out loud]

[“Reconciliation Workshop”]

The idea of a ‘reconciliation workshop’ was received well and everybody associated high hopes with it. The general feeling was that things could not go on the way they had been and that ‘something’ needed to be done about the inertia of the project:

After all, we feel the same, we have similar needs and it can't be that we destroy one another: because he is my rival, I must destroy him... And perhaps it is something to do with human nature, e.g. power is a great motivator which drives people to various, sometimes irrational and unworthy behaviours. Sometimes players heat up the atmosphere on purpose just to achieve their aims, right, it's better to try and collaborate.

[Interview with Marek, EU RIS Project Manager, PUT]

At the start of the workshop, formally known as the ‘EU RIS project coordination with the RIS-A implementation system and other regional initiatives in innovations’ workshop, participants were asked to state their expectations.

Adam [PUT, RIS-A Project Manager]: *“I have an expectation: I hope this seminar will improve our trustfulness and that after this seminar we will not think who is the good guy and who is the bad guy but we will have a strong cooperating time”*

[“Reconciliation Workshop”]

Here, the ‘local’ RIS-A Project Manager, acknowledges the confrontational character of the relations between the Technocrats and the Cosmopolitans and expresses hope that this might change as a result of the workshop. A glimpse into his interpretation of ‘cooperating’ is offered by the following comment from the South UK representative on Adam’s presentation delivered later at the same workshop. He was talking about how the EU RIS project could contribute to the realisation of the ‘local’ RIS-A project. He used the same set of slides he had used on numerous occasions before (and which had become known as the ‘green boxes’) to talk about his project, with only slight modifications. The title of slide 7 read: ‘Areas of potential overlap’ – it provoked the following comment from Frank, the representative of South UK:

Frank: Please don't move on, this is really important. It is always important to positively frame: rather than saying this is an area of duplication, saying possible cooperation. I think the way you've written it on the slide sends its own message – potential duplication in large bold type, potential collaboration in small.

[“Reconciliation Workshop”]

The above comment reveals the awareness among the Cosmopolitans of the fact that the Technocrats interpreted ‘collaboration’ more as ‘cooptation’ than as ‘inclusion’ or ‘equal partnership’. The Technocrats expected the Cosmopolitans to cooperate with them much in the same way as the police expect suspects to cooperate, i.e. unilaterally and without questioning the rationale of their vision of RIS. This attitude, which can be traced back to the very beginning of the project, obviously did not go well with the Cosmopolitans, who felt they were being coerced into dependence and submission. This, in turn, caused them to intensify their own efforts at forcing their perspective and, failing that, to resort to independent pursuit of task realisation:

This project can be realised even if there isn't a general vision of the common goal but the success of the whole process [of regional innovation development] is another matter entirely.

[Interview with Arek, PIME Representative]

Despite the high hopes associated with the ‘reconciliation workshop’, it became apparent at the very moment of the opening of the first session of the first meeting on the first day of the workshop that there would be no respite from the power struggle between the Technocrats and the Cosmopolitans: a message from the Project Coordinator was conveyed, appointing the RIS-A Project Manager as Acting Chair in the coordinator’s absence – a subtlety which did not escape the attention of the Cosmopolitans. The ‘reconciliation workshop’ went through all the same paces as all the meetings before it, including even the ‘green boxes’ presentation. The one exception was a ‘collaboration facilitation’ session organised jointly by the representatives of the foreign partners, which, however, did not bring the expected results.

In the course of the proceedings, resignation was slowly setting in amongst the Cosmopolitans: though never without discontent, the Cosmopolitans gradually came to the point of conceding defeat. There was never a declaration of this concession but rather a calming down of the interaction accompanied by a degree of cynicism. From that point on, the Cosmopolitans no longer struggled to get recognition for their vision of RIS. Rather, all parties proceeded with the realisation of the tasks included in the Consortium Agreement, careful to avoid ‘areas of overlap’ with the ‘local’ RIS-A project. The ‘reconciliation workshop’ marked the de facto capitulation of the Cosmopolitans:

*The first stages of this project have not produced a real consensus, where all the actors would say that “yes, this is the programme, we think that the priorities are set well, etc.” It is still a search, you know [...] I see it this way: PUT must be part of this innovative region, right, there’s no chance for it not to be, right, maybe it should act somewhat differently, be more open – it must change on the outside and prepare a more realistic offer for the SME sector **but** it cannot be said that PUT won’t be a significant player in all this: **it will**, for sure. So if there is such conflict between PUT and others in this process than it is not a good thing either.*

[Interview with Arek, PIME Representative]

Following this quiet concession of defeat on the part of the Cosmopolitans, euphemization set in: there was no more open discussion of the divergence of perspectives and the main focus was on getting the work packages finished on time with no further debates regarding the ideas behind them.

IV.6. Epilogue

After the disappointment of the ‘reconciliation’ workshop the Cosmopolitans surrendered the hope of being able to influence the formal regional innovation strategy in Western Poland. They no longer believed it would be productive for them to try and reconcile their European model with the Technocrat’s algorithm, to work out a compromise. Instead, the key players amongst the Cosmopolitans: the WDA and the two UK partner regions decided to invest their efforts, and their intellectual, economic,

social, and symbolic capital in practical activities and initiatives, that, combined, would amount to nothing less than the de facto ecosystem for innovation support.

“After that bust-up [the ‘reconciliation workshop’], we decided, ‘No, enough is enough.’ Ultimately, what we ended up doing was saying to ourselves, ‘What can we get out of this?’ And this was a kind of combination of ourselves, the Regional Development Agency, and North UK and what we agreed on was that we could help them prepare some pilot projects and that was the kind of compromise.

So what we were saying effectively was ‘let’s not try to rewrite a document or try to accommodate all the contradictions that exist within this huge list of activities, which, frankly, are irreconcilable. Let us instead focus on the positives – in a sense, the strategy has already been written for good or ill, a whole set of major activities are taking place around that but what learning can a European project bring into the region? So let’s look at some areas of potential trans-regional work and what could those be.’”

[Interview with Frank, the South UK representative, April 2013]

Two types of ‘pilots and projects’ were identified as a result of discussions during the ‘reconciliation workshop’: those that would contribute to the implementation of the ‘local’ RIS-A solutions via one of the tasks written into the EU RIS project and those that would “build upon the cooperation with the foreign partners on the project.” The “pilots and projects” inspired by the RIS-A algorithm included: Regional Forum for Financing Innovation (proposed by PIME); Technology Transfer Database and Portal (proposed by PUT); R&D Staff Training in Innovation (proposed by PUT); Postgraduate Courses in Innovation (proposed by PUT); Innovation Strategy for the industry cluster represented by IDRC (proposed by IDRC); and “Innovation Assistant” project concept (proposed by PUT). The initiatives drawing on the collaboration with the UK partners included the study visit, trainings for business advisors, developing an inter-regional matching event and other inter-regional networking events; and developing collaborative projects for FP7.

The attitude permeating the project from that point onwards was very much that of ‘getting on’ with the job at hand – there was a project they had committed to and tasks to complete for which they would be held accountable not just to the European Commission and the regional authorities but also to the people inside their own organizations. As Frank (South UK) put it:

“We were much, much, much more focused on the outcomes, you know, you only do a project because you’ve got to be able to deliver something ‘cause if you don’t, you get massively criticised among your own people for not doing it.”

[Interview with Frank, South UK representative, April, 2013]

The Cosmopolitans’ resignation and determination to ‘just get on with it’ did not, however, mean that the collaboration with the Technocrats suddenly became any easier, merely that they would not openly compete for symbolic power in the field of regional innovation development. In that sense, the Cosmopolitans submitted to the Technocrats’ symbolic violence, resorting to euphemisation in talking about developing projects ‘aiming at the implementation of the revised RIS-A’.

IV.6.1. The Study Visit

Among the trans-regional tasks which were immediately relevant to the realisation of the EU RIS project the study visit of a delegation from Western Poland to the regions of North UK and South UK was the first key event to bring all the partners together after the ‘reconciliation’ workshop. Contrary to what might be expected from an event where learning from the foreign partners was explicitly the core purpose there was no more conflict over ideas and no more negotiation of perspectives. It was clear by then that all the involved parties had moved on towards a pragmatic position of trying to maximise the benefits from participating in the project to their particular organizations and even to the particular individuals and their careers.

The original EU RIS consortium agreement did not include a study visit to the UK. This was only added to the project deliverables at the first project management unit meeting after some extensive political and promotional activity by the South UK representative and only thanks to WDA’s strategic support, namely the reallocation of funds from

other WDA tasks and projects in favour of organising a study visit for the EU RIS participants. The study visit took place towards the end of the first year of the project's official duration, in April 2006. Delegates from all the partner organisations in the Western Poland region came to both North and South UK to learn. As part of my involvement in the project I looked after the Polish delegation in South UK. I took them to three organisations in South City. One of them was associated with the regional universities and its main mission was knowledge transfer from the academic community to local SMEs; another specialised in regional promotion; the third one was the regional development agency. All hosts were well prepared and gave us a warm welcome. They all had prepared presentations but also stressed that they would like to put their expertise at the disposal of the delegation and were keen to take questions and engage in debates.

It went relatively well in the first organisation. Arek (PIME representative) had a lot of questions about the ins and outs of knowledge transfer from academic institutions to the business community and in particular about how it was possible for the former to make money on it. He eventually monopolised one of the presenters to the extent that they were really having a private conversation in which no-one else was able to participate. Marek (the project manager, PUT) kept the other presenter occupied with questions revealing his ignorance of some basic issues. In the other two organisations I had to intervene to interrupt the dead silence that followed the presentations. Especially in the regional promotion institution no-one seemed to be willing to engage. Some of the delegates looked completely disinterested and did not pay attention at all. They spent more time using the facilities than they did engaging with the speaker. The programme in the regional development agency was more diversified and there were several presentations. Different members of the delegation engaged with different speakers but a number of them did not participate at all throughout the visit. At the end of the day we had a wrap up meeting at Frank's office. It was difficult to start because some of the delegates 'got lost' on the way, i.e. went shopping. We had to finish early so as to allow the other delegates to go shopping, too.

Most partner organisations sent two delegates on the study visit. Out of the dozen people who went about half were interested in 'public sector tourism': their approach to learning was that of an average tourist who wants to know about the places they are visiting but also wants to be able to go shopping. The other half learnt voraciously but

very selectively, i.e. only about the issues of immediate interest to them personally. A good example of this was Arek's intense interrogation of the speaker talking about academic consultancy services. This particular subject had little immediate relevance to the EU RIS project but Arek was a manager at an independent research institute always on the lookout for new revenue generation opportunities. At the same time, he was quite happy to sit through the presentation on regional promotion without asking any questions.

The learning opportunities eventually offered to the Western Poland delegation were not exactly the hands-on experience or reciprocal learning opportunities that had been sold to them. The delegates' ability to participate and ask questions was limited not simply by their lack of involvement or learning intent but also by their lack of prior related knowledge (Cohen and Levinthal, 1990) resulting not from ignorance but from the fact that there was not always an obvious link between the subject matter and their respective fields of practice. There was little on offer that would enable all or most of the delegates to engage with all or most of the subject matter and relate it to their own practice. This was partly because of the fact that all delegates participated in all the sessions regardless of their specific area of expertise and interest. It was also due to the fact that the event was dominated by experts' presentations, which necessitated a more unilateral mode of learning, such as might be associated with knowledge transfer. These constraints can again be traced back to the lack of funding for the foreign regions' experts' time to be dedicated specifically to creating learning events for the Western Poland partners. Notwithstanding its limitations, the study visits to North and South UK received very good reviews from the Western Poland delegates, who described them as very informative and useful.

IV.6.2. Building Parallel Realities: the Algorithm and the Ecosystem

The quality of the collaboration on other interregional tasks included in EU RIS can be gleaned from the periodic reports submitted by the South UK partner, in which reference is repeatedly made to the Polish partners' lack of contribution and inability to commit. The 'small periodic report' prepared in February 2007 for instance mentions that "South UK proposals for joint activities [were] unmet by Partners (e.g. Symposium 2007)" and "support initiatives (e.g. foresight proposals from South UK) have not been followed up by Western Poland". The full periodic management report prepared in June

2007 raises the same concerns and reports that work on the Symposium in South UK had been completed by South UK partners but “Polish partners were unable to commit to their involvement and progress was stopped.” Both reports also comment on the excessive amount of work the South UK partners needed to spend on management activities, something which they had always been keen to avoid due to the way budgets had been structured. The quote below sums up the South UK representative’s perception of the quality of collaboration with the Technocrats from PUT at that time:

“The Technology University was failing miserably in managing the project [...] as far as they were concerned, it would be preferable to them if the project just quietly went away. And they certainly weren’t interested in the development of new ideas that were going to challenge [...] the established strategy, organisation, and approach – that’s like a ticking time bomb! Why give that any resources? Why put your shoulder behind the wheel and push that hard? Why increase any momentum? You’ve already achieved what you wanted.”

[Interview with Frank, South UK representative, April, 2013]

Experiencing similar frustrations and unable to see how they would be able to achieve their objectives of building partnerships for future FP7 projects, the North UK partner withdrew from the EU RIS project entirely at the beginning of 2007. The lead partner from South UK (NDA) also withdrew from the project at the end of March 2007 and was replaced by the South City Council. However, Frank, who had been the South UK representative on the project from its inception, remained in that role. Building on his social capital in both Western Poland and the South UK, he set about building a new coalition for the future – one that, through the medium of the EU RIS project, would deliver the elusive goal of building a FP7 partnership but also contribute to the business and innovation support ‘ecosystems’ in both regions. His main ally in pursuing that strategy was WDA but he was also keen to invite ‘willing partners’ from outside the EU RIS project and found those in Portovo City Council (where the lead WDA representative had moved to take a director’s post) and in the Portovo Entrepreneurship Foundation, who were his old contacts and who were interested in initiatives related to supporting business incubators. The main thrust of the work done with these organisations was on building an innovation support ecosystem in Western Poland by identifying the relevant areas of ‘best practice’ in South UK and supplying the

documentation that would help the organisations in Western Poland obtain structural funds.

Apart from the social and intellectual capital invested in building links and bidding for European funds, both the South UK and the enlisted Western Poland partners also invested the economic capital available to them in developing the business support ecosystem and links with businesses and business and innovation support organizations in South UK – an approach referred to as ‘finding budgets’. As a result of these efforts, two FP7 projects were included in the outcomes of the EU RIS project – one was an incubator training project delivered in February 2007 and the other one, commenced in December 2007, was focused on encouraging women into science, technology, and knowledge-based business using networking and mentoring. Importantly, at least in the perception of the South UK representative, the building of the ‘ecosystem of innovation support’ in Western Poland – both through the EU RIS and through other regional and interregional initiatives – was a success. Asked what the final score had been with regard to the EU RIS project, who had ‘won’, Frank offered the following reflection:

I think that if you're talking about who was able to write the innovation strategy, the formal innovation strategy, you would say that the people who did the deal at a high level [he mentions a person at the Governor's Office and Romuald (the 'grey eminence' behind the 'local' RIS-A project), and people high up in the PUT hierarchy]- they were able to get the plan in place and channel resources from the structural funds to them that way. HOWEVER, when I visited a particular innovation event in 2007 in Western Poland, I was amazed at the range of organisations that were now supporting small business. And we were effectively on contract from the WDA to do this so there was an ecosystem of support, an ecosystem now in place and based on OUR thinking.

And if anything, which would you rather be: a few factory units in the middle of nowhere in a special economic zone and have a group of the great and the good chattering on about how wonderful the regional innovation strategy is OR have economic development practitioners developing experience and supporting small businesses with innovation grants?"

[Interview with Frank, South UK representative, April, 2013]

Despite the Cosmopolitans' apparent concession of defeat in the symbolic struggle over the dominance of the field of regional innovation development in Western Poland, the Technocrats' hold over the field was nevertheless loosened to the extent that they cannot be said to have established their RIS-A 'algorithm' as THE definition of the field in practice. Having survived the Cosmopolitans' challenge, the 'algorithm' was confirmed as the official vision of the field but only so far as that can be achieved through begrudging euphemization. Ultimately the EU RIS project was just that – a project – a way of setting up the parameters of the field that would later evolve shaped not by the letter of a document but by the practice of innovation development by the key players in the field operating within their own networks and investing various species of capital in building structures and developing practices reflecting their own vision of the field within their own scope of influence.

This was equally true of both the Technocrats – who were able to animate the 'algorithm' and build their special economic zone – and of the Cosmopolitans – who used the EU RIS project as a platform to establish new partnerships and develop new projects and initiatives that would eventually give rise to a whole 'ecology' of business and innovation support solutions they believed in. Thus the Cosmopolitans and the Technocrats were building parallel realities – two coexisting versions of the same field. They were able to do that at least partly due to the objective circumstances surrounding the regional innovation agenda at the time the EU RIS project was being realised, namely the availability of structural funds to New Member States and the need for Western European regions to partner with them to access those funds. This worked to both sides' advantage.

Equally important was the political action of both sides: the Technocrats were able to mobilize their superior social capital in the region to ensure a formal victory for the 'algorithm' and the Cosmopolitans were able to utilise their superior access to social capital in Europe and network in the region with a number of relevant, if less central players. More research would need to be done to establish to what extent the 'algorithm' and the 'ecosystem' could be considered two parts of the same field or if each or either of them would develop into an autonomous field. If the former were the case, further research would be needed to find out if they would stay parallel or merge with time, or if one would ultimately render the other superfluous.

As for the EU RIS project itself, it delivered the outcomes that were included in the Consortium Agreement but ended up exceeding the original duration time by six months having lost two key partners on the way (North UK and NDA). The lead partner – the University of Technology – was audited by the Director General Enterprise and Industry of the European Commission with regard to the EU RIS project (European Court of Auditors, 2013). Despite numerous attempts, I have been unable to obtain any reliable information about the audit, its date, reason, or outcome.

CHAPTER V. Field Dynamics: a Thematic Analysis

Introduction

Thus far, the story of the field of regional innovation development in Western Poland was discussed in terms of the mechanisms precipitating boundary change: from the field's inception as a PUT monopoly subsumed within the boundaries imposed by the 'local' RIS-A strategy, through the incentive shift associated with the Polish accession to the EU and availability of funding from the European commission to develop a regional Innovation Strategy for Western Poland based on the European methodology, to the encounter between the PUT incumbents and the assorted other stakeholders that was the EU RIS project. The resulting boundary change and its effects were also discussed in detail in terms of the inscription of new, more inclusive, field boundaries and the associated activation of the pragmatic knowledge boundary polarizing the newly circumscribed field into the Technocrats and the Cosmopolitans. The effects of these boundary changes in the Western Poland regional innovation development field were explained in terms of the euphemization of the symbolic violence exerted by the Technocrats on the one hand and the lasting polarization of the field on the other.

The main focus of this chapter is on the boundary dynamics within the EU RIS project. The symbolic struggle for field dominance that was played out between the Technocrats and the Cosmopolitans is revealed through the analysis of their respective habitus, the shifting capital, and the field dynamics. The struggle took the form of a *perspective-pushing contest* which was realized through *boundary work* and *practice work* – each feeding into the other, shaping the field and enhancing the salience of the boundary polarizing it. The chapter identifies the perspective –pushing practices which were deployed in the course of that contest and classifies them into *weak* and *strong* practices that were related to the relative position of power and powerlessness. Finally, the chapter outlines the other boundaries which were salient in the context of the EU RIS project in addition to the pragmatic knowledge boundary which defined the relations between the Technocrats and the Cosmopolitans.

V.1. **Habitus:**

“Because the social is [...] instituted in biological individuals, there is, in each biological individual, something of the collective, and therefore properties valid for a whole class of agents – which statistics can bring to light. Habitus understood as an individual or a socialised biological body, or as the social, biologically individuated through incarnation in a body, is collective, or transindividual – and so it is possible to construct classes of habitus, which can be statistically characterized. As such it is able to intervene effectively in a social world or a field to which it is generically adjusted.”

(Bourdieu, 2000: 156-157)

Habitus is the social objectified in individual bodies (Bourdieu, 2000), a set of dispositions corresponding to the objective conditions of positions in the social matrix, which are inculcated through practice (Bourdieu, 1990). As such, it can be discerned in bodily hexis, taste, and style, including style of thought, of individual agents (Bourdieu, 2004) – all of which are signs of social position and class, of belonging to a social group by virtue of participation in its collective practice (Bourdieu, 2000).

The primary salient boundary defining social relations in the EU RIS project was defined in Chapter IV as a pragmatic knowledge boundary (Carlile, 2004), which demarcated the differences in practice/knowledge, and thus also styles of thought and ideologies, between the parties involved in the project. The pragmatic nature and thus the emphatic salience of that boundary was attributed to the conflict of interest which existed between the social sites it demarcated in relation to the key objective of their encounter, i.e. defining the practice of the nascent field of regional innovation development in Western Poland. On that basis, and considering also the social relations either side of the boundary (Tilly, 2004), the two social sites were described as community of practice (Wenger, 1998) – the Technocrats – on the one hand, and as a network of practice (Brown and Duguid, 2001) – the Cosmopolitans – on the other. As highlighted in Table 4.2., the Technocrats and the Cosmopolitans represented different practices, different ways of knowing, and different ideologies. They thought differently, acted differently, and espoused different identities and values.

The Technocrats were a very tight-knit community unified by their strong identification with a particular brand of academic knowledge – derived from the application of technology and engineering studies to the problem of innovation development – and with their practice as academics specialising in that area both within the field of academia and as experts developing the field of regional innovation development in Western Poland. The strength of their ties may also be attributed to the significant investment they had collectively made in the latter pursuit, to their long-standing mutual engagement, and the commonality of values and beliefs, such as patriotism, tradition, and the superiority of academic knowledge. The style of thought they represented is best captured by their attachment to the idea of the ‘algorithm’ of innovation – a term they consistently used to describe their top-down, technology-push, institutional vision of the field of regional innovation development in Western Poland.

By contrast, the looser grouping of the Cosmopolitans’ ‘network of practice’ was a configuration of various practices, specialisms, and interests, which coalesced around the common agenda regarding gaining access to the field of regional innovation development; a shared identity as modern, European professionals; the corresponding belief in market economy and European integration; and a convergence of perspectives on innovation development characterised by a networked, market-pull approach, such as was advocated by the foreign experts espousing the EC’s RIS methodology. The style of thought represented by the Cosmopolitans is well expressed in the idea of ‘innovation ecosystem’ that they set out to create.

The Technocrats’ was a paternalistic, hierarchical, and tightly knit community. There was only one woman between the two PUT project teams, and although she was an academic, her role in the EU RIS project was that of an administrator. Intellectual capital, in the form of academic achievement, was made explicit in academic titles. Social capital was key to personal and collective advancement and the ability to obtain it was well honed. Economic capital was more problematic: PUT salaries were not high and many academics would take extra work outside PUT. On the other hand, the ability to attract economic capital on behalf of PUT was highly valued so being an ‘entrepreneurial academic’ could be a source of distinction. The Cosmopolitans were open to new ideas, keen to keep up with the times and strongly career-oriented. More women than men represented the Cosmopolitans on the project but all their line managers were men. They were very well educated, spoke foreign languages, and

looked towards ‘the West’ for lifestyle and professional models. The accumulation of both intellectual and social capital was important to them as a strategy for career advancement – they sought professional status together with its rewards in terms of symbolic and economic capital. Theirs was a world of markets and competition.

Apart from the differences of practices, ideologies, and styles of thought, the distinction between the Technocrats’ and the Cosmopolitans’ habitus was also vividly discernible in their respective bodily hexis and tastes. Their appearance and demeanour differed considerably and differed in ways consistent with the differences of practice, identity, values, and style described above: the Technocrats wore moustaches (with or without beards) and old-fashioned suits (often the three-piece kind) or denim trousers with waistcoats. By contrast, the Cosmopolitans would be practically indistinguishable from young professionals anywhere else in Europe: they chose the more upmarket high-street brands and preferred the ‘smart-casual’ look or fashionable suits. They sported the latest gadgets, such as high-end mobile phones or digital recording devices. The men were always shaven and the women wore ‘natural’ but obligatory make-up. Smoking was common among the Technocrats and the Cosmopolitans (slim-line or light cigarettes were popular with the women) alike and a couple of the Technocrats took the snuff. When greeting women, the Cosmopolitans shook hands; the Technocrats kissed women in the hand. There was a generational difference between their respective habitus: the Technocrats (regardless of the age of the individuals concerned) had been inculcated with dispositions from a by-gone era.

The differences of taste and bodily hexis between the Technocrats and the Cosmopolitans were clearly visible in the ‘daylight’ of work interaction but were amplified in the relaxed space of the evening meals and other social occasions. This can be explained by the fact that a meal is a performance constituted by action, etiquette and being-on-display (Altman and Baruch, 2010; Goffman, 1967), which gives ample opportunity for the display of taste and embodied dispositions. Any attempted deliberate manipulation of action, etiquette and display that might otherwise distort such signals is further diminished through alcohol consumption. In the case of EU RIS the performance of dinners was largely (i.e. always when in Poland) staged by the Technocrats, who assumed this responsibility in their role as project coordinator. Their choice of venue and, by default, the menu in each case revealed an orientation towards the local, rural, and traditional. Alcohol was served in ample quantities and included spirits (mainly

vodka and vodka-based drinks), beer and wine (of unknown vintage). The attire on those social occasions was the same as during the day: the Technocrats wore the kind of clothes which went well with the ‘traditional’ décor of the venues: 1970s-style three-piece suits or jeans and vests, whereas the Cosmopolitans opted for the trendy smart-casual look.

All these characteristics were emphatically present in the choice of the venue and the tone of the social part of the ‘reconciliation’ workshop. Arriving at the hotel where the workshop was to take place was like stepping back in time: I happened to have stayed at the same hotel more than two decades earlier for a weekend with my family. The place had not changed at all: the same 1970s décor: lots of orange wood paneling and railing, I could have sworn they were the same patterned carpets and the same tired furniture and soft furnishings, definitely the same tiles in the bathrooms. The tables in the dining room that could have been a set for a spoof 1970s film production without much adaptation were covered with white starched tablecloths and orange linen placemats. The menu was also the same greasy ‘traditional’ cuisine I remembered and equally attractively presented, with colourful garnish of carrots and beetroot.

In the evening the dining room was the venue of the workshop dinner. The greasy food was accompanied by generous amounts of alcohol, including a lot of vodka (straight or mixed with soft drinks). The atmosphere was lively and merry and even though, on occasion, the conversation would touch upon the subject of work and associated differences of opinion, this was done in a non-confrontational, sometimes even teasing tone (i.e. as friends would gently and humorously reprimand each other for being silly). The PM spoke of his local family roots and offered the people seated around him some snuff from a (cow’s?) horn with a silver cap. The evening concluded with a 1970s and 80s style disco, complete with a glitter ball in a room with a suitable décor of orange wood paneling and mirror partitions and a bar (more alcohol) in the basement of the hotel.

To say that the dispositions of the Technocrats’ habitus could be traced to a by-gone era is not to suggest that theirs was a habitus consistent with the Don Quixote or hysteresis effect (Bourdieu, 2000). The hysteresis effect occurs in situations where the homology of dispositions and positions is lost due to a major change in the objective conditions of practice combined with the inertia characteristic of habitus, i.e. the tendency to

“perpetuate structures corresponding to their conditions of production” (Bourdieu, 2000:160). That the Technocrats’ habitus was conservative, durable, and resistant to change was evident in all its aspects discussed above. It is also true that the conditions of its actualization had been undergoing an epochal transformation along with the entire country, its politico-economic and social make-up. It is also accurate to say that the Cosmopolitan’s habitus was closely aligned with the trend of those transformations.

However, it cannot be said that at the time of the EU RIS project taking place, these changes had caused a shift of objective conditions in the relevant fields of practice sufficient for the Technocrats’ habitus to be declared ‘out of sync’ with its own conditions of actualization. The success of the Technocrats’ strategies of distinction and their ability to impose their definition of the field of regional innovation development in Western Poland despite the determined challenge from the more up-to-date and ‘trendy’ Cosmopolitans defies such a conclusion. It proves that at that point in time, the ‘old’ ways were still effective and shows that the transformation towards the ‘Western’ model of the politico-economic environment in Poland was still less advanced than it might appear judging by the sheer magnitude of the noticeable change.

V.2. Field Dynamics: Stocks and Flows of Capital

V.2.1. The Relative Distribution of Capital at the Outset of the Project

The initial likelihood of the Cosmopolitans’ succeeding in their attempt at heretical subversion of the regional innovation development orthodoxy in Western Poland can be assessed by considering the volume and structure of the forms of capital the opposing parties had at their disposal (Bourdieu, 1984). This, however, will only allow for an approximate estimate to be made as to their relative chances of success in their mutual struggle for field dominance. As Bourdieu explains, any transverse movement between different fields of practice implies the necessity of transforming the overall structure of a group’s capital so that the overall volume of capital is maintained to ensure a sufficiently high status in the new field. Accordingly, a movement between fields requires that the exchange rate between different types of capital in the relevant fields be favourably defined. Thus the conversion rate itself is an important stake in movements between fields and is subject to “the struggle over the dominant principle of domination” (Bourdieu, 1984: 125).

	The Cosmopolitans	The Technocrats	Balance of Capital with regard to EU RIS
Intellectual	The European RIS methodology The expertise of foreign partners Competence in regional development Competence in European projects High educational and professional achievement of representatives High competence in English	Academic expertise in the field of innovation and regional innovation development Competence in developing regional innovation strategy (RIS-A) Some competence in European projects Highest levels of academic achievement of representatives	EVEN
Economic	Successful record in obtaining government and European funds Sustainability largely dependent on being able to obtain new funding	Currently underfunded Limited ability to generate income Sustainability highly dependent on external funding Successful record of obtaining European funds and local grants	ADVANTAGE COSMOPOLITANS
Social	Good local and European networks in the field of regional development	Close ties to regional decision makers Good local networks: academic circles and regional authorities	ADVANTAGE TECHNOCRATS
Symbolic	Prestige associated with the EU patronage Legitimacy awarded by the EC as the funding body for the project Formal ownership of the regional development agenda	Academic prestige and credibility The formal legitimacy of the RIS-A project awarded by the Regional Assembly High status of PUT as a HE institution in Poland	UNCERTAIN

Table 5.1. Balance of Capital between the Cosmopolitans and the Technocrats in the EU RIS Project.

A cursory inspection of Table 5.1. reveals a balanced distribution of various forms of capital between the Technocrats and the Cosmopolitans. Each party has its strengths and they both seem to be evenly matched as partners in the EU RIS project. However, on closer examination, an obvious question occurs: which is the dominant principle of domination in this nascent field? If it were to be economic capital, the Cosmopolitans would be at a clear advantage. On the other hand, if social capital were to be the decisive resource, the Technocrats' position would be stronger. The EU RIS project being a knowledge-driven initiative, it is reasonable to assume that both economic and

social capital would be of secondary importance in relation to intellectual capital. Intellectual capital would therefore be at the core of the struggle over the principle of domination between the two parties. The balance of power would depend on whose was the privileged knowledge (Barrett and Oborn, 2010). Finally, at an even more subtle level of analysis, the uncertainty of the balance of symbolic capital at the outset of the project would have to be unravelled – which set of credentials weighed more heavily would matter significantly in the final calculation of power. Ultimately, the question of the balance of power in the new field of practice is a question of establishing the conversion rates of various forms of capital accumulated in different fields into the currency of the new field.

V.2.1.1. Intellectual Capital

Table 5.1 shows that the initial distribution of the various relevant forms of capital between the Cosmopolitans and the Technocrats was approximately even. This was particularly the case with regard to intellectual capital: whilst the Technocrats' academic background in innovation and innovation development positioned them as experts in the regional innovation development field, the Cosmopolitans were able to make a similar claim based on their familiarity with regional development solutions in general and the European RIS methodology in particular. Other relevant types of expertise, such as European projects, languages, or academic credentials were differentially distributed but combined, they added up to a balanced portfolio of intellectual capital on both sides.

V.2.1.2. Economic Capital

The Cosmopolitans enjoyed a slight advantage in terms of economic capital as they had no immediate concerns with regard to funding and a good track record of obtaining funds from a variety of sources, including, in the case of WDA, PIME and IDRC, commercial revenue. Most these partners were also well-prepared and able to fund the required own contribution to the 6th Framework grant. The Technocrats' disadvantage in that regard was due to the fact that PUT was a large public higher-education institution, which, although engaged in a number of commercial ventures, was still under-resourced and always required more funding for its core research and teaching activities. That meant that providing their own financial contribution to the EU RIS project (a non-core

activity) was problematic and limited their willingness to commit any significant resources to the project. However, this did not significantly influence the Technocrats' willingness to participate in the project as they could expect to gain a substantial amount of symbolic capital (both internally, within PUT, and externally, in the regional innovation development field) as a result of their involvement in it.

V.2.1.3. Social Capital

At the same time, the advantage was with the Technocrats as far as the social capital at their disposal was concerned. They enjoyed good access to the regional decision makers, including the Governor's Office and also had strong connections in the academic circles of the region as well as significant links to the region's industry. Networking and nourishing valuable connections was an important part of their habitus and, as previously discussed in some detail, it paid dividends in the case of EU RIS: PUT was given the lead role in the project, with the largest task allocation, a PUT Chancellor in charge as the Chair of the Steering Committee and a PUT member of staff in the Project Manager role. The Cosmopolitans also enjoyed good local relationships and had also developed extensive European contacts. They too, and WDA in particular, had connections to politicians in the region and beyond but they had not been able to build sufficient support for their regional innovation agenda to match the Technocrats' social capital in this particular field.

V.2.1.4. Symbolic Capital

Even though at first sight the symbolic capital rubric seems evenly distributed between the two parties, it would be incorrect to assume that this was in fact the case. The actual balance of symbolic power in the newly circumscribed field was what was at stake in the struggle for dominance between the Technocrats and the Cosmopolitans. Because the EU RIS project represented the emergence of a new field of practice, the actual balance of symbolic capital within it was not yet known at that early stage. This was due to the fact that the conversion rates for the various forms of capital brought in from their respective fields of practice into the new field by the two opposing parties were yet to be established. Thus, whilst the Technocrats and the Cosmopolitans appear to be evenly matched at the outset, it is only in the course of their struggle over field dominance that the principle of field dominance can be established for that particular field. Equally, 'the

outset' of the EU RIS project must not be seen as the 'zero point' for the field of regional innovation development in Western Poland: the events precipitating boundary change had given rise to a nascent field dominated by the Technocrats (through imposition) and brought about the challenge from the Cosmopolitans (through incentive shift and encounter). At the outset of the struggle over boundary change, therefore, the incumbents, i.e. Technocrats, were in a position of field dominance whereas the challengers, i.e. the Cosmopolitans, were the dominated party.

V.2.2. Relative Values of Different Forms of Capital

The stated intention in the EU RIS proposal was to learn from the foreign partners but was this commitment to learning reflected in the way the project was structured in terms of tasks and budgets? This question is a good place to start thinking about the issue of relative values of different species of capital (economic, social, and intellectual) as well as the relative values of different variants of intellectual capital (associated with the Technocrats' and the Cosmopolitan's respective visions of the field) as reflected in the structural and financial provisions made in the EU RIS Consortium Agreement.

Whether or not these were well aligned with the statements of intent contained in the Project Proposal can be assessed by looking at the kind of tasks which were included in the Consortium Agreement, the proportional allocation of funds to those tasks and to expenditure categories associated with learning, such as travel and subsistence.

For reasons of confidentiality, no figures can be provided here, however, there is not much to speak of either: there was no budget for experts' remuneration and learning events (such as study visits or workshops) were not among the tasks included in the Consortium Agreement. Provision for travel and subsistence was not made for the local partners and in the case of the foreign partners it was sufficient only for their representatives to travel to Portovo to some and not all of the project management meetings. This was a source of worry for Frank, the South UK representative, who envisaged his region's contribution to EU RIS primarily as knowledge transfer – mainly through the means of study visits. He expressed his frustration at the inability to deliver on that on numerous occasions. The following statement also draws attention to the different forms of intellectual capital contribution envisaged by him and by the Technocrats:

“They would like us to do things for them. What they don’t understand is that we will not write lengthy documents for them. We are not getting funded to the extent that would cover this kind of time commitment. It was their choice how to distribute budgets and they chose to fund themselves, their salaries. We are not even getting paid for the experts’ time; they are all doing it for free – because I asked them. What we can do for them is show them how we do things but they have to do their own work.”

[Interview with Frank, the South UK representative]

The South UK representative highlights the lack of financial provision within the EU RIS budgets for his region to make the kind of intellectual contribution that was expected by the Technocrats, i.e. laborious compilations of data in support of the implementation of the ‘local’ RIS-A strategy. He is willing to transfer intellectual capital in the form of practical knowledge about “how these things are done elsewhere” by means of workshops and study visits. However, this approach would require that the Western Poland partners, including the Technocrats, acknowledge the value of the knowledge on offer and invest their own economic capital to engage in learning. This, in turn, would also require a significant reallocation of project funds.

At the same time, the South UK representative also emphasises the significant amount of social capital that he had personally tapped into to make the South UK intellectual capital available to the EU RIS partners. This highlights the fact that a substitution was made of social capital for economic capital in funding the intellectual capital necessary for the fulfilment of the obligations to the EU RIS partnership. This, in turn, was related to the reputation of the NDA (the South UK partner) in their own region, i.e. to their symbolic capital in their primary field of practice. Overall, the task and budget allocations written into the Consortium Agreement did not support the value of the intellectual capital associated with the European methodology of regional innovation strategy at the level endorsed by the pronouncements of the need for knowledge transfer from the foreign partners in the EU RIS project that were written into the Project Proposal document. If intellectual capital was to be the key ‘weapon’ (Bourdieu and Wacquant, 1992) in the struggle for field dominance, the Cosmopolitans came to that realisation too late to make structural and financial provisions for their own success at

the outset and would have to correct that balance through appropriate strategies in the course of the EU RIS project.

V.2.3. Field Dynamics and Shifting Capital

In order to understand the dynamics of the nascent field of regional innovation development in Western Poland in terms of shifts of capital and the associated struggle over conversion rates between different species of capital, it is necessary to position it within the context of the contributing fields of practice. This is done in Figure 5.1. below, which maps the relationships between the various contributing fields of practice and the organizations participating in the EU RIS project revealing the nested and hybrid nature of the focal field. The main contributing fields are the European Economic Development field, Regional Governance, Academia, and Business. These contributing fields are implicated in a nested set of fields of Western Poland Regional Politics, Regional Development, and Regional Innovation Development, with the latter field being re-constituted through the EU RIS project.

The organizations participating in the EU RIS project are shown within the space of that field and their affiliation to the Cosmopolitans and Technocrats is colour-coded respectively as pink and green. The exception is the Western Poland Governor's Office (GWP), which is left transparent but outlined in green to highlight both its nominal neutrality and its unofficial strong social capital ties with the Technocrats. The primary fields of practice to which these organizations belong are similarly colour coded as are the arrows pointing from roughly where in their primary field of practice these organisations derive. As the figure shows, the primary fields of practice of the organizations involved in the EU RIS project are hybrid fields arising from two or more generic fields of practice.

As Figure 5.1. indicates, the stakes in the game that was the EU RIS project were largely related to the respective participants' strategies of distinction in relation to accumulating symbolic capital in other, related fields of practice. This aspect was arguably the main consideration in the EU RIS project: each of the participants had established interests in an *interrelated set of fields of practice*, including their respective primary fields of practice, such as the academia or regional development. The nascent

field they were struggling over was only of so much importance to each of them as the benefit they could derive from it in terms of status enhancement in those primary and superordinate fields. This was true not only of intellectual but also of economic as well as social capital stakes, e.g. the economic capital derived from the project was used to facilitate the growth of the participating organisations independent of the regional innovation development field.

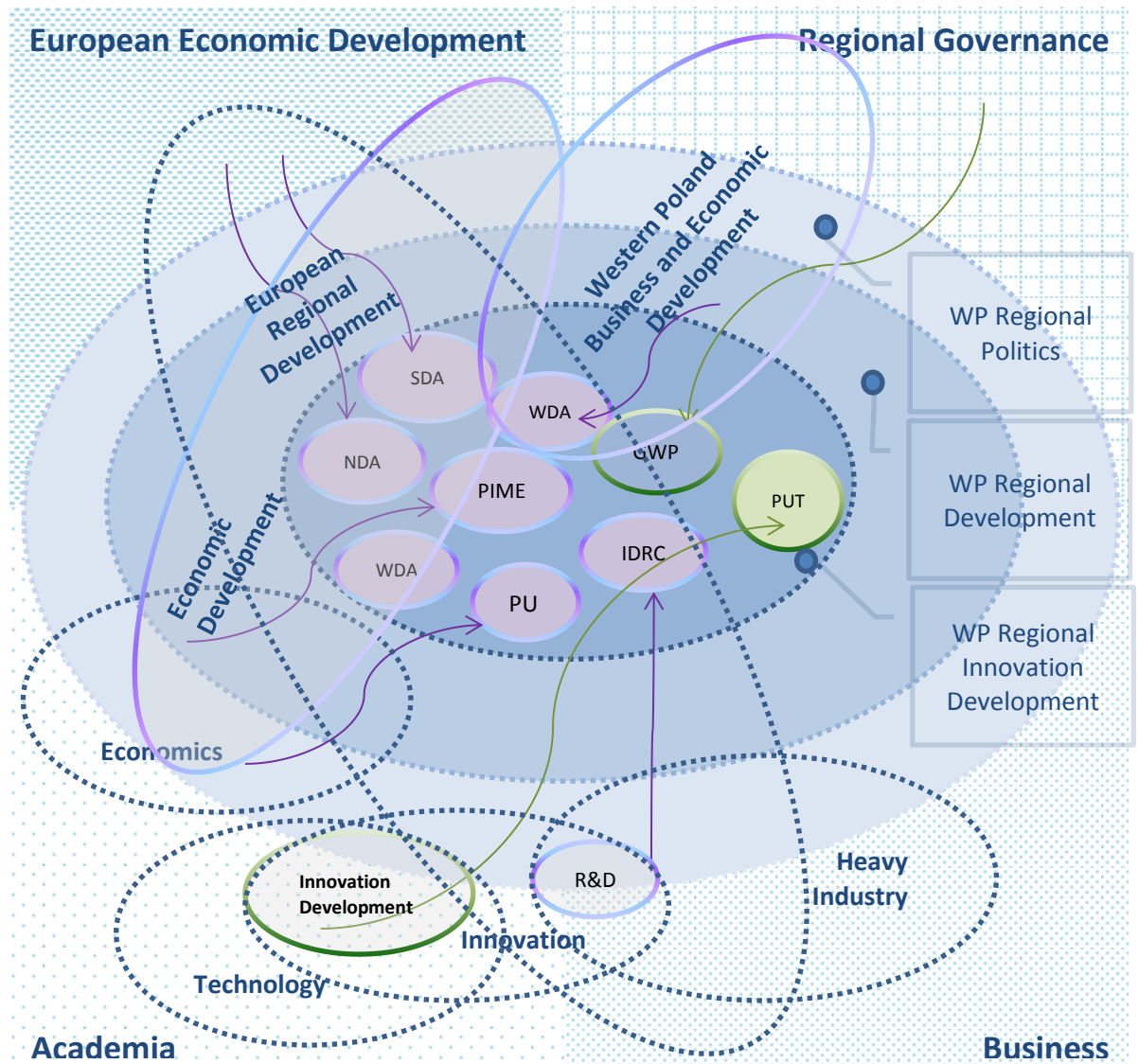


Figure 5.1. The Field of Regional Innovation Development in Western Poland and the Contributing Fields.

A similar pattern was described by Panofsky (2011) in his study of behaviour genetics as an interdisciplinary field of science. Also drawing on Bourdieu’s field theory,

Panofsky characterises behaviour genetics as a hybrid field in which most participants take a heteronomous orientation, i.e. treat it as a means to compete in other fields, where they hold their primary stakes in terms of scientific capital. Heteronomous orientation was represented by all of the participants in the nascent field of regional innovation development in Western Poland, though to varying degrees: some, like PU or IDRC, were involved solely with a view to support their interests in their primary fields of practice; for others, like WDA and PUT, the stakes in the hybrid field were higher as it was more closely related to their core practice.

For the community of practice representing PUT in the EU RIS project – the Technocrats – regional innovation was central to their position in the scientific field, which was reflected in the investment they had made in the field prior to the project. The Technocrats' heteronomous orientation was therefore on par with their autonomous orientation (Panofsky, 2011), i.e. establishing an autonomous field of regional innovation development under their dominance would be consistent with maximising their symbolic capital in the scientific field as well. The heteronomous orientation of participants bears significant implications from the point of view of the exchange rates of various forms of capital between the hybrid field and the contributing fields of practice. The relative centrality of the hybrid practice to the core practice is the key variable: in the ultimate calculation, the Technocrats' were able to convert their capital more effectively between fields.

Capital was being transferred and converted within the hybrid field and between the hybrid field and the primary fields of practice in both directions. Participants drew on their capital resources in their primary fields of practice to strengthen their position in relation to other participants in the hybrid field. This represented an investment to be drawn upon and converted back into symbolic capital in their primary fields of practice. A good example here is the Cosmopolitans' practice of 'finding budgets' to advance their preferred solutions outside of the immediate scope of the project described in Chapter IV: this was based on the principle of converting economic capital drawn from their primary fields of practice into symbolic capital in the hybrid field via an investment in intellectual capital. The study visit of Western Poland delegates to the UK to learn from the experts in the partner regions is another vivid example.

The theme of study visits to North UK and South UK is a prominent one in the data and appears in conjunction with both capital transfers from the focal field into the primary fields of practice and vice versa. The former practice was effectively a way of subsidising organizational growth from EU RIS funds. As such, it was contrary to the interests of the partnership as viewed by the South UK representative, who often commented on the detrimental effects it had on his own ability to deliver the results he was committed to. He explicitly made this point when preparing for the first project management meeting: he showed me the original task allocation and budget from the EU RIS proposal, pointed to the number of man months in the bottom line, and indicated the largest numbers: PUT, WDA, and PIME. He explained that those were probably the institutions which originated the initiative, *“They’re using it for salaries and computers. They’re building infrastructure.”* he commented. He then showed me the ‘travel expenses’ column and added, *“They don’t have the money to travel, they are using it all to pay salaries. That means no study visits.”* To my expression of surprise that the Polish partners would not want to travel (in my experience foreign travel was normally perceived to be a ‘perk’ by Polish officials) he replied, *“Maybe they don’t want to learn.”*

Determined to overcome these constraints, the South UK representative advertised the value of the intellectual capital available in the South UK and tried to ‘sell’ the idea of tapping into that expertise via study visits and workshops with South UK experts every occasion he got:

***Frank** [on venture capital]: “The number of venture capital activities... there are incredible number of activities when we can have access to venture capital. The study visits are really important. We have specific venture capital institutions funded through the [name of institution], we send people... There is a lot of opportunities to look at these kinds of things but they need to be looked at in the context of the study visits. We can design something that fits your needs but you need to specify your interests so that we can cover these things.”*

[1st Project Management Unit Meeting]

The North UK representatives were much less proactive but would join in when the opportunity arose (usually created by Frank) and mention the learning opportunities they could offer if a study visit were to happen.

Ian [North UK representative]: What you need to understand is that South City and North City are not that far apart so in terms of travel costs we should look at having events in South City and North City together. The clusters that we have in the UK... at the moment we've got life sciences, energy and creative industries, communications [...] So there's potential to do something similar in the UK.

[1st Project Management Unit Meeting]

The South UK representative also actively lobbied for reallocation of funds from other tasks to the organisation of study visits and, with the help of WDA, he succeeded: WDA decided to transfer funds from their own budget to South UK so as to fund study visits and SME exchanges. Although WDA, alongside all the other Western Poland partners, had failed to make provisions for learning events in the EU RIS budget, Anna, the lead WDA representative, was very keen for the foreign partners' expertise to exert a strong influence on the project: it was the foreign partners' expertise regarding the EC RIS methodology that lent legitimacy to the Cosmopolitans' vision of EU RIS, which was based on that same methodology. Anna had been on an unrelated study visit to the South UK region before and was very enthusiastic about her experience there and the ideas she brought back. She spoke highly of the experience on the general forum of the 1st Project Management Meeting and lent Frank both financial and political support to make a study visit part of the EU RIS project.

Thus, ultimately, WDA chose to sacrifice some of the economic capital they initially had allocated to them from the EU RIS budget in order to advance their vision of EU RIS as a European project. The actual conversion of economic to intellectual capital effected by Anna was a strategic move in the struggle for distinction against the Technocrats: economic capital was sacrificed for intellectual capital in the short term so that the Cosmopolitans' perspective on EU RIS could be strengthened by (a) emphasising the 'tried and tested' character of the EU methodology to add credibility to the Cosmopolitans' perspective and (b) 'educating' the Technocrats through a study

visit, thus establishing the superiority of the EU methodology. If successful, the long-term implications of this move would be to increase WDA's chances of gaining influence in the field of regional innovation development at the expense of the Technocrats. The ultimate conversion of capital would be not so much from economic to intellectual but from economic to symbolic capital via intellectual capital, as is hinted at in the interview excerpt below.

We were really keen to utilise the foreign partners to learn a lot – it could have been a great opportunity for us to learn a lot about the solutions which were implemented there and not to repeat their mistakes and create better solutions here the first time, especially as far as the regional system of innovation and business support is concerned. I hope that this will happen, however, it is not an easy collaboration because of the lead partner [i.e. PUT].

[Interview with Anna, WDA Representative]

The distribution of the funds in the project budget indicates that the participating organizations took direct 'withdrawals' of the economic capital gained from the participation in the hybrid field to reinvest it in their primary fields of practice – hence, e.g. the complaints of the South UK representative about the Polish partners using the EU RIS project to 'fund salaries'. On the other hand, the study visit was only made possible by the 'donation' of economic capital by WDA to the relevant task budget so as to make international travel possible. Effectively, WDA were converting economic capital into symbolic capital in the regional innovation development field by subsidising the intellectual capital available to them (the foreign experts) in a bid to increase its value in that field and thus also establish a favourable conversion rate for the intellectual capital derived from their own field of practice.

It is important to note, however, that the ultimate aim was to convert thus accumulated symbolic capital in the hybrid field into symbolic capital in the participants' respective primary fields of practice. Overall, the practice of transferring and converting capital between fields highlights the importance of conversion rates: both between different forms of capital and between the same forms of capital drawn from different fields. Both these calculations are related to the question of the degree of the field's autonomy

(Bourdieu, 2004) and constitute the fundamental stakes in the symbolic struggle for field dominance: the dominant principle of domination.

The analysis of the stocks and flows of capital in the EU RIS project reveals a game-playing dynamic, with the Cosmopolitans making strategic investments and political moves to counteract disadvantageous structural provisions, which they had belatedly become aware of. It shows that the Polish participants on both sides were trapped in a dilemma between wanting to maximise their symbolic capital and a (possibly subconscious) imperative to maximise economic capital. This led them to misjudge at the early stages of developing the project proposal the crucial importance of intellectual capital – and specifically in the case of the Cosmopolitans, of investing in the European brand of intellectual capital through building into the Consortium agreement the kind of tasks and budgets that would help increase the value of the brand of intellectual capital that favoured them in their struggle for field dominance.

The strategies of distinction and boundary reification associated with the practice work and boundary work through which this struggle was played out were presented in Chapter IV. The following section will focus on the resulting perspective-pushing contest between the Technocrats and the Cosmopolitans and discuss the practices through which the symbolic struggle for the definition of the nascent field of regional innovation development in Western Poland was played out between them.

V.3. Boundary Dynamics and Perspective-Pushing Practices

Consensus building, to which both sides were formally obligated by their participation in the EC-funded project, assumes perspective making and perspective taking (Boland and Tenkasi, 1995). Knowledge sharing requires mutual engagement in the processes of translation and transformation of knowledge, which, in turn, involves exposing and negotiating the differences and dependencies between the learning partners (Carlile, 2004). However, given the firm belief of both the Technocrats and the Cosmopolitans in the superiority of their own respective vision of the EU RIS, neither side was willing to take the perspective of the other. In the case of the EU RIS project the logic of symbolic struggle for distinction dictated that each party insisted that their perspective be the one that ‘wins’ in its entirety. Therefore, instead of perspective taking, both parties engaged in uncompromising ‘perspective pushing’.

‘Zooming in’ on the interactions between the participants (Nicolini, 2009) reveals the discursive and non-discursive practices (Gherardi and Nicolini, 2002; Levina and Orlikowski, 2009) that both parties enacted in following the strategy of perspective pushing. There were six distinct but sometimes overlapping types of *perspective pushing practices* that served two related purposes: blocking inward knowledge flows and enforcing outward knowledge flows. These practices included: *telling*, *selling*, *intimidating*, *bullying*, *preaching* and *teaching*. Importantly, all those practices had a reifying impact on the boundary between the Cosmopolitans and the Technocrats, i.e. attempts at forcing outward knowledge flows induced a blocking response from the opposite party. This resulted in a ‘perspective pushing contest’, whereby each party entrenched their positions and adhered to their own vision of EU RIS without allowing for the views of the other to influence their ideas.

Consistent with the findings of Lan (2003), Metiu (2006) and Vallas (2001) the balance of power of the two parties determined the kind of practices which were deployed in the pursuit of what was essentially the same strategy for both sides, i.e. perspective pushing. It was in these perspective-pushing interactions that the actual balance of power between the Technocrats and the Cosmopolitans was apparent. Contrary to the seemingly balanced distribution of the different types of capital available to the Cosmopolitans and the Technocrats as seen in Table 5.1., the two parties were not equally matched when it came to direct confrontation in their mutual struggle for field dominance. Their interactions reveal that even though the strategy of perspective pushing was common to both parties, the actual practices they engaged in following this strategy were different and the difference between them was related to the power differential between the two parties.

The perspective-pushing practices associated with the position of dominance were: *telling*, *intimidating*, and *preaching*, whereas the practices of *selling*, *bullying* and *teaching* were related to the position of relative powerlessness. There is certain symmetry between the two sets of practices: *telling* and *selling* form one pair of related practices, *intimidating* and *bullying* form another and *preaching* and *teaching* form the third. All three pairs are differentiated by the relative power position of those practicing them, thus we can speak of *strong* and *weak* perspective-pushing practices. The Technocrats, who enjoyed a position of dominance, engaged in perspective-pushing

through the strong practices, whereas the Cosmopolitans, as the challengers, engaged in the weak perspective-pushing practices. As has been discussed in Section V.2., the dominant position of the Technocrats was due to the fact that they were the incumbents of the regional strategy development field and thus had already established a pool of symbolic capital specific to the field. They were also slightly richer in social capital (i.e. politically better positioned in the region) and thus had access to authority outside the immediate field of regional innovation development.

V.3.1. Telling and Selling

Compared to the settings of the majority of case studies of boundaries in knowledge sharing (e.g. Carlile, 2004; Levina and Vaast, 2008; Metiu, 2006; Oborn and Dawson, 2010) the EU RIS project represents a weakly structured context: dependencies were only roughly sketched out in the Project Proposal document and further detailed in the Consortium Agreement only to the extent of allocating tasks and funding among the partners. At the first Project Management Meeting agreement was reached regarding the leadership of work packages and tasks. Another basic agreement was the decision to ‘endeavour’ reaching decisions by consensus. Accordingly, there was a significant degree of flexibility with regard to the exact way in which particular tasks would be carried out, which in the presence of a strong joint enterprise and significant common ground could have proven helpful to the stated goals of knowledge sharing and consensus building.

This, however, was not the case: the EU RIS project was effectively an attempt at redefining the field of regional innovation development in Western Poland through heretical subversion of the Technocrats’ RIS orthodoxy by the Cosmopolitans. Moreover, there was the additional complication of the rival funding bid by PUT, which resulted in the introduction of new and ambiguous dependencies into the relationship between the two opposing parties. The combination of loose structuring and ambiguity of dependencies between the parties provided fertile ground for conflicts over the exact nature of the EU RIS project. The Technocrats tried to establish the subordination of the EU RIS project to the ‘local’ RIS-A project and thus also to reaffirm the Technocrats’ dominance in the regional innovation development field. The Cosmopolitans resisted such interpretations and tried to show the benefits of adopting the European RIS solutions as made available through the participation of the ‘foreign partners’.

Telling was the boundary reification practice which emphasised the Technocrats' belief that they were in a position to impose dependence and demand compliance. The first example of 'telling' comes already from my first meeting with the Technocrats prior to the commencement of the project activities: Marek, the EU RIS Project Manager and a Technocrat, started by showing me a brochure containing the RIS-A ('Basic RIS') project document. He went through the contents with me chapter by chapter. At the time, I found this rather tedious and was wondering why he was telling me those things – after all I was there to talk about the 6th Framework RIS project, the one which I was supposed to study and which he was supposed to be the project manager for. I did, nevertheless, listen patiently to Marek, trying to make sense of the connection between what he was trying to tell me and my area of interest. Though confusing at the time, when put in the context of the findings reported in Chapter IV, Marek's speech is a vivid example of telling. He took the first available opportunity to establish the dominant position of the RIS-A project relative to the EU RIS project, to *tell* me what the relative status of the two projects was. *Telling*, in this instance, was a symbolic act of naming, such as Bourdieu associates with the use of symbolic power, which highlights the 'strong' nature of this practice.

I was not the only one who was confused at this early stage of the project – the same can be said about the South UK representative. The following exchange took place during the first Project Management Unit Meeting:

Adam [RIS-A Project Manager, Technocrat]: In conclusion, [EU] EU RIS project should take into consideration the state of implementation of RIS-A and its development. The project should not forget about other regional initiatives. It should not only adopt practice from foreign partners but also adapt them to the regional situation and propose well prepared pilot actions.

Frank [South UK representative, Cosmopolitan]: I'd like to ask about your green boxes [i.e. the slides, which were green and featured some diagrams] which you were showing...

*Adam: It's not only our actions but it is the **regional** actions [...]*

Frank: You said that this project should focus on the practical implementation of the RIS-A project and I want to understand that this is in place. What you present is completely new to me. And therefore I need to understand who the sponsors are and who is in charge of the projects. I just need a little bit more information, not right now but over the next few days it would be useful.

[1st Project Management Unit Meeting]

The repeated use of the word ‘should’ by Adam is revealing here as is the accent put on the word ‘regional’. Both signal his confidence and unequivocally *tell* the Cosmopolitans what to do by making reference to the higher status of the ‘local’ RIS-A project and by making explicit that the Technocrats are therefore in a position to make demands on the EU RIS partners. The RIS-A Project Manager demands that the Cosmopolitans’ practice should be adapted to the ‘regional situation’ and he equates the Technocrats’ actions with the regional actions in his next statement, thus evoking the legal status of the RIS-A document in support of his use of symbolic power through ‘telling’. To Frank this was a novelty and although he demanded further explanation, he was unable to dispute Adam’s representation of dependence between the two projects at that point in time.

The Technocrats did not neglect the more formal ways of ‘telling’ either. The following is a fragment of the report by the EU RIS Project Manager regarding the progress of one of the tasks for which PUT was the task leader:

TASK 4.1:

‘go on actions’

1. Recognition and analysis of key implementation problems of the solutions worked out within RIS-A project

- System for business and innovation support

- Network of Technology Education and Implementation centres across the Region

- External funding to SMEs and financing applicable research

Plan for the next 3 months:

1. Recognition and analysis of key implementation problems of the solutions worked out within RIS-A project

2. Definition of RIS-A problems requiring verification with respect to pilot project implementation

[EU RIS Project Documentation: PUT Progress Report, 2nd Project Management Unit Meeting]

The above fragment demonstrates that the entire project task was devoted by PUT to the realisation of the ‘local’ RIS-A project’s agenda. This was done without consultation and presented in a matter-of-fact way causing surprise and confusion at this imposition of dependence amongst the Cosmopolitans who thought that they were supposed to develop their own pilot projects, not ‘recognise and analyse the problems of RIS-A’.

The practice of ‘telling’ was an expression of the Technocrats’ symbolic power: by ‘telling’ the Technocrats demonstrated that they were in a dominant position with regard to the Cosmopolitans and that they were able to dictate the dependencies between the two RIS projects in Western Poland (The Office for the Implementation of RIS-A and the EU RIS project). The Technocrats were exercising their power to name things, to shape the field of regional innovation development according to their beliefs and interests – to constitute “the given through utterances” (Bourdieu, 1991: 170). This came as a surprise to the Cosmopolitans, who did not seem to be aware of the Technocrats’ advantage.

Symbolic power, Bourdieu (1991) argues, relies on euphemization, i.e. the ability for the dominant to misrepresent and for the dominated to misrecognise symbolic violence as orthodoxy. The Cosmopolitans’ ‘surprise’ at being subjected to symbolic violence by the Technocrats demonstrates that there was no such misrecognition on their part. Having challenged the Technocrats’ monopoly in the field of regional innovation development by embarking on the EU RIS project, the Cosmopolitans seemed to have assumed that the very inscription of new field boundaries would be enough to subvert the RIS-A orthodoxy. The Technocrats’ persistent practice of ‘telling’ shows that they were determined to uphold their ‘orthodoxy’ regardless of the obvious breakdown of euphemization. Thus a perspective-pushing contest ensued.

Despite their ‘surprise’ the Cosmopolitans did not reciprocate by ‘telling’. However reluctantly, they recognised that they were not in a position to ‘tell’ the Technocrats

what to do. At the same time, they refused to accept the orthodoxy of the RIS-A document and insisted that recognition be given to their competing vision of EU RIS. Instead of ‘telling’, however, they engaged in the weaker practice of *selling*. The South UK representative, for instance, put in a lot of effort into ‘selling’ the idea of learning from the South UK experts and advertising the value of their knowledge. This was particularly pronounced in the case of his ‘selling’ study visits to South UK and North UK so that the Western Poland partners could benefit directly from their foreign partners’ expertise but also included other relevant areas of expertise, such as business support systems, foresight, or venture capital:

Selling business support expertise:

“We have a range of business support activities taking place across the region and for two of them we’d be quite happy for our experts to travel to Poland to do workshops”

[1st Project Management Unit Meeting]

Selling cluster stimulation and foresight expertise:

“We can organise a range of specialist workshops across the range, just find the fare money. These can include how to deal with clusters and foresight. We can have different people over for different tasks. We have got a lot of hours, completely focused on supporting you in The United Kingdom. We won’t be able to use them if you do not give us the opportunity.”

[2nd Project Management Unit Meeting]

Selling venture capital expertise:

The Technocrats’ theoretical model, the ‘algorithm’, rested on the assumption that there would be funding available for the sort of solutions it proposed. Funding for the implementation of the Technocrats’ ‘algorithm’ had thus far been provided from a variety of public sources but that was not and never would be enough. Other sources were assumed in the ‘algorithm’, most notably venture capital. However, at that time this key element, although part of the theory, was missing from the practice: an issue the Technocrats preferred to gloss over when questioned. Poland’s free market economy

being at an early stage of development, venture capital was a relatively new and obscure phenomenon in the country.

Access to venture capital was something the Technocrats did want to know about and they did recognise the fact that the foreign partners had a greater expertise in that area. This was evident from the examples of ‘telling’ quoted above as well as from instances of ‘intimidating’ (see Section V.4.2. below). The PUT Progress Report presented at the 2nd Project Management Meeting (quoted above) contains a point related to SME and research funding; also, the strong objection on Adam’s part to the SME matching event (see Section V.4.2.) was caused by the fact that this proposal excluded the possibility of having a Venture Capital Forum as a regional project.

Presenting on the topic of “how the EU project might contribute to the ‘local’ project’s agenda” during the first Project Management Unit Meeting, the RIS-A Project Manager (Adam) proposed that the foreign partners should provide a database of venture capital institutions in South UK. In response, Frank, the South UK representative, tried to explain that that was not how venture capital institutions work; they wouldn’t answer their ‘cold call’. He invited the Portovo partners to come to South UK to learn about how venture capital was being accessed and how institutions worked with them. The reply from the RIS-A Project Manager was, “*I think we know something about that.*”

Thus the South UK representative tried to exploit the Technocrats’ keen interest in venture capital to ‘sell’ to them the value of the South UK expertise. However, as Adam’s concluding remark (‘I think we know something about this’) indicates, the Technocrats did not so much want to learn about venture capital from foreign experts as they wanted a simple transfer of information – a database. Agreeing to learn would have amounted to acknowledging dependence and would have opened their orthodoxy to debate. The ‘algorithm’ would thus be exposed to scrutiny, which was out of the question.

‘Telling’ served the purpose of blocking the competing perspective from gaining ground, i.e. resisting exposure to difference and change. It helped the Technocrats to protect their orthodoxy from heretical subversion by the Cosmopolitans and control the content of the EU RIS project. By focusing the agenda of the EU RIS project around further development of their own (RIS-A) solutions they attempted to prevent the

Cosmopolitans from introducing their ‘heretical’ ideas of what RIS Western Poland should be. ‘Selling’ was the equivalent weak practice: it served the purpose of demonstrating the validity and superiority of the European RIS methodology and the expertise of the foreign partners. Rather than impose their solutions, however, the Cosmopolitans were trying to encourage learning from the foreign experts and adoption of their solutions by demonstrating the usefulness of their expertise to the Technocrats.

V.3.2. Intimidating and Bullying

‘Intimidating’ was another practice through which perspective pushing was being put into effect, although more so in the case of the Technocrats, who practiced the strong form of ‘intimidating’ through manifesting power. A particularly vivid example of that practice is the statement from Romuald, the ‘brain’ behind the RIS-A ‘algorithm’, quoted in Chapter IV (Section IV.4.3.). Instances of ‘intimidating’ by the Technocrats were usually connected to attempts of imposing dependence through ‘telling’: the former reinforced the latter. Both practices were manifestations of dominance. This is illustrated in the following quote from Adam, the ‘local’ RIS-A project manager, which was his response to the proposal of a pilot project by the South UK representative (a matching event for SMEs from South UK and Western Poland):

Adam [RIS-A Project Manager, Technocrat, speaking forcefully in a raised tone of voice]:

I don't want you to focus on trans-regional, this task is supposed to be about developing a regional project, so I don't want you to focus on trans-regional but also you need to do a regional project.

[1st Project Management Unit Meeting]

Here, Adam is imposing dependence not just by demanding that the EU RIS project partners do as he says. He is also very forceful in his expression: his choice of words and tone of voice leave no room for negotiation. He is intimidating the participants by making it clear that he will not tolerate opposition. ‘Intimidating’ supported the symbolic violence of ‘telling,’ highlighting the fact that there had been a breakdown of euphemization, something that the Technocrats refused to acknowledge in their insistence on upholding the RIS-A orthodoxy.

‘Intimidating’ was not simply a matter of forceful expression in face-to-face communication but was also present in more formal statements, e.g. the conclusion brought about to the ‘logo debate’ discussed in Chapter IV (Section IV.4.2.) by the Project Coordinator (a PUT Chancellor). Below is an example of ‘intimidating’ from a position of authority - as transpires from the concluding comment in the quote, the implications of this statement did not escape the attention of the Cosmopolitans:

Adam [*RIS-A Project Manager, Technocrat*]:

I have a message from Project Coordinator [reads out]: “Due to the urgent change of my business trip plans I cannot participate in the workshop. I delegate Mr Adam Kowalski [the RIS-A Project Manager] to represent me during the workshop.”

Frank[*South UK representative*] [*whispers to the person next to him*]:

Now you know who the most important person is.

[3rd Project Management Unit Meeting]

Perhaps the most interesting example of ‘intimidating’ in the data is the indiscussability of the issue of industry clusters perceived and observed by Marek, the EU RIS project manager, himself a Technocrat. It is an example of how ‘intimidating’ can silence unwanted debates by instilling self-censorship in the dominated: even where there is no obvious manifestation of power, the effects can be paralysing. The issue of industry clusters was a very sensitive one – it was this issue that constituted the main danger of overlaps occurring between the two projects as a result of PUT’s rival bid. Cluster development was on the agenda of both projects – the only feasible way of avoiding duplication of efforts was to allocate different industry sectors to different projects. The Cosmopolitans were convinced that the Technocrats had appropriated the most promising industry sectors for the purpose of cluster development.

It was only under pressure from the South UK partner that Marek, the EU RIS project manager (himself a Technocrat), mustered the courage to raise the issue, which had thus far been indiscussable, with his colleagues from the RIS-A project whose position in the Technocrats’ community was considerably more central than his own. This was

facilitated by the argument provided him by the South UK representative regarding the ‘added international dimension’ from the EU RIS project. Taking advantage of my presence and the friendly tone of the conversation thus far Marek finally addressed the issue of industry clusters during my first meeting with the ‘local’ RIS-A project team. He did that in a rather shy, uncertain manner, saying that he knew that they (the Office for the Implementation of RIS-A project) had full authority over the new technology clusters and rightly so but perhaps there would be some merit in the EU project contributing the international dimension to what the ‘local’ project had been doing. Adam (the ‘local’ Project Manager) said that it was a good idea and that there were no obstacles on their part – they’d identified a group of companies to be involved in the ‘local’ [i.e. RIS-A] project’s activities and offering the added benefit of international cooperation would be the logical thing to do as long as no efforts were duplicated.

The Cosmopolitans were in no position to manifest power – they were the dominated group. They practiced intimidating in its weak form – through *bullying*, i.e. intimidating by displaying negative emotions. Such practices were clearly the result of frustration and powerlessness and often followed instances of ‘telling’, ‘intimidating’ or ‘preaching’ by the Technocrats. These emotional reactions marked the breakdown of euphemization and Cosmopolitans’ objection to the exercise of symbolic violence by the Technocrats. By ‘bullying’ the Cosmopolitans were signalling to the Technocrats that their dominant attitude and forceful conduct were unacceptable and would not be tolerated.

The second Project Management Meeting was a stressful one; an impasse was clearly looming over the project. The Cosmopolitans had started to realise that they were fighting an uphill battle. Adam, the RIS-A project manager had been invited by the South UK representative – the only Cosmopolitan interested in establishing the dependencies between the two projects – to talk about how the two projects (RIS-A and EU RIS) could complement each other. His presentation was based on the same set of slides he would always use on occasions like that – what came to be known as the ‘green boxes.’ This time, the title was ‘How the EU RIS project might contribute to the realisation of the implementation of ‘local’ RIS-A project.’

People had been smirking and exchanging meaningful glances from the moment Adam started his presentation. By the time he reached his second slide, there were audible

laughs. He stopped and asked what was funny. Arek (a Cosmopolitan) said, 'I can't see why we are talking about such trivial things, we should focus on the tasks at hand.' Smirks and laughter persisted throughout the rest of the presentation. Adam addressed them again: speaking to Arek, he said, 'I don't understand what is so funny.' There was no answer. He sat down, visibly agitated, very red in the face. Through 'bullying' – laughter, smirks, exchanging meaningful glances, defensive body language and loud whispers (e.g. 'he's an embarrassment to the region!') – the Cosmopolitans sabotaged Adam's presentation. They were communicating their resistance to the symbolic violence exerted upon them.

The following is a fragment of the discussion that ended the meeting:

***Frank** [South UK representative]: Just a general point from me. I know that innovation is a topic that gets people really excited, it is, and it's natural to get excited about it. I do not want to point fingers at anybody, it's not about that, but everybody round this table has been expressing that today saying, 'I don't trust what is being said, I don't trust what you are doing' either when speaking or with their body language, sitting with their arms crossed and such. Collaboration on projects like that needs to be based on two things: trust and respect. And we need to have trust and respect for each other or we won't accomplish anything.*

***Ian** [North UK representative]: I agree entirely, I am the newest participant here, I am not familiar with any of the past events or relationships but it is clear that we need to communicate with the local project team to understand each other. Perhaps we could have a meeting for the two project teams to talk to each other.*

[2nd Project Management Unit Meeting]

It was this meeting and the intimidating power of the powerless that reified the boundary between the Technocrats and the Cosmopolitans most vividly. On occasions like the one described above, the boundary appeared to have almost a physical existence.

V.3.3. Preaching and Teaching

One only preaches to the converted. And the miracle of symbolic efficacy disappears if one sees that the magic of words merely releases the ‘springs’ – the dispositions – which are wound up beforehand.

(Bourdieu, 1991: 126)

Preaching and teaching were used by the Technocrats and the Cosmopolitans respectively to ‘share their knowledge’ forcefully with one another. The two practices are very similar in that they involve a presentation of perspective and some degree of explanation with the intention to gain acceptance for it from the other party. However, there is also an important difference between them. ‘Preaching’ is a unilateral form of communication which does not invite or accommodate a difference of opinion. It is a statement of the ‘doctrine’, which is aimed at achieving unconditional acceptance. It does not involve any form of perspective taking but is purely a perspective pushing practice. ‘Teaching’, on the other hand, is a defective boundary spanning practice, which although open to engagement, questioning and clarification, e.g. through translation (Carlile, 2004), fails to deliver the expected results because of its perspective-pushing character. ‘Preaching’ thus will be associated with efforts at cooptation, whilst ‘teaching’ is more likely to be used in trying to achieve collaboration. Both serve the purpose of converting the party whose knowledge is perceived as inferior.

Practically every presentation by Adam, the RIS-A project manager, falls into the ‘preaching’ category. Every single time he made a presentation to the Cosmopolitans, the message was the same: ‘This is our official, formally approved and recognised regional strategy of innovation. It is based on an algorithm’. He would then proceed to explain the algorithm and conclude by saying something which related to whatever the title of the presentation happened to be, usually something about ‘avoiding areas of overlap’ or ‘what the EU project should do to support the implementation of the RIS-A project’. The title and the last slide were the only variable elements of the presentation. Because of their green background and diagrammatic representations of the ‘algorithm’, the power point slides that accompanied these presentations became known as ‘the green boxes’. These can only be described as a ‘boundary reifying object’: they served

the purpose of representing a single perspective and had the effect of antagonising the audience. The following example comes from the third Project Management Unit meeting:

***Adam:** A few words about the strategy that was approved. Not all of you read this document so deeply as to understand the main things about it. Also I will say a few words about areas of our necessary cooperation, which are also areas of potential duplication.*

After Adam had finished his presentation, the chair asked the others for comments:

***Ian** [North UK representative]: Any other issues around that presentation that you'd like to bring up now?*

***Kacper**[a Cosmopolitan]: The first thing is that we shouldn't use those slides again because we know them by heart.*

***Arek** [a Cosmopolitan]: It's not important.*

***Ian:** Why is it not important?*

***Arek:** We can still use them, the logic of some of those schematics proves e.g. the tech push rather than demand pull as Frank put it.*

***Anna** [a Cosmopolitan]: The scheme is ok but it is a theoretical framework. I saw this fifth time and I didn't hear anything about how to implement it.*

[3rd Project Management Unit Meeting]

An important element of 'preaching' was dismissing contradiction and outright rejection of different experience, views, or inconvenient information. Such attempts at engagement in a preaching situation resulted in the speaker assuming a nervous, defensive attitude and attributing ill intentions to the party who raised an issue, e.g. implying self-interest, or hidden agenda. The party raising an issue was often the South UK representative. These characteristics are all present in the following example, which although lengthy, is quoted here almost in its entirety because part of its meaning lies exactly in the duration of the exchange. The example also serves to illustrate how the South UK representative practiced 'teaching' to detrimental effect. The excerpt comes from a heated debate that broke out between Frank and Adam when it came to the discussion of clusters. Both were talking at cross-purposes, neither one listening to the

other. While Adam was defensive, Frank was aggressive, as if he'd decided to make his point there and then, no matter what:

***Adam:** Arek pointed a really important thing, I think matching just single firms, companies isn't so important according to our regional situation as matching whole groups of firms because that way we will obtain...*

***Frank:** Doesn't happen, it doesn't happen, it's not the market, it may be the great theory but that doesn't happen in the real world.*

***Adam:** Yes but we are taking a great effort to create such groups of firms to...to...*

***Frank:** What the groups of firms do in our experience for the last five years, is that they support each other in addressing the market and in talking to the public sector – that's what firms do. They work with each other to identify the ways in which they can maybe trade together or identify new market forces and they provide a common voice to the public sector and to you: What can the Technical University of Portovo do for us? That's the kind of...it's self-supporting. That's what clusters do. What the clusters don't do is hand-in-hand... as a group of competitors – 'cause they are all competitors, oh yes! – 'Let's go and talk to the same 40 companies in Sweden!' It doesn't happen! It doesn't happen!*

***Adam [interrupting]:** Yes, yes I understand but also, you've got your own IT cluster... We would like to have our own IT cluster ...in our region, and that's why it is important not to just focus on single connections between these firms, but also between... between groups of firms... but also connections between groups of firms*

***Frank [having tried to get in a word for a while]:** totally, totally, and that's why I suggested in 2.3 that we bring one of our cluster experts to Portovo to do a workshop for you guys and for all people interested in how to develop an IT cluster.*

Adam: *But also the visit of companies from our IT cluster will be also important... not only the education of our entrepreneurs. Those two tasks are connected.*

Frank: *They are connected but you cannot force cooperation and you cannot make companies work together, they only work together if they see a common interest.*

Adam: *But...*

Frank: *Adam, what I'm trying to say is that that is our experience and we've been doing it for a long time. Maybe I am wrong but I am not aware of any other way... we can't force people to behave in the way that they don't want to behave. So...*

Adam: *Yes, yes, I understand but, but...*

Frank: *Yes, of course they are connected.*

Adam: *But we have to try because...*

Frank: *What is it that you want, I'm still... I still don't understand what you want.*

Adam: *What I want is that I am not thinking about single connections because what we'd like to do in the future is to increase the level of competitiveness of the whole region. Not just a few companies. It is... it's not as important as thinking about the economy of the whole of our region so what I'm talking is that we should connect those tasks which involve cluster stimulation and also the visits of companies because I believe we have to show that cooperation is as important...*

Frank: *The way we do it is that cluster organisations help to sponsor events. So the brand of the cluster group is everywhere. You know, you run a service for a group of businesses, you go to a trade show, you go to a matching event*

and the brand, the marketing identity of the cluster group is associated with the event, is on the literature, is on the website, blah, blah, blah. That's how you do it: you get a connection in the mind of a company with a useful service. So the company starts to see the link but I don't see any other kind of practical way to do it.

[...]

Frank: *[...] What I'm trying to say is that you cannot force people to behave the way they do not want to behave!*

Adam: *Of course, I know, I know, I'm just... I work according to the proposed algorithm in our Regional Strategy, that is the way of my thinking.*

Frank: *...Trying to get the best spread, benefit, multiplier effect. You mustn't force a theoretical concept on reality, it might help you with planning but don't try to... because it's like the old days, a bit too much like the old days for me actually!*

[2nd Project Management Unit Meeting]

The 'heated debate' broke out after the RIS-A Project Manager, Adam, had been 'preaching', which provoked the South UK representative, Frank, into engaging in the practice of 'teaching'. The exchange thus represents a mini perspective-pushing contest with each side talking past the other and neither engaging with the other. Adam's expression reveals his nervous attitude towards questioning and contradiction. It is also clear that Frank is not prepared to negotiate the transformation of his knowledge. He does want Adam to understand and does provide ample explanation of what he is trying to teach him. However, his explanations are combined with the rejection of any practical validity of the Technocrats' 'algorithm'. On the other hand, Adam stands by his dogma, his argument calls upon the values of regional patriotism and puts in doubt the sincerity of Frank's intentions to help develop an IT cluster in the region.

Neither side wants to engage with the argument of the other; they each operate entirely within their own system of beliefs – practice-based in the case of Frank and theory-based in the case of Adam. The Cosmopolitans and Technocrats come from entirely

different life-worlds and speak different languages. Whilst Frank seems to be able to recognise that and makes efforts at explaining his views with reference to experience and what happens in the ‘real world,’ he is unwilling to step back and reflect on how his experience might relate to the Technocrats’ algorithm or to accommodate the patriotic concerns expressed by Adam. He is impatient and agitated. He assumes the role of a teacher, educating Adam on the subject of “Clusters 101”. This is precisely the kind of ABC education that the Technocrats had so vehemently declared to have absolutely no interest in at all.

If Frank is ‘teaching’, then Adam is ‘preaching’ – his is a thoroughly dogmatic approach to argumentation. He makes no effort at translating his ‘algorithm’ into terms that might be familiar or at least neutral to Frank but refers to it as the gospel – the ‘algorithm assumes this therefore this must be true’ is Adam’s line of argument. As far as the Technocrats are concerned, the world is black and white as is clear in Adam’s ‘if you are not with us, you’re against us’ logic along the lines of, ‘you have a cluster and we want one too but you don’t seem to be willing to help us with that (i.e. you must have an ulterior motive)’. This antagonistic approach to ‘knowledge sharing’ characterised by a value-ridden binary logic of ‘good’ and ‘bad’, ‘with us’ or ‘against us’ requires an unquestioning conversion to the ‘good’ worldview without offering any explanation beyond the ‘fact’ that it is good. It amounts to unilateral ‘preaching’.

‘Preaching’ and ‘teaching’ practices vividly capture the essence of the perspective-pushing contest between the Technocrats and the Cosmopolitans. Although both these types of practices imply the ‘sharing’ of knowledge, they are not ‘knowledge-sharing’ or ‘boundary-spanning’ practices in the sense that the knowledge shared is neither wanted nor accepted by the other party. ‘Preaching’ and ‘teaching’ do not enable the reciprocal sharing of knowledge required in building common ground through the mutual taking of the perspective of the other. Quite to the contrary, the insistence on unilateral indoctrination they carry with them highlights the antagonistic nature of the EU RIS project as a site of the struggle for distinction played out in the clash between the Technocrats’ orthodoxy and the Cosmopolitans’ heresy. This is perhaps best described in the EU RIS Project Manager’s own words:

[It is] a matter of improving the negotiating position: because if I show that my partner does not have good ideas, that my ideas are better, right, then, to a

certain extent, I am on top, right, and then if certain issues arise, I can always look down on him, right, and I will feel better psychologically, right, I have the advantage over him. [...] anyway, let's be honest, we don't always see each other as people who think the same or care for the same things, right, but as rivals [...] so that means we have to make sure the rival is not better than me or my situation will be worse, I will get less.

[Interview with Marek, EU RIS Project Manager, PUT]

The Project Manager captures the essence of the relations between the Cosmopolitans and the Technocrats without the benefit of Bourdieu's conceptual framework. He is clearly very aware of the antagonistic nature of their interactions. He attributes it to human nature and the desire to demonstrate the superiority of one's ideas over the ideas of the other. He thus captures the essence of Bourdieu's argument regarding the struggle for distinction and he points to intellectual capital as the principle of distinction in the context of the EU RIS project. He also comments, pessimistically, on the lack of good will – to see one another as equals, to seek common ground. In all his wisdom and benevolence, Marek still fails to recognise the fact that his own colleagues from PUT are driven by the same principle – his comments are entirely directed at the Cosmopolitans.

V.4. Other Salient Boundaries

The key salient boundary, the organiser of social relations across sites (Tilly, 2005) in the EU RIS project was the pragmatic boundary (Carlile, 2004) between the Cosmopolitans and the Technocrats. It was a 'knowledge boundary' in the sense that the two parties were in conflict over the vision of the field of regional innovation development in Western Poland, i.e. the Cosmopolitans attempted a heretical subversion of the Technocrats' orthodoxy. There was very little attempt at building common ground through boundary-spanning practices. Collaboration, consensus building, knowledge transfer, and learning were strategies of distinction, not 'theories in use' (Argyris and Schön, 1978). The strong polarization of the field of regional innovation development along this boundary did not, however, preclude other boundaries coming into play in the course of the project, though to a lesser extent. These boundaries were

primarily the organisational, national, and language boundaries. A shift of boundaries was noticeable on informal occasions such as dinners, drinks, or even lunches: the salience shifted to gender boundaries, which otherwise were not significant.

V.4.1. Other Boundaries: Organisation

Organisational boundaries came to prominence mainly with regard to economic capital: EU RIS was not an equity partnership and each of the partners was significantly motivated by the desire to acquire economic capital through the participation in the project. Other interests also differed across the various organisations (as is specified in Section IV.2.2.), but were largely subsumed by the Technocrats/Cosmopolitans division. There was also a clear difference with regard to the centrality of the EU RIS project to the primary field of practice of the participating organisations as depicted in Figure 5.1.: whilst regional innovation development was of key importance to PUT and WDA, as well as, to a lesser extent, to PIME, the remaining local partners were less concerned with the agenda of innovation, which was reflected e.g. in the differences in the seniority of the representatives delegated to the project (PUT, WDA, and PIME always sent senior representatives).

As discussed Chapter IV the salience of the boundary between the Technocrats and the Cosmopolitans was lesser during the entire study visit to the UK: partly because by that time the Cosmopolitans had conceded defeat in the struggle for field dominance with the Technocrats and partly because the learning interests of the participants did not coincide with the common benefits of either the project as a whole or with the Technocrat/Cosmopolitan divide but were dictated by the interests of the participating organizations as well as individuals.

V.4.2. Other Boundaries: Nationality

The difference of nationality did not, for the most part, manifest itself in an obvious way. This may have been partly due to the fact that, at least initially, both representatives of the foreign partners were individuals who were familiar with Poland, its history, culture, and its business environment. Although in private they would occasionally make remarks which indicated their disapproval of ‘the Polish ways’, by and large they were able to draw on their familiarity with the country and its people to

try and work within what they saw as the ‘circumstances’. Perhaps the most obvious manifestation of this attitude was the fact that they jointly took it upon themselves to facilitate the ‘reconciliation’ workshop. In so doing, they acted on the assumption that they were somehow ‘neutral’ in the scheme of things, whereas in actual fact they were strongly implicated on the side of the Cosmopolitans in their struggle for field dominance. Nevertheless, they did manage to retain a degree of disentanglement, and the local partners, including most of the Technocrats, appreciated their sympathetic attitude towards Polish ways as evidenced by the following statement from the Project Manager:

They [the representatives of North UK and South UK] know the conditions here, [they] are not surprised by situations which maybe even should surprise them but they have been familiar with Poland and the Polish context for years and they know it and are not surprised.

[Interview with Marek, EU RIS Project Manager, PUT]

By virtue of the very nature of the involvement of the North UK and South UK partners in the EU RIS project as experts, the national boundary did organise the relations between participants in the project to a significant extent as far as knowledge sharing was concerned, dividing them into ‘local’ and ‘foreign’ participants. Nevertheless, the difference of nationality did not show in the data as a salient boundary in the sense that the ability of the project participants to collaborate or share knowledge across the national divide was not in itself a problem.

Alongside the organizational boundaries, the national boundary too dominated the work context during the study visit as the Polish delegation had come to meet the UK experts and learn from the UK experience. Aside from the distinction between the ‘experts’ and the ‘students’ social occasions during the visit also highlighted the cultural differences associated with nationality. The choice of venues for social occasions in the UK was made by the UK partners and the generosity of the hospitality was determined by the budget (or lack thereof): the evening meal consisted of sandwiches and ‘nibbles’ provided by a catering company and was ‘washed down’ with tea and coffee from a machine ‘served’ in plastic cups. This was not so much a social occasion as a business one - an informal ‘wrap-up’ of the events of the day. The participants reassembled later

in the evening for drinks at one of the well regarded pubs in South City – there they enjoyed a variety of drinks but mostly the local beer (all paid for by the individuals in the UK fashion of ‘buying rounds’).

Whilst the circumstances of the socializing may have been decided on economic grounds, they were not atypical of the UK idea of hospitality (especially in the budget-conscious public sector). Importantly, the same minimal level of hospitality would have been very unlikely to be offered in Poland despite budgetary constraints. Thus, social occasions brought into the foreground a less salient boundary, that of national culture, contrasting Polish ‘over-the-top’ hospitality with the ‘minimum necessary’ attitude of the UK hospitality.

V.4.3. Other Boundaries: Language

Not to mention such trivial barriers as the language, right, which we must use in all our documents and communications. Well, let's be honest, after all it is not our native language, there is some trouble for us. It is not the kind of trouble that is insurmountable, but, after all, when I read a text [...] I sometimes must look a word up in a dictionary [...] sometimes I must spend much more time on preparing something because you have to not only imagine something in your native language but also in English and that is more difficult, right. [...]

[Interview with Marek, EU RIS Project Manager, PUT]

Overall, language was a stronger theme in the data than nationality. The local partners were highly competent users of English as a foreign language. Nevertheless, as the above quote shows, using English was not without difficulty, especially for the Technocrats, whose ability to communicate in English was noticeably weaker than the Cosmopolitans'. Language is mentioned as a significant boundary in studies of boundary salience in international contexts but its significance is reported to be in amplifying the effects of other, status-related, boundaries (Levina and Vaast, 2008; Metiu, 2006). This was also the case in the EU RIS project.

The difficulties in speaking English fluently that the Technocrats were experiencing had status implications in the sense that the Cosmopolitans did not hesitate to take

advantage of the Technocrats' self-conscious spoken English performance in deploying their 'bullying' strategy. In that sense, the language boundary was salient in that it reinforced the production of inequality by the Cosmopolitans in relation to the Technocrats. The Cosmopolitans, however, also shied away from preparing lengthy documents in English and preferred to submit project documentation to the Project Manager in Polish, leaving it to the Project Office to translate these into English. Not surprisingly this practice resulted in delays (e.g. in submitting documents to the EC) and inefficiencies of communications with the foreign partners, which sometimes resulted in the latter feeling 'cut off'. In this sense, the language boundary amplified the effects of the national boundary.

V.4.4. Other Boundaries: Gender

The shift in the salience of boundaries from the pragmatic to the gender boundary always coincided with the change of the interaction context from formal to informal – even if that was simply a break in the proceedings, such as lunch. The women would talk amongst each other and the men would also form their own small groups. This fact needs to be considered against the background of Polish culture not being one where there is obvious segregation of men and women in everyday situations. It might point towards Polish business practice being heavily biased towards gender division. Equally, and given that the foreign partners did not break the pattern, it might be that both the men and women were trying to find some common ground, however irrelevant, to transcend the conflict-laden pragmatic boundary. This theme was not explored in depth in the course of the research project so nothing more than illustration and speculation can be offered here.

A good example of 'gender segregation' in informal situations was the dinner organized by the project coordinator (PUT) after the official opening of the Project in Portovo. The dinner took place in a Tavern specialising in regional food. I arrived on time, the Project Manager (male) and Administrator (female) were already there as well as the representatives of South UK and North UK (both male). There was an informal chat. The remaining representatives (all female) joined us later. There was no seating arrangement and when everyone had been seated, it turned out that the table was split into male and female sections. The conversation at the female end of the table revolved around reminiscing about student days. Eventually the women noted the gender

segregation at the table. It was impossible to know what the men's conversation was about but it seemed that they were in their business mode. The women acknowledged that that excluded them from potentially relevant discussions but did not seem to mind on the grounds that it was 'normal'. That triggered a reflection on gender issues in the workplace and the women shared stories of inappropriate behaviour they'd experienced from their male bosses.

Chapter VI. Discussion and Conclusions

“If there is a truth, it is that truth is at stake in struggles”

(Bourdieu, 2000: 118)

Introduction

The purpose of this chapter is to reflect on the findings from the EU RIS case study presented in Chapters IV and V and consider them against the background of the literature reviewed in Chapter II. The chapter identifies the key themes, concepts and relationships which emerge from the findings and focuses on two main lines of investigation: the nascent stages of the development of a new field of practice and the salience of boundaries in knowledge sharing. The former draws on the literature reviewed in Chapter II and focuses on issues of practice work and boundary work of distinction and reification. The stages of the field development are identified and theorised with reference to Tilly’s (2004, 2005) theory of boundary change as well as Bourdieu’s ideas regarding fields of practice and symbolic struggle for distinction. The EU RIS project is analysed as a case of heretical subversion and struggle for dominance in a nascent field of practice, leading to the development of a scenario of boundary dynamics under such conditions.

The line of investigation regarding the salience of boundaries in knowledge sharing draws on the same key theories against the background of the research on boundary work of distinction and reification in PBS of knowledge and learning. Here, the main focus is on addressing the objectives of the thesis specified in Chapter I. Thus, the main salient boundary is identified and explained as a pragmatic knowledge boundary. The strategies of distinction and the reification practices related to the salience of the pragmatic knowledge boundary are considered in relation to the struggle over the definition of the dominant principle of domination (Bourdieu, 2004) played out through the EU RIS encounter. The power implications of different forms and structures of capital are highlighted in relation to the perspective-pushing contest that dominated the knowledge-sharing agenda of the project.

Finally, the chapter brings the study to its conclusion by defining the key contributions of the thesis and highlighting possibilities for further research arising from the study. This is achieved by reflecting back on the key research themes and objectives of the thesis, its empirical specificity, and its main findings.

VI.1. Boundary Work and Practice Work in a Nascent Field of Practice

In Chapter II a conceptual framework was developed mapping out the field of boundary studies is social science along two sets of boundary properties – demarcation versus interface and inclusion versus exclusion – which produced four areas of study: *bonding and bounding* – focused on inclusion and demarcation through identity construction; *distinction* – concentrating on the exclusionary and demarcating aspect of boundaries; *transcendence* – emphasising the inclusionary aspects of boundaries as interfaces; and *reification* – focused on the exclusionary enactment of boundaries in interaction with ‘the other’. It was noted that in all these areas of boundary studies strategies and practices associated with boundary work – symbolic enactment of inclusion, exclusion, difference, and status – constituted an important line of investigation.

Within the areas of distinction and reification, these strategies and practices were further established to be differentiated by the relative power position of those doing the boundary work and their respective attitude to the doxa defining the field in which they were participants and which defined their mutual relationship. Those supporting the field’s orthodoxy and holding a position of dominance deploy different strategies of distinction and reification practices than those in dominated positions or challenging the orthodoxy (Bourdieu, 2004). This was explained by the differential distribution of capital between the dominant and the dominated and the heretics and the orthodox: the dominant and orthodox would be in possession of a higher volume and a more desirable (within a given field) structure of symbolic, economic, social, and cultural capital as defined by the field’s habitus – the historically generated, practice embedded, generative principle of the field-specific game (Bourdieu and Wacquant, 1992).

This power differential maintains stability in the field with boundaries – for all their dynamic tensions – reflecting the momentarily ‘frozen’ state of the symbolic struggle

for distinction within the field (Bourdieu, 1984). Change in a field, and thus also the inscription/erasure, activation/deactivation, site transfer, or relocation of boundaries (Tilly, 2004) is brought about when a significant change occurs in the objective circumstances bearing upon the state of the game in a field such that, e.g. an incentive shift takes place influencing the availability of specific types of capital and thus also unlocking the possibilities of restructuring the dominant capital profile and shifting the trajectories of different status groups in the field (Bourdieu, 1984; Tilly, 2004). Such changes to objective circumstances can be endogenous or exogenous (Zietsma and Lawrence, 2010: 218) and whether or not they result in a significant transformation of a field depends on “the status of boundaries and practices and the existence of actors able to leverage those circumstances.” Novelty – brought about by e.g. new scientific discoveries, innovation, new technologies, or ideologies – is a powerful influence that can potentially instigate a successful heretical subversion of the field from within or without and hence make salient the status dynamics played out through boundary work (Fuller, 2003; Vallas, 2001). Tilly (2004) refers to these potentially transformative developments as mechanisms precipitating boundary change: encounter, imposition, borrowing, conversation, and incentive shift. Enduring changes in the prevailing patterns of boundary dynamics amount to changes in the salience of social boundaries characterising the field (Lamont and Molnar, 2002) as well as the boundaries of the field itself (Zietsma and Lawrence, 2010).

In Practice Based Studies of knowledge and learning all four themes of boundary studies are present: bonding and bounding is studied as an aspect of the emergence and/or deliberate constitution of Communities of Practice (Thompson, 2005; Wenger, 1998) transcendence dominates the literature on knowledge sharing and distributed organising (Bjørkeng et al 2009; Carlile 2002, 2004; Kellogg et al, 2006; Mørk et al, 2010), whereas distinction and reification of boundaries arise as key themes in the more critical offshoot of the same literature inspired by the work of Bourdieu and other scholars of status and boundaries (e.g. Lamont and Molnar, 2002; Tilly, 2005).

Currently, Practice Based Studies of distinction and reification of boundaries in the context of knowledge and learning are still in an early stage of development but have already produced significant contributions highlighting status differentials between occupational groups (Bechky, 2003a, 2003b; Levina and Vaast, 2008), cultural and national differences (Metiu, 2006) and the problem of privileged knowledge and power

(Barrett and Oborn, 2010; Oborn and Dawson, 2010b) in knowledge sharing and collaboration between diverse social groups. Importantly, studies specifically addressing the issue of the salience of boundaries have highlighted the primacy of status boundaries, i.e. boundaries implicated directly in the symbolic struggle for distinction, over other social, temporal and spatial boundaries (Levina and Vaast, 2008; Metiu, 2006).

The study of distinction and reification of boundaries in the context of knowledge-related collaboration is in need of further contributions in order to build a body of knowledge substantial enough to match the development of the related (CoP and transcendence) strands of boundary research. In particular, there is a lack of studies in inter-organisational contexts (other than client – service provider collaborations), novel and emergent fields and fields undergoing transformation. More needs to be understood about the changes in boundary salience over time and in relation to the mechanisms precipitating and constituting boundary change. The dynamics of boundary enactment in relation to knowledge sharing have not thus far been investigated in the context of change and the associated strategies of distinction and boundary reification practices have not as yet been the focus of attention within this emergent strand of research.

Examples of such studies exist elsewhere and have been reviewed in Chapter II. These studies do not tackle issues of knowledge or collaboration but offer insights into boundary dynamics in emergent or changing fields of practice. Thus Fuller (2003) analyses a case of endogenous field change where the transformation was precipitated by an innovation in the practice of the climbing community in the USA. The innovation was first rejected as a heresy, which resulted in the polarization of the field along a newly activated boundary. Ultimately, however, as a result of the strategies adopted by each of the sides in the symbolic struggle for distinction and external circumstances, the boundary became permeable and the heresy was accepted as a horizontally differentiated form of legitimate practice, i.e. a parallel orthodoxy.

In their study of an exogenous field change Zietsma and Lawrence (2010: 190) identified the transformation process as constituted through the interplay between boundary work and practice work; the latter defined as “actors’ efforts to affect the recognition and acceptance of sets of routines rather than simply engaging in those routines.” Also studying exogenous change, Burri (2008) describes the crisis of the

doxa brought about by the introduction of new imaging technologies in the field of radiology. The change resulted in an ongoing struggle for distinction as radiologists were forced to redefine their field and defend it from the double threat of becoming obsolete on the one hand and ‘raided’ by other medical specialists on the other.

In the PBS of knowledge and learning there are few studies of boundaries in emergent or changing fields of practice, the most relevant for the present discussion being the one offered by Bjørkeng et al (2009). Theirs is a study of bonding and transcendence across organisational boundaries, whereby a new field of practice – alliancing – emerges through authoring boundaries, negotiating competencies and adapting materiality. The process of becoming a practice observed by Bjørkeng et al (2009) appears to have been uniquely consensual and underpinned by a strong commitment to the common cause on behalf of all involved parties and an egalitarian attitude of the participants – so much so that the authors draw a parallel with Habermas’ (1979) ‘ideal speech situation’. Consequently, this study does not offer an insight into the distinction or reification aspects which might influence the emergence of a new field of practice.

The case of EU RIS offers exactly these kinds of insights: it is a case of the nascent stages of the emergence of a new field of practice – the field of regional innovation development in Western Poland region. The development of the field is traced from the initial *imposition* as a (PUT) monopoly and the early *incentive shift* leading to the *encounter* between the incumbents and the new entrants (the Cosmopolitans) operating under the auspices of the European Commission (EC). The resulting *boundary inscription* brought about the *activation* of a within-field pragmatic knowledge boundary between the incumbents and the new entrants as the latter mounted a *heretical subversion* challenge to the incumbents’ orthodoxy.

The incumbents and the challengers engaged in *practice work* across the knowledge boundary in an attempt to force their own vision of the field, which resulted in a *perspective-pushing contest* deploying *strategies of distinction* and *boundary reification practices* commensurate with the parties’ respective positions of power, i.e. their relative volume and structure of capital. As a result of this *symbolic struggle for distinction*, a *hierarchical polarization* of the emergent field became apparent, whereby the dominant position was established by the original incumbents – an outcome further

confirmed by the *euphemization* of the status quo. These developments are outlined in *Figure 6.1.* below, which is loosely based on Tilly's (2005) model of boundary change.

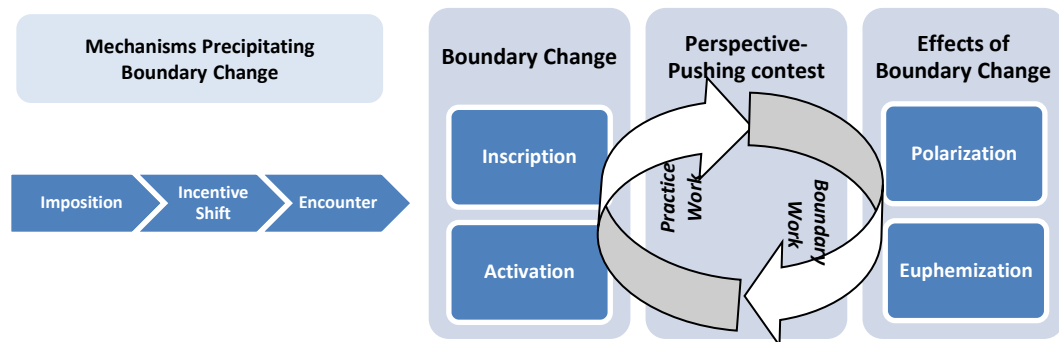


Figure 6.1. The nascent stages of the emergence of a new field of practice: the EU RIS project as a symbolic struggle for distinction.

The initial imposition by the Technocrats of the boundaries of the new field of regional innovation development in Western Poland was soon followed by the incentive shift brought about by the accession of Poland to the European Union, i.e. the availability of EC funding for developing a Regional Innovation Strategy. The incentive shift paved the way to the encounter between the Technocrats and the Cosmopolitans around the bid for and the realisation of the EU RIS project. The EC's *brokerage* (Tilly, 2005) stipulated that the EU RIS encounter would follow the EU RIS template and follow the EC's terms of engagement: knowledge transfer and consensus building. For the EU RIS project to comply with these requirements, it would have had to be an exercise in *borrowing* (Tilly, 2005) the European model of the field and *site transfer* (Tilly, 2005) – whereby the Cosmopolitans would gain access to the field and engage with the Technocrats in building common ground around the *joint enterprise* (Wenger, 1998) of regional innovation development in Western Poland. This, however, proved not to be the case.

Even though a new boundary was indeed formally inscribed round the nascent field as a result of the EU RIS consortium agreement, the opposing interests of the Technocrats and the Cosmopolitans meant that both parties activated a *pragmatic knowledge boundary* (Carlile, 2004) between them, thus polarising the field from the very inception. The axis of division was *knowledge/practice*: each party entered the encounter with a radically different vision of what the *practice* of regional innovation development in Western Poland should be. Each vision was born out of the practice of

each of the parties, i.e. was embedded in a different habitus, complete with different stakes and implications regarding the capital structure required to ensure dominance in the new field. The conflict between the Technocrats and Cosmopolitans was a conflict of diametrically *opposed perspectives*: the substance of the conflict was practice/knowledge but the stake was the definition of competence that would determine the dominant type and structure of capital within the emerging field.

Thus the struggle between the Technocrats and the Cosmopolitans was a struggle over the appropriation of symbolic capital in the new field, i.e. the power to name things (competencies, solutions, practices) as valuable. The balance of symbolic power in the new field, the power to name the game, could theoretically have been established through a Habermasian ideal speech scenario of comparing the objective merits of each of the perspectives against an ‘ideal’ outcome for the joint enterprise (i.e. establishing an effective regional innovation strategy for the region). However, it has been noted that this ‘joint enterprise’ (Wenger, 1998) was not strong enough to override the partisan interests associated with the project. Instead, the EU RIS encounter was played out as a *symbolic struggle for distinction* between the incumbents (the Technocrats) and the new entrants (the Cosmopolitans). Each party took the approach of trying to impose their perspective on the other in stark disregard of models of cross-boundary knowledge sharing such as Boland and Tenkasi’s (1995) perspective-taking or Carlile’s (2004) knowledge transformation.

The Cosmopolitans’ attempt at *heretical subversion* (Bourdieu, 1991) of the field’s nascent orthodoxy established by the Technocrats was successful in so far as the inscription of new, more inclusive boundaries of the emerging field was concerned. However, when it came to *practice work* (Zietsma and Lawrence, 2010), i.e. to the negotiation of the actual practice defining the new field, the Cosmopolitans’ challenge was met with robust resistance on the part of the Technocrats. The Technocrats, it transpired, had resigned themselves to the inevitability of conceding their *monopoly* in the new field but not their *dominance* of it. The former was politically and economically unsustainable in light of the EU accession, the need to participate in regional networks, and the funding requirements of the RIS-A institutional solutions (such as creating innovation incubators and technology parks). The latter was crucial from the point of view of ensuring a return on the investment in the development of the field in terms of securing a stable basis for the Technocrats’ long-term position as a

significant player in the regional networks. Nor was it enough for the Cosmopolitans to be merely included in the new field in a support role – they believed the EU RIS project constituted an agreement to accept the European RIS framework and thus to redefine the Western Poland regional innovation development field accordingly.

The Cosmopolitans advanced their cause by using *collaboration*, *consensus building* and *knowledge transfer* as *subversion strategies*; the Technocrats defended their orthodoxy by maintaining the status quo in practice whilst professing compliance with the project requirements by acknowledging the values of collaboration (practiced as *cooptation*), consensus building (practiced as *demanding compliance*), and learning from partner regions (practiced as *exploitation*). Both parties demonstrated a discrepancy between their *espoused theories* and their *theories-in-use* (Argyris and Schön, 1978): the espoused principles of collaboration, consensus building, and learning were – in practice – strategies in the symbolic struggle for distinction differentially deployed by each of the parties for opposing purposes, i.e. to revise the boundaries of the field and challenge its nascent orthodoxy on the one hand and to defend the status quo, maintain dominance and uphold orthodoxy on the other. Each side of the conflict entrenched its position on the opposite sides of the pragmatic knowledge boundary demarcating the chasm between their respective visions of the nascent field of practice. They engaged in a *perspective-pushing contest* whereby each party forcefully insisted on imposing their own vision of the (now) joint field of practice, the relevant competencies and the preferred capital structure.

The heretical subversion attempt within the nascent field was played out through *practice work* (Zietsma and Lawrence, 2010), i.e. the symbolic struggle between the orthodox and the challengers was over the actual definition of what would constitute legitimate competence in the field of regional innovation development in Western Poland. The practice work took the form of a *perspective-pushing contest*: rather than engaging in negotiating competencies, knowledge transfer and consensus building, both parties tried to force their own vision in its entirety through a number of *perspective-pushing practices*. The orthodox engaged the challengers from a position of dominance and their perspective-pushing practices reflected this: *telling*, *preaching*, and *intimidating* were all strong practices backed up by field-specific symbolic capital and a strong portfolio of intellectual, social, and economic capital. The challengers drew on a similar but weaker repertoire of perspective-pushing practices – *selling*, *teaching*, and

bullying – reflecting their lack of field-specific symbolic capital and positioning them as the dominated party.

The original incumbents (the Technocrats) successfully defended their orthodoxy against the challengers' (the Cosmopolitans') heresy: no sooner had the Cosmopolitans conceded defeat, when euphemization set in, enabling both parties to fall back on the shared espoused theory of collaboration, consensus building and knowledge transfer. Formally at least, the emergent field's practice would be based on the Technocrats' 'algorithm', and the academic brand of intellectual capital would prevail over the more business-focused intellectual capital of the Cosmopolitans. In practice, however, the EU RIS project yielded enough social, intellectual, and economic capital for the Cosmopolitans to be able to proceed with the development of the field in the direction of their 'ecosystem' ideal. Thus the field was effectively polarised: the Technocrats were successful in terms of establishing and defending their claim to field dominance in the narrowly defined field of regional innovation development in Western Poland; the Cosmopolitans subsumed that field in the wider agenda of regional development through developing and implementing systemic solutions integrating innovation with business support and operating on trans-regional scale.

The question arises of the implications of the findings from the EU RIS project for the understanding of the salience of boundaries in forming a new boundary practice. Zietsma and Lawrence (2010) demonstrate that there is a mutually constitutive relationship between a field's boundaries and practices such that a change in one influences the other. Thus boundary work can result in a change to the boundaries of a field, which may, in turn, instigate practice work through which the practices of the field may be maintained or modified. There is a study of the development of a mature field over the long term. The EU RIS case study sheds light on the dynamics associated with the salience of boundaries in an emergent field, where the dominant form and structure of capital are at stake.

The connection between boundary work, practice work, and the struggle over the dominant form and structure of capital in the new field of practice emerges as the key to the salience of boundaries in a contested nascent field of practice. As long as there is uncertainty over the legitimate form of practice in an emergent field, the structuring principle of a new field of practice (i.e. the dominant form of capital) will remain at

stake and the pragmatic knowledge boundaries between the contributing communities of practice will remain salient. Unless the practice of the new field is negotiated in a way that does not favour any of the contributors, the structure of the emergent field will perpetuate the inequalities between the contributors even if, in time, they cease to be recognised as such as a result of misrecognition and euphemization. As the knowledge boundary loses its salience with euphemization, the distinction remains.

VI.2. The Pragmatic Knowledge Boundary

Consistent with the findings of research on distinction and reification of boundaries in distributed organising (Levina and Vaast, 2008; Metieu, 2006) the EU RIS case study also revealed the pragmatic knowledge boundary as the most salient axis organising relations across the participating social sites. The pragmatic boundary is the most complex in Carlile's (2004) hierarchy of knowledge boundaries and subsumes the semantic and syntactic knowledge boundaries. Carlile defines the pragmatic boundary as the political knowledge boundary that arises when the novelty involved in sharing knowledge between knowledge domains produces conflicting interests for the participating social sites. The novelty that led to the activation of the pragmatic knowledge boundary polarising the nascent field of practice in the EU RIS case was the project itself: the encounter between the original incumbents (the Technocrats) and the new entrants (the Cosmopolitans).

Novelty alone, however, is not enough to explain the activation of a pragmatic knowledge boundary as evidenced e.g. by the case of alliancing studied by Bjørkeng et al (2009). Whilst change is undoubtedly a common denominator for the mechanisms precipitating boundary activation (Tilly, 2004), it needs to be considered in relation to other, equally significant, factors. Thus, Tilly (2004) explains the activation of boundaries in terms of relations of inequality attributable to differences in reward distribution and Bourdieu (1990) emphasises competition for status and disparity of power. All these factors are also the focus of attention in the study of social and symbolic boundaries reviewed in Chapter II (e.g. Fuller, 2003; Vallas, 2001).

The same themes are also carried through to the PBS literature on knowledge sharing, e.g. Carlile, (2004: 559) notes that because 'knowledge is invested in practice' there

may be a lack of willingness to learn under circumstances of high novelty as actors stand to incur significant costs associated with the need to transform their own knowledge in the process. Despite attributing the insight that knowledge is “at stake” to Bourdieu and Wacquant (1992), Carlile (2004) does not comment on the implications of that statement with regard to power. Other studies informed by Bourdieu’s theory of practice, however, have noted the relationship between knowledge boundaries and the invested character of knowledge, power dynamics in fields of practice, and competition for status (Bechky, 2003a; Levina and Vaast, 2005, 2008).

The EU RIS case study contributes to this stream of research by tracing and surfacing the power implications of the knowledge-sharing and consensus building agenda of the project in relation to the salient pragmatic knowledge boundary. That the most salient boundary in the EU RIS project was a knowledge boundary is evidenced by the fact that it was the same boundary that organised knowledge relations within and across the participating social sites so that they were distinct within each site and different across the sites (Tilly, 2004). Knowledge sharing within each of the sites was predominantly seen as desirable and was easily accomplished whilst learning across the boundary was mostly seen as undesirable and resisted. To use Brown and Duguid’s (2001) terms, knowledge was leaky within each of the sites and sticky across the sites. This is consistent with the classification of the sites as a community of practice (the Technocrats) on one hand and a network of practice (the Cosmopolitans) on the other.

The Technocrats were a tight community of practice engaged in joint knowledge creation (mutual engagement), speaking the same language (shared repertoire), speaking with one voice (strong joint enterprise) and sharing a strong sense of common identity (Wenger, 1998). They were clearly distinguished from the Cosmopolitans by their embodied habitus: their language and practice, their bodily hexis and tastes. The Cosmopolitans constituted a more loosely connected network of practice (Brown and Duguid, 2001) but were also identifiable by similarities of practice and habitus and were brought together by the compatibility of their diverse interests in the RIS agenda. Both the commonalities within those social sites and the differences between them were most pronounced in relation to knowledge: the clash of perspectives associated with their respective visions of the field demarcated the salient knowledge boundary. The attempts at overcoming the resistance to knowledge flows at that boundary only had the effect of

fortifying it – not the least because they were forceful efforts at unilateral indoctrination rather than at mutual learning.

The Technocrats had not only made a significant investment in their own academic knowledge domain but they had also invested that knowledge in developing the original innovation strategy for Western Poland. The knowledge invested by the Technocrats in the new field represented a significant academic achievement and hence was closely related to their status as experts in their own field. The authorship of the regional innovation strategy for Western Poland positioned them as the experts on regional innovation development and their political ambitions as significant players in the field of regional development in Western Poland depended to a significant extent on its implementation. Consequently, the cost of transforming their knowledge (Carlile, 2004) for the sake of learning from the foreign partners in the EU RIS project and building consensus with the local EU RIS partners would have been to sacrifice their current status and abandon their career trajectory in all the relevant fields. Thus, in stark contradiction of the formal commitment associated with the EU RIS project, for the Technocrats learning across the pragmatic boundary was out of the question unless it was covert learning for private benefits.

VI.3. Heretical Subversion and Learning across the Pragmatic Knowledge Boundary

The EU RIS case study opens up the topic of resistance to learning across the pragmatic boundary by theorising the project as a case of heretical subversion of the Technocrats' orthodoxy by the Cosmopolitans. The findings reveal that the attempt at heretical subversion was played out through a *perspective-pushing contest*, whereby each party attempted to uphold their own vision of practice in the new field whilst trying to force or convince the other to 'learn' and transform their knowledge accordingly. The term *perspective pushing* was chosen to highlight the contrast with Boland and Tenkasi's (1995) *perspective taking* – a concept which they derive from Mead's (1934) ideas on taking the perspective of the generalised other. Perspective taking, Boland and Tenkasi argue, involves accessing, evaluating and integrating the knowledge of others and requires that differences between perspectives be surfaced and reconciled.

VI.3.1. Perspective-Pushing Contest at the Pragmatic Knowledge Boundary

Successful *perspective taking* thus relies on a conscious recognition of the thought worlds involved – both one’s own and those of the other participants in knowledge exchange. *Perspective pushing*, by contrast, refers to attempts by one community of knowing to impose its own perspective on another by establishing a non-reciprocal source-recipient relationship and affecting a unilateral transfer of knowledge. It is effectively equivalent to attempting to establish dominance of one perspective over another and is well exemplified by drawing a parallel with missionary work whereby one system of religious belief is being disqualified so that it can be replaced with another. A perspective-pushing contest occurs when two or more parties compete to indoctrinate one another attempting to ‘transfer’ knowledge across the pragmatic boundary whilst resisting any inward knowledge flows. The idea of a *perspective-pushing* contest thus stands in contrast to Hamel’s (1991) concept of *learning races*, which refers to a situation where alliance partners compete to reap private learning benefits (accruing to an individual firm within the alliance when it has learnt enough to be able to utilise the new knowledge outside the alliance scope) before common benefits (accruing collectively to all partners when they have learnt enough to jointly utilise the new knowledge within the alliance scope) can be accrued by all partners (Khanna et al, 1998).

VI.3.2. Opportunistic Learning for Private Benefits

The tension between private and common learning benefits captures an important aspect of the learning that was and was not taking place across the pragmatic knowledge boundary polarising the EU RIS project. For the reasons specified above, the learning that did not take place was the learning for common benefits which was written into the EU RIS funding bid and consortium agreement. All of the partners did, however, want to learn for their private benefits when opportunities arose, even if that meant learning across the pragmatic boundary. Two learning strategies were apparent: *opportunity hoarding* and *exploitation*. The labels are borrowed from Tilly (2004), where they are used to signify two of the four social mechanisms Tilly names as responsible for the unequal distribution of rewards between categorically differentiated social groups (the remaining ones being emulation and adaptation). Here, opportunity hoarding refers to opportunistic learning for private benefits, which in the EU RIS case took the form of

the Western Poland partners learning from the foreign partners whenever issues of relevance to the individual representative and/or their organisation arose. This kind of learning dominated the study trip to South UK, described in Chapter IV.

The other learning strategy – exploitation – was also a form of opportunistic learning for private benefits but one that involved learning at the expense of the ‘source’. This was the type of learning that took place *covertly or under false pretences* across the pragmatic boundary. As discussed above, openly learning from the Cosmopolitans, including the foreign experts, was not an option for the Technocrats. The learning agenda of the EU RIS project was dominated by the perspective-pushing contest between the Technocrats and the Cosmopolitans, where field dominance was at stake. Nevertheless, the Technocrats did realise that there was valuable knowledge of relevance to their practice to be acquired from their Cosmopolitan partners.

Rather than acknowledge that fact, however, the Technocrats preferred to acquire such knowledge covertly, with the view to appropriating it in due course to advance their own agenda. This meant that that the Technocrats’ covert learning across the pragmatic knowledge boundary was accomplished at the expense of the Cosmopolitans and to the detriment of the EU RIS partnership, as was evidenced by the case of the ‘stolen competition’. The Cosmopolitans, on the other hand, were generally of the view that there was nothing of value to be learnt from the Technocrats, whose ‘algorithm’ approach to regional innovation they disparaged. This did not stop one of the foreign experts trying to learn about the algorithm, and in particular about the funding that may have been secured for the solutions it envisaged. This learning effort was motivated by the need to identify the opponents’ strengths and weaknesses but was done under the false pretences of trying to understand the Technocrats’ vision.

VI.4. Strategies of Distinction and Cross-Field Accumulation of Capital

The essence of the struggle for field dominance was the heretical subversion attempt and the essence of the heretical subversion was the perspective-pushing contest. The contest consisted in practice work and boundary work: the two were interconnected and inseparable and each constituted the other. The perspective-pushing practices of preaching and teaching, telling and selling, intimidating and bullying were also

boundary reification practices in that in attempting literally to get the preferred vision of practice across they also raised barriers to unwanted inward knowledge flows and claims to competence and legitimacy. The remaining strategies of distinction identified in the EU RIS case study – knowledge transfer, collaboration, consensus building, and the learning strategies of opportunity hoarding and exploitation – were primarily strategies in the contest over the boundaries of the new field of practice and field dominance. Nevertheless, these strategies were also deeply implicated in the conflict over the definition of practice in the new field of practice. This was because it was in determining the nature of competence in the new field that the dominant principle of field dominance would be decided for that field. These strategies were therefore crucial to ensuring that the right kind of intellectual capital would be the currency that bought high status in the new field.

The same strategies of distinction were equally important from the point of view of accumulating symbolic capital in other, related fields of practice. Transfers and conversions of capital are strategic moves in the struggle for field dominance, especially in a nascent field of practice where the dominant principle of domination may not yet be well-established as was the case in the field of regional innovation development in Western Poland. The EU RIS case highlights the fact that knowledge boundaries are implicated in struggles for distinction and that the associated boundary dynamics are shaped by strategies of distinction deployed in such struggles hierarchically to structure the focal field. It is important at this point to note that the strategies of distinction are not deliberately calculated, conscious plans of action. Rather they are the kind of pragmatic calculations which aim at maximising the benefits of the available capital within the objective constraints defined by the volume and structure of that capital (and thus one's position in the field).

This kind of strategy is described by Bourdieu (1977) as the *practical sense* – a feel for the game whereby the rule itself is 'forgotten' even as it is being followed through misrecognition and euphemization. By following the rule in pursuit of one's own benefit one pays tribute to the recognised values of the group. The mastery of the rule therefore lies in the ability to play the political game so that "strategies directly oriented towards the primary profit of practice [...] are almost always accompanied by second-order strategies whose purpose is to give apparent satisfaction to the demands of the

official rule, and thus to compound the satisfactions of the enlightened self-interest with the advantage of ethical impeccability” (Bourdieu, 1977: 22).

In the EU RIS case, the strategies of knowledge transfer, consensus building, and collaboration were just such second-order strategies: each appealed directly to a value that was recognisably supported by the official EC rules for RIS partnerships and each of those values was also part of the fabric of the local political field in the Western Poland region. To ignore any of those values would be to disregard the rules of the game and that would be equivalent to being excluded from the game. The official EU RIS partnership values then had to be seen to be supported: the strategies that would honour them in the most ostentatious way would be the winning strategies – hence the profuse expressions of support for consensus building, the need for knowledge transfer, and the commitment to collaboration.

At the same time, these values could not be allowed to interfere with the primary interest in maximising own benefits, i.e. they had to be effective as first-order strategies as well. This meant that each had to be interpreted privately and deployed selectively: collaboration would be interpreted as cooptation; knowledge transfer would be demanded when convenient (e.g. a list of venture capital firms) or even covertly accomplished through exploitation (e.g. appropriating ideas for future initiatives); consensus building would be practiced as demanding compliance (e.g. ‘avoiding areas of overlap’). But there were also other values, which were not as clearly written into the “consortium agreement” and which, nevertheless, were of fundamental importance in the wider field of regional development in Western Poland and in the local politics of the region. Most prominent among those was patriotism – an undisputed value which was frequently called upon in the perspective-pushing contest by the Technocrats. This hindered the Cosmopolitans’ ability to use the full range of the strategic repertoire available to the Technocrats: because they were foreigners it was impossible for the foreign experts to evoke the value of patriotism and due to the support they overtly gave to European ideas the remaining local participants were not able to use it with quite the same credibility as the locally embedded Technocrats either.

It is therefore important to note that the kind of calculation of the balance sheet of capital that was presented in Table 5.1. is only a snapshot of a momentarily ‘frozen state of the struggle’ (Bourdieu, 1984) in a particular field. As such its usefulness is limited

to defining a reference point for the purpose of following the game as it is played out through the strategies and practices which the participants deploy in their struggle for field dominance. The strategies themselves are manifestations of a tacit mastery of practice (practice in this case being the practice of regional politics): whilst involving an element of deliberation, they are by and large products of the participants' 'sense pratique' (Bourdieu, 1990), their feel for the political game. They are deployed with a view to converting the initial balance sheet of capital into status advantage as circumstances develop. Thus, e.g. WDA were able to trade one form of capital (economic) for another (intellectual) so as to maximise their chances of defining the principle of domination within the field (of regional innovation development) in their favour and ultimately to be able to use thus acquired symbolic capital to enhance their status in the wider field of regional development in Western Poland.

VI.5. Other Salient Boundaries

Apart from the pragmatic knowledge boundary which defined the relations between the Cosmopolitans and the Technocrats, differences of organisational affiliation, nationality, language, gender, and class were also salient in the EU RIS project. Consistent with the findings of Levina and Vaast (2008), who also studied boundary salience in knowledge-sharing from the practice perspective informed by Bourdieu's theory, most of these other boundaries were of lesser salience than the status-related pragmatic knowledge boundary. Organisational, national, and language boundaries had the effect of amplifying the pragmatic boundary, sharpening the contrast between the Technocrats and the Cosmopolitans.

This effect was visible for instance when the Technocrats' weaker command of spoken English played into the hand of Cosmopolitans by making it more difficult for the Technocrats to get their point across on occasion. Organisational boundaries were also salient when it came to learning, highlighting the differences of interests within the Cosmopolitan camp, e.g. whilst WDA were keen to sacrifice their economic capital for intellectual capital by sponsoring a study visit to South UK and North UK, PIME used the same study visit to learn through opportunity hoarding and safeguarded their intellectual property through additional clauses in the consortium agreement.

Other, more primary boundaries, such as gender and class were also significant though primarily in social situations. Class was clearly demarcated in a way consistent with the differences in the habitus between the Technocrats and the Cosmopolitans. Social occasions and breaks in business proceedings were marked by a shift of boundaries: the pragmatic knowledge boundary would become less salient revealing other divisions. In particular, gender would become the defining boundary organising relations between project participants during social occasions. This was manifest not only by men and women keeping separate company (in terms of seating arrangements and informal conversations) but was also highlighted by women taking on the role of ‘geishas’ ensuring that a relaxed, convivial atmosphere could be had by all.

VI.6. Theoretical Contribution

Thus far this chapter has outlined the key concepts, themes, and relationships arising from the findings reported in Chapters IV and V and discussed them against the extant theory reviewed in Chapter II. The following sections will summarise the key aspects of the theoretical contribution of the thesis.

VI.6.1. The Conceptual Framework

Firstly, this thesis develops a framework systematising the literature on social and symbolic boundaries along two dimensions corresponding to the inclusive versus exclusive and demarcating versus interfacing properties of boundaries. The resulting four-way typology provides a key for the analysis of the extant body of literature on boundaries revealing four types of research focus: on bounding/bonding, transcendence, distinction, and reification of boundaries. This framework reveals the strategies and practices of distinction as a main focus of research into social and symbolic boundaries. It also reveals a need for dedicating more attention to the issue of the salience of boundaries and boundary change. Furthermore, the application of the framework to the specific field of PBS studies of boundaries in knowledge sharing and cross-boundary learning uncovers a bias of this literature towards the bounding/bonding and transcendence aspects of boundaries to the neglect of the distinction and reification themes. This is an important insight that points to a very promising direction for further research within this particular research domain.

Secondly, the thesis makes a contribution by bridging two mutually relevant literatures: the studies of social and symbolic boundaries and the PBS studies of cross-boundary knowledge sharing and learning. With regard to the latter, the benefit lies in highlighting the issue of the nature of boundaries, thus uncovering a blind spot in the way boundaries have been treated in this research tradition, i.e. as structural entities ‘out there’ which can be assumed or ‘drawn’ by the researcher with little regard for the practice theoretical commitment to the socially constructed and enacted character of social phenomena in general and knowledge and learning in particular. Problematizing knowledge boundaries in this way opens new possibilities with regard to understanding boundaries in knowledge sharing and learning as dynamic, relationally enacted practices organising knowledge relations across social sites.

Thus a whole host of new research questions regarding the practices and strategies of boundary work in knowledge sharing and learning can be generated for PBS scholars to investigate. A prominent place among these novel questions belongs to issues of the salience of boundaries and boundary change mechanisms in knowledge-sharing and learning contexts. Equally important and related to those issues, will be questions regarding power and status in connection to boundary problems in knowledge and learning. Research conducted in this vein should be able to generate important reciprocal contributions to the literature on social and symbolic boundaries in broader sociological literature, where (social studies of science aside) there has thus far been little debate relating to cross-boundary knowledge sharing and learning.

Thirdly, the thesis makes a contribution by preparing the theoretical ground for pursuing such research questions: to this end the theories of Bourdieu (1977, 1990, 1991) and Tilly (2004, 2005) are brought together for the first time in the PBS literature. The former highlights the power relations between the participating social sites and provides a conceptual system for unravelling the practice aspect of boundary reification and strategies of distinction. The latter offers a direct connection to the questions of boundary salience and change. Combined, these two elaborate and influential theories make it possible to access, interpret, and understand the elusive, complex, and yet fundamental topic of studies that is the salience of boundaries in knowledge sharing and learning.

VI.6.2. The Fulfilment of the Objectives of the Thesis

The thesis makes a contribution with regard to generating some exploratory insights into the theoretical landscape mapped above by formulating and addressing specific research questions in a relevant empirical setting. This is best explained by revisiting the objectives which were set for this thesis in Chapter I, which should also help establish the relevance of the findings and the degree of fulfilment of the objectives. The objectives specified for the thesis were:

1. To identify the dominant principle of demarcation that defines the salience of boundaries within the empirical setting in relation to knowledge sharing.
2. To investigate and understand the stakes behind the salience of the boundaries shaping the knowledge-sharing relations within and across the relevant social sites (i.e. knowledge boundaries).
3. To identify the strategies of distinction that shape knowledge relations within and across the relevant social sites, i.e. shape the salient boundary dynamics.
4. To identify the practices through which knowledge boundaries are enacted and made salient.
5. To understand the relationship between the patterns of interaction described by these strategies and practices and the knowledge-sharing agenda driving these interactions.

VI.6.2.1. Objective 1: To identify the dominant principle of demarcation that defines the salience of boundaries within the empirical setting in relation to knowledge sharing.

The pragmatic knowledge boundary was established as the most salient demarcation organising relations among the participants of the EU RIS project. This boundary was further established to be associated with the struggle for field dominance in the nascent field of practice that was the focus of the project as well as in the wider struggle for distinction across the diverse interrelated fields of practice represented by the participants in the EU RIS project. The pragmatic knowledge boundary was made salient by an attempt at heretical subversion of the nascent field of regional innovation development in the Western Poland region. It polarized the field into the orthodox (the Technocrats) and the challengers (the Cosmopolitans) reflecting the divergent visions

and interests between the two parties. Thus the pragmatic knowledge boundary demarcated differences of practice, claims to competence and legitimacy, habitus, and power. The dominant principle of demarcation was the logic of distinction implicated in the competition for status not just in the immediate field of practice that was the focus of the EU RIS project but also in each of the contributing fields as well as in the superordinate political field of the region.

Other salient boundaries included organisational, national, language, class, and gender boundaries. Organisational affiliation, nationality, and language were found to amplify the effect of the pragmatic knowledge boundary by introducing additional sources of distinction and difficulty in communication – a finding consistent with previous research on boundary salience in distributed organising (Levina and Vaast, 2008). Class and gender were the most salient on social occasions accompanying project work. On those occasions, a boundary shift was observed, whereby the pragmatic knowledge boundary would be replaced with the more primary distinctions of class and gender.

VI.6.2.2. Objective 2: To investigate and understand the stakes behind the salience of the boundaries shaping the knowledge-sharing relations within and across the relevant social sites (i.e. knowledge boundaries).

As the focal field of practice of the EU RIS project was in its nascent stages, the stakes underpinning the relations among the project participants were fundamental to the struggle for distinction within it: the very principle of domination was being decided (Bourdieu, 2004). This is why the struggle for field dominance focused on knowledge and took the form of heretical subversion: the brand of intellectual capital that would prevail in that struggle would ultimately become the definitive measure of status in the field. Furthermore, the ability to accumulate, transfer, and convert symbolic capital from the hybrid field (Panofsky, 2011) into the contributing fields of practice (the scientific, the regional development, and the business field) as well as into the superordinate political fields in the participating regions would also depend on the outcome of the EU RIS project.

VI.6.2.3. Objective 3: To identify the strategies of distinction that shape knowledge relations within and across the relevant social sites, i.e. shape the salient boundary dynamics.

The strategies of distinction deployed in the struggle for field dominance within the EU RIS project were associated with the stated aims of the project and reflected the stakes implicated in the attempt at heretical subversion that defined the pragmatic knowledge boundary polarising the field. *Knowledge transfer, consensus building, and collaboration* were deployed as *subversion strategies* by the challengers. They were used as second-order strategies (Bourdieu, 1977), i.e. in advancing the political agenda of the challengers they also played into the espoused values of the EU RIS partnership derived from the EC's RIS programme thus lending them an air of altruism.

Playing the same political game, the Technocrats overtly subscribed to the same values but associated different meanings with each of them. Thus collaboration was construed as cooptation, consensus building as demanding compliance, and knowledge transfer as on-demand access to information needed to realise their own vision rather than sharing 'best practice'. The strategies deployed by the Technocrats included also covert learning through *exploitation*, which was an opportunistic learning strategy consisting in selective appropriation of the Cosmopolitans' ideas without acknowledging their source. The fact that this was a covert way of learning meant also that the Technocrats did not have openly to admit that there was value to be had from engaging with the Cosmopolitans' vision of EU RIS. Thus they would have the benefit of learning but would still be able to maintain the superiority of their own knowledge. The Cosmopolitans too were not averse to opportunistic learning; however, in their case it took the less detrimental (from the point of view of the partnership) form of *opportunity hoarding*, whereby particular partners would seek to maximise their private benefits from learning ahead of the common benefits of learning on behalf of the partnership.

The key strategy used by both parties in their struggle for field dominance was *perspective pushing*. This strategy involved mutual indoctrination efforts aimed at achieving the conversion of the other party to the 'right' vision of regional innovation strategy. *Perspective pushing* was the essence of the struggle over symbolic power between the challengers and the orthodox. It consisted in both practice work and boundary work, which were mutually constitutive and had the effect of reifying the

pragmatic knowledge boundary between the two parties as well as escalating the struggle for field dominance into a perspective-pushing contest.

VI.6.2.4. Objective 4: To identify the practices through which knowledge boundaries are enacted and made salient.

The perspective-pushing practices through which the contest for symbolic power was played out and the pragmatic knowledge boundary reified can be classified into three sets of equivalent practices differentiated by the relative position of power of those practicing them into ‘strong’ and ‘weak’: telling (strong) and selling (weak), preaching (strong) and teaching (weak), and intimidating (strong) and bullying (weak). Preaching, telling, and intimidating were practiced by the orthodox whereas teaching, selling, and bullying were used by the challengers.

Telling was a direct and overt exercise of symbolic power and was used by the Technocrats to claim legitimacy for their orthodoxy as a ‘fait accompli’ and to establish the dependence of the EU RIS project in relation to that vision. *Telling* was about establishing the right to exercise symbolic power by the sheer act of exercising it. That their vision of RIS for Western Poland (RIS-A) was the vision that would be implemented was not at issue as far as the Technocrats were concerned – the only debate this position left room for was how the EU RIS project would be allowed to contribute to the RIS-A vision so as to ‘avoid overlaps’ with the RIS-A implementation project the Technocrats were running in parallel. *Telling* was the way of establishing that fact and reiterating it as and when necessary to leave the challengers in no doubt about their subordinate position.

Selling, on the other hand, was a practice that the challengers used in attempting to convey the value of their own vision of EU RIS and to try and convince the Technocrats that there would be benefits to them in adopting the EC solutions, learning from the ‘foreign experts,’ and allowing them to co-define the future practice of the regional innovation development field in Western Poland. It was a ‘weak’ practice in the sense that it was not underpinned by claims to symbolic power but only to experience and competence, i.e. relied on the appeal to the values of ‘knowledge transfer’, ‘consensus building’ and ‘collaboration.’

Preaching and *teaching* were practices aimed at educating the other party. The former was enacted by proclaiming the orthodoxy as the superior (because developed by academics and patriots) and the only legitimate vision (approved by the regional assembly prior to the EU RIS project) of the field. Thus again, the ‘strong’ practice was backed up by claims to symbolic power in the field. *Preaching* was akin to a sermon in that it was a unilateral mode of communication that assumed the message should be accepted without debate. Any questions or comments that would put in doubt the ‘dogma’ or suggest an alternative would be received as inappropriate. The only acceptable questions would be requests for clarification and further explanation of ‘the algorithm.’

The weaker practice of *teaching* again was not backed up by a claim to symbolic power but only to competence and experience: it was a direct way of conveying the practice-based knowing of how regional innovation strategies worked. *Teaching* was practiced by the ‘foreign experts’ and was a way of explaining practice that was open to questioning and dialogue but would not accommodate a conflicting paradigm, i.e. ‘transform knowledge’ (Carlile, 2004). It was thus akin to the practice of ‘translation’ deemed by Carlile (2004) to be the effective boundary spanning practice under conditions of semantic difference. As such it was ineffective in transcending the pragmatic knowledge boundary that was salient in the EU RIS project.

Finally, *intimidating* and *bullying* were the confrontational practices through which the opponents would challenge each other directly on the issue of dominance. With these practices issues of knowledge and competence would not take centre stage. Instead, the Technocrats would manifest their symbolic power and their legitimacy in the field whereas the Cosmopolitans would try to stand their ground by conveying their objections to the Technocrats’ assertions of power and condescension expressed in the practices of telling, preaching, and intimidating. *Intimidating* construed the Technocrats as the legitimate dominant party in the field by referring to the official status of their innovation strategy document (RIS-A) and the primacy of their RIS-A implementation project in relation to the EU RIS partnership. It also called upon the social capital available to them emphatically to claim symbolic power in meetings (as when the chair delegated his role to the RIS-A project manager) and in making decisions that by-passed the rule of voting by consensus (as in the project logo debate).

Both the strong and the weak practices advanced the strategy of perspective-pushing: they simultaneously constituted practice work and boundary work. They were practice work because they were focused on shaping the practice of the nascent field of innovation development in Western Poland. They were concerned with conveying, explaining, promoting, establishing, and supporting a vision of competence that would advance the respective interests of the Technocrats or the Cosmopolitans. The same practices were boundary-reification practices as they activated and made salient the pragmatic knowledge boundary between the two perspectives.

This was due to the confrontational and uncompromising nature of practice work through perspective-pushing: field dominance was at stake and neither party was willing to concede it without a fight. At the same time, the reification of boundaries fuelled the animosity between the two parties by highlighting difference, imposing dependence, and exposing the conflict of interest between them. There was therefore a mutual feedback effect between practice work and boundary work (Zietsma and Lawrence, 2010) that escalated perspective-pushing into a contest akin to what Tilly (2004) described as ‘attack-defence sequences’.

VI. 6. 2. 5. Objective 5: To understand the relationship between the patterns of interaction described by these strategies and practices and the knowledge-sharing agenda driving these interactions.

Knowledge sharing was an espoused theory for all the participants in the EU RIS project but it was not their theory-in-use (Argyris and Schön, 1978). Whilst the value of learning from partners in the project (and in particular from the ‘foreign experts’) was not being openly questioned, in practice the associated ideas of ‘knowledge transfer’, ‘consensus building’ and ‘collaboration’ were all contentious issues that were at the very heart of the conflict between the Technocrats and the Cosmopolitans. Rather than being translated into strategies of boundary transcendence, these three core values of the EC’s RIS programme were construed as second-order strategies of distinction (Bourdieu, 1977).

This was due to the fact that the EU RIS project was in effect an attempt at heretical subversion of the nascent field of regional innovation development in Western Poland originally constituted by the Technocrats. That meant that knowledge was at stake for

both parties whose struggle for field dominance depended on establishing their version of competence as the legitimate basis for dominance. In the first instance, knowledge transfer, consensus building and collaboration were used as strategies for field entry and redefinition of field boundaries by the Cosmopolitans. The same strategies continued to be used by both parties in their symbolic struggle for field dominance throughout the EU RIS encounter. The main strategy of distinction was the perspective-pushing contest that was in essence a reversal of the knowledge-sharing agenda of the EU RIS project.

VI. 6. 3. Further Contribution: Boundary Dynamics in a Nascent Field of Practice

In addition to fulfilling the objectives set for this thesis, the research also yielded noteworthy findings regarding the formative stages of an emergent field of practice and the associated boundary dynamics. Through the analysis of the EU RIS project as a case of exogenous change in a nascent field of practice one possible pathway of the formation of a new field of practice is revealed: one that is not a linear progression through phases but a dynamic, relational exchange of ‘moves’ in a game that is a struggle for symbolic dominance in the new field. In a simplified form, this pathway can be described as follows: the first mover *inscribes boundaries* around a new sub-field of practice to establish a claim over it in the hope of future rewards in terms of increasing the volume and/or improving the structure of their capital in a superordinate field of practice. Following an *incentive shift*, another interested party (or parties) decides to act on a chance to share in the rewards: in order to maximise these, they engage in an encounter with the incumbents working to change the boundaries (i.e. gain entry).

Unable to prevent it and/or anticipating some benefits for themselves, the incumbents allow the *inscription of a new boundary*. The new entrants launch an attempt at *redefining the dominant capital structure* in the field to their advantage by challenging the nascent (and thus potentially vulnerable) orthodoxy in the field through *heretical subversion*. This is met with a robust defence from the original incumbents resulting in the *activation of a pragmatic knowledge boundary* within the newly inscribed field of practice. A *perspective-pushing contest* ensues, *polarizing* the field as each party entrenches their positions offering competing claims to legitimacy and backing them with the combination of various forms of capital they can muster from within their own fields of practice.

These will bear more or less influence in the emergent field depending on the degree of congruence between that field and the respective contributing fields of practice, and thus also of that field's autonomy (Bourdieu, 2004). In the absence of external influences the original incumbents' capital base, being more field-specific, is likely to be advantageous: this is due to the fact that capital acquired within the field does not require that a conversion rate be established in negotiation with other stakeholders. The volume and structure of available capital corresponds to each party's position in the field and thus also their relative position of power.

The relative symbolic power of the opponents influences their approach to the perspective-pushing contest in which they are engaged: *the dominant* party opting for *strong variants of perspective-pushing practices* and *the dominated* practicing *the weak equivalents*. The heretical subversion contest is played out to its conclusion, when the dominant principle of field dominance (i.e. the privileged form and structure of capital) is established. In the absence of intervening circumstances the result is likely to be the concession of defeat by the dominated party. The outcome is normalised through euphemization, so that both the dominant and the dominated can co-exist within the field which will henceforth be perpetuating the inequality between them.

VI.7. Empirical Contribution

The EU RIS project provided a heterogeneous research setting for the present study, which offered insights into several aspects of cross-boundary learning. These included: the international, inter-organisational, public and private sector, community and network of practice, and field development dimensions. Each of these dimensions offers insights for scholars working in related research areas: international knowledge diffusion, inter-organisational knowledge transfer and learning alliances, distributed organising, the Communities of Practice, and studies of institutional fields and their development. These aspects have already been touched upon in connection to the theoretical contribution of the thesis.

Thanks to its geographic location in Central Europe, the EU RIS case is also well positioned to inform studies of this region of Europe, particularly with regard to the

background of European Union membership, access to and utilization of European structural funds. Large amounts of public money are spent every year on collaborative projects funded by the European Commission - the 6th Framework alone involved the expenditure of EUR16.27 billion (Innovating Regions Europe, 2007a), of which EUR11million was spent on Regional Innovation Strategies (Innovating Regions Europe, 2007b). The underlying assumption behind the latter was that partners in RIS projects would learn collaboratively and utilise the opportunities for knowledge transfer offered by the obligatory participation of partners from European regions where regional innovation strategies had been developed in previous editions of the programme. Similar assumptions hold for other kinds of collaborative learning partnerships, consortia, and alliances funded from public sources. However, little is known about the extent to which these assumptions are sustained in practice and therefore how effectively funds are being spent. Whilst this thesis does not address these issues directly, it does open the door for further research in the area by exploring the difficulties involved in the realisation of one such project and indicating that there is significant potential for questioning the key assumptions on which the European philosophy of learning partnerships is based.

Another interesting way of looking at the EU RIS case is from the perspective of international diffusion of Western management ideas. In a reversal of the commercial logic of knowledge dissemination described by Sturdy and Gabriel (2000), the EC was effectively paying local stakeholders to adopt the EC RIS methodology. This ‘missionary’ logic of benevolent charity in relation to the transfer of Western management ideas was first pointed out by Kostera (1995) and has been the subject of some criticism in the management literature, e.g. Sturdy and Gabriel (2000) compare Western agents of knowledge transfer to car salesmen and Wright and Seung-Ho (2006) reflect on the considerable resistance in Korean companies towards Western consultant’s ideas. The matter is entangled in the complexities of the broader international struggle for domination (Bourdieu, 1999) though typically veiled by discourses of collaboration, humanitarian ideals and progress. The EU RIS case study offers some revealing insights into how such values are deployed as second-order strategies of distinction in local settings.

VI.8. Summary of Contribution and Suggestions for Further Research

VI.8.1. First-Order and Second-Order Strategies of Distinction

The research reveals the strategies of distinction used in the course of symbolic struggle over field dominance under conditions of heretical subversion of a nascent field of practice. The first-order distinction strategies, i.e. those immediately orientated to the accomplishment of distinction and non-discussible, include perspective-pushing and the learning strategies of opportunity hoarding and exploitation. These are distinguished from second-order strategies, i.e. those mediated through the observance of political correctness inherent to the field, including consensus building, collaboration, and knowledge transfer. The second-order strategies were used by the challengers in order to establish their vision of the field and by the orthodox to defend their position within the field. Following Bourdieu (1977) these are described as second-order strategies because their outward altruistic appearance, which is achieved by appealing to commonly espoused values, hides the agenda of distinction, which is the actual theory-in-use (Argyris and Schön, 1978) behind these strategies. The distinction between first-order and second-order strategies of distinction should prove to be a useful conceptual tool for advancing the emergent strand of research into the distinction aspect of boundaries in the PBS tradition.

VI.8.2. Perspective-Pushing Contest

The study revealed a *perspective-pushing contest* which was played out between the orthodox and the heretics, with each party trying to indoctrinate the other in an effort to establish the dominant principle of field dominance. Perspective pushing was shown to be a strategy in the struggle over the power to name the field's legitimate competence and thus also to determine the dominant form and structure of capital within the nascent field. The strategy of perspective pushing was contrasted with Boland and Tenkasi's (1995) perspective taking to highlight the reversal of the logic behind knowledge sharing as a collaborative and reciprocal communicative effort. Perspective pushing was further juxtaposed with the idea of the learning races (Hamel, 1991) where the contest is to maximise private learning benefits ahead of common learning benefits: in learning races inward knowledge flows are encouraged and outward knowledge flows are carefully limited; in perspective pushing the opposite is true.

Both contrasts can be explained with reference to the struggle for symbolic power, where benefits accrue from domination through indoctrination and learning from the other party is equivalent to acknowledging the inferiority of one's own perspective. It can further be linked to the difference between what is perceived as valuable knowledge and what counts as ideology, hence the parallels between perspective pushing and the practice of religious conversion or political propaganda. The indoctrination aspect of knowledge sharing has not been given any significant attention within PBS of knowledge and learning and neither has been the distinction between knowledge and ideology. Questions of ideology, indoctrination, and even conversion fit in well with the PBS tradition and Bourdieu's theory of practice offers a fertile ground for cultivating such a research agenda.

VI.8.3. Learning for Private Benefits

The study reveals two covert learning strategies orientated towards maximising private learning benefits at the expense of common learning benefits of the learning partnership: opportunity hoarding and exploitation. The former is the more benign form in that private benefits, whilst superseding concerns of common benefits, are not accomplished at the expense of the other party. The latter is labelled 'exploitation' precisely because it happens at the cost of the other party. Both these learning strategies were deployed in contradiction to the stated aims of the partnership, which purported to be built on the values of collaboration, consensus building, and knowledge transfer. The learning strategies of opportunity hoarding and exploitation can offer an interesting line of investigation for those researchers who are interested in the 'dark side' of organisational learning, which remains in need of more attention (Mørk et al, 2010).

VI.8.4. Boundary Reification Practices

The research identifies six perspective-pushing practices resulting in the reification of boundaries. These fall into two sets of corresponding practices differentiated by the underlying power basis of those engaged in their enactment into strong: telling, preaching, intimidating; and weak: selling, teaching, and bullying. Both sets of practices have been identified as deployed in the course of boundary and practice work, confirming Zietsma and Lawrence's (2010) proposition that boundary work and practice work are mutually constitutive. They were used to establish claims to competence, to

indoctrinate the party making competing claims on the one hand, and oppose attempts at indoctrination on the other. Further research is needed to confirm these exploratory findings, provide more examples of these practices and their use, and to uncover other types of boundary reification practices related to knowledge sharing and learning, especially with regard to issues of status, expert learning, consulting, and innovation. This is a very promising line of investigation with regard to advancing the reification strand of PBS research on boundaries, which currently is still at an early stage of development.

VI.8.5. Capital Flows in an Interconnected Set of Fields of Practice

The analysis of the findings ties the strategies of distinction deployed by the participants in the course of their symbolic struggle over field dominance to the idea of the optimisation of their respective portfolios of various forms of capital across a web of interconnected and sometimes nested fields of practice. In some of those fields of practice participants from both sides of the boundary polarising the studied hybrid field were also active. It is argued that the participants were concerned with building a well-structured portfolio of capital not just in the immediate field of practice in which the principle of dominance was being contested but also in the wider set of interconnected fields of practice, including – importantly – the superordinate field of regional politics.

This was manifest in the fact that participants would transfer the capital accumulated in other fields of practice into the focal hybrid field, exchange different forms of capital within that field, as well as ‘withdraw’ the economic capital from the hybrid field. All the while the conversion rates at which the transfers of capital were being made were tentative and uncertain – the participants were ‘placing bets’ as to what the winning capital structure in the contested field would be. The strategies of distinction associated with the optimisation of the overall portfolio of capital across related fields of practice promise to be an interesting avenue for PBS scholars as is the question of the relative importance of investments held in different fields of practice. Questions regarding the risks and bets taken with regard to conversion rates between different species of capital and between different fields of practice would be particularly interesting if asked in conjunction with each other. Comparative analyses between established and nascent hybrid fields might yield interesting insights regarding the idea of negotiating the dominant principle of domination highlighted above.

VI.8.6. Boundary Shifts

The pragmatic knowledge boundary was not the only organising principle of relations between the participants in the EU RIS project. Other salient distinctions included organisational membership, nationality, language, gender, and class and were found to amplify the effects of the primary salient boundary in line with Levina and Vaast's (2008) findings. The most interesting boundary dynamic associated with those other types of boundaries, however, was the change in boundary salience in social situations. The analysis of social situations associated with the project revealed that on those occasions the pragmatic knowledge boundary would lose its salience and social boundaries, such as class and gender, would come to the foreground instead. Thus a shift in the salience of boundaries and not dissolution of boundaries was observed in those situations, which supports the findings of Sturdy et al (2006). The most promising avenue for further research associated with these findings is the salience of gender boundaries. This was a highly pronounced tendency in the case of the EU RIS project: men and women would either self-segregate or the 'geisha' effect would set in whereby the women would take on the role of social facilitators. Whilst not fully explored in this thesis, these observations merit further attention from scholars interested in the study of gender in organisations.

VI.8.7. Boundaries of a Nascent Field of Practice

Studies of fields of practice in their early stages of development are rare in the PBS literature on knowledge and learning. The EU RIS case offers insights into the boundary work and practice work that shaped an emergent field of regional innovation development. Rather than providing a staged process account of the development of the field, this study reveals a dynamic game scenario played out between two groups of stakeholders: the orthodox and the heretics. The stake of the game is field dominance. Both parties are constrained by the rules of the political game and empowered by their practical sense for the game. They deploy first- and second-order strategies of distinction and back them up by stocks of more or less valuable forms of capital. The game is played out through boundary work and practice work (both of which are interconnected and feed into each other) aimed at changing the boundaries and changing the definition of competence in the field. The results of the game are not fixed or

predetermined: there is no single ‘best strategy’, which is why the scenario approach is a useful way of studying field dynamics. This kind of scenario thinking offers a new perspective on the study of boundaries in knowledge sharing – one that foregrounds the emergent and the indeterminate aspects of practice and boundaries of practice but does not lose sight of the objective and the structural considerations, thus realising the potential of Bourdieu’s (1977, 1990) theory of practice.

VI.9. Reflection

This thesis originated from an interest in how people with different educational and professional backgrounds, espousing different identities and belonging to different social worlds learn from one another, jointly develop new understandings, solutions, and technologies, and co-create new ways of thinking, doing, and being in the world. Put more succinctly, the thesis was inspired by a curiosity about the practice of knowledge sharing across socio-epistemic boundaries.

Little did I know at the time I set about satisfying that curiosity where it would take me. I certainly did not expect to be reading about the West African Pentacostals, voodoo, American climbers, gay and lesbian movements, the Bastille, Islamic female entrepreneurs, home décor in England, or Charlie Chaplin. Nor did I expect to be exploring themes of social exclusion, nationalism, discrimination, or bullying. The more predictable intellectual pursuits were equally exciting: the mind, knowledge, learning, practice, science, power, politics... And all that so as to understand a single project!

When I was a little girl, I wanted to be an explorer. I am happy to say that I feel that now I have had a little taste of what it might be like: finding a new surprise round every corner, having to choose among divergent trails, sometimes getting desperately lost and often having to overcome my own weakness, encountering hostile natives, retracing my steps, being amazed, charting a new territory, making a discovery... It has been a beautiful adventure and I have learnt a lot – not least about myself. It is time to move on...

Appendix 1. The Interview Guide

INTRODUCTION:

- Greetings and thanks
- Purpose of the interview
- Confidentiality information
- Freedom to terminate the interview
- Consent for recording
- Questions?

QUESTIONS:

1. How did the project originate?
 - the starting point when you were first aware of it
 - first meetings
 - involvement in the preparation of the proposal
2. What were the first steps in preparing the project bid?
 - the process from the point of view of your organisation/yourself
3. What were the reasons for your organisation's and your own involvement in the project?
 - learning benefits?
 - financial benefits?
 - other?
4. How can your organisation contribute to the project?
5. How has the work on the project been developing so far?
 - step-by-step process

- key events
 - main surprises
 - main difficulties
6. Do you work with all partners equally?
 - Which organisations/individuals do you cooperate more closely with?
 7. How important is the project to your organisation? Why?
 8. Is the project important to your own career? How?
 9. How do you evaluate the overall quality of collaboration between the project partners?
 10. What would you change about the project if you were to make a new start?
 11. What are the key success factors for the project?
 12. How many meetings have you participated in so far?
 13. How frequent are the meetings?
 14. Are they constructive?
 15. What kind of problems arise?
 - at meetings
 - between meetings
 16. What is the purpose of the workshop attached to the next PMU meeting?
 - Do you see a need for that?
 - What are the chances that the workshop will meet these expectations?
 17. What can your organisation learn from the other project partners?
 18. What can the other partners learn from your organisation?

TERMINATION:

Thanks and opportunity to ask questions.

Appendix 2. Herve Corvellec's (1997, In: Kostera, 2006: 181-182)

Guide to Semiotic Analysis

- General outlook of the text: general presentation, format, cover pictures
- The narrator and focalisation
 - o The narrator (the model author): sign of the narrator, grade of intrusiveness of the narrator, distance of the narrator, reliability of the narrator
 - o Focalisation: angle from which things are seen, identity of the focaliser(s), unrestricted point of view, internal point of view, objective point of view, or else?
- The audience – model reader (who and why)
- Arrangement of the text
 - o Titles: name given to the report, name given to other performance reports
 - o Table of contents: overview of the structure of the text is given
 - o Highlights: presence of highlights, what is highlighted and how
 - o Presence of summary
 - o Text and time: order, duration, frequency of the text (if it is for instance a bulletin), signs of the spatio-temporal orientation of the text
- Style
 - o The language of activity report: technical terminology, positive and diminishing words
 - o The practice of naming and of normalisations
 - o Verbs: are verbs in the active or passive voice? If in passive voice, is the agent explicated?
 - o Types of speech presentation: free direct discourse, normal direct discourse, and normal indirect discourse
 - o The place given to figures
 - o The place given to diagrams
 - o The practice of quotation (rules of quoting, how it is quoted, why and when, etc.)
- Organisation of the narration

- Plots: events, presence of functionality, equivalents events (relevance of events), order of presentation (among which temporal axis of the events), duration of the events and speed of the narration, casual relations, organisation of the events into a plot, multiple sequences of narration, homogeneity of the narratives
- Characters: traits and attributes, articulation of the traits, categorisation of characters, portraits and portraying technique (means of characterisation), characters who are and characters who do
- Settings: indication of the spatio-temporal complex
- Explicit/implicit information and presupposed information
- Themes
- Comments

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