

ReVolutions:

Innovation, politics and the Swedish brand

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Abstract

This thesis is an ethnographic study of how professionals within Volvo Car Corporation manage public contestation of the corporation's business practices, notably within the areas of automotive safety, environmental care, and so-called 'corporate citizenship'. Thus, the text interrogates how actors inside the firm mediate between the demands of the public on the one hand, and the economic and technical constraints of the corporation on the other.

Theoretically, the text sets out to make two contributions. First, following Bruno Latour's critique of modernity, it explores the modern conception of the economy, in which markets and firms are construed as natural phenomena that are separate from cultural, political and 'subjective' processes. Secondly, building on Michel Callon's work on economic markets, the text examines the practices by which corporate professionals 'invent' new areas of corporate responsibility, and thus participate in the 'reframing' of the automotive market. With regard to methodology, the thesis argues that ethnographies of corporations and their social responsibilities require interventionist modes of inquiry, where researchers 'take sides' and assist in the construction of certain forms of economic action.

The thesis concludes that – contrary to the modern conception of markets and firms – the business operations of Volvo have continually been entangled in processes of idealism, politics and ideology. Moreover, the way in which corporate professionals readily traverse the 'inside' and the 'outsides' of the corporation shows that – again, contrary to the modern conception of markets and firms – the boundaries of the firm are fluid and penetrable.

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1 Introduction

The publication of Michel Callon's (1998) *The Laws of the Markets* has caused economic sociologists to examine notions of 'the inside' and 'the outside' of economic markets. The idea of the market as "a many-sided, diversified, evolving device" (1998b: 51) has raised questions regarding the contested boundaries of this device. For example, Andrew Barry (2001) talks about Callon's market as a "technological zone", and suggested that sociologists ought to study the borders of these zones, where the technological apparatus becomes weaker and open to reconfiguration.

Whereas previous work within the Callonian tradition has focused primarily on the notion of the market, this dissertation sets out to study the firm as one such 'technological zone'. Thus, this text interrogates the notions of 'the insides' and 'the outsides' of the firm, focusing on the contested boundaries of contemporary business organisations.

As an entry point, the text will focus on the phenomenon of 'Corporate Social Responsibility'. This concept is frequently reoccurring within the business community, civil society, the polity and academia. Under this umbrella term, corporations engage more actively in collaboration with civil society organisations, managed by recently established corporate functions. Moreover, new business practices are emerging, such as social and environmental auditing and reporting, staging of dialogues with stakeholders, and the development of ethical codes of conduct. Thus, these practices operate on the very boundary that traditionally separates the firm from wider society.

The text is based on a one-year ethnography of Volvo Car Corporation, in which the researcher has worked with 'corporate social responsibility' professionals. As will be explored later in the text, this raised issues regarding the role of the researcher – especially given the sheer power wielded by multinational corporations. The choice of Volvo Car Corporation is pertinent because of the particular nature of its industry. As John Urry (1999: 2) writes, the automobile industry is the quintessential modern manufacturing industry, setting the trends in industrial capitalism; it forms a 'powerful machinic complex' that interconnects a plethora of industrial and technological systems; and it is the industry that consumes the most resources. Moreover, automobility "is perhaps the best example within the social world of how systematic unintended consequences are produced as a consequence of individual or household desires, in this case for flexibility and freedom." (7)

This text is structured in four parts – introduction, theory and method, substantive research findings, and conclusions. (See table 1.1 below.)

1. Introduction
2. Modern economic constructions - on theory
3. Assisting the actors - on methodology
4. Towards the pinnacle of modernity - a history of Volvo
5. Risk managers and change agents - the hybridity of the activist professionals
6. Conclusions

Table 1.1: The chapter structure of this text.

Following this introductory chapter, chapter two will provide a critical review of relevant theory. The chapter uses Bruno Latour's critique of the moderns to argue that the mainstream conception of markets and firms is modern, inasmuch as it construes markets and firms as objective, naturalised phenomena, disentangled from the subjective and political processes in 'society'. The chapter then examines Michel Callon's work on markets, stating that his notions of 'framing' and 'overflowing' need to be studied in greater detail, notably by stepping into the firm (which is black-boxed in Callon's original theory). Chapter three provides a rationale for choosing ethnography as method, and explains the specifics of how the field study was conducted. In particular, the chapter expands upon how to conduct an STS-inspired study in a corporate setting without reproducing incumbent power structures.

Together, the two chapters in this second part of the text will raise seven sets of issues (six theoretical, one methodological) that the subsequent text will relate to.

The substantive part of the dissertation – chapters four and five – is structured as follows: Chapter four surveys the history of Volvo, creating a narrative around the overflow inventions that the firm has taken part in. The text thus surveys how the contested areas of Volvo's business – car safety, environmental care and corporate citizenship – have emerged over time. In presenting this narrative, the chapter will bring out how overflow inventions were conceived by actors (inside and outside the corporation) who weaved technology and artefacts together with political and social actors in order to create durable innovations and new corporate responsibilities. The chapter will also bring out how the post-war Volvo was tightly bound up in the political economy of Sweden, and give a historical introduction to the site of the ethnography.

Chapter five presents the ethnography of a certain department within the Volvo Car Corporation: the department remitted with managing the contested areas of the firm's business. The chapter will first focus on the professionals who work within this department, examining how they construe their role in the firm. The focus will be on how they bring their own subjective politics into their professional role, and how their worldview clashes with the ontologies of 'others' inside the company (chiefly engineers). The chapter will also study the networks of actors that the professionals draw upon as they turn 'subjective politics' into 'objective management fact': The text will point to a host of 'hybrid' actors (corporate professionals, external consultants, civil society activists) who mediate between the supposedly 'subjective' society and the 'objective' firm. Lastly, the chapter explores how matters change as a researcher

enters the department, effectively joining forces with the professionals in their battles against the engineers.

In the concluding chapter, the seven sets of theoretical and methodological issues (raised in part two) will be reiterated, and then responded to, one by one.

2 Modern economic constructions

- on theory

This theoretical chapter develops two main points: first, that Bruno Latour's critique of the moderns can be successfully applied to studying contemporary markets and firms; and secondly, that Michel Callon's recent work on the study of economic markets is a fruitful approach to studying firms and their societal responsibilities, though some of his concepts require further elaboration.

With regard to the first point, section 2.1 will use Latour's notion of the modernist settlement (based on official purification of, and unofficial mediation between, objective Nature and subjective society) to critique the contemporary conceptions of markets and firms as naturalised entities. Notably, it will highlight the 'hybrids' that mediate between the naturalised business world, and the supposedly subjective processes that unfold in 'society'. With regard to the second point, section 2.2 interrogates the notion of the firm, arguing that Callon's theory of the market has (as yet) worked under the assumption of the black-boxed, monolithic firm. In order to explore the notions of 'framing' and 'overflow invention' further, scholars must open this black box through studying framing and overflowing from the inside of the firm. The chapter concludes with a restatement of the issues raised, thus presenting the theoretical agenda of the dissertation (2.3).

2.1 Latour and the modern conception of markets and firms

In recent years, economic sociologists have increasingly started to use theory and methods developed within Science and Technology Studies (STS) to study the

economy. (Coopmans, Neyland & Woolgar, 2004) The text will align itself with this development, focusing primarily on the theoretical contribution of Actor-Network Theory (ANT) writers Bruno Latour (in this section, which constitutes the first half of this chapter) and Michel Callon (in the next section, constituting the second half of this chapter). This section will first review some elements of Latour's critique of "the modern settlement", and then apply this critique to markets and firms.'

The modern illusion and its ontopolitics

In his exposé of STS, John Law (2004: 1) starts off from the publication of Kuhn's 1970 *The Structure of Scientific Revolutions*. Nowadays, Kuhn's idea that the content of scientific knowledge is shaped by social processes is commonplace, but at the time his book was published, it certainly was not. According to Law, early STS represented a pragmatist approach to science and truth: Scientists in their communities solve the puzzles thrown up by nature, by using and extending their cultural resources. Truth, then, is what works (for the moment), and beliefs are simply "bets on the future" (Menand, 2002: 440).

According to Law's depiction, the past two decades have seen STS develop into several strands of theory, Actor-Network Theory (ANT) being the main one (Callon, 1986; Latour, 1988).¹ ANT deviated from 'mainstream' STS on the issue of ontology: whereas early STS scholars viewed nature and reality as 'out there' to be (mis-)understood by the cultural practices of scientists, Actor-Network theorists argued that nature and reality are constituted by the very scientific knowledge that the STS

¹ The second influential strand of theory mentioned by Law – feminist technoscience – developed from the work of Donna Haraway (1989; 1991a; 1991b), and has constituted an influential source of ANT criticism for the past fifteen years. More on this will follow later in this chapter, and in chapter three.

scholars invoked as mere descriptors of reality. Thus, reality is not a fixed thing 'out there', but a construction put together in scientific laboratories: 'Give me a laboratory and I will raise the world' (Latour, 1983). From this, Latour and others built a framework for studying the social, technical and political processes by which worlds are made and unmade by scientists and engineers (see for instance Latour, 1987). His interests also involved the political aspects of the forging of scientific truth. This amalgam of ontology and politics is dubbed ontopolitics – the politics around what is legitimated as real (Stengers, 1997).

So, while ANT is a sociology of how innovations are conceived, it is also an approach to studying power and politics. Because it sees socio-technical innovation as a political activity, ANT's view of innovation diffusion differs substantially from other conceptions of innovation. In the disciplines of innovation economics, and American institutionalist economic sociology, innovations are construed as dead entities that spread like rings on water. ANT instead poses that science and technology moves through the social world as social actors use them as tools of persuasion, modifying them to fit their own purposes, with the intent to pursue their own strategies of power. Therefore – because of the highly politicised nature of innovation – innovations continually change shape as they spread across the social world. (Rövik, 1998)

Thus, as ANT has evolved, it is now used as a wider social theory for studying not only scientists and engineers, but also the society at large. One of the key texts that lead to ANT studying wider phenomena was Bruno Latour's *We Have Never Been Modern* (Latour, 1993). In this essay, he argues that modernity is characterised by a systematic misrecognition: while the theories of modern scientists and engineers

posit a modern world of pure, disentangled objects and subjects, the actual world of modernity is in fact full of impure, entangled entities. He is thus critiquing the modern propensity to divide the universe into a dualist 'Nature versus culture' scheme. Within the "Nature pole", moderns put non-humans, science and technology; within the "subject/society pole", moderns put humans, power, politics² and ideology. Nevertheless, the harder the moderns try to construct this world of purity, the more they simultaneously – however unofficially – construct impurities ("hybrids"), which serve to mediate between Nature and culture, containing the purity of the official construction.

This trait of modernity is evident when conducting ethnographic or historical studies of scientific practice, thus bringing out how scientists make and unmake worlds by amassing allies. (Latour, 1987) Latour builds arguments from studies of archetypally modern scientists – for instance Louis Pasteur (Latour, 1988), Frédéric Joliot (Latour, 1999a) and Robert Boyle, originally studied by Shapin and Schaffer (1985) but further analysed by Latour (1993), Haraway (1997) and Potter (2001). Moderns contend that such scientists 'just do science' – conduct truth-seeking activities that neither reflects, nor restructures, culture and society. In other words, Boyle, Joliot, Pasteur and others were seen to be disentanglers and purifiers – separating objects from subjects, Nature from culture/society, science/technology from politics. Their legitimacy as representatives of Nature rested on them being "modest witnesses" to how objects behave: "Inhibiting culture of no culture", they were "on the side of the objects", while all other humans were "left in the domain of society and culture".

² Note: from chapter four onwards, the word 'politics' signifies this modern conception of the word (unless otherwise stated).

(Haraway, 1997: 23-25) Moreover, there is a certain way in which scientific results are post-constructed in public – towards non-professional scientists – in order to seem disentangled, thus upholding the modern illusion. Andrew Barry notes:

In science, a clear distinction is made between the untidy practical process of laboratory work and the finished public presentation of conclusions and results. The latter appears in public as an embodiment of the rationality of scientific method. The former is generally unobserved. (Barry, 2001: 23)

However, as shown by anthropological inquiry, the scientific process is actually one of systematic entanglement: "one after another the modernist heroes of science have been turned into thoroughly non-modern entanglers" (Latour, 2003a: 38). These entanglement processes entail so-called 'goal translations'. For instance, when researching nuclear fission, Joliot had to manage not only the enrolment of non-human actors in 'Nature' (such as neutrons, paraffin, and deuterium) – he also had to manage political processes enrolling human actors within 'society'. These included nationalistic officials within the French Ministry of War, scientist colleagues within the Centre National de la Recherche Scientifique, corporate executives within Belgian Union Minière du Haut-Katanga and Norwegian Norsk Hydro, and so on. These entanglements were held together by translations that forged common goals among the allies. Though Joliot's original goal was to be the "first to master chain reaction", and the Minister's original goal was "national independence", a goal translation joined the actors around the common goal of "a laboratory for chain reaction and future national independence". (Latour, 1999a: 80-112) Latour arranges these entanglements into five concurrent processes:

- *Mobilising of the world*: The development and use of instruments (technical equipment, or in social science, surveys) in order to turn 'objects of research' into discourse, making them amenable to proof and argument.
- *Autonomisation*: The creation of scientific disciplines, professions, cliques and institutions, through which the scientist can claim expert status.
- *Alliances*: The enrolment of human, non-scientist actors, in order to secure resources.
- *Public representation*: The convincing of the wider public that the endeavour pursued is useful and benign.
- *Links and knots*: The tying of the above four processes into a durable and coherent network.

So, with regard to the illusion of disentanglement that modern scientists such as Joliot sought to create, Latour states that the

discrepancy between self-representation and practice was not due to the banal distance between words and things, theory and practice, consciousness and life, but that it was fully *functional*: it was *because* moderns took themselves to be so thoroughly *disentangled* from the shackles of the past that they were so *efficient* at *entangling* themselves [...] Thus, for me, the originality of the moderns never relied on some ideal of science, [...] but in one very efficacious estrangement from their own practice which allowed them to do the exact *opposite* of what they were saying. (Latour, 2003a: 38)

For Latour, then, 'modern' means more than what it does to most other authors. Modernity is not just – *pace* the American pragmatists – a condition in which society ceases to see life as cyclical; in which linear history is seen to move us forward into

an ever-unfolding future (Menand, 2002: 399). Nor is it only a time when humans start seeing the future as "a territory to be conquered or colonised" through anticipating and calculating future risks (Giddens, 1999). Latour is instead interested in the collective delusion of modernity – the fact that the moderns developed "the ability for their right hand to ignore what their left hand was doing" (Latour, 2003a: 40). As the modernist ambitions are simply delusory, Latour concludes that we have never been modern. More specifically, "there has never been a time when modernity's interpretation of itself has described its deeds adequately". (38) What, then, is the nature of these 'impurities' that proliferate in the modern world – what exactly is it that the "left hand" is unofficially constructing, and how does it serve to sustain the official construction?

Latour sketches a 'modernist settlement' in terms of two dichotomies: The first dichotomy is the previously mentioned separation of nature and culture/society, of nonhumans and humans; the second is the separation between the 'official' work of purification, and the 'unofficial' work of mediation through the creation of hybrids.

(See figure 2.1.)

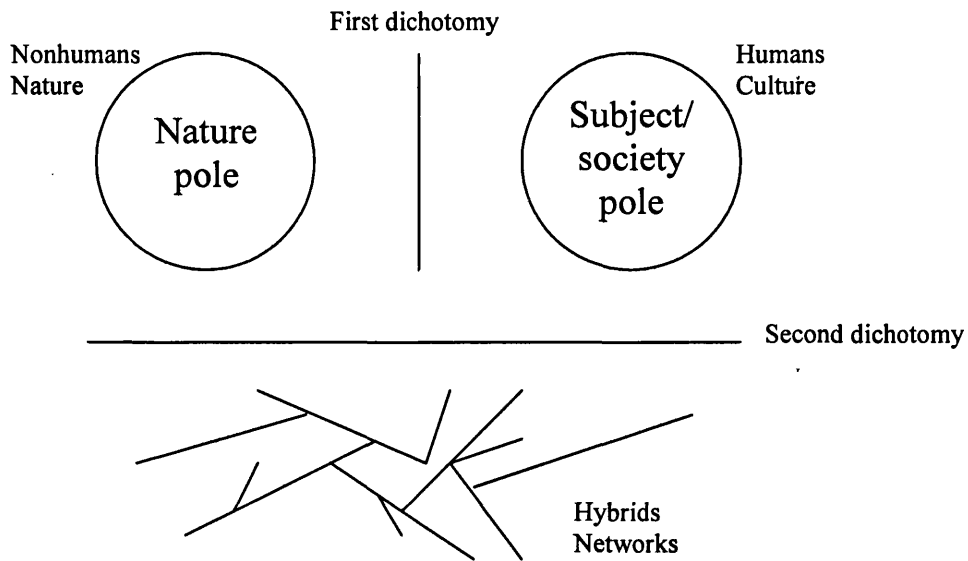


Figure 2.1: The twin dichotomies of the modern settlement. (Latour, 1993: 11)

With respect to the first dichotomy, moderns assume that "it is not men who make Nature; Nature has always existed and has always been there; we are only discovering its secrets" (Latour, 1993: 30). At the same time, moderns assume that "human beings, and only human beings, are the ones who construct society and freely determine their own destiny". These assumptions are obviously false – STS and ANT has shown that Nature is constructed by scientists through the enrolment of 'social' subjects, and that society is given structure by enrolment of 'Nature' objects. Nevertheless, the assumptions remain consistent as long as moderns manage to separate "the natural world (constructed, nevertheless, by man) and the social world (sustained, nevertheless, by things)" (31).

For Latour, then, a world of pure objects and subjects is impossible to obtain – the more that moderns separate, the more they construct hybrid networks that mediate between objects and subjects, between Nature and culture. So, in other words, being

modern is about officially propagating purification (with "the right hand"), while unofficially creating ever-proliferating networks of mediation (with "the left hand"):

The link between the work of purification and the work of mediation has given birth to the moderns, but they credit only the former with their success. (41)

Following this brief introduction to Latour's critique of modernity, the next two subsections will explore how this scheme applies to how the moderns understand the notions of markets and firms.

The modern conception of markets and firms: economics

Several authors have pointed to the modernist aspirations of economics (Polanyi, 1944; McCloskey, 1985; Haraway, 1991a). Similarly, Latour writes about the modernist conception of a "naturalised economic infrastructure studied scientifically by economics" (Latour, 2003a: 45). Indeed, he cites the sustained support of this naturalised view of the economy as "an expansion of modernization with a vengeance". Following the Latourian critique of the moderns, this subsection will argue that the conceptions of markets and firms put forward by mainstream economics are modern (in the Latourian sense of the word), for two reasons:

- First, the notion of the Market is based upon an official delineation between pure objects and pure subjects, Nature and culture, technological innovation and politics, business and society. The Market is thus construed as a naturalised object, detached from the cultural and political processes in the 'subject/society pole'.

- Secondly, professionals inside firms (like scientists inside laboratories) are construed as disentangled from societal processes, operating in a supposed "culture of no culture".³

The text will thus focus on the extent to which contemporary 'official' conceptions of markets and firms are modern: In what ways can one argue that the official constructions of markets and firms assume clean object-subject delineations, employee disentanglement, and firms with a culture of no culture? The following pages will survey economic sciences – from formal economics to applied business administration theories – in order to see how well they match the two points mentioned above.

Formal economics (the neoclassical version of economics that has dominated the academic discipline for the past hundred years) places the market mechanism firmly in Latour's Nature pole:

The study of spontaneous orders has long been the peculiar task of economic theory [...] It would be no exaggeration to say that social theory begins with – and has an *object* only because of – the *discovery* that there exist orderly structures which [...] are *not the result of human design*. [...] Although there was a time when men believed that even language and morals had been 'invented' by some genius of the past, everybody recognises now that they are the outcome of a process of *evolution* whose results nobody foresaw or designed. [...] If indignant reformers still complain [...], this is partly because they cannot

³ Note that these two points focus solely on the 'purification' aspect of Latour's modern settlement: the 'mediation' aspect of the modern settlement will be explored in the next subsection.

conceive of an order which is not deliberately made. (Hayek, 1991: 294, italics added.)

For Friedrich von Hayek, the market is an object 'out there' (in Nature), an outcome of evolution. The logic and laws of the market can be revealed by a process of scientific discovery, and can only be seen if one believes that such Natural phenomena actually do exist. In line with this, Latour has pointed out that the myth of the market "offers the mirror-image of the myth of universal scientific laws" (Latour, 1993: 121). Similarly, Haraway (1991a: 7) argues that this is a legacy of the European industrial revolution, when economic theorists started construing the economy as a discrete social location. The economy was thus made into an organism; a "bounded totality made up of hierarchically ordered parts and energized by an immanent life force" (Gibson-Graham, 1996: 97).

Though Hayek writes that spontaneous order is a Natural phenomena, he also points to "the rules of law, tort and contract" (Hayek, 1991: 299) as necessary for such an order to be held in place. These rules must be enforced by government:

This particular function of government is somewhat like that of a maintenance squad of a factory, its object being not to produce any particular services or products to be consumed by the citizens, but rather to see that the mechanism which regulates the production of those goods and services is kept in working order. (295)

Samuel Brittan, a leading economic commentator, has argued that there is a professional consensus among economists about the idea of the market as a space where the natural market mechanism is let loose, though sometimes 'society' has to step in and regulate. (Brittan, 1973) This follows "the classical liberal model in which wider objectives are achieved through the constraints of tax and regulation

within which individuals pursue their own self-interest" (Turner, 2001: 372). Adair Turner (formerly head of the Confederation of British Industry, visiting professor at the LSE, and Vice-Chairman of a leading investment bank) sums up the view of contemporary mainstream economics:

The good society is delivered by a robust tension between *politically* defined constraints and the self-interest and *animal spirits* of business and entrepreneurs, and it is not always wise to muddy those roles. [...] Capitalism flourishes within a clearly understood role for *the state* as the definer and implementer of *wider social objectives*. (376-77, italics added)

Economics thus places politics, the state (or government), and "wider social objectives" in the subject/society pole. (Note: Within the term 'government', some economists also include trade unions.) States and trade unions may then – should society decide to, using the parliamentary democracy practices that moderns call 'politics' – regulate the natural laws of the market. Firms – "business and entrepreneurs" – are seen as objects in the Nature pole, guided by "self-interest and animal spirits". Therefore, as in the case of the market, the natural laws of the firm are 'out there' to be discovered by science. In economics textbooks, students learn that a "firm is an institution that organises the production of goods and services" (Parkin, 1990: 224). Mainstream economists thus simulate the role of firms in markets through "the production function" – a mathematical formula that states how the firm's output changes in relation to changes in the firm's input, i.e. labour and real capital (Parkin, 1990: 242). As markets are construed as a mode of economic coordination that guarantees the generation of maximum utility, firms are seen as

apolitical, asocial 'machines' whose job it is to produce this abstract utility. Here, the utilitarian roots of classical liberalism are evident (Slater & Tonkiss, 2001: 29-33).

The market and the firm are thus the two main analytical concepts of mainstream economics. Indeed, economists understand market economies as constituted by these two forms of economic coordination, working in parallel with each other: First, there is 'the market mechanism' that coordinates buyers and sellers (be they firms or individuals); secondly, there is the coordination of production activities within the firm. Firms are "islands of planned coordination in a sea of markets" (Richardson, 1972: 883) – spaces where goods and services are produced within a hierarchy, rather than procured through the open market. According to transaction cost economics, hierarchies evolve when the transaction costs of market procurement (accrued from scanning for sellers, drafting contracts etc.) are higher than the costs of producing the commodity inside the hierarchy. Thus, following Coase's theory of the firm (Coase, 1960), firms exist because transaction costs exist. Mainstream economics has also developed an approach that explains why some firms outlive other firms. The 'resource-based view of the firm' stipulates that firms are bundles of resources that are unique and difficult to copy. Firms that lack unique resources will not yield economic rents, and thus fail to survive in the face of competition from other firms. (Penrose, 1959)

The approaches of Coase and Penrose construe the firm as a sealed vessel. Though they both move away from the functionalist black-boxing of the firm as a mathematical production function, they instead construct a firm that is physically black-boxed. Thus, the Coasean firm is a spatial entity with distinct borders. (Indeed, transaction cost economists can mathematically deduce where the 'walls' of firms

will be in relation to the open market.) It is within these walls that the unique resources that yield rent reside. In other words, when economists open up the black box of the production function, they find an entity with clear boundaries and a homogeneous solid body. The black box of the firm is replaced with another black box – the firm as a monolithic organism that yields rents. In economics textbooks, the operational logic of such organisms is described in the following way:

To understand and predict the behaviour of firms, we will start by describing a firm's objective [...] The firm that we will study has a single objective: profit maximisation. [...] A firm that does not seek to maximise profit will either lose the competitive race to firms that do or it will be taken over by such a firm. (Parkin, 1990: 229. Italics added)

The quote above posits an essentialised, naturalised view of firm as an institution in which all actions are subsumed under the innate drive to maximise profit. Interestingly, though, this is an assumption made in order to "understand and predict the behaviour of firms". In other words, mainstream economists assume what they try to understand: Firms are thought to behave in a rational, 'self-interested and animal-spirited' manner simply because they are assumed to do so.⁴ It is interesting to note that this view of markets and firms as operating along the lines of natural laws is by no means restricted to neo-classical and neoliberal economics. Those same assumptions are used by economists within the Marxist and Keynesian traditions. Controversies between the various camps originate from different ideas about the stability of the market, the merits of state regulation, and the moral grounds for

⁴ Just as the market and the economy are often portrayed in organistic manner, so is the firm. The etymology of the word 'corporation' seems likely to be related to 'corpus' or 'corporeal' (via the notion of 'incorporation').

redistributive justice. Nevertheless, all share the view that markets and firms are objects that follow natural laws, separated from the politics and wider social objectives of subjective society. This consensus is evident in Joel Bakan's *The Corporation*, where Milton Friedman and Noam Chomsky agree on the innate properties of firms: Friedman says that firms "must" follow only shareholder imperatives (Bakan, 2004: 34); Chomsky argues that firms per definition must dehumanise workers because it is a "part of the system" (69). According to Bakan, all intra-corporate agency is thus subsumed under the profit motive:

The people who run corporations are, for the most part, good people, moral people. They are mothers and fathers, lovers and friends, and upstanding citizens in their communities, and they often have good and sometimes idealistic intentions. Many of them want to make the world a better place and believe their jobs provide them with the opportunity to do so. Despite their personal qualities and ambitions, however, their duty as corporate executives is clear: they must [...] not act out of concern for anyone or anything else. (Bakan, 2004: 50)

Therefore, when actors enter the firm premises, idealistic intentions and other ties to the subject/society pole are effectively severed. Inside the firm, actors are disentangled from subjective matters such as kinship, friendships, politics, ideology and idealism. Firms are "cultures of no culture" governed by the objective pursuit of profit maximisation. This, in turn, is a rationality that optimises utility generation given the objective constraints determined by the firm's resources – capital, labour, technological capabilities, etc. – which all reside in the Nature pole.

These determinist and naturalist views of human agency and interests can be juxtaposed with the ANT perspective on interests. In an early article, the (soon-to-be)

actor-network theorists Michel Callon and John Law objected to social scientists' imputation of certain interests to actors, and claimed that interests are fluid and constructed:

In particular, we are concerned with the manipulation and transformation of interests, since we see all social interests as temporarily stabilised outcomes of previous processes of enrolment. Though it may be that for any particular study this process can only be traced so far before a 'backcloth' of prior interests has to be taken for granted, our aim would be to avoid attributing any special status to that backcloth. (Callon & Law, 1982: 622)

Further analysis of the ANT view of interests will follow in chapter three. The text will now move on to examine the modern view of markets and firms, as portrayed by the management theories that professors, management consultants, and managers use to describe business.

The modern conception of markets and firms: management theory

Following the discursive framework of mainstream economics, the academic field of 'business administration' (or 'management theory') has developed theoretical tools meant to assist corporate professionals. The field of management theory originally (in the 1940s and 1950s) emerged from ideas on military strategy. Thus, early management theory stated that departments within firms were to be planned like military regiments, with strong hierarchies and unambiguous decision lines.⁵ In the 1960s, management theories moved on to become an academic discipline, and also

⁵ This was partly due to the fact that military officers returning from the Second World War went straight into the corporate executive ranks – one example of this is Ford Motor Company (Wernle, 2003).

became more influential in shaping corporate practices. The so-called SWOT analysis has since then been taught extensively at business schools, prompting executives to base their decisions on the Strengths, Weaknesses, Opportunities and Threats of their business. (Mintzberg et al., 1998) Not surprisingly, the SWOT heuristic places executives' focus exclusively on factors in the Nature pole: the strengths and weaknesses of the firm (resources, know-how etc.), and the opportunities and threats in the firm's environment (competitors, suppliers, market forecasts etc.) are all naturalised phenomena.

Another highly influential management theory was rolled out in the 1980s, when the economist-turned-management guru Michael Porter extended the analysis of the firm's environment. (Porter, 1980; Porter, 1985; Porter, 1990) The so-called "five forces analysis" brought out suppliers, buyers, new entrants, substitutes and competitors as forces to be monitored by executives. In fact, what Porter supplied to managers was a well-specified map of the actors that constitute a market. Fittingly, this map is fully in line with classical economics' view of markets as spaces where firms compete and trade, completely disentangled from the processes going on in the subject/society pole (barring state legislation). With the avid support of business schools and the booming management consultancy profession (to whom the Porter heuristic meant swift, standardised analyses that could be sold for substantial fees), firms were programmed to disregard subject/society factors (politics, civil society organisations etc.), and understand the market as only consisting of Nature entities (e.g. other firms).

In the 1990s, new management theories developed as critiques of Porter. The first point of criticism was Porter's static view of the market, which neglected the

dynamism created by technical change. Hamel and Prahalad (1994) highlighted that industries are constantly being "reinvented" (20), especially in "unstructured arenas where the rules [of the market] have yet to be written" (37). Therefore, managers must realise that

companies not only compete within the boundaries of existing industries, they compete to shape the structure of future industries. (23)

For these authors, scientific and technological discoveries change products and processes to the point where simply monitoring other firms is a bad predictor of the future development of the ever-changing market. Managers must therefore learn how to spot "disruptive technologies" (Christensen, 1997). From this point on, management theory became more concerned with 'change management', as well as the forging of 'fast managers' (Thrift, 2002). However, the dynamism of markets – the constant rewriting of the "rules" of the market – stems from processes within the Nature pole. Scientific and technological development is seen as a process that unfolds exclusively inside firms and laboratories, again completely disentangled from the processes in the subject/society pole.⁶

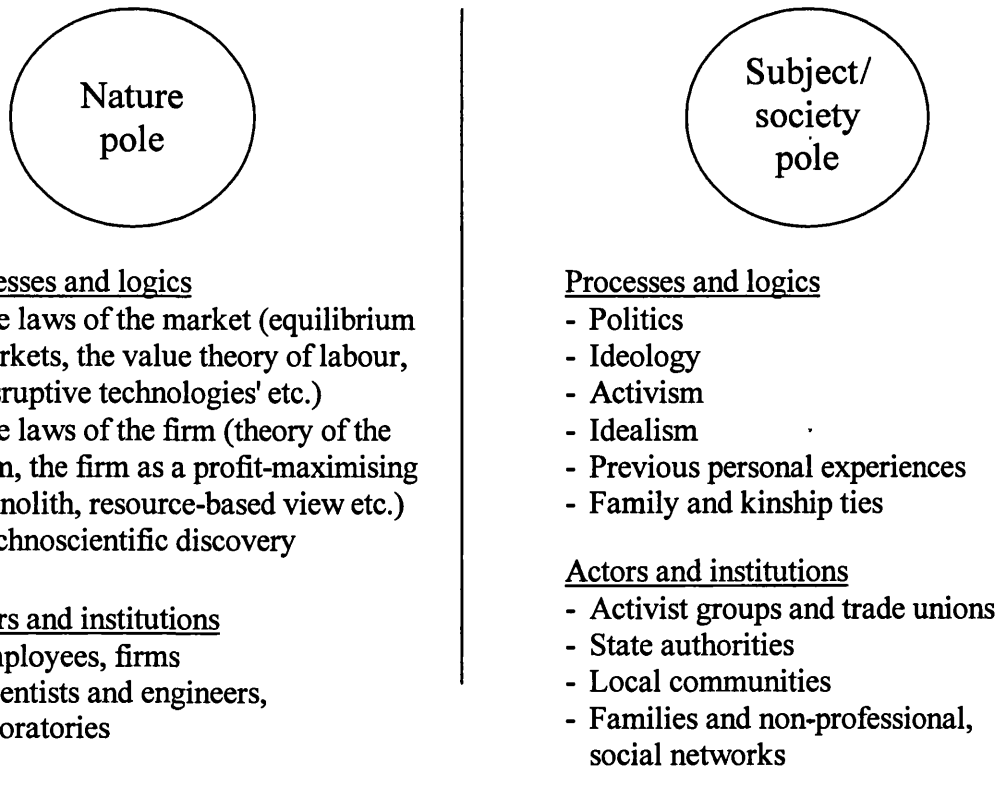
The neglect of theorising about the insides of firms (and laboratories) was the second point of criticism of Porter, whose analysis had solely focused on the external environment. Referring back to the work of Coase and Penrose, management theorists started talking about "competencies" (Hamel & Prahalad, 1994), "resources" (Wernerfelt, 1984) and "knowledge creation" (Nonaka & Takeuchi,

⁶ Moreover, unlike Michel Callon, these authors do not see technology as constitutive of markets themselves.

1995) as key to understanding the firm. However, competencies and resources were seen as properties residing solely inside the organisation, disentangled from the world outside the corporate walls (not to mention the processes going on in the subject/society pole). Similarly, knowledge creation was construed as an internal affair – conducted within 'innovation units' sitting deep inside the firm – in which employees transform tacit knowledge into formal knowledge and vice versa. So, just as Coase and Penrose had done, the management theorists opened the black box of the firm, stepped in, and then closed it again.⁷

To sum up, the conception of firms and markets as posed by mainstream economics and the heuristics of management theory are archetypal modern constructions. Firms are construed as spaces where all agency is subsumed under the rational and objective pursuit of profit, given the objective constraints determined by capital, labour, technology and science. All the factors mentioned are construed as natural phenomena; objects to be placed in the Nature pole of the modernist settlement, disentangled from the politics, idealism and social relations in the subject/society pole. (See figure 2.2 below.)

⁷ Paradoxically, the same holds true for the alternative strand of management theory that highlights 'culture' as a factor to be harnessed and managed. This states that the corporate culture can safeguard the brand, raise productivity, and improve worker satisfaction. Nevertheless, as implied by the term 'corporate culture', these theorists are analysing the specifics of the practices inside the firm as compared with the 'wider culture' in society. In other words, 'corporate culture' is merely another way of speaking about "a culture of no culture" – a set of practices that bear no relation to the processes in the subject/society pole.



Chapters four and five will examine the hybrids that mediate between the Nature and subject/society poles.

Figure 2.2: The modern conception of markets and firms according to mainstream economics. Adapted from Latour (1993: 11)

Markets are spaces where several black-boxed firms relate to each other as competitors or partners (suppliers or buyers), in patterns described by the natural laws of the market mechanism. These natural laws can, however, be contained by government regulation, if processes in the subject/society pole (politics, ideology etc.) cause such measures to be introduced.

As mentioned above, this alone is not enough to constitute a Latourian modern settlement. Note that in the context of Latour's critique of the moderns, the purification of firms, markets and professionals only tell half the story. For markets

and firms to fit into Latour's "modern settlement", research must also show two things.

- First, that the purification of markets spawns impure entities – hybrids – that serve to mediate between the 'Nature' and 'subject/society' poles.
- Secondly, that the 'disentangled' professionals are in fact effective entanglers, working in a culture 'contaminated' by subjectivity, politics, idealism and so on. (See lower section of figure 2.2.)

In other words, a critique of the mainstream conceptions of markets and firms must show that the supposedly sealed vessels of modernity are "leaking". The next subsection will explore Latour's views on the concept of critique and the role of the critic.

Amodern critique: how to undo the modern

Latour points out a great irony of how modern social science makes sense of the nature-society divide. On the one hand, modern social scientists argue that society shapes nature: Social phenomena such as "religion, consumption, popular culture and politics" underlie non-human phenomena such as "the power of gods, the objectivity of money, the attraction of fashion, the beauty of art". Gods, money, fashion and art are simply extensions of "social needs and interests". On the other hand, those same social scientists argue that nature shapes society: The scientific laws of economics or sociology are thought to mould "the soft and pliable wills of the poor humans". Unfortunately, these social scientists have never succeeded in convincingly determining which parts of nature dominate society, and vice versa. However, as STS has shown that even science (i.e. 'hard' Nature) is influenced by society, and as

hybrids have become all the more visible, the modern separation of object and subject has become untenable. (52-55) Scholars can do away with the nature-culture dualism altogether by instead locating their studies in the space between the two opposites – in the space where quasi-objects appear. Following Michel Callon's principle of generalised symmetry (Callon, 1986), the researcher can then chart the mediation using neither "external reality to explain society, [n]or power games to account for what shapes external reality" (Latour, 1993: 96).

At this juncture, it is worthwhile relating Latour's thinking to that of Ulrich Beck, who has developed a parallel critique of modernity. (Beck, 1992; 1994) For Beck, early modernity was a phase in history characterised by great strides in science and technology: moderns were in control of nature, and the side effects of scientific and technological progress could be contained by social and political institutions. Beck's view of this early modernity – "first modernity" – is thus close to the modern view of science that Latour criticises. Nevertheless, Beck's main argument is that recently, during the past ten to thirty years, a "second modernity" is developing, in which the advances in science and technology are yielding systematic unintended side effects that can no longer be contained by existing corporatism and parliamentary democracy. In this "risk society", citizens are becoming more reflexive towards the issue of progress. This "reflexive modernisation" (because, Beck maintains, we still live in modernity) is visible in the emergence of sub-politics, the moralisation of business, and the contesting of expert elites.

Although Latour is sceptical about whether moderns and 'pure scientific progress' have ever existed (thus puncturing Beck's original argument), he has however tried to translate the notion of reflexive modernisation into his own framework (Latour,

2003a). "Re-modernisation" – a shift in the collective misunderstanding of modernity – may at some point occur, and Latour points to anecdotal evidence of greater public recognition of hybrids and the fact that "the black boxes of science and technology, so typical of first modernities, have began [sic] to leak hopelessly" (36). Thus, in relation to Beck, he rejects the fact that science and technology have made society more risky – science and technology have spawned huge social effects throughout modernity – but opens the door for opportunities towards a greater public understanding of such entanglements. Latour thus thinks that scientists should spread the idea that such a change in public understanding is happening, even though the evidence for such a shift might not be there. "After all, this is exactly what the modernist thinkers, from Rousseau to Weber, have always done." (46) Latour thus believes in peddling an alternative narrative ("pragmatogony") to counter the moderns' "myth of progress", in which the future must involve further separation of objectivity and efficiency from subjectivity, values and feelings. (Latour, 1999a: 198-215)

Instead of clarifying even further the relations between objectivity and subjectivity, time enmeshes, at an even greater level of intimacy and on an even greater scale, humans and non-humans with each other. [...] If there is one thing of which we may be as certain as we are of death and taxation, it is that we will live tomorrow in imbroglios of science, techniques, and society even more tightly linked than those of yesterday [...] (Latour, 1999a: 200)

This leads us to the political imperatives of Latour's work on modernity. Nick Lee and Paul Stenner suggest that Latour's view of modernity can be sketched as an iceberg with the official pure entities clearly visible, and the unofficial mediating hybrids lurking beneath the surface:

Above the surface, the pure voice of clarity, below the surface, the monstrous rumble of hybrid activity. [...] We stop being modern when we think the top and the bottom of Latour's diagram together. But in adding the bottom half to the top half, light streams into previously darkened spaces and the hybrids can be recognised and given names. (Lee & Stenner, 1999: 95-7)

Thus, by shedding light on hybrids and quasi-objects, these entities become real and represented in democratic fashion. (Note that we are now back to the issue of ontopolitics – the politics of what is legitimated as real.) What Latour is after is therefore a "Parliament of Things", which can bring a just order into the monstrous mess of hybrids. Like Beck, he has invoked the political philosophy of John Dewey to explain his argument (Latour, 2003a: 38). Dewey's classic 'problem of the public' posits that the key political question is how to create publics around the outcomes of activities and decisions in society. (Dewey, 1954 [1927]) For Dewey – a pragmatist who conceived truth as the outcome of democratic deliberation – politics was essentially about finding practical ways of engaging all concerned citizens into deciding a) who gets rights to act and enact influence, and b) how are those with rights supposed to live well together? (Dewey, 1967 [1888])

Latour, however, expands this idea to not only include humans, but all things.⁸ By expanding the democratic deliberation on rights distribution to include all of reality (not only humans), scientific activity becomes a crucial part of the deliberation. Not only does politics need to cater to the issue of resolving the matters thrown up by

⁸ Latour is keen to point out that the oldest parliament in the world – the Icelandic one – goes by the name of "Alltinget", which means "all things" (Latour, 2004a; 2004b).

nature – it also needs to cater to the process by which we decide on the nature of nature. John Law continues:

Since the reality of things is always constructed in their relations, they are always coming into or going out of being in the process of becoming realer or less real. This is Latour's argument, though we need to settle on the nature of things for a time in order to work out how real things might live well together. Then, every so often, that reality needs to be tested to discover what is real and what is not. How the realities have moved on. What deserves to be represented. Nothing, then, is ever excluded definitively, and forever. The argument is Karl Schmidt-like: there must be space for not-quite-real protestors to say that they are really real. (Law, 2004: 3-4)

Arguments have been raised against Latour's view, and again, some of the most influential criticisms have come from the field of feminist technoscience. Donna Haraway steers clear of the clear dichotomy of the real versus the non-real, which is implied in Latour's Parliament of Things. As opposed to the binary scheme of Latour, Haraway posits a contested gradient of realness. There are, for instance, actors that are real but nevertheless Other, only 'partially connected' to that which is Same. (To make this argument, she takes the example of the dog and its relation to humans. See Haraway, 2003) The subjugated actor is therefore neither unreal, nor completely real. Haraway refers to such actors as 'inappropriate/d others', describing them as characterised by an Otherness that co-exists with that which is Same:

To be 'inappropriate/d', does not mean "not to be in relation with" – i.e. to be in a special reservation, with the status of the authentic, the untouched, in the allochronic and allotopic condition of innocence. Rather to be an "inappropriate/d other" means to be in a critical, deconstructive relationality, in a diffracting rather than reflecting

(ratio)nality [...] To be inappropriate/d is to be neither modern nor postmodern, but to insist on the *amodern*. [This entails] "difference" as a "critical difference within". (Haraway, 1992: 299)

In the passage above, Haraway invokes the term 'diffraction' as a metaphor for explaining her method of analysing how power structures shape knowledge production. Another key concept of her theory is 'interference', which (as 'diffraction') is borrowed from optical physics. In optics, diffraction is a phenomenon that makes light – if projected through a small eyehole – expand in new directions. As this re-moulded and re-directed light intersects light from other sources (other eyeholes), it creates interference – it yields light patterns that differ from those of the original light source. Similarly, in the context of technoscience, 'situated knowledge production', conducted from a perspective of subjugation, generates a new view of reality that diffracts out from the subjugated. This diffracting rationality interferes with the dominant rationalities – the dominant mode of knowledge creation – and therefore has transformative potential. The changed perception of reality – the interference exerted upon the original dominant knowledges – is thus the outcome of the unorthodox knowledge perspective of the subjugated. Thus,

diffraction does not produce "the same" displaced, as reflection and refraction do. Diffraction is a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the *effects* of difference appear. (Haraway, 1992: 300)

Instead of sketching out a Parliament of Things, she envisages a world with greater space for contestation – for diffraction and interference – of given settlements of realness. Emancipation does not follow from parliamentary institutions, but from

letting inappropriate/d others experiment with the engineering of alternative futures.

SF – "science fiction, speculative futures, science fantasy, speculative fiction" – is the metaphor that she uses for this purpose. Haraway continues:

Science fiction is generically concerned with the interpenetration of boundaries between problematic selves and unexpected others, and with the exploration of possible worlds in a context structured by transnational technoscience. The emerging social subjects called "inappropriate/d others" inhabit such worlds.

At this point, it may be worthwhile comparing the approaches of Latour and Haraway when studying an arbitrary case: Let's assume that technoscientific expertise proves that a certain car emits a previously unmonitored poisonous chemical into the air. A Latourian analysis would focus on the mobilisation of various human and non-human actors in proving the existence of this chemical. A Harawayian analysis would focus on the perspective from which the proof was constructed – was this proof invented by a powerful social group or a minority? It would also be likely to study how the origin of the knowledge influences the chances of the proof being enacted inside the firm, when several conflicting issues are at stake.

These differences aside, both Haraway and Latour are dealing with the same conundrum: How to find a viable model of democracy given the fact that the ontologies upon which we construct society and base our politics are no longer fixed, but are themselves a matter of political contestation. Both authors insist that this implies replacing the modern, not with the postmodern, but with the amodern (Latour, 1990; Haraway, 1992). This shift away from the postmodern is at its clearest in Latour's recent call for a new form of critique; one which aims at gathering actors

around "matters of concern", rather than the now customary deconstruction of "matters of fact" (Latour, 2004a). In a world that appears to move away from the "modern parenthesis" – during which supposedly apolitical matters of fact could be utilised for political domination of the believing masses – the powers that be are increasingly using deconstruction to disqualify perfectly legitimate matters of concern, such as global warming. From a point of view that resembles those of both Dewey and Haraway, Latour therefore argues for a redefinition of the meaning of critique:

The critic is not the one who debunks, but the one who assembles. The critic is not the one who lifts the rugs from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather. The critic is [...] the one for whom, if something is constructed, then it means it is fragile and thus in great need of care and caution. (Latour, 2004a)

The next subsection will review economic sociology and heterodox economics and ask whether these fit Latour's imperatives on how to critique modernity.

Modern critiques of markets and firms: economic sociology and heterodox economics

Throughout the modern period, there has been a steady stream of critiques of the above-mentioned mainstream classical/neoclassical view of markets and firms. Nevertheless, as will be argued in this subsection, all these critiques have been based on the modern settlement that Latour has sketched out (see figures 2.1 and 2.2).

The most obvious example of a quintessentially modern theory about markets and firms is Marxism, still the most influential critique of mainstream economists' conceptions of the market economy. As hinted earlier in this section, Marxist views

on interests and agency can be critiqued as modern – not least from an ANT perspective where interests are nothing but "temporarily stabilised outcomes of previous enrolments".⁹ Moreover, on a general level, Marxism can be depicted as modern on the basis of its naturalised view of the economy, JK Gibson-Graham writes:

In many versions of Marxism, the capitalist economy or society is represented as a totality governed and propelled by the life force of capital accumulation. [...] As the invisible life force of the capitalist economy, capital accumulation establishes the economy's overarching logic or rationale, its telos of self-maintenance and expanded reproduction. In addition, a regulatory mechanism such as the rate of profit, or competition, or the business cycle, may operate like a thermostat to maintain the economy in a steady state. Ultimately, however, the life "narrative" of the economic organism incorporates not only health and stability but illness and death. [...] When it eventually fails and dies, it will be succeeded by another organic totality, a socialism that is presumably better adapted to the conditions that brought about capitalism's dissolution. (Gibson-Graham, 1996: 100)

However, the Latourian critique of the moderns also applies to the tradition of economic sociology, and to 'heterodox economics' such as evolutionary economics (Hodgson, 1993; Nelson & Winter, 1974; Nelson, Winter et al., 1976).

More recent critiques of the modern conception of firms and markets have been provided by American economic sociology. As will be examined in greater detail in the next section, Mark Granovetter's social network analysis of economic action

⁹ Conversely, ANT has been subject to substantial criticism on this point: some researchers argue that it turns a blind eye to the structural determinants at stake in the processes studied. Further discussion on this will follow in the next chapter.

maintains a strict separation between humans and non-humans (Granovetter, 1985). Walter Powell, another prominent member of the American tradition, has used the network metaphor to address Coase's theory of the firm – especially the claim that all action within markets can be described as either market or hierarchy. In a text aptly titled "Neither market, nor hierarchy", Walter Powell criticises the transaction cost analysis for assuming that the market relation is the natural state of economic action (Powell, 1990). The view of the firm as something that emerges as a result of market interaction being too costly, and the corresponding view of markets as the only alternative to firm hierarchy, is misleading when studying the economy – the market-hierarchy dichotomy is false. Powell instead points to another mode of organising economic activity; the 'network mode of organisation'. This sort of organisation is not, like markets, based on formal contracts between atomised actors, where a specified product or service is exchanged for monies. Nor is it a formal hierarchy where roles and responsibilities are formalised, and actors trade labour for monies. Networks consist of informal and non-contractual ties, based largely on trust and an understanding of mutual benefit, which evolve between actors that often are heterogeneous (such as firms, independent research labs and academia).

Powell goes on to state that these networks are at their most prominent when studying R&D processes within contemporary firms. In a later article, he writes:

Sources of innovation do not reside exclusively inside firms; instead, they are commonly found in the interstices between firms, universities, research laboratories, suppliers and customers. Consequently, the degree to which firms learn about new opportunities is a function of the extent of their participation in such activities. (Powell, Koput & Smith-Doerr, 1996: 118)

In this instance, he is drawing upon Cohen and Levinthal's notion of 'absorptive capacity', stating that competencies within firms are not ends in themselves, but merely means to facilitate the absorption of external knowledge (Cohen & Levinthal, 1990). The extension of this thesis also places a question mark over Penrose's argument that firms are bundles of resources. The supposed resources that make firms unique and therefore durable structures are not – as Penrose originally hypothesised – internal to the firm. Instead, resources are sourced in networks with a plethora of external actors. Thus, figuratively speaking, the walls of the firm are more porous than Penrose's theory admits. Powell goes on to state that this is a phenomenon that has become more prominent in recent years:

First, firms are increasingly using ties to enhance the inflow of specific information, resources, and products. Second, firms are becoming much more adept at and reputed for the general practice of collaboration with diverse partners.

As a result of this reciprocal learning, both firm-level and industry-level practices are evolving, with boundaries becoming ever more permeable. (Powell, Koput & Smith-Doerr, 1996: 143)

Powell's is thus an argument about how product and process innovations are conceived in contemporary firms. Nevertheless, his critique of Coase's theory and of the 'resource-based view' of the firm is still modern inasmuch as it keeps "firms, universities, research laboratories, suppliers and customers" firmly in the Nature pole. Resources emanating from political struggle, activist groups or personal idealism do not feature in Powell's "networks of learning" – non-objective elements and processes are still safely tucked away in the subject/society pole. Instead, Powell's networks are extraordinarily homogeneous entities, consisting of ordinary

scientists and engineers. These actors use the same methodologies and equipment to forge technoscientific fact, even though they reside in different institutions (when suppliers collaborate with customers), and different kinds of institutions (when firms collaborate with universities). The "boundaries becoming ever more permeable" are thus simply the boundaries between the institutions within the Nature pole. The modernist separation from the subject/society pole is nevertheless kept in check – naturalised institutions (the firm, the laboratory etc.) remain disentangled from politics and ideology.

Another influential strand of the American tradition of economic sociology is that of population ecology (Hannan & Freeman, 1977; Hannan & Freeman, 1984). Here, firms are likened to members of a population trying to survive in the competition for finite space and resources with other members of the population (other firms), in a given habitat or ecology (a given market). The population can be disrupted as new members with atypical properties enter the habitat. Such 'mutations' are thus the equivalent of innovation, causing the market to change. The benefit of this approach is that it introduces a temporal and process-focused perspective on markets that is lacking in mainstream classical economics. (Hodgson, 2001) On the other hand, from a Latourian perspective, it is a highly modern story about a naturalised – in a very literal sense – economy governed by natural laws of 'survival of the fittest'. Rather than seeing this ecology as constituted by politicised technoscience (pace Callon), markets exist 'out there' – again, literally – in a Nature that is fixed and uncontested. Like mainstream economists, and like Hayek, population ecology theorists separate politics, subjectivity and activism from the God-given processes that yield 'spontaneous order'. So-called evolutionary accounts of the economy follow the same

route of using theories borrowed from biology to understand market processes. (Hodgson, 1993) For instance, mathematical models of contagion and adaptation are deployed to project the growth of a certain industry or the spread of a certain technology. (Nelson & Winter, 1974; 1976) Like population ecology, evolutionary accounts add a temporal dimension to studying the economy, but they are nevertheless arch-modern in their naturalisation of the economy.

One classic critique of markets that relates specifically their modern character is that of Karl Polanyi. Arguably, his work on market embeddedness and formalist economics (Polanyi, 1944) does have some similarities with the Latourian critique of the moderns. In *The Great Transformation*, Polanyi too argues that moderns have sought to construe markets and firms as naturalised objects, fully disentangled from socio-political relations. Polanyi phrases this in terms of modernity spawning a belief that the market and firms could be 'disembedded' from the substantive economy, so as to fit the model markets of formalist economics. According to Polanyi, this modern project suffered a major blow in the first half of the 20th century, when the emerging welfare states contained the effects of markets through redistribution. Markets were thus re-embedded again.

Polanyi's point is that this lesson – that 'society fights back' after the disembedding of markets – can be generalised. Modern, disembedded markets can never be constructed in a sustainable manner. The coordination of the social can never rest solely upon market modes of organisation; the alternative principles of reciprocity and redistribution will always rear their ugly (or, as some would see it, beautiful) heads before market principles are universalised. One more recent version of this idea is provided by the institutional economist Geoffrey Hodgson. His 'impurity

principle' states that, in order to function, an economic system must contain 'impurities' that are not typical of the whole. Hence, a 'pure' market or exchange system, on purely contractarian lines, could not work in practice and is unacceptable in theory (Hodgson, 1988). Conversely, the 'pure' planning systems of the Soviet Union relied heavily on black markets. Previous economic systems have all relied on a combination of contractual (i.e. market) and non-contractual (religion, family etc.) relations (Hodgson, 1999).

Polanyi's argument is historical – the 'great transformation' was a process by which westerners set out to construct free markets (in the 19th century), followed by a time when the free markets were made sustainable (during the first half of the 20th century) through the founding of welfare institutions. Both Polanyi and Latour thus present arguments about history and about moderns, and both narratives posit a significant shift in the early years of modernity. From a Latourian perspective however, Polanyi's theory does not represent a break with the modern.

First, Polanyi's conception of the economy – as an organism that is sustainable only if there is a balance between three basic universal modes of coordination – signifies a naturalised view of the economic processes. Polanyi claims to have discovered yet another set of 'laws' that govern the economic organism, thus disentangling this organism from processes in the subject/society pole. Though 'politics' plays a role in Polanyi's story about the economy, it only appears as the naturalised principle of redistribution performed by the state. Secondly, the introduction of welfare states did not in any way reverse the trend of abstraction or objectification/naturalisation of the economy. Instead, welfare capitalisms kept firms and markets in the Nature pole, but simply added new paragraphs to the natural laws that govern such objects. 'Social'

measures, such as wealth distribution and union intervention, was in effect turned into objective scientific fact. (More on this will follow in the substantive part of this text, chapters four to six.) Thus, the second phase of Polanyi's "double movement" – the building of welfare capitalism – was little more than another version of the modern market. The embedded, welfare capitalist market is (or was, rather) as modern a construction as the disembedded free market capitalism; the founding of welfare capitalism merely signified a "re-engineering" of the modern market. (Latour, 2003a)

Moreover, since the publishing of *The Great Transformation*, the western world has witnessed another 'disembedding' of the market, with the policies and ideas of Margaret Thatcher, Ronald Reagan and Milton Friedman being implemented in the 1980s (Blyth, 2002). Following this era of deregulation and neoliberalisation of markets, some theorists are expecting "society to fight back" and welfare policies to be re-instated. Such a reading of Polanyi (for instance proposed by the so-called regulation school of political economy) has been criticised for giving a functionalist account of socio-economic dynamics. Nevertheless, in recent years, several writers have proposed that a 'double movement'-like backlash against the deregulated markets of the 1980s and 1990s is indeed under way. For instance, economic commentator John Kay argues that the anti-globalisation protests of recent years have started to threaten the hegemony of what he terms the 'American Business Model'. Towards the end of the 1990s,

globalisation and the American business model provoked reaction. The World Trade Organisation met in Seattle in November 1999. Rioters filled the streets and the conference ended in disarray. Every similar subsequent meeting attracted crowds of demonstrators. [...] However,

the American business model is only bruised. It remains the working hypothesis of most business people and consultants. (Kay, 2003: 7-8)

Kay reiterates Polanyi's argument by pleading for the founding of an 'embedded market', as "economic institutions function only as part of a social, political and cultural context" (19). Such a change, he thinks, will have to start in the ways that firms conduct their business.

The same plea for a re-embedding of the market through a reconstructed firm can be heard from several places. A heterogeneous group of academics, activists, businessmen, politicians and consultants are now writing about 'corporate social responsibility' (CSR). Some claim that corporations need to engage in a new model of global economic governance, now that the embedded liberalism of the post-war era has broken down. (Ruggie, 1982; 2003; Held, 2004) Others point to recent corporate frauds (Enron and Worldcom¹⁰), and failures of multinational corporations to meet public expectations regarding environmental care (Shell and the Brent Spar affair¹¹) and fair conduct in developing countries (Shell and the Ogoniland affair¹²), arguing that there is an urgent need to rethink how corporations relate to wider society.

Under the umbrella term of CSR, corporations are now establishing new work functions, remitted with managing the relations to external 'stakeholders' (such as

¹⁰ Enron and Worldcom are two examples of corporations that consciously deceived the public (notably shareholders) on the actual incomes and assets of the firm, in order to boost the share price.

¹¹ The Brent Spar episode saw oil producer Royal Dutch Shell having to withdraw plans to sink a disused oilrig onto the seabed. Public pressure, led by environmental activist group Greenpeace, forced the corporation to tow the structure ashore, and dismantle it there. See Klein (2000).

¹² The Nigeria episode saw Shell having to bow to public pressure on their conduct in Ogoniland, Nigeria, where their practices were seen to buttress the suppression of the Ogoni tribe.

NGOs, local community groups etc.). These work functions are developing new business practices, such as social and environmental auditing and reporting, the staging of dialogues with stakeholders, and the development of corporate 'codes of conduct'.¹³ CSR practices have also come to imply that NGOs engage more actively in corporate conduct: as critics who call for new responsibilities to be taken on by corporations; as partners who advise corporations on responsible behaviour; as negotiators who take part in the drafting of codes of conduct; and as 'trusted inspectors' who make sure that standards and codes of conduct are actually met by the corporations.

The developments within CSR have however caused heated debate. On the neoliberal right, some argue that the logic of free market capitalism is threatened by corporations who base their practices on the whims of arbitrary stakeholders (i.e. NGOs).¹⁴ Within the global justice movement, CSR has been denounced as corporate spin and whitewash, enabling multinational corporations to sustain their irresponsible profiteering. (Klein, 2000; Bakan, 2004) Andrew Barry (2003) has provided a slightly more nuanced version of this analysis. In his view, CSR can be interpreted as a means to reassure the public that the freedoms recently granted to firms by globalisation and deregulation will be handled responsibly. In order to maintain the freedoms mentioned, which are dependent on the trust of the public, corporations are

¹³ A code of conduct is a document that states a minimum level of corporate responsibility and serves as a guide to good corporate conduct. Such documents can be drafted and ratified by a number of actors – either a group of corporations, a group of NGOs or unions, or both. Once signed and ratified by a corporation, these codes act as local regulations and 'legislation'. Conversely, for the corporation, they provide a means to reassure the public of its good conduct.

¹⁴ Once a year, *The Economist* magazine publishes a survey on CSR that reiterates its objections to the concept. Most of the objections reiterated annually stem from the report *Misguided Virtue* (Henderson, 2001), published by the think tank Institute of Economic Affairs.

trying to re-construct themselves as ethical subjects. This is achieved through the invention of "ethical assemblages" – apparatuses (of work processes, audits, metrics etc.) that guarantee ethical behaviour. In other words, by constructing and establishing ethical assemblages, firms aim to instil public trust and thus prevent the emergence of legislative regulation.

The corporate responsibility debate can be read as an indication of a re-modernising tendency in the economy. Arguably, the concerns of activists, CEOs and politicians amount to nothing short of a widespread recognition of entanglements – of the fact that market processes are not as disentangled and depoliticised as modern economists would want us to believe. Or, to put it bluntly, these economic actors seem to perceive market processes as 'more risky', more subjective and more politicised than modern economics assumes. On the other hand, the very existence of a CSR discourse is not sufficient to support a claim of a 're-modernisation occurring'. To be substantiated, such claims require localised studies of how actors actually behave in relation to the issues of entanglement and disentanglement. While the next section will deal more specifically with such localised studies, the remainder of this section will further examine the ideas of the authors wishing to re-embed the market and the firm.

Monoliths versus networks: the global justice writers

The authors calling for a re-embedding of the market through a reconstructed firm can be divided into two camps – the 'global justice movement' writers (which will be discussed in this subsection), and the 'corporate social responsibility' writers (discussed in the next subsection). The 'global justice movement' writers – such as Naomi Klein (2000), George Monbiot (2001), Noreena Hertz (2001) and Bakan

(2004) – have become highly influential in recent years, not only within the anti-globalisation movement, but also within the business community. (At one point, Klein's *No Logo* was topping the 'business bestseller' chart.) This literature speaks about the magnitude and pervasiveness of corporate power, be it dominating our personal freedoms and world politics (*pace* Klein), colonising previously public domains (*pace* Monbiot), or "silently taking over" the decision-making previously conducted by public officials (*pace* Hertz). These authors are then all concerned with the way that firms are no way near the stylised, non-political – in Latourian speak, objective and naturalised – production functions that merely produce utility. The thrust of Klein's argument is that corporations are extraordinarily influential centres of power – operating in the subject/society pole – while still being seen as innocuous production functions. Thus, their critiques can be seen as critiques of the modern conception of firms and markets, pointing to how the market economy consistently fails to contain the proliferating networks of social side effects of corporations.

However, the debunking of the myth of the sealed-vessel corporation provided by Klein and others has one serious flaw. While opening up the black box of the firm with respect to the external harm caused by the firm, they resolutely keep the black box shut when studying the internal properties of the firm. Hybrids proliferate outside the walls of the corporation – but on the inside, the firm is a wholly pure construction. To the 'global justice' writers, the firm is still a monolith (very much in line with the view of mainstream economists and Marxist theorists). Professionals' actions are thus subsumed under the natural laws specified by economics and political economy – that of efficient production towards the objective of profit maximisation. This approach is used in the recent film and book *The Corporation*:

The corporation, like the psychopathic personality it resembles, is programmed to exploit others for profit. That is its only legitimate mandate. [...] Noam Chomsky states that "you *have to* dehumanise [the workforce]. That's part of the *system*". [...] That does not mean that the people who run corporations are inhuman. [...] They *must*, however, serve the corporation's dehumanising mandate. (Bakan, 2004: 69-70. Italics added.)

Following Callon and Law's proposition that class interests are but one out of several potential interests, configured by the "previous processes of enrolment", firms must nevertheless be constituted by different networks of conflicting interests. Entanglements and hybrid networks proliferate everywhere – not only outside but also inside firms. Latour writes:

Modern sociologists and economists have a hard time posing the problem [of networks]. Either they remain at the 'micro' level, that of interpersonal contacts, or they move abruptly to the 'macro' level and no longer deal with anything, they believe, but decontextualised and depersonalised rationalities. The myth of the soulless, agentless bureaucracy, like that of the pure and perfect marketplace, offers the mirror-image of the myth of universal scientific laws. (Latour, 1993: 121)

Novelist Richard Powers presents a similar view of corporations. (Incidentally, Powers happens to be Latour's favourite novelist. See Latour, 2003b.) In the novel *Gain* (Powers, 2001), he tells the story of the 170-year ascent of a multinational chemical corporation based in Lacewood, Illinois. As a parallel narrative, the text also follows the rapid decline of Laura Bodey, a Lacewood resident dying from ovarian cancer. Though the novel suggests a link between Laura's cancer and toxic pollution released from the corporation, the author is reluctant to point to the profit

motive or executive greed as the sole cause of cancer. Powers gives an account of the historical trajectory of the corporation (based upon the true stories of companies such as Procter & Gamble, Unilever and Colgate) in order to show that "the disease is older than the release of carcinogens recognised by the EPA" (Miller, 1998b). He explains:

I wanted to create a company that would be the outgrowth not just of the profit motive or greed. See, this is where I think there's a kind of flattening in the way that we ordinarily look at the consequences of capitalism. Those motives are certainly there, but I see the works of collective humanity in commerce as reflecting the real diversity and conflict and ambivalence that underwrites a much broader spectrum of human emotion. You have simple ingenuity as a motivation, a sort of religious zeal, a kind of nationalistic fervor. You have all of this contributing to "Hey, let's make this thing work and let's give the people what they need".

In a passage in *Gain*, the chemicals company chief executive officer jots down an exhaustive list of the aims of the corporation. The items on the list are wildly disparate: "To make profit"; "To make things that last the longest"; "To give meaningful employment"; "To give people something to do"; "To do something"; "To maximise the net worth of the firm"; "To progress"; "To improve the hand that human kind has been dealt"; "To rationalize nature"; "To amass the capital required to do everything we may want to do"; "To discover what we want to do"; "To make people a little happier"; "To build a better tomorrow"; "To do business"; "To remain in business"; "To figure out the purpose of business". (Powers, 2001: 349-350)

Following Powers' cue, an ANT-inspired depiction of a corporation and its societal implications must a) chart entanglements, and b) feature a richer set of factors than a

"flattening" structuralist account would. In many ways, such a study mirrors the original STS studies of scientists (mentioned above). Within the modern narrative, Boyle, Pasteur and others were seen to be disentanglers and purifiers. They were seen to separate objects from subjects, Nature from culture and society, science and technology from politics. (Latour, 1993) They were recognised as "modest witnesses" to how objects behave: "Inhibiting culture of no culture", they were "on the side of the objects", while all other humans were "left in the domain of society and culture". (Haraway, 1997) However, as shown by anthropological inquiry, they were actually highly "effective entanglers" (Latour, 2003a: 39). In the same way, professionals within firms can be "anthropologised" as effective entanglers, amalgamating objects and subjects, Nature and culture, technology and politics – as well as business and society. As in the case of scientists, professionals within firms can in no way inhabit "a culture of no culture" – a domain of pure, objective drive to maximise profit, cleansed of motivations such as ingenuity, religion, nationalism and so on.

For Latour, the study of scientists and engineers is not a matter of critiquing the a priori motives of the individuals in their labs. Instead, the study of their entanglement activities is interesting because it says something about modernity as a whole. In the same way, Richard Powers chooses to situate Laura Bodey's tragedy within the overall modern project, not in profit maximisation or executive greed. *Gain* is about "our desire to conquer matter and time and to live on our own terms", through science and technology, and through the construction of huge corporations in which "no one's pulling the strings anymore, and the CEO is following the inertial lead of

this mass" (Miller, 1998b). As with the overall project of modernity, markets create both winners and losers.

To say that markets, that commerce gives with one hand and takes away with the other [...] seems to me true, finally. I don't think that's defeatist and, in fact, in some ways it's a necessary first step towards intelligent activism. Externalisation, vilification, saying, "We're decent human beings and this CEO of Dow Chemicals is out to get us", isn't really historically informed. It's not really coming to terms with the size and scope of the problem.

In other words, even if executive greed or corporate profiteering could be exterminated, victims such as Laura Bodey would still emerge. The 'corporate social responsibility' debate is therefore really a debate about modernity, about proliferating hybrids, and about the processes by which society is constructed – all the issues that STS and ANT has grappled with for the past twenty-odd years. STS and ANT perspectives can thus bring the CSR debate forward, to a place beyond disputes over the limits of responsibility, and the profiteering nature of corporations.

From a Latourian/Powersesque perspective, the adverse effects of the modern monsters that we call corporations are indeed valid concerns. However, assigning these side effects a special status because they seem to emanate from corporate entities implies a obfuscation of the issue at stake. It can even conceal our own complicity – as citizens, and particularly as scholars – in the generation of these adverse effects. So, scholars ought not to explore some generalised and essentialised notion of the evil in the Corporation. Instead, they must explore the ongoing construction and re-construction of these monstrous systems – the development of the products that the corporations churn out, as well as the development of the socio-

technical tools through which these corporations operate. The issue at stake is not so much the existence of corporations per se, but the degrees of co-determination in the processes by which the modern monsters of contemporary capitalism are generated and re-generated.

Just as STS/ANT perspectives can bring the CSR debate (mentioned above) forward, the CSR phenomenon in contemporary market economies can also bring the STS/ANT discussion forward. This is because the activities within CSR are the locus of ontopolitics and of the delineation of naturalised market processes and subjective societal processes. The next subsection will survey this issue in closer detail.

Standards versus contestability: the corporate social responsibility writers

The other group of authors pleading for a re-embedding of firms into society – the corporate social responsibility writers (Freeman, 1984; Zadek, 2001) – want to reform business so as to better accommodate social and environmental objectives. These authors follow in the tradition of debating 'corporate ethics' and 'stakeholder theory' (Freeman, 1984). However, the terms 'corporate citizenship' and 'corporate social responsibility' retrieved their current meaning in the 1990s, and had to a large extent been developed by non-scientists, such as John Elkington and his consultancy SustainAbility. Such practitioners, along with corporations such as Royal Dutch Shell, have experimented with new metrics that monitor social and environmental performance (so-called "triple-bottom-line reporting"), and new codes of corporate conduct. These initiatives to re-engineer firms are often heralded as a new way of embedding markets – one in which regulation of corporations is not policed by the state (as during the welfare capitalism of the post-war period), but by voluntary

standards and norms accepted by the business community. (Brunsson & Jacobsson, 2000) Nevertheless, many of these initiatives are based on the premise that another grand re-embedding, akin to the post-war settlement theorised by Polanyi, is to be founded. As was the case with the post-war regulation, these new rules and standards are nevertheless likely to become naturalised laws, determined by an elite group of scientists and experts. Consequently, the new codes of conduct and performance metrics agreed would invariably generate new Inappropriate/d Others.

Within the corporate citizenship literature, there are however writers who object to the totalising aims of such grand projects. Simon Zadek, a key figure within the corporate citizenship field, argues that the early attempts of the CSR movement to set up universal codes and metrics were misguided. Often, a certain metric developed for one context proved not to work in another setting. Moreover, a certain code of corporate conduct designed centrally (by NGO headquarters in western countries) fails to address the local needs of stakeholders in a developing country (Zadek, 2001: 6). Therefore, Zadek asks the CSR community to rid itself of their plans for universal rules for regulating business. Through partnerships between NGOs and corporations,

new frameworks of rules have been negotiated within which the corporate community might operate in a more legitimate and, hopefully, progressive manner. [...] In some instances this can be with the active blessing of elements of the corporate community [...] Other rule frameworks, however, will remain outside the statutory realm, overseen by increasingly sophisticated partnership arrangements. (10)

Zadek instead points out that it is the very cooperation between corporations and NGOs that matters:

The emergence of NGOs acting as civil regulators of corporations through public campaigning and other forms of pressure is one of the notable features of the last decade. [...] In their civil regulatory role, NGOs have engaged with increasing intimacy with their target, the corporate community. In so doing, they have increased their knowledge of the business process and how to influence it through personal relationships, the development of management and accountability tools, and by otherwise impacting directly on the markets within which business operates. (9)

In this way – as a side effect of the endeavour to establish universal codes and metrics – the NGO and corporate communities are interacting to the point where the delineation between the voluntary and business sectors is imploding. In this new situation, innovations in corporate practices are codetermined by a wide number of actors, not just firms and academic research institutions. Stabilised outcomes (in the form of universal metrics and codes) are irrelevant – the thing that holds promise for the future is the fact that there is now a knowledge co-production between business and stakeholders. Zadek goes on:

These different elements [of economic regulation] have certainly always existed in some form. What is new is that there is no longer a de facto (or for many even an aspirational) pecking order that places statutory rules as higher, more legitimate, or more effective governance instruments.

Furthermore, there is no longer a presumption that different rule systems will be stable, well bounded, or even consistent with each other. The new civil governance is most of all marked by an acceptance of partial and temporary rule systems co-existing in an often dynamic relationship, overseen by diverse players and institutional arrangements

with complex and often unstable bases of legitimacy and effectiveness.
(10-11)

Viewed from a Latourian perspective, Zadek's practical observations from his work with CSR bring out some interesting phenomena. In effect, he highlights new forms of hybrid networks that stretch between the objective, naturalised world of business (firms, markets, science and technology), and the subjective, societal world of political activism, NGOs and campaigning. As a consequence of these networks, corporations become more adept at collaborating with political actors, while the activists become more adept at collaborating with business. Moreover, the kind of politics enacted in this situation sees activists working to re-engineer the rules of markets and firms. As opposed to accepting the myth of the monolith firm where all agency is subsumed under profit maximisation, activists draw upon "personal relationships" (a futile effort, according to the likes of Klein and Bakan) and "the development of management and accountability tools" (the founding pillars of the naturalised 'laws' of firms). Instead of taking the indirect route via representative democracy and state regulation, they enact their politics "directly on the markets" by re-engineering the socio-technical apparatus that enables calculative ('market') behaviour. For all these reasons, the actors and practices that emerge around the concepts of 'corporate citizenship' and CSR are highly interesting when studying the economy from an ANT perspective.

Not only does Zadek bring out these hybrid networks; he also claims that the outcomes of such 'NGO-business partnerships' will never stabilise to the point where they can become 'scientific'. Instead, outcomes will remain contested, constantly in the process of reconfiguration. What is more, Zadek celebrates this very

contestability. His plea for a regulation that does not aspire to construct fixed, "bounded", and "consistent" rule systems is distinctly Harawayian. Only systems that accept "partial and temporary" solutions are open for contestation and interference – it is only when moderns let go of the notions of the naturalised market and the naturalised firm that the governance of the economy can become inclusive. Zadek's view of business regulation is also Latourian inasmuch as it recognises that hybrid elements of regulation have always existed, but are nevertheless becoming increasingly recognised as the "modern parenthesis" (Latour, 2004) potentially comes to an end. Entanglements between politics and business innovation have always existed, but within CSR such unexpected alliances are too striking to ignore.

To sum up this section, the modern conception of firms and markets construes firms, markets, science and technology as naturalised objects, for which natural laws can be discovered. Politics, personal relationships, social movements and the like are disentangled from these entities, and placed firmly in Latour's subject/society pole. Several critiques of this modern conception of 'production function' firms and neoclassical free markets have been made. However, most of the critiques simply replace one modern conception of markets and firms with another, equally modern one. This is usually done by simply moving phenomena from the subject/society pole to the Nature pole. One crucial point was made regarding the 'global justice movement' writers, such as Naomi Klein (2000): although they point out hybrid networks emerging around corporations, they fail to recognise that such hybrids also exist on the inside of firms. As argued by writers within the ANT tradition, as well as novelist Richard Powers, it is better to study corporations as hybrid networks that cross firms' official boundaries, implicating that firms are open for 'subversion' from

outside networks. Therefore, also following ANT and Powers, the recent debates on corporate responsibilities are better seen as a problem of codetermination regarding the construction of modern monsters, rather than a problem of greed or profiteering. Towards the end of the section, Simon Zadek (2001) was brought forward as an example of how developments within CSR bring new hybrid networks in and around firms into being.

In other words, as argued at the beginning of this section, contemporary markets and firms are officially represented as pure objects, disentangled from all the processes going on in the subject/society pole. However, in order to expand upon the Latourian critique of markets and firms, the empirical text must address the following set of issues:

- Where are the hybrids of modern markets and firms? How can the bottom section of figure 2.2 be completed?

In the remainder of this chapter, the text will return to the work of the theorist who first embarked on the project of bringing STS and ANT to study the modern conception of markets – Michel Callon.

2.2 Callon and the laws of the markets

The previous section examined the prospects for using Latour's critique of modernity for studying modern markets and firms. This section will focus on how Michel Callon has applied ANT to the study of economic markets, and argue that his notions of framing and overflowing need to be explored further by studying the firm from the inside.

Fusing economic sociology with ANT

Economic sociology as a discipline has traditionally prided itself on pointing to the impossibility of the rational 'economic man' – the model of economic action used by economists. However, in recent years, this tendency has come under close scrutiny by the sociologists themselves. An early departure from unflinching debunking of the concept of economic man was launched in the form of 'social network analysis', as pioneered by Mark Granovetter. In his seminal paper from 1985, Granovetter uses the term 'embeddedness' to remedy what he regarded as unsatisfactory accounts of human agency within the social sciences. The 'undersocialised' neoclassical view, as well as the 'oversocialised' culturalist/institutionalist view, of social agency both fail to bring contingent social processes into their accounts of the actor. Both fall into the same trap of seeing behaviour as preordained and individual competencies as perfectly stable, the actor being dominated either by self-interested utility maximising, or by irreversible cultural scripts. Granovetter urged the reader to

note an irony of great theoretical importance: both have in common a conception of action and decision carried out by atomised actors. In the undersocialized account, atomisation results from narrow utilitarian pursuit of self-interest; in the oversocialized one, from the fact that behavioural patterns have been internalised and ongoing social relations thus have only peripheral effects on behaviour. (Granovetter, 1985: 485)

Instead, Granovetter proposes that economic agents' "attempts at purposive action are instead embedded in concrete, ongoing systems of social relations". His 'embeddedness approach' therefore placed focus on the social networks in which action is carried out. In this way, the network configures behaviour of the actor. As social networks are fluid, transient and locally unique, so is the configuration of the

economic agent – putting the ongoing social relations at the heart of economic behaviour.

In his 1998 edited volume *The Laws of the Markets*, Michel Callon develops the idea of 'networks that configure social action' in a different direction. Callon's contribution has prompted a reconsideration of two key themes of economic sociology – the nature of economic agency, and the construction of markets.

First, with regard to the nature of economic action, Callon supports Granovetter's idea of economic action as configured by networks, as well as the critique of theories in which actors' preferences are innately stable (undersocialised neoclassicism) or culturally fixed (oversocialised culturalism). Referring to ANT, he assumes "the *radical indeterminacy* of the actor" (181): Motivations and behaviour are not predetermined, but constructed through the network of other actors. Pointing to the behaviour actually practised in contemporary market settings, Callon makes the following remark on rational, calculative economic agency:

Yes, *economic man* really does exist. [...] But if he exists he is obviously not to be found in the natural state – this expression has little meaning. He is formatted, framed and equipped with prostheses which help him in his calculations [...] (Callon, 1998b: 51)

However, the expression "prostheses" highlights where Callon departs from Granovetter. Callon points to one flaw in social network analysis – the fact that non-human actors are excluded from Granovetter's networks. According to Callon, the human factor only tells half the story about networks. Drawing upon his previous work within so-called Actor-Network Theory (ANT), he stresses the importance of 'socio-technical apparatuses' in shaping social action. ANT collaborator Bruno

Latour has phrased this in different ways – "technology is society made durable" (Latour, 1991), and "yes, society is constructed, but not socially constructed" (Latour, 1999a: 198). Thus, as it is socio-technical tools that enable actors to be calculative and rational, economic sociologists "have to fit out and to [sic] enrich the over-social networks of Granovetter". (Callon, 1999a: 186)

Secondly, Callon's notion of economic action as being bound up in socio-technical constructions sheds new light on the construction of economic markets. While a framework of socio-technical tools may facilitate one particular transaction between a specified set of parties, it also shuts out other transactions. In economics, this phenomenon is called 'lock-in' – a situation in which a certain configuration of the market (such as the qualities of the product sold or the suppliers available) has congealed. Economists depict lock-in as a mechanism that sets in when the evolution of the market becomes more and more irreversible. This breaches the neoclassical ideal of markets as mechanisms that perfectly match the supply of goods with the innate demands of consumers. The functioning of a market can thus be 'path-dependent' – markets can have histories that influence how supply and demand are matched in the real economy. There are a number of heterogeneous factors that may cause lock-in: technological standards (David, 1984; Arthur, 1988; Cusumano, Mylonadis & Rosenbloom, 1992); institutional rigidification (North, 1990; Christensen & Rosenbloom, 1995); as well as standardised control and knowledge/discursive practices (DiMaggio & Powell, 1983).

Callon expands upon this diversity of factors that lock markets in, stating that

lock-in consists of a heterogeneous arrangement which frames the calculative agencies against a background of visible interdependencies.

It is thus as varied and multiple as the forms of market organisation.
(Callon, 1998b: 49)

In this way, Callon argues that lock-in is part and parcel of the operational logic of markets. The same apparatus that enables economic actors to be calculative can – when it persists over time – restrict the future trajectory of the market. The locked-in market is therefore not – as most economists would have it – a degenerated market that does not properly match supply and demand. Instead, the locked-in market should be seen as an evolved market, that provides not perfect flexibility, but a manageable flexibility that enables actors to be calculative.

So, Callon's ANT-fused position on economic markets states that technology is an essential tool for making markets operational, as calculative behaviour among economic actors can only be facilitated through technological apparatuses. Markets are therefore engineered constructions, consisting of heterogeneous tools that make objects calculable. Callon then extends this analysis to argue that 'the economic sciences' – in the broad sense of the term – are to be credited for the construction of market. It is, he writes,

meaningless to distinguish between an existing reality (economy) and the analytical discourse explaining it. Social science is no more outside the reality it studies than are the natural and life sciences. Like natural science, it actively participates in shaping the thing it describes.
(Callon, 1998b: 29)

Here, Callon restates ANT's departure from the early STS belief in a reality 'out there', detached from the theories of scientists (see previous section). Furthermore, he treats economists in the same way that STS has traditionally treated scientists and engineers: Just as scientists and engineers forge our ontologies and material reality,

economic theory forges our economic reality. Callon therefore argues that sociologists ought to study the construction of markets in the same way that he and his colleagues have previously studied the construction of technological and scientific realities.

Though "economic theory describes [...] the circulation of goods and the allocation of resources between human agents" (22), the role of the economic sciences is also performative. As defined in *The Laws of the Markets*, "a performative science is a science that simultaneously describes and constructs its subject matter" (Cochoy, 1998: 218). This implies that "economics, in the broad sense of the word, performs, shapes and formats the economy, rather than observing how it functions" (Callon, 1998b: 2). When outcomes in the substantive economy are not in line with the predicted outcomes of the ideal market model of economics, 'market failure' is said to have occurred – causing economists and bureaucrats to devise new modes of disciplining the economy into behaving in model-like ways. In line with the STS/ANT interest in supplementary and lay expertise, Callon's notion of 'economics' encompasses a wide range of competencies. Along with formal economic theory, expertises and agencies such as accounting, marketing and financial media also provide tools for economic action (Miller, 1998c; Cochoy, 1998; Clark, Thrift & Tickell, 2005).

These frameworks of heterogeneous tools are not necessary totalistic. Re-iterating the main point of departure of ANT from Foucauldian approaches¹⁵, Callon states that

this vast metrological accounting system, made of tools, calculation procedures and incorporated competencies, contributes to the 'disciplining', of behaviour [...] is in no way mechanical, irreversible or irrevocable. It evolves and transforms itself since the tools, those solid points in the system, are themselves plastic, open, reconfigurable and, moreover, constantly reconfigured. (Callon, 1998b: 25-26)

Thus, theoretical economists may have provided the general model of how the economy should work (for instance the general equilibrium market model), but the heterogeneous collection of actors constantly reconfigure the socio-technical tools by which calculative economic agents are created. The remaining subsections of this chapter will first elaborate upon the process and politics of this reconfiguration, and then eventually return to the issue of performative economics.

Externalities, frames and overflowing in modern markets

Michel Callon's contribution to studying modern markets is in many ways the mirror image of Latour's views on modernity in general. Latour's 'ice berg' of modernity consists, to a great degree, of hybrid networks that emerged as a result of moderns trying to place phenomena in either the Nature or the subject/society pole. As mentioned in the previous section, moderns construe markets and firms as natural phenomena, whose universal laws are there to be discovered by science. The

¹⁵ Latour and Callon have generally been more interested in the contestability and incessant Machiavellian power games that surround actor-networks. See Barry & Slater (2002: 178).

existence of such laws is based on one key condition – that the objects ordered in markets or hierarchies are made calculable:

Calculativeness is the general condition that I associate with the economic approach and with the progressive extension of economics into the related social sciences. (Williamson, 1993. Quoted in Callon, 1998a: 255-256.)

Indeed, if objects in markets or firms are not made calculable, they cannot be dealt with in an objective, rational, law-bound manner. It is only when objects are calculable that they can be disentangled from the processes in the subject/society pole. If not, they remain entangled 'things' rather than disentangled 'objects' (Latour, 2004a), thus undermining the modern project of construing markets and firms as naturalised phenomena.

For Callon, this means that only disentangled objects can exist within markets; entangled phenomena must be left out of markets. We know from before that the modernist separation of phenomena into either Nature or Culture, and the disentanglement of objects spawn networks of hybrids. Disentanglement breeds new entanglements. For markets, this implies that calculable 'objects' within markets are always linked to networks of entangled, incalculable 'things'. In the concluding chapter of *The Laws of the Markets*, Callon addresses this issue by invoking the concept of externality:

When reviewing the conditions required for the existence of markets, no concept is more useful or appropriate than that of 'externality'. The concept of externality is effectively central both to economics and economics. [...] Rather than highlighting the limitations and weaknesses of economic theory, I intend to show just how useful it is

as a tool for understanding the dynamics of markets, drawing upon sociology as an additional resource. (Callon, 1998a: 244)

Milton Friedman defines the term externality as "the effect of a transaction on a third party who has not consented to or played any role in the carrying out of that transaction". (Bakan, 2004: 61) A common everyday example of this phenomenon is the one of pollution. Consider the case of a factory that releases industrial bi-products into a nearby river: If the pollution is considered to have ambiguous or negligible effects on citizens and environment, the side effect is rendered an externality. In order for the economic actors to calculate a fair price, the side effect is left outside the economic transaction. If, however, there are parties who claim to be adversely affected by the industrial bi-products, initiatives might be put in place to internalise the externality. Usually, the owner is then prompted (by judiciaries or regulators) to reimburse those affected. As the polluter is then disincentivised from polluting, the side effect is thus subsumed under the market mechanism.

Intuitively, the elimination of adverse side effects may appear to be a morally pertinent way of organising economic activity. Beyond that, as stated in a more the more formal language of neoclassical economics, externalities need to be eliminated as they undermine the prerequisites of ideally functioning markets. If such side effects exist, "there can be no perfectly competitive equilibrium and the fundamental theorems of welfare economics do not hold" (Kay, 2003: 249). For markets to function properly there must therefore be constant scanning for adverse side effects – in Latourian terms, there must be constant re-evaluation of the ontological status of the hybrid networks around the market.

Economic theory concedes that these activities are highly complex processes. First, as economist John Kay states, "pollution is in the eye of the pollutee" (255). Externalities are subjectively experienced phenomena, and dealing objectively with them implies measurement, as well as conversion of measured outcomes (such as polluted water) to money equivalents. Neoclassical economists tend to delimit externalities to being "technological" relationships, having an impact on the physical reality of an external party. However, side effects often affect the cultural or social reality of external parties, making them difficult to measure and quantify. Secondly, internalisation of externalities requires regulatory institutions (laws, rules, regulating authorities) to be set up. Again, in the words of Kay,

the definition of rights and rules is not obvious, but the result of a social decision. An electricity generator is not negligent in emitting carbons and sulphur dioxide until we formulate a specific rule that says it is.
(254)

In short, establishing tools of measurement, conversion of side effects to monetary equivalents, and the deployment of regulatory mechanisms are all processes of a highly social nature, to a large extent influenced by the relative power of the actors involved. As it stands, economic theory is not well suited for analysing the socio-political and ontopolitical complexities of externalities. At this juncture, Callon argues, economics needs support from sociology.

As a tool to sketch the social process of the internalising of externalities, Callon puts forward the concepts of frames and overflowing. A 'frame' is the delineation between internalities and externalities of a certain market situation – the delineation between the calculable and the incalculable, between disentangled objects and entangled

things. 'Framing' is the socio-political and ontopolitical process of establishing this boundary. In practice, this implies the establishment of tools (a socio-technical apparatus) for detecting and containing externalities. Thus, when a factory owner is prompted to reimburse citizens affected by industrial bi-products, this is practically achieved via the introduction of devices that measure pollution, investigations on how much to pay citizens, means to collect payment etc. The pollution has then been brought inside the frame of the transaction – one can say that the market arrangement has been reframed. From this follows that frames around markets are temporary arrangements: Market boundaries shift, due to the fact that established frames inevitably draw attention to new, unexplored externalities. Again, the links to Latour's critique of the moderns are evident – purification yields hybrids, causing the 'hopeless leaking of the black boxes of modernity'. Callon calls this phenomenon of ever unfolding externalities 'overflowing'. Correspondingly, 'overflows' are the externalities that appear around an object that has just been disentangled.

One of Callon's key contributions is thus to highlight how modern markets cannot function without this separation of objective factors (inside the frame of calculation) and subjective factors (outside the frame of calculation). There is direct parallel between Latour's general notion of modernist purification, and Callon's more specific notion of purification in modern markets. In other words: Managing externalities, redefining frames, and inventing overflows is for modern markets what the forging of objective scientific fact is for moderns in general.

Hybrids, entanglements and the ontopolitics of markets

The management of externalities tends to be contentious: often, as in the case of industrial pollution, the stakes are highly political. Economists, following Ronald

Coase, usually construe the clashes between polluters and pollutees as bilateral negotiations and bargaining sessions (Coase, 1960). However, this presupposes that both parties have a shared view of the existence, nature and extent of the externality. Callon – drawing upon his STS background – points out that this is often not the case. As hinted above, actors wishing to reframe markets are faced with the challenge of objectively (scientifically) proving that the frame of a market is overflowing. Such proof generally requires means (technologies) of detection and of measurement; one can thus say that overflows have to be invented before the market can be reframed. For instance, the ability of citizens affected by industrial pollution to enter contractual negotiations with the polluter is wholly contingent on invention; on the development of equipment and expertise in industrial bi-product detection.

Callon notes that, as overflows have to be invented before they can be brought into the frame, "framing is a fragile, artificial result based upon substantial investments" (Callon, 1998b: 252).

These investments apply and produce both knowledge, in that they cause hitherto invisible links to appear, and also a reconfigured collective in which these now visible and calculable links have been renegotiated. (259-60)

We are here, then, concerned with the 'ontopolitical' aspects of markets. The ontologies of objects around the frame of a market are never fixed – therefore, frames are always contested, and markets are always overflowing according to some actors. When there is a lack of consensus on externalities, tools of measurement are essential for reaching such a consensus on how to make markets calculable. In this manner, knowledge production – notably the development of tools of measurement –

becomes a highly political activity. As ANT has always stated, innovation and politics are intrinsically tied together. Prior to the generation of knowledge about externalities, overflows remain unstructured, pending a consensus on how to make the externalities calculable. When a consensus is reached, the market's handling of the overflow is settled and unambiguous. Therefore, an established socio-technical apparatus for measuring and calculating overflows has, as Andrew Barry puts it, anti-political outcomes, by "suppressing potential spaces of contestation; placing limits on the possibilities for debate and confrontation" (Barry, 2002).

Luckily, ANT has already developed a way of describing the process by which the ontopolitics of markets are played out: The approach to the study of modernising scientists in action – mentioned in the previous section – can potentially be applied in this context. As mentioned in the previous subsection, overflow inventions are a subset of the general modern ambition to forge scientific fact. So, just as modernising scientists construct facts through entangling elements from both the Nature and subject/society poles (through mobilising of the world, alliances, public representation and so on), frame management and overflow invention must involve entanglement. Callon writes:

This is what the general hypothesis presented in *The Laws of the Markets* means in concrete terms: to disentangle one has to entangle.
(Callon, 2005: 7)

Overflow inventions may thus be studied in the same way that scientific facts have been studied – as the result of actors who purport to purify objects from subjects, via the unofficial entanglement of elements from both the Nature and subject/society poles. Hence, the subsequent text will explore this second set of issues:

- In what ways can overflows be invented through the entanglement of elements from the Nature and subject/society poles? Can overflow inventors be studied as modernising scientists – as actors who 'mobilise the world', further 'autonomisation', build 'alliances', manage 'public representation' and create 'links and knots'?

Note: similar questions have already been asked by Coopmans, Neyland and Woolgar (2004: 1): "Are organisations to be approached in the same way as scientific laboratories? Can organisation and business activities be approached as forms of technology?" Crucially, this study has a more specific aim: indeed, it will study 'the firm as a laboratory', but in the specific context of overflow invention and reframing.

Callon suggests that the "anthropology of science and technology" (1998a: 263) is an appropriate tool for tracing and understanding how the disputes around externalities and market frames are being fought. These disputes involve a number of heterogeneous actors (companies, journalists, civil society organisations, academics, government agencies etc.), which draw upon a number of heterogeneous tools (expert texts, methodologies, measurement devices and so on), in the attempt to invent overflows and call for certain market arrangements to be constructed. In *The Laws of the Markets*, Callon calls these figurative round-table discussions "hybrid fora" – the qualifying "hybrid" stemming from the sheer diversity of actors and of rationalities involved in these discussions (Callon, Méadel & Rabeharisoa, 2002). It is here, then, that the Latourian hybrids are to be found; mediating between the 'official', pure market objects and the pure societal subjects.

Subsumed under the concept of hybrid fora, Callon has identified types of actors that frequently reoccur in these discussions. One of these roles is the 'hurt group' – a group of individuals who are adversely affected by a supposed overflow, and have thus joined together to argue their case for a reframing. An example of this could be a group of citizens living next to a polluting plant. Another role is the 'orphan group' – a group of individuals who are entirely excluded from the market process, but wishes it could be served by that same market. Callon refers to a group of sufferers from a rare illness – rare enough for medical companies to neglect developing cures for the disease – as such an orphan group.

Callon goes on to argue that the compositions of hybrid fora are becoming increasingly hybrid – the diversity of actors and of modes of reasoning is on the rise. This causes discussions on market frames to be less consensual. On the contrary, markets have become more heavily contested in recent years: Situations where there is a consensus on whose opinion counts and what rationalities are legitimate ("cold situations"), are being superseded by situations with no such consensus ("hot situations"). This trend stems from two developments: First, as technosciences are becoming more and more ubiquitous, connections and interdependencies are becoming more numerous and more complex. Secondly, as knowledge is increasingly produced outside the traditional elite institutions, by or in collaboration with actors who are non-specialists, more standpoints have to be taken into account (Callon, 1998a: 260-62). Elsewhere, Callon furthers this analysis by pointing to how "researchers in the wild" are increasingly making their presence felt, thus 'democratising' knowledge production (Callon, 2001). In this way, we might be on our way towards a 'technological democracy', with more public deliberation on

science and deepened co-production of knowledge between experts and lay people (Callon, 1999b).

Callon is here close to the argument of Michael Gibbons et al. (1994), which states that society is increasingly moving into a new mode of knowledge production. "Mode 1" of knowledge production implied that knowledge was created within the confines of academic, state, or corporate institutions. "Mode 2" implies that knowledge is increasingly produced in networks between the old elite institutions and think tanks, civil society organisations, lay individuals, journalists etc. The old ivory towers of knowledge production are thus losing their role as sole providers of legitimate knowledge. The Callonian and Gibbonsesque arguments do however differ on one major issue: Whereas Gibbons et al. argue that only the sources of knowledge production are proliferating, Callon adds that this proliferation also includes the very rationalities used in debates. Not only are lay individuals becoming more instrumental in the debates on pollution – their arguments are based on different knowledge sets than the ones put forward by knowledge elites.

The idea that hot situations are "becoming more commonplace, more visible and more pervasive", and that "it is becoming exceedingly difficult to cool them down" (Callon, 1998a: 262) is Callon's equivalent to the Latourian 're-modernisation' theme (Latour, 2003a). Is the leaking of modernist objects (in this case markets and firms) actually becoming widely recognised in society? As already touched upon, the notions of a 're-modernisation occurring' and 'markets becoming hotter' are nevertheless general hypotheses that still need further support by empirical research. Therefore, the third issue set that this dissertation will explore further concerns these two notions:

- What evidence is there for markets becoming hotter and for re-modernisation to be occurring?

Framing conventions and Speculative Frames

As shown above, Callon's contribution laid a solid foundation for the endeavour of bringing STS and ANT to the economic domain. However, there are areas of his work that open up for further elaboration. For instance, when speaking about the processes that lead to reframings of a certain market, he pays little attention to the internal processes of the firm. For instance, he writes that hybrid fora feature

an ever-growing, ever-more-varied cast of characters [...] By turns we hear from vets, farmers, manufacturers of animal feed, [...] outraged members of the public, the media [...] (Callon, 1998a: 260-61)

Here, Callon refers to "manufacturers of animal feed" as a singular character, as one of the voices heard in the debate. He is thus assuming that in hybrid fora, firms can be black-boxed – that they can be construed as a single entity with a single voice. Firms are presumed to be uniform entities, protecting their particular interests in a certain issue, following an internal shared understanding of what those interests are. Arguably, he depicts the firm as a monolith or a single actor, and – like Klein and others – fails to recognise that firms themselves comprise several networks with conflicting interests. Other authors in *The Laws of the Markets* portray the firm in a similar black-boxed fashion. For instance, Granovetter and McGuire claim that a sociology of industry must include (as the first criterion) analysis of "the internal structure of the organizations comprising the industry" (Granovetter & McGuire, 1998: 148). Nevertheless, their analysis still construes firms as homogeneous entities, whose interests were synonymous with interests of management:

Samuel Insull and his circle of collaborators socially constructed their firms in similar ways [...] They drew upon their local and national contacts to re-frame the market and the political system in ways that pressured utility firms toward technical, organizational, economic, and legal conformity. (167)

Similarly, Bai Gao (1998) portrays firms as synonymous with management, relating to labour unions in a unified manner. It is indeed paradoxical that researchers – especially the ones with backgrounds within STS and ANT – have overlooked the need to study hybrid fora from inside a firm. After all, ANT has always steered clear of sweeping structuralist statements, instead opting for situated localised ethnography as a method. Laboratories and other key institutions have been studied in this localised manner – however, when it comes to firms, they are readily reduced to black boxes. Very basic localised questions about firms and hybrid fora have never been asked:

- How do actors within a firm recognise overflows in the market in which it operates?
- How do actors within the firm understand such fora, and develop strategies for them?
- How are the various rationalities and views from a hybrid forum processed within the firm?
- How are actors within the firm affected by the knowledges and technologies circulating within a hybrid forum?
- How are the knowledges and technologies circulating within the firm transmitted to the hybrid forum?

What is needed, then, is an expansion of Callon's thoughts that opens up the black box of the firm. One approach to doing this is by revisiting the original theory that Callon draws upon when explaining the concept of the market frame – Erving Goffman's frame analysis (Goffman, 1974). In the introduction to *Frame Analysis*, Goffman states that his sociology is an extension of William James' paper on "the perception of reality" (James, 1950 [1869]). In this way, Goffman explicates a lineage that starts from the American pragmatists, runs via Harold Garfinkel and himself, and subsequently continues in ANT. (Latour, 2003a: 40) About James, Goffman writes:

Instead of asking what reality is, he gave matters a subversive phenomenological twist, italicising the following question: *Under what circumstances do we think things are real?* [...] In his answer, James [...] made a stab at differentiating the several different "worlds" that our attention and interest can make real for us, the possible subuniverses [...] in each of which an object of a given kind can have its proper being [...] Each of these subworlds, according to James, has "its own special and separate style of existence" and "each world, *whilst it is attended to*, is real after its own fashion; only the reality lapses with the attention". (Goffman, 1974: 2-3)

James' contribution was to show that as reality is constructed in the minds of individuals, it is actually divided into a series of sub-universes. The existence of these multiple realities prompts Goffman to search for a means to describe how actors interpret reality within these sub-universes. Here, he borrows Gregory Bateson's concept of 'frame' – a perspective of a social situation that makes it possible for actors to understand a given episode of conduct (Bateson, 1972). Frames are collective creations bound up in culture; individuals must identify with a culture

in order to have access to frames. Within a certain culture, any given frame might become elevated to constitute a norm; a 'framing convention'. In order to prevent actors from abusing the collective understanding of a situation, the breaching of such conventions is sanctioned as 'frame manipulation'.

This review of the original frame analysis brings out two issues regarding how Callon uses the notion of frames. First, as noted by Slater (2002), Callon largely ignores the cognitive and interpretive aspects of frames, as originally implied by Goffman. Secondly, the original meaning of the term assumes that several frames can co-exist, although some are more normalised and sanctioned than others. Callon mainly speaks about frames in the singular – he speaks about the frame that is used as a convention in markets in order to make objects calculable, endorsed through an apparatus of socio-technical tools. Nevertheless, associated with a market, there are a number of actors (groups of employees, 'hurt groups' etc.) with differing perspectives of how objects are connected in and around the economic interchange in question. Thus, there are multiple frames, multiple perspectives on the reality of entanglements and externalities around firms and markets: One specific frame might constitute the market convention, but a single firm in that market might construe its role in the socio-economic setting somewhat differently. Moreover, a certain group of employees within that firm might espouse a third frame. As an example, the frame convention of the global petroleum market does not include global warming as a real entity. However, a certain oil corporation might – from its perspective – act as though it is. Moreover, inside the firm, for the Department for Renewable Energy Sources, global warming is not only real, but central to the operations of the firm. While the perspective on reality espoused by the Renewable Energy Department is

not endorsed by the global market frame, it still very much exists, and it has implications for social action.

We are here back to the issue of whether ontopolitics should be sketched through Latour's constitutional settlements via 'a parliament of things', or through the interferences created by Haraway's 'partially connected', yet real, Others. Callon, focusing on the market frame convention, may be seen to be closer to Latour on this point. However, his view of market frames as perpetually contested recognises the fact that several frames compete to be elevated into being the convention. Indeed, such alternative frames are the parallel concept of Haraway's 'SF' – Science Fiction, Speculative Fiction, Speculative Futures, and now 'Speculative Frames'. Again, the theoretical tool for studying this competitive process between the 'framing convention' and the 'speculative frames' is provided by ANT.

Following this line of argument, this study will focus on the existence of a multitude of competing speculative frames inside firms, espoused, for example, by different departments or networks of employees. By focusing on the speculative frames within a single firm, the study thus aims at opening up the black-boxed firm. The fourth set of issues that the following text must address concerns the question of the monolithic firm:

- Are there, within a given firm, alternative perspectives on the firm's role in the social setting? Are there perspectives that deviate from the market frame convention; perspectives that deviate from the official frame of the firm?

Moreover, if alternative frames exist within firms – frames that challenge the market frame convention – this has a bearing on the operational logic of hybrid fora and

reframings. In the hybrid fora sketched by Callon, initiatives to reframe markets (i.e. initiatives to reframe the market frame convention) are instigated by hurt groups or orphan groups. The firm is assumed to unequivocally represent the market frame convention, and is therefore reactive in relation to such reframing initiatives. Firms (in the Callonian hybrid fora) merely react to claims of hurt and orphan groups – they do not, themselves, instigate reframings of markets. However, this operational logic does not hold if there are several competing frames espoused within a firm. If alternative frames exist within the firm, there will invariably be actors who want their alternative world view to become the frame convention. Slater (2002) has touched upon this topic, pointing out that there are times when "market actors themselves [...] have as much interest in destabilising markets as in stabilising them" (Slater, 2002: 243).

The fifth set of issues to be addressed by the subsequent text is thus:

- In what instances can actors within firms be seen as active instigators of reframings of a market? In what instances can (actor-networks within) firms be seen as co-reframers with actors not working for the firm?

In the following text, then, the word 'frame' can be used for several collectives. Apart from "market frames" (the frame convention that Callon speaks about), the following text will use the word "business frames", denoting how actors within a firm construe the role of the firm within a socio-economic context – what objects it entangles, what realities it recognises. Correspondingly, "business reframing" denotes a shift in this role, through socio-technical re-engineering and overflow invention conducted by actors in and around firms.

A new political economy?

As shown previously in this section, Callon's ontopolitics of markets amounts to a different kind of politics from that usually examined in the academic discipline of political economy. For instance, Callon is less interested in the appropriate level of income redistribution, or the essence of a naturalised value theory of labour. Instead of focusing upon supposed innate market laws (the implications of which may be political), Callon's political economy concerns the construction of such laws. In correspondence with Richard Powers' critique of essentialist accounts of capitalism, he writes:

Instead of assuming, for instance, the existence of a spirit of capitalism or an overall logic of a mode of production, we can relate certain forms of economic activity to the more or less chaotic, regular and general upsurge of calculative agencies formatted and equipped to act on the basis of a logic of accumulation and maximisation. (Callon, 2005: 5)

In particular, Callon is interested in the contestability of these market arrangements. Summing up his introduction to *The Laws of the Markets*, he writes that from his point of view the market

is no longer that cold, implacable and impersonal monster which imposes its laws and procedures while extending them further. It is a many-sided, diversified, evolving device which the social sciences as well as the actors themselves contribute to reconfigure. (Callon, 1998b: 51)

Callon is thus making an anti-essentialist argument: Markets are always open for reconstruction by dissenting actors. In Haraway's terminology, this would amount to saying that markets are always subject to diffraction and interference. Note that

Haraway's anti-essentialism is based on a feminist position: In fact, feminist theory and gender studies have come to provide a test bed for debates between essentialist and anti-essentialist theories. Since the advent of poststructuralist feminisms such as queer theory (Sedgwick, 1990; Butler, 1990), contemporary feminist theory has come to imply a "dance on the tightrope of feminism": While the theorist has to recognise gender-related structures, categories and patterns, political activism must also imply a deconstruction of categories, whereby subjects act as though these categories do not exist. (Björk, 1996: 115-126) Theorists who unflinchingly point to the existence of structures, categories and patterns related to established dichotomies (e.g. male-female, masculine-feminine, heterosexual-homosexual) end up reinforcing those very gender structures. Activism must thus include subversion of naturalised categories, a 'semiotic guerrilla warfare' on how gender is performed, as well as recognition of structures. (See for instance Butler, 1990) However, while feminist theory has debated this tension for the past twenty-odd years, political economists have remained unreconstructed modernists, resolutely focused on studying innate laws, categories and structures within capitalism.

Fittingly, this point has been raised by a feminist political economist. In the 1996 *The End of Capitalism (as we knew it)*, J.K. Gibson-Graham argues that "the socialist and Marxist traditions" have construed capitalism as a "large, powerful, active, expansive, penetrating, systemic, self-reproducing, dynamic, victorious" beast – and thus effectively eliminated any chance of constructing alternative modes of economic organisation. (Gibson-Graham, 1996) In the introduction, Gibson-Graham writes:

I had myself been a producer, in my earlier work as a political economist, of representation of capitalist hegemony. [...] It didn't

matter that I was very interested in the differences between industries or that I did not see industrial change – even widespread change – as emanating from or reflecting a macrologic of "the economy". I was still representing a world in which economy, polity, culture, and subjectivity reinforced each other and wore a capitalist face. Chasing the illusion that I was understanding the world in order to change it, I was running in a well-worn track, and had only to cast a glance over my shoulder to see, as the product of my analysis, "capitalist society" even more substantial and definitive than when I began. (ix)

In Andrew Barry and Don Slater's interview with Michel Callon, the Gibson-Graham argument is encapsulated in the following question:

Isn't capitalism itself and the framing of the economy *as* capitalism, itself a product, to put it very crudely, of the whole history of critical political economy and anti-capitalist political movements and the various technical devices they have deployed to make this thing capitalism apparent? (Callon, Barry & Slater, 2005: 113)

Though Callon agrees with this depiction of the relation between actual capitalism and anti-capitalist theory, his account deviates slightly from that of Gibson-Graham. The latter follows Haraway's plea for partial truth-telling from the perspective of an In-/appropriate other. Gibson-Graham thus chooses class as "entry point", and explains at length why she has chosen that location of her knowledge production. Callon, as mentioned earlier in this chapter, is reluctant to fix his analysis to any a priori category, and least of all the category of class:

If you want to interpret the new conflicts about the organisation of the market [...], you have to imagine a conflict between different ways of structuring markets and considering markets precisely as the capacity to attach and shape some entities and disconnect others. [...] the opposition is not between classes defined by the position of people in

the political process. The opposition is between emerging groups who are defining in different ways how to organise these markets [...] (Callon, Barry & Slater, 2005: 111)

Similarly, Callon's analysis is less concerned with 'structures' as preordained. Instead, his emphasis is on the politics around heterogeneous engineering of structures:

I would not say that you have structures and that you have position [sic.] within these structures, and from this position you can deduce or explain some oppositions and some conflicts. Rather you have oppositions and conflicts about how to structure economic markets [...] It does not mean that there is no structuring process, *but that the structuring process as such is at stake.* (Callon, Barry & Slater: 112. Italics added.)

Both Callon and Gibson-Graham point to new political strategies in this 'new political economy'. For Gibson-Graham, 'capitalism as we know it' can be undermined through systematically bringing out non-capitalist phenomena, thus unveiling the illusion of capitalism as a totalising system. It is

productive to understand capitalist hegemony as a (dominant) discourse rather than as a social articulation or structure. Thus one might represent economic practice as comprising a rich diversity of capitalist and noncapitalist activities and argue that the noncapitalist ones had until now been relatively "invisible" because the concepts and discourses that could make them "visible" have themselves been marginalized and suppressed. (Gibson-Graham, 1996: xi)

The political imperative is thus similar to that of Judith Butler's queer theory: Academics and activists are to wage a 'semiotic guerrilla warfare' that explicates phenomena that deviate from the established discursive categories (of essentialised gender or of capitalism). However, the argument also parallels Latour's critique of

the moderns. Gibson-Graham writes that the "noncapitalist forms of exploitation in households, shops, small factories, farms and communes [...] have been denigrated as primitive remnants of a dominance long past, perhaps still existing in Third World countries" (117). Thus, like Latour, she depicts (capitalist) modernity as constituted of official, pure capitalist processes that follow natural laws stipulated by modernisers, and of unofficial, hybrid noncapitalist processes that traverse the Nature/culture divide in a 'primitive' manner. Arguably, modern capitalism has never existed, as – *pace* Latour – there has never been a time when modernity's interpretation of itself has described its economic deeds adequately. (Latour, 2003: 38) In this respect, Latour's project of bringing out hybrids in order to undermine the illusion of the moderns, and Gibson-Graham's project to undermine 'capitalism as we know it', go hand in hand.

Following his reluctance to legitimate class as an overarching category, the Callon of *The Laws of the Markets* does not speak in terms of undermining capitalism as a social structure. He is instead more concerned with the ontopolitics of markets, in which the role of the social scientist is to "keep track of overflows as well as the visibility of the disagreements and agreements to which they give rise" (Callon, 1998b: 263). So while economists concern themselves with framing and disentangling, sociologists ought to bring out the conflicts and victims that these processes create. As such, Callon accepts the disentangling work of the economists as a necessary evil – markets cannot function without disentangling.

Callon's view can also be contrasted with that of James Carrier and Daniel Miller, whose "new political economy" (from their edited volume *Virtualism*) also assumes that economics is a performative science (Carrier, 1998; Miller, 1998a). Miller has

subsequently criticised Callon for his resignation to the fact that neoclassical economists' impose a certain of a mode of action upon actors. (Miller, 2002) Studies of non-market societies show that actors are naturally inclined to act in a different manner. For Callon, however, there is no such thing as a 'natural' mode of action that lies 'outside' economic science – modes of action are necessarily constructed through some 'theory' of action. Thus,

there is as much artificiality in the altruistic gift, in the interpersonal relationship (based on trust, for instance) as in the striving to maximise profits. Both forms of agency imply huge investments, especially material. Neither of the two is more human or anthropologically correct than the other. (Callon, 2005: 5)

In other words, the 'principle of generalised symmetry' also applies to economic behaviour – scholars can neither call upon 'pure Nature' nor 'pure culture' to explain a certain mode of action. For Carrier and Miller, fighting back against markets implies freeing citizens from the discipline of economic sciences; for Callon, there is no action without sciences, and changing markets is thus about constantly developing new tools from differing perspectives. Though *The Laws of the Markets* is less concerned with changing capitalism, Callon has recently argued that scholars ought to assist in change through bringing out the initiatives of "infiltrations" by "guerrillas" (Callon, 2005: 12) who subvert the market from the inside. (For more on the social critique of the researcher, see next chapter.)

The one thing that unites Callon, Gibson-Graham, and Carrier and Miller is however the claim that economic sciences are performative. (cf. Rose, 1992) The origin of the word, Franck Cochoy (1998: 218) points out, is Austin's concept of 'performative utterances' – utterances that become true through the very act of their being stated.

(Austin, 1962) Analogously, the 'performative economics' claim thus suggests that economic theories have a tendency to become self-fulfilling prophecies. Nevertheless, Callon's argument on the process of performance is more elaborate than such a blunt reading would suggest. As noted above, Callon's definition of economics is wide: "Economics" is said to include not only the academic discipline of economics, but also supplementary expertises such as accounting and marketing. It is not so much the economics theories in themselves, but economics-inspired tools that forge actors into a certain mode of action. This is evident when studying economic action within firms, where not least accounting (Miller, 1998c) and financial management (Fligstein, 1990) have become powerful tools through which organisations are governed.

Callon's particular take on the notion of performativity has not only caused him to be criticised for supposedly limiting the potential for social critique (Miller, 2002; Fine, 2003). Another area of contention has been the empirical validity of the performativity claim. (cf. Aspers, 2005) For instance, MacKenzie (2004) has proposed that scholars use the notion of 'verisimilitude' ("the fit between model and 'reality'"); studying the extent to which the 'real' economy conforms to the abstract models of economics over time. From a different perspective, Slater (2002: 245) has pointed to Callon's tendency to "presume effects from discourses". He thus prompts researchers to focus on how such effects are – or are not – manifested in practice: "We need to take an open-ended and indeed ethnographic approach to the way specific markets are constructed."

One way of approaching the issue of performative economics is by studying how the state assists in performing economic action. Though Callon's ideas on the politics

of markets abolishes the supreme role of the state in regulating the economy – after all, political economy has often been synonymous with the issue of how states should rule their economies – the state still plays an important role in his market ontopolitics. This role is not primarily one of regulating the labour market or taxing firms – rather, Callon sees the state as one of the actors that frame economic agents:

The state does not intervene in the market; [...] it participates – and its role is always essential – in the constitution of the economy. A way of showing this is to provide a list [...] of these constituent activities: rules governing the use of productive assets, legal frameworks governing reoccurring relations such as those between employers and employees, means of payment, managing the boundary with the rest of the world. It is easy to verify that each of these activities contributes directly to the framing of calculative agencies. They do not organise the actions and economic behaviours which already exist, outside of state action; they format these actions. [...] The true question concerning the state is this: how and with what methods and efficiency does it contribute to the performance of calculative agencies and the organisation of their relations? (Callon, 1998b: 40-41)

The influence of the state in performing markets is therefore subtle and multifaceted. Callon therefore makes a plea for "detailed individual case studies of observable configurations" (41) that can bring out how various nation states have performed their national economies. One way in which states can have a profound effect is through funnelling investment to research in overflow invention. As "framing is [...] based upon substantial investments" (Callon, 1998a: 252), national research policies can have a profound effects on how markets are constructed and contested. Interestingly, the intersections between research policy and Callon's new politics of markets have yet to be drawn, although Callon has studied both these fields.

The students of performative economics have (barring Gibson-Graham) primarily studied economics-related expertises that are related to market liberal, neo-classical economics. Studies have thus focused on how self-interested calculative agencies and entrepreneurial selves are constructed. This is hardly surprising, as this brand of academic economics has dominated the western world during the past century. But, as Callon writes, there is no reason for the anthropology of markets to delimit itself to studying this brand of economics. However, few studies have focused on how alternative economic approaches (for instance Marxist and Keynesian approaches, underconsumptionist theories etc.) have bred specific kinds of performances of the economy. Though Gibson-Graham (1996) touches upon this issue, her text does not concern itself with the performance of Marxist political economy inside firms.

The sixth set of issues that the subsequent text needs to address is therefore:

- In what ways do economics-related expertises performate the overflow inventions of firms? What role does the state play in the performance of overflow inventions? How can non-neoclassical economics performate the economic agency inside a firm?

2.3 Conclusion: the theoretical agenda of this text

Callon's translation of ANT to economic sociology has opened up an agenda for studying markets and politics in new ways. As shown in this chapter, Callon's contribution can be read as an extension of Latour's critique of the modern settlement: Callon's 'framing as a process of disentanglement' is in many ways a direct parallel to the modern process of purification and hybridity-generation, previously sketched by Latour. The above text argues for a Latourian critique of

modern conceptions of markets and firms. This is because modern economics (neoclassical economics, as well as political economy) mirrors the modern separation of nature and culture: Sitting firmly in Latour's 'Nature pole', we find markets and firms, existing as natural phenomena governed by the laws 'out there' to be discovered by science. Moreover, just like scientists, professionals within firms are seen to operate in 'a culture of no culture', their actions subsumed by the natural laws of the firm. In Latour's 'subject/society pole' we find politics, activism, idealism and kinship, all nicely separated from markets and corporations. However, in order to substantiate the claim that Latour's critique of the moderns applies to markets, this text will explore what the notion of hybridity means in the context of markets and firms.

As mentioned, Callon has come far in establishing a theoretical framework that matches the project of critiquing the modern conceptions of the economy. Nevertheless, the single firm has so far remained black-boxed by Callon and his associates, construed as a homogeneous entity. This dissertation is an attempt to open up this black box through investigating a number of theoretical issues. First, it will study how overflow inventors inside firms entangle objects and subjects – much like Latour has studied scientists. Secondly, it will explore whether the hypothesis of 'markets getting hotter' and 're-modernisation occurring' holds water in the context of one single firm. The text will also explore a couple of issues related to Callon's notion of 'frames': Through researching the insides of the firm, the dissertation will explore the existence of several alternative frames – of several 'worlds real in their own fashion' – as suggested in Goffman's original meaning of the term. The text will also counter Callon's focus on reframings and overflow inventions as processes

driven by hurt groups, and the suggestion that firms merely react to such inventions: The dissertation will thus examine the extent to which reframings are actively conceived by firms, and whether firms can act as co-inventors of overflows.

The text will also build upon Callon's theories on the performance of economic action. As Callon has pointed out, there is an urgent need for further empirical studies of how states performate economic action. More specifically, the text will study how overflow invention is performed by states, and by economic theory. The chapter has thus brought out six issues that the subsequent text will interrogate:

- I. Where are the hybrids of modern markets and firms?
- II. How do overflow inventors entangle elements from the Nature and subject/society poles? Can these actors be studied in the same way as ANT has studied scientists?
- III. What evidence is there for markets becoming hotter, or for a re-modernisation occurring?
- IV. Are there, within a given firm, several perspectives on the frame of the market?
- V. In what instances can actors within firms be seen as active instigators of market reframings, inventing overflows in conjunction with extra-firm actors?
- VI. In what ways do economics-related expertises performate the overflow inventions of firms? Which is the role of the state, and of non-neoclassical economics?

However, when using theories and methodologies for studying scientists and engineers in the domains of markets and firms one needs to proceed with caution. One major issue to be considered is the issue of power structure; historically a contested issue within STS and ANT. For researching powerful institutions such as multinational corporations, especially on topics as corporate social responsibility, researchers must develop sophisticated modes of conducting interventionist ethnographies. This theme will be elaborated upon in the next chapter.

3 Assisting the actors

- on methodology

This chapter will review the methodological issues of this dissertation. Following an introduction of the use of ethnography within STS (3.1) and the methodological specifics of this particular study (3.2), the text will prompt ethnographers studying powerful corporations to consider their roles as potential colluders, reinforcing the power structures at stake (3.3). In response to this dilemma, the chapter will make two points. First, the only way to avoid the role of the colluder is to engage in interventionist ethnography. Following Donna Haraway's plea for interference, the researcher must side with certain actors and assist in efforts to perform alternative worlds into being. Secondly, the text argues that the ideal of fly-on-the-wall ethnography in the context of corporations is not only irresponsible – it is also unattainable. As this research project shows, researchers can hardly avoid getting entangled in the internal politics of the organisation to be studied. Inside contemporary corporations, where the strategic deployment of scientific expertise is rife, scholars must simply let go of the ambition to do 'the God trick'.

3.1 Ethnography as method

The previous chapter highlighted the prominence of economics and quantitative approaches in forging the 'mainstream' conceptions of the market and the firm. Nevertheless, qualitative (and more recently, ethnographic) approaches have existed alongside formalist economics, often with the aim of debunking it. This dissertation continues in the ethnographic tradition, though not necessarily in order to debunk

economics. As pointed out halfway through the previous chapter, Callon has tried to construct an economic sociology that does not fall into the trap of merely "highlighting the limitations and weaknesses of economic theory" (Callon, 1998a). In order to make economic sociology more relevant, Callon argues that it has to bring out the performative impact of economics (and other social sciences). He also proposes that scholars should

develop two strategies. The first is to describe precisely the influence of economists in institutions [...] the second strategy is to try to make more visible the analysis done by economic sociologists and to take part in the devising of tools useful both for us and for economic agents. [...] it implies an involvement in the performative activities of social sciences. (Callon, Barry & Slater, 2005: 116-117)

Callon is thus arguing that sociologists must set out to collaborate with practitioners in constructing the tools used for making objects calculable. This implies ethnographic research projects, where the scientific outcomes are expected to influence social action – where the findings are meant to be performative.

The point is that sociological knowledge is a co-production between actors and social scientists. We can't avoid the co-production of knowledge and the consequence of this joint production is the generation of new identities. [...] we have to try, as a first step, to co-operate with social actors who are willing to co-operate with us, and who are able to understand what is at stake. In the second phase, using these first studies as examples we could extend this new conception of the relation between social scientists and social actors. (Callon, Barry & Slater: 121)

In his plea for interventionist ethnography, Callon again builds upon previous work within STS and ANT, where ethnography has always been the preferred method of

research. Indeed, Callon (1998b: 28) uses the acronym AST – "anthropology of science and technology" – interchangeably with STS. The appeal of ethnography as method for ANT is obvious: It would be difficult to map the micro-level Machiavellian power games behind processes of translation (see previous chapter) by means of any other method. Again, ANT's heritage from the scholars sketched in the previous chapter – starting from the American pragmatists, on to Goffman, via Harold Garfinkel – is highly visible. Latour (2003: 40) writes that "ANT is a direct descendant of Garfinkel's ethnomethodology", and therefore has an "interest in the practical and local conditions" by which actors understand and negotiate the social world. ANT is

simply another way of being faithful to the insights of ethnomethodology: actors know what they do and we have to learn from them not only what they do, but how and why they do it. It is *us*, the social scientists, who lack knowledge of what they do, and not they who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist's powerful gaze and method. ANT is a way of delegitimizing the incredible pretensions of sociologists who, to use Bauman's forceful expression [...], want to act as legislators (Latour, 1999b: 19-20)¹⁶

From the perspective of ANT, 'master narrative' social theories cannot be drawn upon as descriptors of a society out there. However, they may be localised, constitutive elements used by actors trying to negotiate their worlds. Latour states that

¹⁶ For more on Bauman's views on the role of the social scientist, see Bauman (1992).

any sociology, no matter how powerful, is just one ethnomethod among others, competing on the ground with all the other ethnomethods, most of them more powerful, produced by the 'actors themselves'. It does not mean that social theories are not useful, respectable and accurate; it just means that they *add* their influence, detours, interpretations to the plot which they can in no way explain or replace.

Actors *equipped* with different master narratives [...] will indeed take different tacks, make different choices, will present themselves differently. But those shifts will only be *tiny inflections* which have to be considered against a background of practices of an entirely different nature – which only an anthropological enquiry can retrace. (Latour, 2003: 40-41)

This, of course, also holds true for the "anthropology of markets", as advocated by Callon (1998b: 50-51). ANT studies of economic action must build on ethnographies, resting on the assumption of "the *radical indeterminacy* of the actor" (Callon, 1999a: 181). Similarly, the study of the 'speculative frames' (alternative perspectives on the reality of overflows around a market, see previous chapter) of actors inside firms can only be done via ethnographic enquiry. Goffman pleaded for studies of the ethnomethods by which actors construct their subworlds; this study will focus on the ethnomethods used by economic agencies to construct (and argue for) their ways of viewing the realities of overflows.

The approaches of STS and ANT ethnographies have shifted over time. In the early years, researchers "used the most outdated version of anthropology" (Latour, 1990: 146), attempting to conduct 'fly-on-the-wall' studies of detached observation. More recently, STSers have moved towards a definition of ethnography that is much closer to that of contemporary anthropology (Zuiderent, 2002: 60). For instance, one

prominent STS researcher writes: "Ethnography means talking and interacting with people, and ultimately attempting to understand their symbolic worlds and social action." (Hess, 1992: 4) It is important to stress here that for STSers, "symbolic worlds and social action" mentioned in Hess' definition not only refers to humans attributing meaning, but also to the socio-technical interplay that guides social action.

So, instead of 'fly-on-the-wall' observation, STS research has increasingly moved towards participant-observation techniques. According to Catelijne Coopmans, Daniel Neyland and Steve Woolgar (2004), there is now "much greater involvement, with real time *in situ* feedback and collaboration between STS researchers and technical developers". Along with this trend, there is also a move towards more interventionist approaches. Again, in many cases, the lineage from ethnomethodology is highly visible: As a parallel to Garfinkel's (1967) plea for breaking tacit rules in order to understand social interaction, Helgesson & Kjellberg (2004) speak of good STS research is one that acts as "gravel in the machinery (rather than a lubricant)". Note also the paraphrasing of Marx proposed by one participant at the 'Does STS mean business?' conference at Saïd Business School, Oxford University, in June 2004: "The point of research is neither to analyse, nor to change things [as Marx argued], but to gain understanding by changing things." On the more radical end of the scale, change is however an end unto itself. One strong proponent of explicitly interventionist research is Berg (1998), who argues that STS research should be about "making a difference in how sociomaterial relations are forged".

Over the course of this research project, an increasingly interventionist route was chosen. This was partly a matter of contingency, but primarily an effort to deal with

the realities of conducting ethnographic research in an organisation that wields significant power in society. Before elaborating on the methodological issues related to interventionist approaches, this chapter will explain the conditions under which the empirical research was conducted.

3.2 Conducting the field study

At the outset of my field studies, I worked from a research outline that specified roughly what issues the study would focus on.¹⁷ According to this text, the aim of the research was to study Callon's framing/reframing dialectic and hybrid fora from inside a firm, and that this was to be done through ethnographic fieldwork on a corporate site.

The agreement with Volvo Car Corporation

The decision as to where to conduct this fieldwork was based on a number of factors: First, I wanted to study a firm that had spawned several kinds of contested externalities (negative and positive), in order to have good cases of controversy to study. Secondly, I wanted to study an enterprise that had existed for some time, so that historical processes of reframing, and comparative analyses (of how firms engage in hybrid fora 'then and now') could be made.

However, the choice of site was also restricted by access: Since I am from Sweden, and my Swedish undergraduate education is well-regarded in that country, I was most likely to get good access to a Swedish corporation. I therefore made contact with a number of Swedish corporations, proposing a collaboration with my research

¹⁷ At the London School of Economics & Political Science, this research outline is called the 'Aims & Methods paper'.

project. My number one choice – the telecommunications firm Ericsson – were keen to collaborate, but in the end rejected the offer due to lack of funding. The second corporation that I met with – Wallerius Wilhelmsen, a shipping company – turned out not to fulfil my first research criterion (that of several kinds of contested externalities). The third organisation that I contacted was Volvo Car Corporation, a firm that fitted all my research criteria. During a telephone conversation on 5 April 2002, Volvo's corporate citizenship representative (in the subsequent chapter referred to as Anna¹⁸) expressed great interest in my project. Moreover, I was told that the firm was in need of research support for a similar study, and that I would be a good candidate for this task. Having sent them a five-page research outline, I was invited to meet with the Volvo representatives at the Volvo Car Corporation headquarters.

On 11 April 2002, this first meeting with Volvo Car Corporation was held, featuring the head of strategic communications, as well as the two communication professionals working with environmental and corporate citizenship issues, respectively. Having gone through the slide presentation of myself and of my research agenda, the firm representatives gave a brief introduction to the Volvo enterprise and the role of the Public Affairs department within which the three of them worked. I came to understand that the professionals at the meeting were working with the management of public disputes around the firm's practices. In Callonian terminology, these were the very actors remitted with managing 'market reframings' and hybrid fora related to the automobile industry.

¹⁸ Note: the names of the public affairs professionals studied in the ethnography have been altered.

I was then briefed about the research project that they wanted me to conduct for them: The Public Affairs department was keen to learn the process by which the public contests corporate practices. Ideally, they wanted to find a method of assessing whether a given contested practice would expand into a major issue of public dispute – the kind of dispute that could tarnish the firm's brand, or make it subject to litigation. The firm intended to use this method as a tool by which they could sort through and prioritise the contested areas of its business. In terms of 'deliverables', I was expected to present my thoughts in the form of written reports and presentations. Moreover, as I was working inside the firm, I was expected to assist in the implementation of my recommendations. In compensation for me helping them out with understanding this process, I was offered two things. First, I was free to spend as much time as I wanted at the department, partaking in the everyday work of employees. Notably, I was to spend time with the unit that manages Volvo's engagement in public disputes on safety, environment and corporate citizenship. Secondly, I was to receive a monthly wage of 1500 GBP during the one-year period (August 2002 – June 2003) that this research project would be running. (Further details of this arrangement, including the specification of the deliverables, follow in the next section.)

In this way, the Volvo/researcher collaboration was a 'dual' research effort. At the outset of this effort, there seemed to be a clear-cut delineation between the two research projects. Respectively, they aimed at studying hybrid fora and market reframing as they appear

1. outside the corporate walls (Volvo Car Corporation's research interest), and

2. inside the corporate walls (my main research interest).

However, this delineation between the Volvo-commissioned research and my own PhD-dissertation research proved increasingly difficult to maintain. As will be discussed in the next section, the dissertation research caused me to study actors and processes formally residing outside the corporate site. Conversely, my research for Volvo increasingly came to involve studies of the activities within Volvo.

Modes of gathering data

During the initial phase of the field study, I focused on the four key actors within the team that was my main object of study – the team that deals with reframings and hybrid fora around the contested areas of Volvo's business. Having followed the team members in their everyday work for some time, I increasingly became a part of their working environment (not least as a result of my role as commissioned researcher working within their field of interest and remit). Starting from this group of actors, I used snowball sampling to include related actors in the study – be they managers, colleagues, or non-Volvo actors. As time progressed, I started to trace the network of contacts that the professionals encountered in their work, thus building an idea of the networks and processes at play on the site.

On any given day during the field study, I would be at the Volvo Car Corporation premises by nine or ten in the morning, staying at work until five or six in the afternoon. Once in a while, I would leave earlier in the afternoon, but aimed at keeping such early departures to a minimum. This was not due to any expectations on the part of Volvo – they explicitly told me that it did not matter how much time I spent at the office (as long as I delivered my project). However, in order to be seen

by the other employees as belonging to their department, I deemed it necessary to spend ample time there. Moreover, over time I found that it was mainly in the (late) afternoon that the employees had time to speak effortlessly and informally about their work. Having spent some time at the firm, I also learned that the lunch breaks were very good opportunities to partake in discussions on the daily proceedings within the firm. As these discussions too were informal, sitting in on lunches proved to be key for reading between the lines and gaining an understanding of the subtleties of the firm's practices.

Another way to gather material was participation in meetings – from top management meetings in the CEO's office, to everyday meetings within the public affairs team. Attendance at meetings was allowed for two reasons – either I participated as a member of the public affairs department, or as a professional with expertise in a certain area. In the former kind of meeting, I could study the worldview and practices of the public affairs professionals from an outsider's perspective; in the latter kind of meeting, I was acting as a co-worker of the actors that I wished to study. It was primarily from the latter perspective – when co-acting with the actors studied – that I gained most insight into the work of the public affairs professionals.

The bulk of the ethnographic data consists of a large number of informal chats that I have had with actors in and around Volvo, primarily with the four or five actors within the team studied. While in the field, I maintained a procedure of transcribing the key points of these chats on my laptop word processor, usually directly after the encounter. In addition to the informal chats, I also conducted formal interviews, in which the respondent was well aware of the encounter being an interview. These

interviews were mainly semi-structured (based on pre-prepared questions), registered by a MiniDisc recorder, and transcribed into a word processor. Beyond the recording of one-to-one meetings and discussions, I have also documented events and proceedings at the site. These include open assembly meetings, events of significant interaction among the employees etc. All in all, this kind of documentation of the life in and around the site includes: 40 transcripts of informal discussions; 20 transcripts and roughly 20 hours of MiniDisc recordings of formal interviews; and another 15 transcripts of events and proceedings at the office.

The ethnography is also based on secondary sources, such as reports (written by and for Volvo employees), material from the intranet site, the internal magazine, and annual reports (regular and corporate citizenship-specific ones). The historical aspects of the study – which serve to contextualise the ethnography, as well as provide a basis for historic-comparative analyses – are based on secondary sources from the Gothenburg city library (books) and the Volvo historical archives (early advertising material, manuals etc.).

Leaving the field

Though the formal 'employment' within the firm ended in June 2003, and my findings were to be presented in August, I kept in frequent contact with the firm (attending meetings etc.) until November that same year: The firm was interested in using the findings of my study as support for a reorganisation of the public affairs department. During these discussions, I was in practice still in the field – very much a part of the field even. However, by January 2004, the plans to implement my findings seemed to be put on ice, and my contact with the firm ceased. (As I have subsequently come to realise, the issue was simply left pending within the

bureaucratic process.) Thus, by early 2004, I had definitively left the site of the field study. With little or no contact with the Volvo professionals, I had detached myself from the corporate site, leaving me the necessary space to write up the findings from the ethnography.

However, during the later stages in the completion of this text, I have come to understand that the firm has a sustained interest in the project. (More on this will follow at the end of chapter five.) The project was not so much put on ice as (very) slowly making its way through the organisational processes. The outcomes of any re-engagement with the firm will have to be published at another time.

3.3 The role of the researcher

The previous sub-section pointed to the fact that by the end of the field studies, I had become a part of the site that I meant to study. Moreover, I also mentioned that I gained the most understanding of the firm when I acted as a co-worker to the actors whose actions I sought to understand – causing me to steer the methodology in a more interventionist direction. There are thus a number of issues to unpack about my role as a researcher.

A reflexive note

Before delving into the more complex methodological issues that surround STS-inspired ethnographies, a brief remark on 'basic' reflexivity ought to be made. There are, of course, several traits in me that have influenced the research outcome.

First, my choice of research topic – the political tensions within markets and firms – is the choice of a young business graduate who found economics-based theories wanting. When I enrolled as a student at the prestigious Industrial Economics

programme at the Gothenburg-based Chalmers University of Technology, I did so expecting to learn about industry and the economy, and thus hopefully understand some of the workings of society. Nevertheless, throughout the programme, I found no answers to my questions about how the theories of markets and technological change related to wider society. Neither the lecturers nor the literature ever looked beyond micro (firm) or meso (industry) perspectives, and nor did they link such approaches to non-economic processes. Halfway through the 4.5 year programme, I started reading the sociology greats in my spare time, trying to match my formal schooling with my interest in society and politics. Towards the end of the programme, I considered entering a doctoral programme in order to contextualise my industrial economics degree and thus get something back from the 4.5 years spent on studying business plus technology minus society. At this stage, though, I did not know where to enrol. Instead, it was at my first job (among the corporations, NGOs and lobbying organisations around the EU institutions in Brussels) that I became interested in the business/social responsibility issue. Entering this field, I realised, would be a suitable way of putting my business background in a societal context. One year later I enrolled as a sociology PhD student at the LSE.

Secondly, personal politics has also played a part in my research. The issue of the social responsibilities of business has been a long-standing interest of reformist social liberals and social democrats. I have therefore found my research topic relevant also from a political perspective – not least as my own political leaning is reasonably close to the centre-left positions mentioned. The reformist approach is also apparent in my research: Rather than abolishing market solutions, I am interested in various means by which to transform such social arrangements. This is

reflected in my choice to collaborate with a firm, and in my increasingly interventionist attempts to reconstruct the means by which the firm relates to wider society. However, politically and intellectually I am less interested in traditional approaches to reform, such as tripartite corporatist settlements. Instead, I entered the field with a view to finding other means to depict the socio-political tensions within markets – tensions that cannot simply be contained through collective bargaining within the capital/labour nexus.

Thirdly and lastly, my relation to Sweden and Gothenburg has influenced this research project. As those who know me will confirm, I have many reservations regarding my home country and home city. (I often find the culture to be conformist, intolerant, national-chauvinist, backward-looking, socially over-engineered and quite simply boring. I do not however believe that I am alone in my disdain for my home city.) Nevertheless, as Volvo is – probably more than any other Swedish firm – intrinsically bound to its home city, my story about the firm is inevitably a story about Gothenburg. The research project has therefore been a way for me to re-approach the city and the country with new eyes, having been away from it for a few years. In many ways, it has been like re-acquainting oneself with a family member that one has to get along with whether one wants it or not. The narrative thus shifts back and forth between scornful and romanticising passages: With a legacy of previous experiences of my home, I could scarcely produce a detached, 'objective' rendering of the context of my study.

Relating to power structures: Haraway and interference

In chapter two it was mentioned that ANT has been criticised for its views on interests, and more generally on its views on structural categories, such as class and

gender. Some researchers have argued that ANT turns a blind eye to the structural determinants at stake in the processes studied. Callon and Law's proposition that interests are "temporarily stabilised outcomes of previous processes of enrolment" (1982: 622) made ANT liable to the double claims of being anti-humanist, while being dangerously uncritical of power structures.¹⁹ The anti-humanist charge had been directed towards ANT from its very conception (as a response to the approach of analysing humans and non-humans in a similar manner), but was reinforced by the view of humans as simple tools for the enactment of interests.

However, for the purposes of this text, the second charge is more serious: Stated bluntly, the 'ignorance of power structures' criticism argues that since the ANT approach does not assume preordained interests – be they related to class, gender or ethnicity – it sides with the powerful actors (whose power derives from such structures). Callon and Law's reluctance to make any a priori assumptions about the interests of social actors challenged the very foundation of some strands of social science, not least structuralist Marxism. The actor-network theorists have nevertheless maintained their position towards such structuralism. John Law has reiterated his claim against Marxism in the following way:

All that is solid [...] melts into air in a specific way that subjugates that dissolution to a logic of function, and often enough, of capital

¹⁹ Callon and Law's position emerged from a debate on whether and how STS researchers should factor in the scientists' individual interests when studying the process of scientific work. Researchers had split into two camps: one that explicitly instructed researchers to take the structural interests of scientists into consideration (Barnes, 1981; MacKenzie, 1981), and one that warned against a development towards an "over-interested conception of the scientist in modern sociology of science" (Woolgar, 1981: 374). Callon and Law's article challenged both of these camps.

accumulation. But it *does not have* to be that way. (Law, 2003: 7, italics added)

Another version of the 'power structure' critique of ANT was provided by Star (1991), to whom "power is about *whose* metaphor brings the world together". If researchers merely 'follow the actors' who bring the world together they fail to take into account all the actors who are somehow unprivileged, excluded or 'Other'. (Lee & Brown, 1994) If anything, such researchers might end up excluding the Other even further by the fact that all sciences – including STS – are performative. These criticisms should be assessed in the light of how ANT was originally received as an approach that was neutral in relation to actors' interests. For instance, Stewart Clegg explains the benefits of ANT in the following way:

Without taking sides, without reducing all action to the manifestation of some agencies' putative intentions or interests, or making it the outcrop of some structure, the approach provides an empirical sociology of power, rather than a moral philosophy. (Clegg, 1989: 204)

It is this issue – the aspiration of not "taking sides" – that feminist technoscience regards as a weakness of ANT. According to Donna Haraway, an effort to not take sides amounts to nothing short of an attempt to do the "god-trick": It deludes STS researchers into thinking that they have a view from nowhere (Haraway, 1991b), causing them to hide behind the same scientific "culture of no culture" that they critique in relation to other practising scientists (Haraway, 1997). John Law (in part speaking on behalf of ANT) argues that the tendency to uncritically reproduce power structures has become less pronounced in more recent ANT studies (Law, 2003). On the latter point, he gets support from Barry and Slater (2002: 187). Nevertheless, Law concedes that some ANT writings "are, indeed, managerialist in tone" (Law,

2003: 7) and welcomes the contribution by Haraway. He thus lists three interrelated tendencies that ANT researchers must be wary of:

First, by analysing the world in terms of 'networks', ANT researchers may end up buttressing the current hegemony of the network concept as a metaphor for the contemporary world (Manuel Castells' "network society", Bill Gates' "network economy" and so on), shutting out other explanatory metaphors. Though not stated by Law, the ubiquity of the network metaphor has previously been pointed out by Andrew Barry. In *Political Machines*, Barry notes that one often hears of "a society of networks" (from social theorists), of "networks of governance" (from political scientists), of firms organised as networks, and of activist engaging in networking (Barry, 2001: 14). Latour is also somewhat uncomfortable with the network metaphor, suggesting that the concept of 'rhizomes' is more a more descriptive term for the 'heterogeneous assemblages' that ANT set out to study (Latour, 1999b: 19).

Secondly – and perhaps more importantly – ANT researchers do run the risk of engaging in collusion and performance. As already mentioned, ANT research is primarily conducted through ethnography, often in close collaboration with the site or organisation to be studied. At times, the researcher might end up working for the organisation – even though the aims of the organisation might not be congruent with the aims of the researcher. Furthermore, by describing the workings of the actor-networks in a site, the researcher may serve to add "power, strength, plausibility and lustre" to the given state of things, thus colluding with the power structures in place. The description of the site is also likely to be performative, inasmuch as it feeds back into the social processes studied, serving as a working model for how things ought to be run.

Thirdly and lastly, ANT research may spawn functionalist conclusions, supporting the current functioning of the site studied as the ideal and only possible mode of operation.

Studies that fall into these three traps end up betraying the whole point of STS as a discipline: STS has always aimed at opening up the processes by which science and technology are generated, in order to make these processes more inclusive and democratic. According to Teun Zuiderent,

historically, many researchers within STS have been striving for the improvement of the position of citizens, workers or patients, since they were clearly marginalized. (Zuiderent, 2002: 73)

This kind of STS – dubbed 'critical STS' – aims at safeguarding "the vitality of dissent that is the core of democratic research" (Hess, 1997: 157). As noted earlier, Helgesson & Kjellberg (2004) argue that good STS research should be one that "throws gravel into the machinery" of the site to be studied, thus baring the processes at work.

Haraway's imperative for technoscience scholars who do not want to fall into the three traps mentioned above is to conduct situated, interventionist research. Instead of attempting not to take sides, researchers should strive to bring out the knowledge claims made by dissenting, subjugated actors: Objectivity can only be achieved by actors with explicitly stated interests who build knowledges from their particular context. Haraway writes that

there is good reason to believe vision is better frozen below the brilliant space platforms of the powerful. [This] is an argument for situated and embodied knowledges and against various forms of unlocatable, and so

irresponsible, knowledge claims. [...] The standpoints of the subjugated are not 'innocent' positions. On the contrary, they are preferred because in principle they are the least likely to allow denial of the critical and interpretative core of all knowledge. [...] The subjugated have a decent chance to be on to the god-trick and all its dazzling – and, therefore, blinding – illuminations. 'Subjugated' standpoints are preferred because they seem to promise more adequate, sustained, objective, transforming accounts of the world. (Haraway, 1991b)

As mentioned in the previous chapter, Michel Callon has moved towards a position more closely linked to social critique, and the political role of the researcher. In response to critics who claim that his 'performativity program' turns scholars into apologists for neoliberal markets, he writes:

My feeling is that our work is to contribute towards the process of revealing the reluctances, the multiple and changing fronts on which the different competing theoretical and practical anthropologies confront one another. I don't believe in a form of war in which the opposing forces manoeuvre like Roman legions [...] It would be preferable to talk of guerrillas, infiltrations, changing coalitions and a multitude of shifting front lines. Have we not become experts of these clashes and tensions, so often denied or ignored yet – at least for some – filled with possibilities and with difference that will end up counting? (Callon, 2005: 12)

Here, Callon is close to Haraway's notions of diffraction and interference. Similarly, Callon makes a plea for interventionism and situated knowledges in the context of markets. Scholars can support alternative economic logics through

facilitating access for all anthropological programs (be they neoclassical, evolutionary, institutionalist, ANTist, pragmatical,

theoretical or applied, proposed by academic researchers or researchers in the wild) to the experiments and evidence required for their implementation, evaluation and adaptation [...] This implies that the agencies which do not have the required tactical competencies, nor the adequate material and discursive resources and social relations, obtain the compensation and aid needed to avoid a premature disappearance.
(13)

Thus, the seventh set of issues that the subsequent thesis needs to examine is the one of collusion, performativity and functionalism:

- How can an ANT-inspired study – especially one conducted within a business organisation that itself wields significant power – be conducted in ways that do not simply reproduce the given mode of operation, and the given power structures? How can alternative modes of economic agency be supported by interventionist ethnography?

Avoiding the role of the colluder

As with most other researchers studying sensitive topics within firms, the main factor that could have caused me to become a colluding actor is corporate censorship. Had I had a strict contract of non-disclosure of my findings, or – worse still – an outright censor of my text, my research would probably have ended up cementing and reproducing the given power structures within the firm. Thus, I was lucky not to be asked to sign a formal contract of non-disclosure between the firm and myself. (There are a number of standard rules that apply for all employees when it comes to disclosing sensitive information about prototype cars, but they were inconsequential to this research project; not least due to the fact that I am no longer an employee of the firm.) Nevertheless, actors within the firm may well have withheld sensitive

information, knowing that I was there to study the site. There is one instance in which a colleague straightforwardly told me that she could not provide a certain piece of information for me. (The query concerned current practices that she feared the media might pick up on.) On the other hand, the withholding of this information was not due to my role as researcher – none of my other colleagues would have been given the information had they asked for it. Moreover, later in the project, having proved my trustworthiness, I was given the information anyway.

As discussed in the previous subsection, the problem of collusion can play itself out in more subtle ways. Research findings (be they uncensored or not) may cement power structures, provide legitimacy to the status quo, and give an air of necessity to the given situation. Therefore it is important for researchers to be in 'an interfering state of mind' – they must avoid making functionalist claims on a certain social situation (Law, 2003: 4-7). Instead, we must act as though

there are alternatives, and that those alternatives can, in some measure, be performed into being if we can avoid a commitment to functionalism. (9)

Was I in such an interfering state of mind when I entered my site? As hinted in the previous subsection, my personal motives when entering the site of this study (and indeed the world of academic research in general) were to explore

- political contestations in areas where one would not expect to find such disputes, and
- means of making corporations more contestable.

My aspiration, which is probably common for many young academics, was to show unexpected, previously unseen relations between actors. If anything, this basic outlook made me more likely to point out new networks of actors, rather than buttressing old ones. Naturally, social scientific theories played their part in influencing my approach. Apart from the 'critical STS' imperative of producing democratising research that facilitated dissent, I was duly inspired by John Dewey's problem of the public: How does one construct publics around important social decisions; how can social actors partake in decision-making that affects them?

At an early stage in the research, I found means to construct a discourse on the need to engage with such publics. From historical studies, I noticed that Volvo owes a fair bit of its previous success to knowledge provided by external, non-business organisations – actors previously deemed irrelevant. This counter-reading of the firm's past proved to be a potent means to make Volvo professionals question ingrained modes of practice. This idea also became the founding thought behind the project that Volvo had asked me to conduct for them. The methodology of assessing public disputes was deliberately designed so that it would bring out previously neglected actors. In other words, the project ordered by Volvo became my tool to not fall into the collusion trap mentioned by Law (2003) and others. The methodology presented to the firm was my means of producing interfering knowledge, and of making Volvo more open towards other interfering knowledge providers.

As will be explained further in the last third of chapter five, my efforts to remould the firm's practices consisted of three components: First, I proposed a simple model that depicted key actors who enter hybrid fora and reframe the market that Volvo acted within: competitors (C), experts (E), the media (M), lay people (L), and

activists (A). The "CEMLA" model was carefully designed so that it explicitly included dissenting 'hurt groups' or 'orphan groups' normally excluded from decision-making within the auto industry, notably NGOs, members of the local community, marginalized consumers etc. Along with the CEMLA model was a discourse – a series of stories explaining past successes and failures within the firm, interpreted using the model. The 'moral' of these stories was that within the 'expert', 'lay people' and 'activist' categories, there are actors with great influence who are not on the firm's radar. Therefore, they should be consulted and borne in mind when developing products and processes within the firm. The plan was for this model and this discourse to be presented in the form of a report and a presentation – those were the deliverables that the firm expected from me.

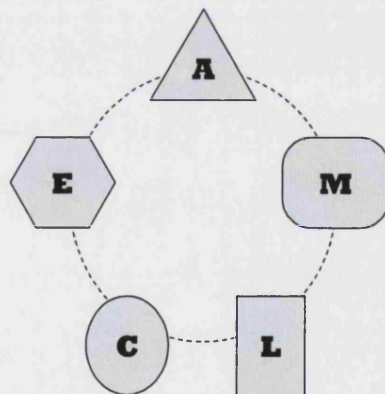


Figure 3.1: The CEMLA model.

I then developed a methodology by which the employees at the public affairs department (and Volvo in general) could use the CEMLA model to sketch future scenarios within the industry. This second component to my work involved an evaluation procedure whereby a certain area of contestation within Volvo's practices was assessed, actor by actor. For instance, the employee would evaluate the knowledge and solutions presented by the activist or expert communities, and assess

the possibilities of collaborating with such actors with regard to the contested area.

This evaluation procedure was then put together with the overall procedures of the public affairs department. The overall process was the following:

1. Scanning for areas of contestation (through everyday contacts with NGOs, stakeholder dialogues etc.).
2. Assessing and prioritising such areas of contestation (using the CEMLA model).
3. Deciding on how to handle the area of contestation – whether or not to actively participate in the reframing of the market.

In order for the above procedure to be operational, a third component to my interventions was needed – that of a reorganisation of the public affairs department. Reorganisation was necessary due to the fact that my proposed framework involved information that the organisation did not possess. For instance, the firm did not have any established channels of engaging with local community members – these had to be created. Moreover, more significantly, in order to bring new types of actors into the overall strategic decision-making of the firm, the public affairs department needed to become more heavyweight. Thus, a new channel between public affairs and the top management strategists had to be forged. This deliverable – the assistance in a potential reorganisation of the department – was however not explicitly stated at the outset of the project.

The process of creating this methodology was initially meant to be disconnected from my PhD research: The CEMLA model was initially simply a 'consultancy deliverable' that would grant me access to the firm. Again, as with other aspects of

my Volvo collaboration, this separation broke down at an early stage. First, as it emerged that the internal networks of the PhD research and the external networks of the CEMLA model were one and the same, the two projects intermingled. Secondly, as the CEMLA model developed a life of its own, it became increasingly interesting to follow its way through the organisation. At this point, it had ceased to be solely my invention – it was equally owned by the team that I was following. Arguably, the model was partly theirs from the very beginning, resting as it does on Volvo professionals' knowledge and organisational practice. Thirdly, as I came to accept the interventionist character of my work, the CEMLA model became a very tangible tool for creating interference – for letting new actors enter the construction of Volvo cars.

Ironically, as the CEMLA was made into a tool that would legitimate the need to listen to new actors, it also developed into the polar opposite of the research output in the PhD dissertation. In order to be easily operationalised, CEMLA had to be a prescriptive methodology, based on positivist ideals, utilising simple heuristics, with the aim of seeming credible to various executives and professionals within the firm. CEMLA was thus deliberately designed to be used as a tool of persuasion – a blunt means of creating facts about the future development of the automobile industry. It thus had to quantify the subjective, political processes in Latour's subject/society pole; it had to function as a descriptor of certain quasi-natural 'laws of the market'. In this way, the CEMLA model developed into a homemade prop, doubling as one of the 'technologies that make firms and markets durable'.

The gravitation towards interventionism

As the previous subsection explains, my research became increasingly interventionist as the project went along. This was not my original intention – at the outset of the

study, I did not expect it to be outright interventionist. However, as time progressed, a fly-on-the-wall ethnography proved impossible to conduct. This last subsection explains the gravitational pulls that made my project an increasingly interventionist one.

As already mentioned, one early disruption to a non-interventionist route was the fact that my two projects (the Volvo-commissioned research and the PhD dissertation research) intertwined – the internal and external processes of reframing turned out to be one and the same. The network of actors outside the corporate walls who sought to reframe the automotive market (such as environmentalist NGO professionals) were in fact constituent members of the same actor-network as some of the Volvo professionals in my study. Rather than different entities, the NGO and Volvo professionals were different ends of the same network. This joined my PhD research with the Volvo-commissioned research, which the firm hoped would help them in the structuring of their operations. My research was thus gravitating towards the performative; to the point where it would be untenable to argue that I was "just doing research" (Latour, 2004).

The performative component of my research became all the more evident when the work of developing the above-mentioned CEMLA model ensued. At this point – when asked to construct a practical methodology that would invariably include and exclude actors from the design of Volvo's products and processes – I had to come to terms with the fact that my research had become a source of influence. Indeed, my voice within the site of study had become influential; not despite my researcher role, but because of it. I was thus forced to seriously consider what I wanted the outcome of my research to be: In what ways could the CEMLA model, the methodology for

using it, and a potential reorganisation of the firm make Volvo more contestable and democratic? How could this discourse be sold to the rest of the organisation? As already mentioned, any success in making Volvo a more dissent-friendly apparatus has yet to materialise.

However, it was when I had left the site that I realised that the ideal of fly-on-the-wall ethnography had never, at any point during the research, been a possible research approach. While writing up the ethnography, I increasingly came to understand my role as researcher in the context of the site. One key reason for employing me was the fact that I was a researcher, and the fact that I could provide the public affairs department with some intra-firm legitimacy: The department had been struggling for some time to argue their case – which was that the external world of non-business actors needs to be taken into account when running the firm – and my research was a good tool for them to make this point. Moreover, my arrival at the site came at a point when the department had grown tired of having to

- remind the rest of the firm that the external world needs to be taken into account when designing organisational processes and products, and
- deal with the public controversies that erupt because the rest of the firm neglects the external world.

In other words, the firm expected me to be interventionist well before I had decided to make my research interventionist. Not only did the possibilities of 'doing the God-trick' diminish over time; in retrospect, they had never been there in the first place.

Where, then, does this interventionism leave my research findings? In terms of ontology, it has caused me to see the world in a way that resembles the worldview of

the actors I have been working with. In many respects, this has affected my material in a restrictive way: my material simply reflects the mundane realities of the public affairs professionals. This also implies that I cannot step 'outside' of their perspective and compare it – on an 'equal basis' – to the perspective of, say, an engineer. Nevertheless, my interventionism has enabled me to build situated knowledge of firm. It has also enabled me to access material that a fly-on-the-wall ethnographer would not have gotten hold of. By assuming the position of a professional acting inside the firm, I have been somewhat freer to roam around on the site, exploring it on my own. Nevertheless, my ability to do so has been highly contingent upon how well I played the game of 'being a Volvo employee'. Thus, the research is by no means replicable (in the natural scientific sense of the word), and it is highly linked to my personal identity: Had I not been a Sweden-born, middle-class, male, engineering graduate with a side parting, my material would have been composed of entirely different elements.

The interventionist character of this project also has epistemological implications. Loosely attaching myself to Callon's 'performativity program', I am interested in interrogating how the laws of the markets and firms are performed into being. Also in line with Callon's imperatives, I want to explore whether the dynamics of contemporary corporations can be reconstructed – if so, I want to assist in that project. Thus, rather than testing some new truth claim regarding the firm, or debunking some already existing truth claim about the firm, I am primarily interested in participating in the reconstruction of the firm. My arguments and conclusions flow from the outcomes of this experiment: A successfully reconstructed firm will point to

the contestability of the corporate assemblage; a failed reconstruction will bring out the multiplicity of elements that hold this assemblage in place

3.4 Conclusion: the methodological agenda of this text

At the outset of this research project, ethnography emerged as a useful method of tracing the hybrid practices of corporate professionals (discussed in chapter two). However, during the course of the project, I found myself in "stormy negotiations" regarding the ontopolitics of Volvo's business (Callon, 1998a: 266) – negotiations in which I, the social scientist, had "no choice but to participate". I had to collaborate with practitioners, constructing tools with which they could make objects calculable and invent new overflows around the business. This raised questions regarding my role as researcher – notably about collusion and performativity. Thus, along with the theoretical issues raised in the previous chapter, the text will also have to explore the following issue:

VII. How can an ANT-inspired study – especially one conducted within a business organisation that itself wields significant power – be conducted in ways that do not simply reproduce the given mode of operation, and the given power structures? How can alternative modes of economic agency be supported by interventionist ethnography?

4 Towards the pinnacle of modernity

- a history of Volvo

This historical review of the firm serves a double purpose. First, it sets out to explore how Volvo came to recognise 'safety', 'environmental concern', and 'corporate citizenship', as contested areas of its business practices, and how they established work functions to manage these areas of contestation. Secondly, the chapter will serve as a historical introduction to the site of the subsequent ethnography.

The introductory section (4.1) will argue that the enterprise of setting up Volvo was deeply enmeshed in the modernisation and industrialisation of Sweden during the 1920s and 1930s. It will also argue that the branding of the firm as quintessentially Swedish and socially responsible was paramount to the business proposition. Sections 4.2 to 4.4 – on the invention of car safety, environmental care and corporate citizenship – will show how corporate professionals actively participated in the invention of overflows. These sections will argue that these processes featured the strategic enrolment of a heterogeneous set of actors – thus, the corporate professionals can be examined in the same way that STS scholars have studied scientists at work. Section 4.5 will argue that the political economy of Sweden has played a crucial role in shaping the overflows invented around Volvo's practices. During 'the Swedish Model of capitalism', overflows were exclusively invented as a result of the substantial investments in worker protection measures. Following the subsequent liberalisation of the Swedish political economy, and the fact that Volvo Car Corporation is now one of the global brands owned by Ford Motor Company, the logic of overflow invention has shifted. As argued in the concluding section (4.6),

the chapter as whole highlights the multiplicity of entanglements that connects Volvo Car Corporation to wider societal, cultural and political processes.

4.1 Introducing: the modern Swedish brand

The Swedish car - the pinnacle of modernity!

The slogan above is taken from an advertisement in a 1927 issue of the Swedish motoring magazine *Motorjournalen*. The company trying to publicise itself had just entered the then booming automotive industry, touting itself as "the Swedish steel brand".²⁰ Most branding gurus of today would probably concede that this was a wise strategy: The burgeoning Swedish demand for automobiles had hitherto been met by some of the numerous manufacturers that had been established abroad. However, no domestic car manufacturer that built cars specifically for a Swedish consumer had emerged. This was of course due to the simple fact that the domestic market had previously been too small to justify such a venture. This impediment would nevertheless prove temporary: As the wealth generated by industrialisation spread across Swedish society, so did the demand for automobiles.

The limited size of the domestic market notwithstanding, Sweden was very well equipped for establishing an automotive industry. First, the country was rich in terms of natural resources. Wealth creation in industrialising Sweden was based upon the abundance of iron ore, as well as timber, found in the north of the country. Some of the companies founded during this early phase of industrialisation (most notably the world's first joint stock company) are still in business. Not only did the exports of

²⁰ 'Det svenska stålmerket', advertisement taken from *Motorjournalen*, 1927.

these natural resources contribute greatly to the creation of wealth in the country; the resources could be used to feed other industries.

Secondly, partly as a result of the incentive to extract natural resources, the country had developed a strong tradition of engineering. From the early extracting efforts, to the development of a competitive heavy industry, to the subsequent focus on electronics, different forms of expertise in engineering have proven essential in creating wealth in the country. Consequently, the executive ranks in Swedish industry primarily consist of engineers, mainly from the two main technical universities (Chalmers University of Technology in Göteborg and Royal Institute of Technology in Stockholm). The four-and-half-year degree offered by these institutions – the 'civilingenjör' degree – is still granted considerable status, especially among business circles and the older half of the population.

The status of such 'elite engineers' is related to their supposed ability to be rational and reliable. The civilingenjör degree encompasses considerable coursework in mathematics and physics. Though it is recognised that very few graduates actually use that knowledge in working life, it is assumed that studying such subjects grants the student specific problem-solving skills. These skills entail generically structuring the problem to be solved; delineating between relevant and irrelevant factors; devising a step-by-step strategy by which one can solve the big problem by solving a number of small problems.²¹ Given these highly developed technical skills, Sweden

²¹ Later in this text, it will be argued that this engineering rationality permeates several spheres of Swedish society, such as the politics of class and social inclusion – especially during the post-war era.

was quick to appropriate the assembly line techniques for mass production that were paramount to the construction of a 'Fordist' economy. (cf. Amin, 1994)

Thirdly, and most notably, Sweden was well equipped to establish an automotive industry as, by the 1920s, it hosted a sizable heavy industry. As mentioned above, the extracting of iron ore fed into the domestic steel industry, which in turn fed into companies making everything from industrial engines to ball bearings. SKF, the company that manufactured ball bearings was based in Göteborg, the second largest city in Sweden, located on the west coast facing Denmark. As a side project, two employees – Assar Gabrielsson and Gustaf Larson – started exploring the possibilities of building a car in Sweden. In 1927, the project was spun-off, and the new corporation was given the name Volvo. The brand name – which is Latin for "I am rolling" – was previously the product name for a SKF bearing that had gone out of production.

As the "pinnacle of modernity" slogan above hints, the launch of the new automobile company corresponded with the modernising sentiments of the time. Sweden had just gone through a rapid industrialisation – just a few decades previously, the country had been a largely agrarian economy – and was by the 1920s flabbergasted by the rapid shifts in lifestyle patterns. The Swedes moved into the big cities, earned higher wages, and needed transportation to centralised work places. Fittingly, as written in a 1929 promotion leaflet,

in the traffic buzz of the large cities, there is no car [...] better than the large Volvo.²²

Volvo's intentions were initially to make a car for Swedes, by Swedes. Making a car for Swedish purposes involved constructing it so that it could withstand the severity of the Swedish winters. Thus, the early marketing campaigns tended to highlight winter reliability: the ability of a Volvo to always get you where you want to go, no matter what nature has in store for you.²³ Moreover, as the Swedish countryside is vast, and rural areas had yet to be developed properly, the car also had to be operational on poorly maintained roads. Consequently, Volvo developed a capability to make quality cars, built on sturdy frames. This imperative to build bulky cars was reinforced by the relative abundance of steel.

The ambition to establish a Swedish automobile was also in close correspondence with the prevailing political *zeitgeist*. Around this time, the social democratic leadership of the country was developing the ideal that was later dubbed "the people's home".²⁴ In this future society, the ethos of solidarity would serve as a basis for a truly inclusive society. The rhetoric, which was partly adopted from the nationalistic right wing of Swedish politics, implied that citizens were no longer to see themselves as class members, but members of the Swedish nation. (Hallberg & Jonsson, 1996) The country was to become a "Sweden for all Swedes"²⁵. Building the people's home naturally involved building domestic wealth through a strong industry; this is where Volvo's ambitions fit nicely with the ones of the polity. (In

²² "Den Nya Stora Volvo", promotional material, 1929.

²³ "PV 53-56", promotional material, 1939.

²⁴ "Folkhemmet" in Swedish.

²⁵ This phrase was used by Swedish social democrat leader Per Albin Hansson in a 1921 election speech. Cited in Hallberg & Jonsson (1996: 128).

subsequent chapters, the close link between the polity and big business will be explained further.) Volvo was thus from its very conception an explicitly industrialist venture. Not only did the company want to build cars – it also wanted to build an industrialised, modern Sweden. In another promotion leaflet (from 1930), the company proclaims that

in order to get a Swedish automotive industry in motion, a [domestic] assembly plant is needed. Said and done!²⁶

The industrialist ambition was thus clearly noticeable in the company's relations to the external world. Some of the promotional material was outspokenly political, as in the 1928 brochure on what was called "the car issue". The publication – titled "The issue is unavoidable" – was essentially a manifesto for democratising automobile ownership. Stating that cars should not be a luxury only available to the rich, Volvo seems to have borrowed from the rhetoric of the ruling social democracy vision, and the vision of Henry Ford. (Indeed, Henry Ford and Assar Gabrielsson set up their ventures based on the same vision – that the automobile would soon become available to all citizens.) Apart from making the point about accommodating all classes of citizens, the brochure also highlighted the virtues of creating jobs for Swedish workers and engineers.²⁷

In line with this, Volvo developed a new production approach, in which supporting local suppliers was paramount. From early on, the founders dubbed this approach

²⁶ "Den Svenska Bilen", promotional material, 1930.

²⁷ "Frågan är Oundviklig", promotional material, 1928.

"manufacturing in the Volvo way".²⁸ At this time, two distinct approaches to building automobiles existed:

- The American manufacturers tended to all buy the same standardised components, and then assemble them in proprietary manufacturing plants, usually in a Fordist mass-production manner.
- Other manufacturers, mainly in Europe, would make components themselves ('in-house'), in the same factories where cars were assembled.

The "Volvo way" implied that Volvo designed the parts needed, and then invited the local steelworks to bid for the manufacturing of them. Over time, the design and development of new parts evolved into a partnership between Volvo and the supplier. Volvo thus enrolled a large number of existing steelworks into the nascent car industry. This generated employment and, more importantly, spread modern production techniques to the small enterprises that were scattered across the country. One of the founders, Gustaf Larson, often visited the suppliers, instructing them how to rationalise production, while providing the modern equipment for them to do so. (Elsässer, 1995)

This approach was not wholly down to altruism; there were several reasons for choosing this mode of manufacturing. First, Volvo did not – unlike some of the foreign manufacturers – have the financial means to invest in a plant that would make parts and assemble them. (Nor was there an existing set of local suppliers of car parts, as for the American manufacturers.) Secondly, in the 1920s, Sweden experienced a downturn in the economy, and the Swedish steelworks suffered from

²⁸ A rough translation from the Swedish "att bygga på Volvo-vis".

excess capacity. This enabled Volvo to strike advantageous deals with the suppliers, and persuade them to focus their activities on car parts. This joint development of custom-made parts could, however, not have been established, had a Swedish technical innovation – the gauge block²⁹ – not been introduced. This tool enabled Volvo and their suppliers to maintain this 'networked R&D'. Suppliers could produce parts with previously unparalleled precision, which was an absolute must when the suppliers could not test their parts with the other parts in the car in the assembly plant. (Hälleby, 1990: 29-30)

In order to get the project (of founding a Swedish car industry) off the ground, Volvo tried to amass allies through drawing upon its 'swedishness'. Thus, public relations and advertising was used to shore up consumer support for the initiative. A large share of the public relations efforts was devoted to reassuring the public about the company's loyalty to – or solidarity with – Swedish society. Conversely, it also reassured the customers of the Swedes' sympathy for the venture. For prospective consumers, they pledged that

Volvo has had support from several parts [of Swedish society]. Our vehicle is constantly greeted with 'Go Volvo!'³⁰

The company was equally attentive to the wider public. During 1929, there were public concerns regarding a potential replacement of the Swedish Penta-engine in favour of the one offered by Nash, an American car manufacturer. This would, of course, imply that "manufacturing in the Volvo way" was doomed, and that all

²⁹ "Måttsats" in Swedish.

³⁰ Promotional material about car leasing, 1928.

suppliers in the burgeoning Swedish car industry were in jeopardy. In a 1930 issue of a Gothenburg newspaper, Volvo representatives strenuously denied that the rumours were true:

"We see no point in replacing the Swedish engine."³¹

In fact, the reassurances from the company can be seen as a burgeoning awareness of the need to manage public relations in a thorough manner. The public fears of a 'deswedishing' of Volvo were, as it turns out, well founded: In 1929, Volvo's owners had indeed come close to selling the whole venture to Nash.

Thus, Volvo's public communications – both consumer advertising and public relations – was initially a means to amass allies in constructing a modernised, industrialised Sweden. Interestingly, the company was therefore, from the very start of its operations, engaged in discussions on both 'swedishness' and the corporation's responsibilities in society. Issues relating to worker care, building wealth to fuel welfare ambitions, supporting modernisation of the country, creating equitable wealth – all these aspects of corporate responsibility were at the heart of Volvo's efforts to distinguish itself as a brand. However, bound up with the branding effort, there was a quest for gaining acceptance as a corporation. Volvo's *raison d'etre* was not solely about meeting untapped consumer preferences within the confines of existing structures and legislation – it was equally about contributing to the construction of a better society. Again, "contributing" in this instance implies more

³¹ Citation from the Gothenburg newspaper *Handels- och sjöfartstidningen*, 28 January, 1930.

than simply maximising profit; it meant actively spurring progressive change. An executive aide later came to write that

Volvo was serving the purpose of surviving and adapting to continually ongoing social changes. But the ambition was actually even higher still, namely that Volvo itself ought to have a positive impact on the surrounding society. (Ekman, 2003: 153)

From day one, these sets of distinctive values – this brand – was encapsulated in one adjective. The one word that in context summed up what Volvo was about was 'swedishness'. Under the umbrella of this core value, a host of other values could be attached: Quality, rationality and reliability, as well as corporate responsibility, solidarity and social progress. Though these connotations were apparent for the 1920s/1930s Swede, it is doubtful whether non-Swedish audiences would conjure the same associations. This did not however present any problem for the company, which as yet was focused solely on the Swedish market. At a time when the Swedish economy was still relatively secluded from foreign economies, and the Swedish market was still growing, Volvo could easily continue to do so. By 1939, Volvo was still successfully peddling its swedishness brand to Swedes, stroking the national ego with sales pitches like:

The old castles of Skåne, the rocky archipelago of the west coast, the birch meadows of Sörmland [...]. Volvo helps you to see and explore the beautiful and great country that we call ours.³²

To sum up this introductory section, the Volvo founders' establishment of a Swedish automotive production can be analysed in the same way that STS has studied

³² "PV 53-56", promotional material, 1939.

scientists. Setting up the enterprise involved 'mobilisation of the world', through mastering new techniques for steel processing and vehicle production. It also involved a certain amount of 'autonomisation' of experts within the burgeoning Swedish industry, not least promoted by Larson's trips to spread production methods to rural steelworks. 'Alliance-building' was also imperative during the early Volvo years: As we shall see later in the text, aligning itself with the polity, and its modern "people's home" ideal, was to prove fruitful for large corporations in heavy industry. Lastly, and interestingly, 'public representation' played an influential role at these early stages. At a time when nationalism was seen as the answer to disruptive industrial change, Volvo legitimated its car-building ambitions through 'the Swedish car' rhetoric.

However, the link between Volvo and Swedish society is more profound than an analysis of rhetoric can provide. The following three sections will look at how Volvo came to recognise contested areas of its business practices (safety, environmental care and corporate citizenship). As we shall see, the recognition of such contested areas emerged from highly entangled processes of overflow invention, in which Volvo actors participated actively.

4.2 The invention of car safety

This section will chart the development of car safety, the area of contestation that has had the most significant impact on the development of the firm. (In the two subsequent sections, similar stories will be told about the development of two other areas of contestation.) The narrative on car safety will explain how the firm's early focus on being – and being perceived as – 'the Swedish car' shifted to a focus on

being 'the Safe car'. This transformation will be explained as an effort to invent a new area of responsibility for the firm, and thus an effort to reframe the automotive industry, through mobilising human and non-human allies.

Domestic market saturating, automobility going malevolent

Halfway through the 20th century, Sweden had developed a model Fordist economy: Assembly line mass-production techniques fuelled a virtuous circle of growth, in which economies of scale in production created a surge in productivity, leading to higher wages and increased consumption. High and even rates of consumption were guaranteed by the existence of a well-developed Keynesian welfare state, as well as strong union recognition (which made sure that the productivity gains were reflected in wage rises). Moreover, on a cultural level, demand for mass-produced goods was facilitated by rigid nuclear family structures and relatively homogeneous lifestyle patterns among the population. (Jessop, 1994)

According to some political economy theories³³, such a fully-fledged Fordist economy carried within it the seeds of its own destruction. The sheer volume of productivity gains facilitated by mass production inevitably lead to saturated domestic markets, creating a pressure on companies to sell excess goods abroad. The resulting increased international trade, and subsequent economic globalisation did eventually undermine the viability and enforceability of nation-based Keynesian economic regimes.

³³ Notably the so-called 'regulation school', see Amin (1994).

For Volvo, the saturation point of the domestic market was approached by the early 1950s, far earlier than the official demise of the Fordist era.³⁴ The increase in domestic demand was indeed lagging behind the productivity gains, especially as Volvo was not the only Swedish car manufacturer around. By this time, Swedish competitor Saab had grown large enough to claim a large share of the domestic market. Meanwhile, Volvo plants were assembling cars at an unprecedented rate. The need for the firm to seek its fortune on foreign markets became increasingly apparent to Volvo executives.

There was however one problem. Volvo's key capability – to build sturdy, somewhat clunky automobiles – was more of a liability than an asset in foreign markets. Germans, Italians and not least Americans all had their own distinct preferences when buying cars – and clunkiness was not one of them. Moreover, such country-specific preferences were better accommodated by the domestic brands that had already claimed the aforementioned foreign markets. It was unlikely that Volvo could out-engineer the Germans, out-design the Italians or outsize the Americans in their home markets. The soon-to-be CEO – Gunnar Engellau – was very aware of this fact, while also pining for those same foreign markets, which would secure the long-term survival of the firm. He was in dire need of a new a sales pitch, a Volvo-specific USP³⁵ that would make these markets open for the Swedish brand of steel.

As we shall see, Engellau did come up with a highly potent sales pitch. Nevertheless, he did not find it within his own firm or the wider business world. Instead, the

³⁴ Most theorists would argue that the saturation of domestic markets set in by the late 1960s. Some theorists would furthermore argue that Fordism proper had only just emerged in the 1950s.

³⁵ USP is 20th-century marketing abbreviation for "Unique Sales Proposition".

rationale for buying a Volvo was to be forged through harnessing political knowledges generated outside the business world – by state utility officers, by union representatives, and by civil society members.

During the first half of the 20th century, the prevalence of automobiles in society had been steadily rising, and so had the number of traffic victims. Ever higher performance in terms of speed and acceleration, along with ever more cars filling up the limited road space proved to be an increasingly hazardous, even lethal, combination for the humans inhabiting this new system of mobility. "Proved to be" is however a somewhat misleading phrase, based on technological hindsight. At this time, there was no way to prove such a rise in traffic casualties – statistics on crashes and car casualties were scarce, and so was the general knowledge about the physical damage that a car crash causes.

Nonetheless, it is incorrect to state that the traffic hazard issue had gone completely unnoticed; health-related perils of motoring had been discussed since the thirties. However, the discourse about how to govern automotive safety was one of a) cultivating safe conduct by the individual driver, and b) focusing on road safety. Interest groups such as the Swedish National Organisation for Furthering Traffic Safety (NTF) were active proponents of better roads, speed restrictions etc. Thus, the safety problem was one of macro-planning of the context of motoring, of building an infrastructure that would lead to efficient mobility. Again, as hinted by the Volvo slogan at the beginning of the chapter, this was in the early heyday of modernism. (Andréasson, Gawell & Gerentz, 1997; Andréasson & Bäcklund, 2000)

Thus, linking traffic injuries to the construction of the individual automobile was simply not on the agenda. Caring for the safety of humans in traffic was the responsibility of the individual citizen, and the state. The received wisdom – the science – of the time stated that 90% of all motoring accidents were the result of human error, and that another five percent were caused by a poorly engineered traffic environment. It was not the responsibility of the car manufacturer to care for "the nut behind the wheel"³⁶, especially as the state was already assigned to do that job.

One of those who objected to this discourse in Sweden was Dr Stig Lindgren, a surgeon who had seen first hand the extent of bodily harm caused by traffic accidents. His argument was that more had to be done – safer roads and responsible driving was obviously not enough. From the 1940s and onwards he was a frequent public speaker on the issue, but was (along with other concerned MDs before him) regarded as a radical by the mainstream. One has to remember that the society of the 1930s and 1940s was a newly car-struck society and not receptive to "alarmist" claims. First, as hinted above, the automobile was a beacon of modernity. Secondly, and possibly more importantly when discussing the public's animosity towards car criticism, the car was a tool for freedom. It had granted a large part of the population a newly found ability to roam the countryside during leisurely weekends (which in themselves were quintessential to modern living). Moreover, it was a novel source of pleasure, a machine that provided a sensation of speed previously unattainable. (Urry, 1999) Again, considering that there was no way of gauging the dangers of motoring – no reliable accident statistics, crash test results, or safety features to

³⁶ The "nut behind the wheel" expression – signifying a reckless driver – is taken from Nader (1965).

mitigate the dangers were available – any fingers of warning raised were inevitably dismissed as unprogressive and reactionary, even moralistic. Even motorist interest groups were dismissive towards the concept of car safety, its director stating that "car safety is not a clearly defined concept".³⁷ In short, the automobile was not to be tampered with – neither its proliferation, nor its construction.

In the US, attitudes were similar. Since the early 20th century, there had been scattered attempts to reconstruct automobiles, bearing safety concerns in mind. The most common aspect of this was to find means to protect motorists when being hurled onto the dashboard in the event of a collision. Early efforts involved stuffing the dashboard with padding, but soon various harnesses and straps (serving to attach the driver to the seat) were under development. These efforts were primarily inspired by harnesses from aeroplanes, and primarily conducted by individual inventors in the US.

The spread of such features to the automobile was nevertheless stopped in its tracks. The notion of seatbelts in cars prompted serious opposition – the confederation of US car makers deemed it unethical to supply cars with seatbelts. After all, there was no proof that they mitigated injuries; they were even thought to cause injuries in their own right. (Andréasson & Bäcklund, 2000: 14) In line with this view, an early (1955) attempt by Ford to sell a car that featured optional seatbelts failed miserably. Instead, car buyers opted for GM, as the constraining seatbelts did not sit well with the freedom that a car was supposed to deliver. Moreover, some buyers were suspicious

³⁷ The director in question was Bertil Björkman at Motormännens Riksförbund, the main motorist interest group in Sweden. See Andréasson, Gawell & Gerentz (1997: 81)

of Ford's motives – a car that needs seatbelts must be flawed in some way. This cemented the then prevailing conception of cars as harmless freedom enablers, sources of leisure, and necessary components of modern everyday life. Safety concerns were a turn-off; even the slightest insinuation that motoring was associated with danger (as in the case of Ford's seatbelt initiative) was suppressed by the mainstream.

Thus, in retrospect, 'society' had already by the 1950s painted itself into a corner with respect to automobiles. As mentioned in the John Urry quote in the introduction to this thesis, automobility is the best example of modernity generating technological monsters that yield unintended side effects. Car usage had simply gone malevolent – a phenomenon that would reoccur during modernity in constantly changing guises. The concerns raised by Dr Stig Lindgren and others were early signs of automobility becoming subject to the modernist backlash of discovering such systematic unintended consequences. Being the first mass commodity for the modern world, it is not surprising that the automobile phenomenon was the first to become subject to this 'reflexivity'. With the benefit of hindsight, we know that the early resistance towards recognising and curbing traffic hazard did eventually break down. What followed was a general consensus on the need for safer cars, and a forging of an automobile market in which manufacturers took responsibility for the safety of the motorists. How, then, did the social change that institutionalised such reflexivity take place?

As the early developments in Sweden had shown, discursive efforts to spur change had been fruitless. Experts such as Dr Lindgren had been pressing for change since the 1940s, however to no avail. A reason for this was the lack of 'argumentative resources'; the whistleblowers had neither science nor technology on which to found

their argument. For instance, Lindgren and others lacked reliable statistics to prove that traffic casualties were skyrocketing. Had they presented such knowledge, mobilising support for change would have become easier. Interestingly, efforts in the US had been equally futile, even though alternative technological arrangements had been introduced. Thus, neither discourse, nor technological alternatives were in themselves enough to breed change. Instead, as we shall see, it was when heterogeneous components of science, technology, marketing and activism were complementarily assembled that change was brought about. The remainder of this section will show how actors within Volvo engaged in Latourian entanglement processes – 'mobilising of the world', 'autonomisation', alliances, public representation, 'links and knots' – and thus ended up reframing the automobile industry.

The conception of The Safe Car: from discourse to legislation

CEO Engellau did indeed come up with a plan to tap into the foreign markets. Prior to Engellau's tenure, while founder Gabrielsson was still in charge, Volvo had increasingly started to speak the language of safety. The first signs of a change in the firm's operations were noticeable in 1953, in the promotions material for the PV444. (This model had been the flagship of the firm since the end of the war. This "peace car" was also the one of the cars most elaborately aimed at the mass market; the Volvo equivalent of the Ford model T.) In the leaflet for the –53 version³⁸, the word "safety" appears frequently – as mentioned before, this very topic was seen to be taboo for a car manufacturer. Not only that: car safety is cited as one of five main

³⁸ By the –53 version I refer to the –53/54 version of the model. At this time, Volvo cars were not changed on a yearly basis, but every other year.

reasons for buying a Volvo. The copywriters were however treading gently, trying not to sound alarmist and thereby undermine the feelgood jargon that characterised 1950s advertising. In an effort to justify and at the same time round off the frequent use of the stigmatised s-word, the publication mutedly adds: "[...] in case something should happen".³⁹

In this publication, a full page is dedicated to the safety credentials of the car. The manufacturer proclaims that "safety is built into the car", pointing to a number of features in the construction of the vehicle. These include:

³⁹ "PV444", promotional material, 1953.

- Safety brakes
- Self-supporting safety body (This was supposedly to prevent the passengers from harm in case of crashes or rollovers. In order not to sound alarmist, this purpose of the feature – the event that it was supposed to protect the motorist against – was not explicitly stated.)
- Driving indicators (These were not standard at this time.)
- Door locking mechanism (Preventing the door from being thrown open while the vehicle is in operation.)
- Theft protection
- Rock-proof windscreen
- Robust front body (Again, supposedly to protect passengers in the event of a head-on collision, but not explicitly stated in the publication.)

Interestingly, several of the features that were now referred to as safety features were actually old features, previously peddled through other rationales. For instance, the brakes that were now referred to as "safety brakes" had previous years been called "quality brakes". Furthermore, the self-supporting body had up until the previous year been touted as a weight-saving solution, following criticism regarding the notoriously high weight of Volvo vehicles. Also, rock-proof windscreens and robust front body were properties of the sturdy-car-concept that Volvo had already developed. The same phenomenon is apparent in another promotional publication, released in 1956, that focuses on PV444's abilities as a winter car. As mentioned above, being a 'winter-friendly' car had previously implicated reliability – the ability to always get you to where you need to go, no matter what nature has in store for

you. By 1956, the discourse around winter-friendliness had swung to implicate safety – the ability to provide a safe journey, no matter what nature has in store for you.⁴⁰

One may argue that this was an intended strategy for Volvo to sell its core capabilities through invoking a new rationale. However, there are no sources suggesting that the shift in marketing discourse was that deliberate. It is more likely that, at this early stage, the managers and the marketers of the firm were merely reacting to the public discussions on the topic. The fact that Volvo could highlight some existing technical features that happened to be safety-enhancing was an unexpected – yet welcome – bonus. Therefore, early safety efforts were discursive, rather than tangible. They did not imply a change in how automobiles were constructed. Instead, they implied a change in how automobiles were discussed and – in effect – how they were sold.

However, as Engellau assumed his post in 1956, pushing the car safety agenda did become a deliberate strategy. The new CEO's major plan was to aggressively start pursuing the US market. The former CEO, Gabrielsson, who was now the chairman of the board of directors, was sceptical. Nevertheless, he allowed Engellau to move further with his plans:

"You are the CEO now, and thus entitled to make your own mistakes." (cited in Hälleby, 1990: 89)

Selling Volvos in the US partly involved participating in motor racing events, in order to make the brand better known. The other component of the strategy was to

⁴⁰ "Sommarbil – vinterbil", promotional material, 1956.

strengthen the safety profile of the firm. Thus, the firm's actions concerning safety were more elaborate. Most notably, the firm strove to establish itself as a laboratory for the new science and technology of car safety. The firm was focusing on "building safety into the car"⁴¹, and that implied inventing and offering safety-specific features. Thus, in the 1957 models – the first cars that Engellau was formally responsible for – Volvo supplied fasteners for seatbelts in the PV444. In the subsequent year, such seatbelts became standard features. As mentioned above, such devices were highly controversial; Ford's sales had slumped by the mere fact that the company was providing them as an optional extra. Nevertheless, the new CEO deemed the risk worth taking.

Within business literature and press, it is commonplace to use the narrative of 'the visionary leader' to explain the emergence of 'radical innovations'. However, Engellau's highly unorthodox move was the result of contingency, social networks and activism. Engellau was not only an able corporate executive and, in good Volvo tradition, a visionary industrialist: he was married to a medical nurse. Mrs Engellau was the daughter of medical doctor, who in turn had a wide network of friends within the medical profession, within which the Engellau's often socialised. It was through this community that the Volvo CEO got to know Dr Stig Lindgren, the 'activist surgeon' mentioned in the previous section. The two established a friendship and informal working relationship, the paramount common interest of course being the future of the automobile. Together, after a meeting at the Volvo headquarters in 1956, they agreed on a plan to make Volvo "the Safe Car". The prime component of

⁴¹ Taken from the promotions material for the PV444.

this strategy was to actively promote the use of seatbelts. Engellau and Lindgren thus engaged in a translation of their original goals: The 'safeguarding of the future of Volvo', and the 'promotion of car safety', merged into 'building the Safe Volvo with seatbelts in it'.⁴² Through contingency and kinship ties, the CEO had enrolled his first major ally in the invention of car safety.

From a corporate strategy point of view, this was a stroke of genius. Touted as a guarantor of car safety, Volvo's unique 'core capability' – building sturdy cars – could be turned into a sales proposition that potentially was desirable in all foreign markets. Of course, there was a big question mark that imperilled the whole plan. As mentioned above, car safety was not perceived as a desirable property – not in Sweden, nor abroad. Engellau was fully aware of the previous failings of selling safety, and knew that any safety strategy would have to work against the zeitgeist. His plan thus had two unique traits:

- First, Engellau's strategy did not only involve changing the way that the market perceived Volvo; significantly, it involved changing the way that the market perceived cars and motoring. Engellau was not content with shaping the future of Volvo – he also wanted to shape the future of the market for automobiles.
- Secondly, the original idea and resources of the plan were not sourced from within Volvo, nor from any commercial partner or competitor. Instead, the strategy and its implementation was to be carried out through alliances with

⁴² For other examples of such translation of goals, see Latour (1999: 88-89).

various political actors residing in civil society, seemingly unrelated to 'business' or 'the Market'.

When Engellau embarked upon anchoring this new strategic direction within Volvo, he was met with scepticism. The sales and marketing department, recounting Ford's failed attempt at selling seatbelts, let alone safety, objected strenuously. The construction department was also critical, fearing what this would mean for their remit. Top management was concerned with the risks involved in the approach. Still, Engellau stood by his decision, determined to get the company to rally behind the idea. In a letter to Dr Lindgren, the CEO, in a mildly optimistic tone, writes that the various departments are slowly coming around to accept the idea. (Andréasson & Bäcklund, 2000) The collaboration between Volvo and Dr Lindgren continued over the subsequent years; for instance, the medical expert helped out in the promotions for the belt. In an article published in the Volvo magazine, Lindgren proclaims: "The seatbelt can save your life".

In another effort to strengthen the safety expertise within the firm, Engellau (in 1958) hired an engineer by the name of Nils Bohlin as "Chief Safety Engineer". Having been poached from his previous position at Saab, Bohlin's primary task was to develop new, safety-specific features that would be used to sell car safety in the US automobile market: features that would distinguish Volvo from its competitors in terms of safety.⁴³ Such a job function – aimed at directing the research and development efforts related to car safety – had previously not existed in the automobile industry. This was thus one of the first steps to construe car safety as a

⁴³ *Ratten*, no. 3, 1982.

new scientific and engineering discipline – towards the 'autonomisation' of car safety expertise.

After one year's duty, Bohlin's efforts had led to the establishment of a full-scale Department of Automotive Safety. According to some (notably Volvo-related) sources, Bohlin's first achievement inside the firm was to develop the so-called 'three-point seatbelt'.⁴⁴ After a few months, so the story goes, he had invented a seatbelt that was supplied as standard in all –59 Volvo models. Volvo subsequently patented aspects of the solution, thereby establishing itself as a hothouse for a new science and technology of car safety. This conception of Volvo as a 'safety laboratory' is one that to this day remains core to the Volvo brand. This conception aside, the development of Volvo's seatbelt was hardly an intra-firm, intra-business affair. Instead, when studied in greater detail, the story of the seatbelt unravels a vast network of agencies and expertises, exploding notions of 'the genius inventor' and 'innovation cells' sitting deep inside the core of the firm. The story also explodes the Nature/society dualism, as the entanglements that led to the implementation of seatbelts stretch well into both the subject/society and Nature poles.

One part of the story, as already mentioned, encompasses the experiments conducted by American inventors and American carmakers. The story of the Volvo seatbelt does however start in the late 1940s, among labourers in the forests of rural Sweden. The Swedish energy utility, Vattenfall, employed a large, principally car-borne set of workers, whose job it was to maintain the electricity network that stretched across

⁴⁴ This new type of seatbelt was considerably more effective than the 'two-point seatbelt' supplied in the –58 models, as it had a three-point attachment system. This arrangement – one belt across the pelvis, and one diagonally across the torso – served to distribute the load on the body in the event of a crash.

the vast countryside. The labour was demanding; the workers often hurt themselves at work. When Mr Åke Rusck became general director of the utility, more emphasis was put on making life safer for the labourers. Research was conducted on the cause of injuries, and equipment was developed to mitigate such risks.

Vattenfall also compiled statistics on work injuries within the firm. In 1953, the casualties stemming from automobile transport had soared, and by 1955, more people were killed in traffic than during actual work. This was at a time when motoring blossomed in Sweden: in 1954, 16,000 of the Vattenfall workers used cars at work. Several units within the utility – construction, wireline and maintenance – demanded better safety while driving. The safety inspector of the firm was a keen supporter of seatbelts, and the utility asked their automobile suppliers for seatbelts. The car manufacturers declined, whereby the Vattenfall decided to embark on in-house development of seatbelts. Thus, the autonomisation of car safety expertise in Sweden was actually instigated within the state utility, a couple of years before Bohlin was made Chief Safety Engineer at Volvo. As we shall see in chapter six, the political economy of post-war Sweden played a large role in the establishment of this R&D programme.

A few of the company's engineers set out to experiment with measures to protect the workers. The developmental work was to a large extent inspired by the random experiments previously conducted in the US. An early version of their seatbelt was of the two-point type. Further work was however needed on how to construct a belt that would distribute the load from a crash evenly. (It was partly the failure of earlier versions to do so that had earned seatbelts a reputation of being dangerous.) In 1955, the engineering team enrolled Dr Lindgren in their developmental work. One of the

engineers in the team had gone to one of Lindgren's public talks, and asked for some input into the process. The 'even-distribution problem' was solved in two ways: by introducing a nylon mesh material that stretches somewhat on impact but does not contract afterwards, and by adding a third fastening point for the belt. The latter solution implied that the belt formed two loops, one across the pelvis and one diagonally across the torso. The solution was (as mentioned above) dubbed the three-point seatbelt – subsequently adopted by Volvo.

The prototypes for the solution were subsequently subjected to rigorous testing. At this time, no means of testing such features existed. The work of the Vattenfall engineers therefore mushroomed into the development of testing methodologies. One pressing issue was how to simulate the brute forces of a car crash; another was how to simulate the damage done to human bodies. This led the Vattenfall team to develop some of the world's first crash test methodologies and crash test dummies – instruments designed for the 'mobilising of the world'. (This topic will be re-addressed later in this section.) By the mid-1950s, Vattenfall's solutions for seatbelts were developed to the point where they could be certified as a standard. Independent manufacturers now started producing the seatbelt. Vattenfall, being an energy utility, did not however deem themselves capable of commercialising the innovation. In the early 1950s, the utility had approached Volvo with the intention of selling the innovation, but the manufacturer was not interested at that point. Arguably, any collaboration between such different partners, in such a stigmatised area, was simply too risky for the company. The spread of the technology to the Volvo car would have to wait a couple of years, until the trust-based collaboration between Engellau and Dr Lindgren had been established.

Lindgren thus came to play a crucial mediating role: The above-mentioned 1956 meeting between the Volvo CEO and the medical expert proved to be a key moment for the joining of the car manufacturer, the state utility, medical expertise, and worker-protection engineering. It was during this meeting that a decision was made to supply the two-point seatbelt (as developed by the Vattenfall engineers) in the PV444. That same meeting also led to Lindgren offering Volvo the opportunity to work with the Vattenfall engineers during a two-week period. During these two weeks, Volvo engineers learned enough about the three-point seatbelt to be able to fit it into their 1959 models. Engellau even tried to hire one of the Vattenfall engineers as Chief Safety Engineer. However, the Vattenfall employee declined, and suggested that the CEO get in touch with Mr Bohlin instead.

The Volvo/Vattenfall cooperation also came to involve Vattenfall assisting Volvo in the political battle around the qualification of the seatbelt. The state utility supplied Volvo with research documents that would enable the manufacturer to get the seatbelt approved in the US. (Again, the original motive of the invention of car safety was to establish a distinct profile for the American market.) Three years later, in 1961, the American SAE (Society of Automotive Engineers) issued specifications for approved seatbelts; the Vattenfall/Volvo solution was one of the approved solutions. The Vattenfall/Volvo standard was subsequently adopted by the US Ministry of Trade, and in 1967 the newly-established National Highway Traffic Safety Administration issued 30 new safety standards. These included that the three-point seatbelt (as pioneered by Vattenfall and Volvo) was to be mounted in all cars sold in the USA. This was not least due to the close contacts between the NHTSA administrator, Dr. William Haddon Jr., and the Swedish experts in the field. The

influences were obvious; Dr. Haddon had frequently visited Sweden when preparing the legislation.

Interestingly, Swedish authorities had not passed any coercive legislation for supplying seatbelts in automobiles at this point. Strict specifications and testing of seatbelts had nevertheless been in place since 1958: The specifications and test procedures developed by Vattenfall were then adopted by the Swedish road authorities, which also approved six manufacturers' belts as meeting the Vattenfall requirements. The impetus for coercive legislation was partly provided by Volvo. Ten years after the introduction of the first seatbelts, a considerable part of the motoring community was still not convinced that such features were desirable – the ingrained distrust had proven difficult to dismantle. Volvo's safety engineers realised that besides developing technological solutions to the problem of traffic hazard, the firm must also strive to expand the knowledge about the problem itself and the efficacy of proposed solutions. Therefore, the firm engaged in the 'public representation' aspect of the car safety invention.

In 1967, Volvo publicly published a report on the outcomes of 28,700 traffic accidents. The aim was to convince the public that seatbelts actually do save lives. The publication was based on a huge data set, featuring 42,318 victims, their use of seatbelts and the speed at which they crashed. The statistics of the report unambiguously showed that seatbelts worked in practice: Some seatbelt users had survived 100km/h crashes, whereas non-seatbelt users had died at speeds as low as 20km/h. Similar statistics had previously not been collated, primarily because there had been no way for researchers to access a significant and valid sample of accidents. Volvo was very fortunate in this respect: Volvia – a Volvo-owned insurance agency

established in 1959 (the same year that the three-point seatbelt was introduced) – had continuously been monitoring the accidents experienced by its customers. The accident report was thus an example of how 'links and knots' are used to tie the processes of 'public representation', 'mobilising of the world' (through statistics) and allies (Volvia) together.

The report had a large impact on both the expert's and lay people's perception of motoring risk and the efficacy of seatbelts. The media debate that followed spurred on the legislative proceedings, and laws for obligatory supply of seatbelts were passed in 1969 (front seat) and 1970 (back seat). This law was later extended to encompass obligatory use of seatbelts; 1975 (front seat) and 1985 (back seat). However, children and persons no taller than 150 centimetres were exempt from the legislation – something that Volvo representatives objected strongly against. After all, stringent legislation was in the interest of the firm, and so was the public's association of Volvo with safety.

Branding and disentanglement

One interesting aspect of the seatbelt story is that it highlights a special relation between branding on the one hand, and disentanglement and purification on the other. Volvo's original motive for engaging in safety was brand-related, and hence the firm strove to claim the origins of the seatbelt innovation. However, as the story shows, the lion's share of Volvo's early safety efforts was actually imported from Vattenfall. More specifically, rather than inventing a belt from scratch, Bohlin applied the Vattenfall standard to the Volvo product. This interpretation is supported by the fact that the Bohlin/Volvo patent actually concerns only the locking mechanism of the belt, not the full three-point seatbelt.

The seatbelt's journey from Vattenfall into Volvo's products therefore implies that the story of 'Bohlin the genius inventor' is a post-construct. Bohlin was merely a node in a network of engineers, union bosses, safety inspectors, corporate executives, measurement devices and technical solutions; however, in retrospect this network has been reduced into simply 'Bohlin the genius inventor'. The same can be said about Volvo: The notion of Volvo as a laboratory for the science and technology of car safety is flawed, as the technical innovations were actually conceived outside the walls of the firm. If there was ever a "Volvo" that conceived of these innovations, this must be seen as a wider network of actors in which Volvo (the corporate entity) was the co-ordinating centre node.

Within this 'wider Volvo' – the collection of actors with competencies related to car safety – the relations between actors were not governed as a hierarchy. Vattenfall engineers were by no means organisationally integrated with the Volvo corporate entity. Neither were the actors governed by market co-ordination; no formalised contract over technology transfer had been drafted between the actors. Relations were organised as networks, "neither market, nor hierarchy" (Powell, 1990), and Volvo's ability to innovate is best described as "absorptive capacity" – the two-fold abilities of being aware of relevant external R&D, and capable of translating it into the internal context of the firm. (Cohen & Levinthal, 1989; 1990) As we will see, this pattern of innovation will reoccur in later examples of business reframing innovations within Volvo.

For branding purposes, Volvo has endorsed the official stories that disentangle the Volvo actors from the surrounding actors – the stories that 'blackbox' the innovation processes within car safety as stemming from 'Volvo' and 'Bohlin'. Indeed, it has

been in the interest of the firm to support the post-constructions of 'Bohlin the genius inventor' and 'the innovation cell' at the core of the firm. In effect, this has also strengthened the modernist reading of the process, obfuscating the sheer number of entanglements and hybrids that cross the Nature/culture divide.

Undoubtedly, the claiming of the seatbelt's invention – although it actually was a network effort involving American inventors, Vattenfall, unions, engineering expertise, Swedish political economy, as well as Saab – worked wonders for the Volvo brand. As this new safety-specific solution was tangible, distinctive and not too expensive to supply, the company was granted an obvious differentiator. Beyond that, the announcement of a new organisational function wholly devoted to car safety R&D had a symbolic value in itself. Not least the publicising of Bohlin as the token heroic and earnest engineer contributed to the communication of Volvo's new strategic direction. He subsequently went on to become an authority in the burgeoning field of automobile safety, and was consulted by legislators and interviewed in the media as the pioneer of driver safety. Over time, Bohlin became a Volvo sub-brand, featuring in the corporate communications, and has recently acquired a quasi-mythical status in the automotive industry.

So, disentanglement and purification is crucial in the 'storytelling' of the firm: in the construction of the brand.⁴⁵ At Volvo, recounting history has indeed been a key component of branding, as one current Volvo professional notes:

⁴⁵ In recent years, 'storytelling' has become a key component in firms' branding efforts. This implies that corporations ought to use their history as a source of narratives and anecdotes that supposedly bring out the 'values' or 'spirit' of the firm. The book *The Dream Society* (Jensen, 1999) has been highly influential in popularising these branding ideas.

"Often people have a certain agenda that they want to emphasise [through (re)writing history]."

In what way, according to you, has the Volvo history been rewritten?

"I find it fascinating how much we quote the founders, as if they were really visionary people."⁴⁶

What is being referred to is the (in Volvo publications ubiquitously cited) quote from the founders, Assar Gabrielsson and Gustaf Larson:

Automobiles are driven by humans. The founding principle for everything that we do is therefore – and must always be – safety.⁴⁷

This can be read in most current publications on the Volvo brand, corporate citizenship etc. The subtext of the quote is that safety has always been Volvo's core value; that since its conception in 1927, the firm has consistently been motivated by the furthering of car safety. The manifesto-like phrasing also implies that the quote is taken from some kind of statement of principles, a corporate *raison d'etre*, maybe written around the founding of the firm in 1927. However, as explained in the previous section, up until the 1950s, Volvo was the Swedish Car, not the Safe Car. The concept of "car safety" simply does not appear in Volvo publications until 1953. In actual fact, the quote is not taken from any 1927 statement of principles – instead, it originates from a sales manual for Volvo retailers, published 1936.

This sales manual, put together by Gabrielsson, is nevertheless an interesting publication in itself. Its aim was to supply retailers with a number of sales pitches for

⁴⁶ The quote is taken from an interview with a Volvo employee, January 29, 2003, Gothenburg.

⁴⁷ See for instance the 2002 Corporate Citizenship report from Volvo.

the new car, the PV 51, and a number of answers to tricky questions about Volvo as a company. At the same time, as it was written personally by the founder and CEO, it was some form of declaration of the *raison d'etre* of the firm and a statement of principles. Thus, the document was an early precursor to not only retail manuals, but also to the Q&A documents prepared by contemporary Public Affairs departments, and the branding and corporate philosophy documents prepared by today's Marketing departments. The sales manual was thus an early expression of a need to articulate the ideals of the firm in a discursive form.

Qualifying the Safe Car through technologies and allies

The fact that the creation of car safety was brand-motivated does however not mean that Volvo's initiative did not lead to advances within the science and technology of protecting motorists. As in the case of the seatbelt, the discursive was always working in tandem with the tangible. The sales discourse changed in accordance with the technical development; the technical development was driven by the need to change the sales discourse. Also, after Engellau assumed the role of CEO, the actual technological contributions to making motoring safer became more prevalent. Over time, the newly established car safety function at Volvo increasingly integrated various components of the 'car safety apparatus' into their operations. One has already been touched upon – the techniques used to simulate car crashes.

As in the case of the seatbelt, Volvo's crash testing techniques were adopted from Vattenfall. In the previous section, there was a mention of the utility's experiments with crash tests and crash test dummies – instruments with which to 'mobilise the world'. Volvo got access to Vattenfall's crash testing equipment in 1958, at an open test session where non-Vattenfall engineers were invited to participate. In the early

1960s, Volvo used testing facilities built under the auspices of a number of Swedish allies: The state authority for vehicle testing ('Statens Provningsanstalt') had developed a runway for simulating crashes, and the Volvo supplier Autoliv built an identical one in 1964. Volvo subsequently constructed one for its own purposes, and in 1972 the firm unveiled the Volvo Safety Centre. This computerised state-of-the-art facility required an investment of 220 million Swedish crowns⁴⁸, the second largest one in Volvo's history.

Since the hiring of the first safety engineer in 1958, the firm institutionalised the constant quest for new safety features. For instance, the launch of the 144 in 1966 saw a plethora of new devices and solutions: A "safety cage" surrounding the passengers; a steering wheel designed to not hurt the driver during a crash; deformation zones in the front and the back; strong door locks to keep the doors from opening in crashes etc. The promotions material was eager to highlight all such hidden perks – detailed technical sketches aimed to show the outcomes of the new technologies of safety. Through raising the bar in relation to what constitutes "The Safe Car", the firm was continuously qualifying and re-qualifying what the notion of 'safety' actually implied. (Callon, Méadel & Rabeharisoa, 2002)

The firm's qualification of safety did not only involve new and improved methods of protecting motorists; it also amounted to an expansion of what and who is to be protected. In 1967, Volvo introduced another safety innovation developed in close collaboration with external expertise. Bertil Aldman, a scientist at the State Traffic Safety Council ('Statens Trafiksäkerhetsråd'), had found that children fare

⁴⁸ This roughly amounts to 16 million British Pounds, at a 14 crowns per pound conversion rate.

considerably better in car crashes when facing backwards – ordinary seatbelts were not suitable for small bodies. The solution was the backwards-facing child seat; a solution that is still unique to Volvo and Saab.

The lessons learned from 'the 28,700 report' (mentioned earlier in this section) – the advantages of measuring actual safety outcomes and feeding the results into the innovation process – evolved into a systematic approach. In 1969, the firm had established an 'accident commission' ('haverikommission'), which conducts on-location investigations of all severe accidents within a certain radius of Gothenburg. The following year, these activities expanded into a full Traffic Accident Research Group to get a better understanding of the realities of traffic accidents. The research unit still exists, reviewing thousands of accidents yearly; quantitatively (studying pictures, police protocols, damage claims and medical journals), as well as qualitatively (through interviews with victims). In some cases, wreckage from severe accidents is transported to the Volvo Safety Centre for further examination. The research findings are then continually published in reports, and fed back to the construction engineers. (Olsson & Moberger, 2002: 135)

The further development of car safety (i.e. the invention of new areas of responsibility) can thus be seen as an engineering of new knowledge practices:

- technological safety solutions, such as the safety cage of the 144 and the child seat;
- test techniques, such as the dropping cars from cranes or collisions on purpose-specific runways;
- test devices, such as crash test dummies;

- knowledge creation, such as data collation, statistical reporting and accident investigations.

The early attempts to engineer a measurement framework – be it measuring traffic hazard (through accident statistics) or the safety credentials of a car (through crash tests) – came to have profound impact on the future development of car safety. However, the engineering of a new market for automobiles, in which the safety of motorists was internalised, was not purely a technical construction. The forging of a new responsibility was contingent on a network of social actors who served to institutionalise the new knowledge practices. More often than not, these social actors were unlikely partners for a car manufacturer, being based in 'subjective' politics and activism, rather than 'objective' business and science.

The framework of measurement described above was developed in networks with extra-Volvo actors, some of which were companies (such as Volvia), state-owned utilities (Vattenfall), universities (Chalmers University of Technology), state authorities (the road authorities, the State Traffic Safety Council) and civil society actors (Dr Lindgren). Such actors served Volvo with crucial resources, such as test tracks and injury data. The allies also acted as co-inventors, investing and partaking in the development of new technologies adopted by the firm. Other allies proved instrumental in enforcing the automotive industry's new responsibilities, through institutionalising and legitimising the use of the new technological solutions and metrics. In different ways, the non-legislative actors increasingly came to serve as 'soft regulators', framing the new, safety-aware car market.

One civil society actor and political activist who proved crucial in Volvo's quest to invent car safety – especially in the 'public representation' of safety – was Ralph

Nader. In 1959, the same year that Volvo supplied the three-point seatbelt as standard, Nader (then a young Harvard law graduate) published an article in *The Nation*. The text was a stinging critique of the American automotive industry's negligence with respect to the perils of motoring.

It is clear Detroit today is designing automobiles for style, cost, performance and calculated obsolescence, but not – despite the 5,000,000 reported accidents, nearly 40,000 fatalities, 110,000 permanent disabilities and 1,500,000 injuries yearly – for safety. (Nader, 1959)

Nader was personally involved in the issue; he had lost a friend in a motoring accident, and was outraged by what he regarded as the ignorant complacency of the car manufacturers. His continued investigation of the problem led to the publishing of his 1965 *Unsafe at any Speed*, an inquiry into the lack of safety of a General Motors sports car. The criticism came to have a considerable impact – not only in the US, but also in Sweden. (Andréasson, Gawell & Gerentz, 1997: 81) This was not least due to the fact that it supplied the public with information that had previously only been intelligible to experts and engineers. One of the main contributions of the text was that it spelled out the new, worrying statistics on traffic casualties in a clear manner. Indeed, Nader argued that "the public has never been supplied the information [...] to make effective demands" on carmakers. (Nader, 1965) Just baring the statistical facts of motoring accidents had awakened the public's attention to the dangers that they were unknowingly subjected to. After the Nader tirade, there was no doubt in the public mind – neither in the US, nor in Sweden – that the safety issue was a serious one.

The second main contribution of the book was that it debunked the manufacturers' claims that nothing could be done about the traffic hazard. Not only did he show the perils of motoring; he also accused GM for committing "one of the greatest acts of industrial irresponsibility in the present century", because they had failed to use the safety measures that were now available. He was then referring to various features found in other car brands, such as safety belts. In this way, the 'Nature' story of Volvo's car safety innovations became highly entangled with the 'culture' story of Nader's activism – each story could not be told without the other.⁴⁹ Nader was generally very approving of the way that the safety issue had developed in Europe, and eventually visited Sweden in 1967. Nader's efforts can therefore be seen as a continuation of the process instigated in Sweden ten years earlier. Volvo had shown that motoring could be made safer through safety measures in cars; Nader then argued that such measures should be mandatory – their very existence imposed a responsibility, a moral obligation on the carmakers to supply them. As noted in the previous section, by the end of the sixties, Nader got his way. Following Senate hearings, in which Nader (as well as industry representatives) testified, the National Highway Traffic Safety Authority (NHTSA) was established and the 30 new safety standards were passed.

Although it is a legislative body, the US NHTSA has also served to provide 'softer' regulation of the automotive industry. In the US, as well as in Sweden, the methodologies of crash testing were eventually adopted by regulators and third-party institutions. Such independent organisations started to standardise testing procedures,

⁴⁹ See Latour (1999: 85) for more on the intersections between 'internalist' and 'externalist' explanations.

in order to 'objectively' measure the safety credentials of the cars on the market. In the US, these activities were conducted by the NHTSA, all in line with Nader's plea for furthering informed choice among consumers. Needless to say, this was also in the interests of Volvo: The efforts of NHTSA and others meant that Volvo was not alone in its efforts to include safety performance into the consideration of the car-buying public. In this sense, one could say that the third-party institutions and Volvo created an informal alliance on the issue: Even though an institution such as the NHTSA is supposed to be independent, representing societal aims in the 'subject/society pole', regulating the markets and firms in the 'Nature pole', the car safety issue saw the two organisations entering a symbiosis.

An early sign of a symbiosis emerged in 1976, when Volvo had just released the 240, the successor to the 144. The NHTSA conducted a series of tests of cars from various manufacturers, and the Volvo 240 emerged as the undisputed winner. The authority, which was in need of a benchmark car against which to rank other vehicles, then decided that the Volvo was to be the norm for all other cars. The NHTSA then purchased 24 cars from Volvo, which were used to further develop the new norm testing. This was of course a welcome decision to Volvo, which could now proclaim that even independent bodies could vouch for their cars outstanding safety performance.⁵⁰

In hindsight, it was hardly surprising that the 240 would be chosen as the NHTSA benchmark car. Not only had Volvo invested in making cars safer, but Volvo had also been a co-inventor of the testing techniques that were used to evaluate the cars.

⁵⁰ "Volvo 240 - The driver's car". Promotions material from 1979.

The company was now reaping the rewards of being an early participant in the power games that surrounded the invention of a new responsibility. The company had had ample time to establish the relevant factors to be measured, and the techniques with which they were to be measured. The fact that NHTSA then used 24 cars to further elaborate upon the elements of car safety underlined Volvo's agenda-setting power even further. Effectively, an independent, scientific body had decreed that the Volvo 240 and the concept of 'a safe car' were one and the same. A competitor's product was a safe one if, and only if, it was similar to the 240. Again, the hybrids that mediated between the naturalised firms and the societalised regulatory agency were a network of acquaintances involving Dr. Haddon (the NHTSA administrator) and the Swedish experts in the field.

So, in the same way that legislative bodies adopted the seatbelt norms that Vattenfall had developed, similar bodies adopted the knowledge created around crash testing. A similar kind of symbiosis can be said to exist between Volvo and the Swedish NHTSA equivalent, Vägverket. (As will be elaborated upon in the next chapter.) However, in Sweden, insurance companies have also come to play a significant role in the invention and institutionalisation of safety concern. As mentioned above, the insurance subsidiary Volvia granted Volvo access to valuable data about car crash victims. Conversely, the founding of Volvia was based on the presumption that Volvo cars are safer than most cars. Several Swedish insurance companies have therefore been involved in the issue of car safety; knowledge about car safety feeds into the risk assessments that make or break their businesses. Thus, the insurance industry has become a partner industry to Volvo, supporting the invention of safety responsibilities.

One of these insurance companies is Folksam, which used to form a part of the Swedish co-operative conglomerate Kooperativa Förbundet. This company has taken an active part in developing safety standards, often for very specific situations, which are often more stringent than the US or European equivalents. The insurance agency uses this knowledge for two purposes: First, as a risk analysis tool for pricing their insurance packages; secondly, as a guide when choosing what vehicles that they should provide for clients who have crashed their own cars. This has made Folksam's safety standards influential – thus, Folksam gives motorists economic incentives to buy safe cars, and also uses its collective purchasing power to influence manufacturers. Folksam has furthermore come to provide essential statistics to Volvo, just as Volvia did when preparing the '28,700 report' mentioned above. For instance, in the mid 1990s the print media had been reporting on a series of fires in a new Volvo model. Over a period of a year, a dozen fires were reported in papers in an increasingly alarmist tone. Volvo, on the other hand, rejected the proposition that there was anything wrong with the car, pointing to the fact that more than a thousand car fires were reported each year. Nevertheless, the public pressure on the firm remained, and sales of the new car slumped. At this point, Folksam entered the public risk debate, brandishing statistics that showed that the new Volvo was actually underrepresented in terms of car fires. This intervention from an 'independent third party' settled the debate.

To sum up this section, the story of the invention of car safety suggests that Volvo has been highly entangled throughout this process. Through merging the interests of unions, wives, state utilities, civil society activists, engineers, regulatory agencies, insurance companies and so on, various actors within the firm have participated in

the forging of new technical solutions for protecting motorists. The network of actors enrolled in this process has freely traversed the naturalised sphere of the market, and the society sphere of activism, politics and state regulation. Mediation between the two spheres has appeared in many guises – CEO wives, safety experts of various affiliations, and union representatives. The outcomes of these processes have been ongoing reframings of the industry: As new innovations have been introduced, the safety-related responsibilities of the car industry towards motorists have progressively increased.

At this point, the text will leave the process of invention of safety-related responsibilities, and move on the process by which Volvo recognised the need to manage the environmental side effects of its practices.

4.3 The invention of environmental concern

The story of the invention of responsibilities relating to environmental concern is not as long as the one of safety: The recognition of environmental degradation as an area of contestation did not take place until the 1970s. Nor is the story of environmental care as important to the identity of Volvo. In the words of a senior Volvo professional asked to rank the values of the firm:

Volvo is safety, safety, and safety. Then there is nothing, nothing, and nothing. Then there is environment, environment, environment, then nothing, nothing, nothing. Then, there is something else.⁵¹

⁵¹ Interview with Stephen Wallman, Gothenburg, 31 October 2002.

This story of environmental care at Volvo is therefore shorter, does not feature as many overflow-inventing innovations, and is initially not attached to a continuously existing corporate function. Thus, public affairs professionals (studied in the next chapter) often lament the fact that they cannot find a 'story to tell' about Volvo's record in relation to environmental care. Nevertheless, in the context of this text, it is important to chart some of the processes that led to the founding of job functions to manage environmental issues. Moreover, as this section will show, some of the patterns of responsibility recognition and invention – the network character of invention, the assembly of technologies and practices etc. – are the same as the ones outlined above.

Prior to the late 1960s, Volvo had not been subjected to any major criticisms regarding the environmental impact of the business. As in the case of car safety, environmentalism was initially directed towards the state and individual motorists. Some critics complained about how motorism scarred the countryside, but dissent was primarily targeted at the state. An early example of environmental campaign was a 1967 initiative, reported in the Volvo external magazine, prompting motorists to make sure they did not litter the roads in southern Sweden. (Olsson & Moberger, 2002: 129) However, following the debates resulting from the 1968 Club of Rome and the publication of *Silent Spring* (both of which had considerable impact in Sweden as well as the US), attention increasingly shifted towards pollution related to car usage and production.

In 1971, Engellau left his position as CEO, passing on the baton to Pehr G Gyllenhammar. In the Volvo mythology, Engellau was the energetic businessman, and Gyllenhammar was the verbal, charismatic and intellectually brilliant diplomat.

Drawing on a wide base of knowledge and interests, the new CEO acted more like a statesman than a corporate executive with a narrow business aim. Well in tune with the public debate on environmental issues, Gyllenhammar presented a statement of Volvo's environmental principles at the 1972 UN environmental summit in Stockholm. Starting his address, the newly appointed CEO spoke frankly about the detrimental effects of the automotive industry; how it produces products that kill motorists and how it pollutes the environment. Just as the 1953 promotions material that first mentioned the word 'safety', Gyllenhammar had attached the realities of environmental degradation to the practice of producing and selling cars. (Fellow automotive executives were not impressed by his candour.) Thus, mirroring the emergence of car safety, early initiatives from Volvo entailed discourse rather than action and innovation.

The Lambda rod, chemicals charting and environmental accounting

It was however at this point that the first environment-specific innovation came about. In his 1972 address, Gyllenhammar had also invited regulators to collaborate with business on the transition towards an environmentally sustainable transport system. Gyllenhammar's outspokenness can nevertheless be seen in the context of a move towards stricter environmental regulation from state authorities around the western world. The story of environmental concern is, as shall be seen, a story in which formal legislation plays a most prominent role. In Sweden, the early 1970s saw legal requirements on the reduction of the carbon monoxide (CO) content in exhaust fumes. This did however not affect Volvo's practices significantly, as the Volkos sold at that time already met this requirement. Instead, the legislative bill that coerced the firm into concerted action was an American one. On New Year's Eve in

1970, President Nixon signed the Clean Air Act, clearing the field for tightened regulatory constraints on the emission of exhaust fumes. The US government was determined to – as soon as possible – pass a law that meant that all cars sold in the USA would only produce 10% of the standard emission levels of that time. However, the pending legislation could be halted, but only if the car industry could prove to the federal court that such emission reductions were not possible. The government had thus instigated a race in innovation, and the first manufacturer to meet the new standard could claim its reward: the American automotive market.

By the 1970s, Engellau's plan to conquer the American market had succeeded to the point where Volvo sold as many cars in North America as in Sweden. Moreover, the share of Volvo cars shipped off to the US was steadily rising. (Elsässer, 1995: 181) America was no longer only a promising opportunity for Volvo; the US market was now the firm's 'make or break' market. Volvo executives therefore decided to establish a team of engineers, remitted with developing technical solutions that would make Volvo's engines meet the new legal requirements. Thus, Volvo institutionalised its first job function specifically related to environmental care – similar to the safety function set up by Nils Bohlin.⁵²

The team consisted of four engineers, and was headed by Stephen Wallman, a calculations engineer who had worked for Volvo for one and a half years. In terms of organisational structure, the team was relatively autonomous: Wallman was not only project manager, but also line manager. Nevertheless, the team members did work

⁵² The subsequent story is mainly based upon a series of interviews with Wallman: 14 August 2002; 31 October 2002; and 6 April 2003.

alongside other motor development engineers. As work progressed, the importance of the project became more and more obvious, not least because Wallman himself alerted management to its significance. His argument was that Volvo had to be (among) the first ones to meet the new requirements, since it was a small and peripheral manufacturer in relation to General Motors or Ford. Should any of the American giants fail to meet the new standards, the passing of the law would most likely be postponed. (As it turned out, Wallman's prediction was true; the law was postponed until the American manufacturers could meet the new requirements.) However, if Volvo were to fail in meeting the new standards, the American government would hardly delay in passing the legislation. Wallman therefore argued that Volvo must "invest like hell" into developing reduced-emission engines. Top management listened, and money was poured into the project. The team became the fastest-growing unit at Volvo, and when the project was completed in 1976, it employed 68 engineers, all remitted with reducing exhaust fumes emission.

During the early work of Wallman's team, an informal collaboration evolved between Volvo, and the companies Bosch and Engelhart: Bosch were experts at engine ignition and already automotive business incumbents, Engelhart was a chemical engineering firm that made catalysts for chemical processes. The latter company had no previous experience of the auto industry, but was connected to Volvo through the personal contacts of Wallman. The collaboration proved productive, inasmuch as it combined the complementary skills of all three companies. A key factor in the story is that Volvo was one of the few companies that used Bosch's fuel injection system. This legacy of previous collaboration and institutionalised co-development was a powerful influence on Volvo's subsequent

actions. In 1974, Volvo found themselves in a position where they would have to make a critical decision on future development. The company could either choose a conservative route of development (along which the rest of the industry travelled): further refinement of the so-called 'two-step catalysator'. Alternatively, it could pursue a more experimental route, building upon the fuel injection technology of Bosch. This second route was more risky and expensive. However, it was more likely to meet the requirements of the Clean Air Act. Moreover, it was comparatively cheaper for Volvo to pursue the more innovative route, as they already used fuel injection. (For most competitors, who used a carburetor instead of fuel injection, this route would have proven three or four times as expensive.) Wallman, again following his conviction that Volvo could not afford to be left behind, persuaded Gyllenhammar that the latter alternative ought to be pursued.

The project was completed by 1976, but as developments at GM, Ford, Chrysler were slow, the government chose to postpone the enactment of the Clean Air Act. Nevertheless, Volvo decided to launch their new, reduced-emission car in the US. As in the case of safety, Volvo received help from public agencies: the California Air Resource Board bought the first ten cars and brandished one of them in front of the Capitol in Washington. Leaving the bonnet open, the agency argued that meeting the standards was now possible, urging politicians to enact the new regulation. This proved a strong case for speeding up proceedings, and in 1978 the law was passed. The Volvo solution to the problem of emissions reduction – the Lambda rod – subsequently became standard in all automobiles. Thus, CO-emission had been successfully brought into the market frame.

After the project, the temporary 'environment function' within the motor development department dispersed into different parts of the firm. Wallman left to work within strategic planning, and started to argue the strategic case for environmental concern. His link to environmental issues remained, as from 1979 onwards he acted as corporate spokesman on environment, drawing on his experience from ample public and governmental exposure during his time as head of the emissions reduction team. (He was then based in the governmental affairs department.) The original team within motor development subsequently dissolved. However, it did not disappear, but spread into the rest of the department. Or, as Wallman explains, the team "devoured the rest of the organisation that had previously supported it". In a sense, he argues, all engineers became emissions-reduction engineers, as emission reduction became a new aim of motor development, complementing the original one of higher engine output and efficiency. However, as will be explored in the next chapter, some voices inside the firm dispute that statement.

The story of the Lambda rod is in many respects similar to that of the seatbelt (and the other safety knowledge practices): A technical solution, co-developed by a new Volvo function and several agencies, came to solidify the reframing of an industry. Also, the informal alliance created with the Californian Air Resource Board is similar to the extra-business partners that supported Volvo in the area of safety. However, the process was somewhat less bundled up in heterogeneous networks. First, in the Lambda rod case, the network of co-inventors of the solution consisted of business actors only. Secondly, the locking-in of the market was achieved in a more straightforward manner – through legal regulation – rather than the assemblage

of technical standards, rating methodologies, consumer pressure etc. that characterise the safety case. Thirdly, the trigger of this lock-in – a novel technical solution spawning a new responsibility – was also less complex than in the safety case: The Clean Air Act simply decreed that a responsibility would be created as soon as a viable solution existed. Moreover, unlike the safety case, the Lambda rod project did not yield a durable organisation around managing environmental overflows.

During the 1980s, after the dispersal of Wallman's team, two new environmental functions emerged in the context of another environmental concern. At this point, Volvo was subject to public debates (primarily driven by Swedish public service television and the country's main environmental pressure group, Naturskyddsföreningen) on the chemicals emitted from the firm's Gothenburg plant. Thus, the firm's attention shifted away from the environmental aspect of their products (such as exhaust fumes) towards the impact of the production process (such as industrial pollution). In 1983, a working group was established within the Health unit (a central staff function at Volvo HQ), remitted with charting the chemicals involved in the production process. Two years later, the group – dubbed the Volvo Labour Sanitation Group⁵³ – was moved to the technical development department. The group set off to identify, risk assess, and categorise 900 chemical products used within the business. In 1991, the results of this exercise were compiled in a chemicals database – "Motiv" – which has since then been extended to include more than 4.000 chemical products. In 1992, the drive to measure and categorise products was extended to include a methodology to estimate the total environmental impact of

⁵³ In Swedish, "Volvos Yrkeshygiensgrupp".

a certain Volvo product. In this effort, the company was collaborating with the Swedish Institute for Water and Air Quality Research. It should also be noted that this work was carried out at a time when "life-cycle analysis" of a product's environmental impact had just become popular in Sweden. In technical universities such as Chalmers, life-cycle analysis is now a standard feature on the curriculum of engineering degrees.

As a parallel development, in 1989 the firm established the second new job function – that of the 'environmental accountant'. The remit of this position was to review all the Volvo plants worldwide with respect to environmental impact, and to devise ways of measuring and accounting for such impact. The aim was to make sure that the firm would not fall into disrepute; nowhere in the world was Volvo to be perceived as an environmental bully. Following a decade of heavy domestic disputes on environment, the firm had learnt the hard way that merely mirroring the environmental legislation was often not enough: In order to escape the criticism of the environmental lobby, the company concluded that it had to do better than the basic legal regulation required. (Olsson & Moberger, 2002: 211)

Volvo's initiatives in these areas – the charting of chemicals and environmental accounting – were relatively early. There are a number of possible reasons for this. As in the case of car safety, the narrative of the 'visionary leader' is sometimes put forward – not least by the firm itself. Thus, the environmental issue has had strong support from Gyllenhammar, who introduced the issue into the firm, and by Leif

Johansson (who became CEO in 1997).⁵⁴ However, as in the case of safety, entanglements also matter: for instance, the stringent legislation on work environment and housing standards had a significant impact. The environmental regulation – "Miljöbalken" – is one of the world's most demanding ones, and has spawned an exceptionally high standard with regard to living and working environments. More importantly, it has caused organisations in Sweden to develop deep knowledge on the topic. Not only is this knowledge embedded in companies and public authorities; it is also promoted by research institutes and special consultancies.

These early efforts gave the firm a good overview of the chemicals involved in the automotive business. The most immediate and tangible legacy was however the improved state of the manufacturing facilities. After the decade of disputes over pollution from plants, Volvo's performance in this respect was highly regarded by outside observers. In the mid-1990s, the firm's plants were recognised as the cleanest in the industry, partly due to local innovations in managing the air that is emitted when painting the vehicles. However, at this point, the public debate shifted back to the issue of exhaust fumes. Unfortunately, when it comes to vehicle emissions, the Volvo property that the firm once leveraged as an asset – the capacity to build sturdy and big vehicles – has remained an inevitable liability.

The Bi-Fuel car and the TRUST alliance

In 1994, after a failed merger with French carmaker Renault, new sets of priorities were being drawn up for the future of Volvo. Of the 18 long-term initiatives devised,

⁵⁴ Telephone interview with Bino Catasús, Stockholm University, January 2004, Stockholm.

one was wholly related to environment. (Hökerberg, 2000: 166–167) Environmental care had officially become a strategic issue and a core brand value. Following this new direction, the dispersed environmental expertise within the company was brought together into a durable environment function. This subunit inside the motor development department was to be led by Ulla-Britt Fräjdin-Hellqvist. At this point, she did not know much about environmental issues, nor did she have a devoted political interest in the field. Reluctantly – knowing that the job to champion the environmental-friendliness of Volvo cars would be a difficult one – she accepted the job.

The early 1990s saw Volvo being subjected to a heated public debate on the greenhouse effect and the need for a reduction of CO₂ emissions. The firm was under heavy pressure to act on the issue – at one point in 1994, she recalls, a Siemens executive criticised Volvo and Fräjdin-Hellqvist publicly for not developing cars running on alternative fuels. In the context of these pressures, Fräjdin-Hellqvist proposed to her colleagues that Volvo ought to start developing a vehicle running on some other fuel than petrol. During this early stage in 1994, it was not yet clear which alternative fuel to focus on: methanol/ethanol, electrical propulsion, LPG (Liquefied Petrol Gas, based on propane and butane) or any other solution. The company already had experience of building cars running on all these fuels. Ethanol/methanol motors had been developed, and electric cars had been tested in the late 1970s. The company had also (in the early 1980s) invested heavily in a programme to sell company cars running on LPG. However, the LPG initiative failed as the plan was dependent on state subsidies, which the firm did not manage to secure. Instead, the environmental department directed their efforts towards natural

gas (methane), a fuel that was in relative scarce supply in Sweden. This seemingly odd focus was down to two contingencies: First, the motor department was about to develop a new aluminium engine, so any legacy solutions from the previous engine were of less relevance – the engineers could start from scratch. Secondly, a small engineering firm in Gothenburg had already been experimenting with converting a standard Volvo to natural gas propulsion.

It should however be noted that, at this point, no official "natural gas" project had been established within the environmental department. It was within the department's remit to informally investigate routes to better the environmental performance of the product. In line with this, the department also investigated the possibilities for producing an electric car. Nevertheless, Fräjdin-Hellqvist argued that the department ought to leave that initiative aside, as the natural gas option would give the firm more "bang for the buck".⁵⁵ When discussing the topic today, she maintains that the project was "driven by natural science and economics" – it was the bleak realities of physics and finance, not passion or politics, that motivated her decision to push the natural gas solution inside the organisation. Her devotion to the natural gas route spread to other professionals within the motor development department, and over time the investigation morphed into an informal development project. More and more employees were enrolled, not least due to the fact that the project was perceived as an exciting venture. However, for one year, these efforts were based on money that – in Fräjdin-Hellqvist's words – "did not exist", i.e. no funds had been allocated to it. Observers who have studied the organisation argue that this is typical of the Volvo

⁵⁵ Telephone interview with Fräjdin-Hellqvist, 9 May 2003, Stockholm.

corporate culture, which hosts a substantial "underground culture" within which engineers engage in unofficial projects aside from their remitted project. Funds for such initiatives are often raised through 'fiddling' with other budget items. (Hökerberg, 2000: 108)

Until 1995, the initiative ran along in 'skunk works' mode, outside of the official structures for product development.⁵⁶ Nevertheless, during this time, top management had some knowledge about the development activities, as Fräjdin-Hellqvist continuously reported to the Vice President of the firm through the Environmental Council – another institution established in 1994 coordinating environmental work across the firm, directed by top management. In 1995, the project became an official project, with proper budgets, designated work tasks etc. Nevertheless, the project continued to enrol more professionals than it formally should have done: 20 people (primarily from product development and marketing) were involved at this time. In addition to these, professionals from the local sales company were working in the project, trying to find customers for the product. All the people enrolled were personal contacts of Fräjdin-Hellqvist – they were not attracted through job descriptions or allocated by management.

The resulting product of the developmental project was subsequently dubbed the 'Bi-Fuel' engine, and was introduced as a feature on the standard Volvo models. Thus, a Volvo V70 could be bought as a Bi-Fuel version, enabling it to be run on both natural gas and petrol. The last stage of the process of getting the product to

⁵⁶ "Skunk works" is the management of technology term for unofficial R&D work. See Wheelwright and Clark (1992).

consumers was given momentum by the fact that the municipal authorities in Gothenburg had given their support for the project. The local authorities and Volvo have traditionally worked closely together on matters related to the industrial development of the Gothenburg region – this ethos of collaboration between industry, municipal authorities and academia is sometimes referred to as the "Gothenburg spirit". In the mid-1990s, Stephen Wallman (who at this time worked in Governmental Relations) had discovered the authorities' interest in alternative transport solutions for the region. As he was also organisationally linked to the product development department, he could feed the information through to the executives in charge of the Bi-Fuel project, thus granting it the legitimacy it needed.

In 1999, the City of Gothenburg, Volvo Car Corporation and AB Volvo (the Swedish-owned firm that manufactures buses, trucks etc.) established a joint initiative called TRUST.⁵⁷ This effort would be a way to improve the transport system in and around Gothenburg through introducing better and cleaner public and private transport solutions. A key focus was the support of the diffusion of natural gas-fuelled vehicles. AB Volvo supplied buses, which the authorities introduced in new bus routes, and trucks. Volvo Car Corporation's participation in the initiative came to revolve around the Bi-Fuel car. In order to further the spread of the new alternative fuel car, the local authorities created a host of user incentives, for instance designating parking spaces for Bi-Fuel vehicles. Incentives were however mostly directed towards the transport services, not least taxi companies. The City committed itself to procuring all their taxi services from the company that had the largest Bi-

⁵⁷ TRUST is an acronym for "TRansportUtveckling i STorstad", which roughly translate as "transport development in large cities".

Fuel fleet. It also built special taxi ranks for Bi-Fuel taxis. The City of Gothenburg also towards the national government to get a special tax exemption for the new cars, enabling them to be taxed according to the same price as the standard Volvo model.

The TRUST collaboration later came to include the Swedish road authorities ('Vägverket'), and the local energy utility Göteborg Energi. This latter partner came to play a significant role in the partnership, establishing a new corporate entity – Fordonsgas Väst – that specialises in selling natural gas to the Gothenburg region. This component was of course key to the whole project, as Sweden lacks an infrastructure of natural gas. The new body thus built a pipeline from continental Europe, supplying methane to the Gothenburg and southern Sweden markets. (There are now five natural gas fuelling stations in the Gothenburg region.)

As a result of these entanglements, Volvo met its initial sales objective for the first Bi-Fuel batch (4000 vehicles) in 2000, which was earlier than expected. An updated version of the car was released the subsequent year, but by now (2004) the company-wide consensus is that the market for the car is nearing saturation. Or, more aptly, the market is saturated given the way that it is framed at the moment: The lucrative Stockholm region does still not have a supply of natural gas (the pipeline does not stretch to Stockholm), and the private consumer market remains elusive as Volvo failed to get the tax exemption that it hoped for. Pending changes in the market framing (i.e. tax exemptions, better developed distribution of natural gas and further incentives from municipalities), most of the firm regards the Bi-Fuel car as a sleeping beauty, which can potentially be brought to life at a later stage. Instead, the Bi-Fuel and the TRUST collaboration morphed into brand-enhancing projects. As environmental concern became a brand value in 1994, there was a stronger need for

communication of the Volvo's environmental merits. Subsequently, a job function for this purpose was created in the public affairs department. The alternative fuel initiative, now partly forgotten by the engineering department, has instead come to be championed by these environmental communication specialists.

As shown in this section on environmental care, all reframings in this field have been championed by state authorities and regulatory institutions. (This can be compared to car safety, in which regulators were lagging behind the developments pushed forward by companies, activists, unions, engineers etc.) For Volvo, innovations related to environment have been conceived in conjunction with knowledge and regulations embodied in state authorities and public agencies – be they American/Californian (the Lambda rod), Swedish (chemicals charting) or Gothenburg-based (the Bi-Fuel project).

4.4 The invention of corporate citizenship

Corporate citizenship is – in its current form – the area of contestation that was most recently institutionalised within Volvo. The operation of a special corporate citizenship job function, the publishing of a 'social' equivalent of the annual report, the staging of stakeholder dialogues are all practices that were instigated less than five years ago. However, while being the youngest area of contestation, it can also be seen as the oldest. As mentioned above, the founding years of the company were very much defined by the firm's commitment to building an industrialised Swedish nation, while building a company. One can state several reasons for this. One contributing factor was the fact that it was in Volvo's interest to fuel the industrialisation of the country – the very business plan was contingent upon the

development of an economically and socially robust region around Gothenburg. Founders Gabrielsson and Larson were dependent upon their factory workers as productive resources and as consumers, much in the same way as Henry Ford once was. Arguably, the industrialist ambitions of Gabrielsson and Larson stretched further than their American equivalent, as the Swedes also took it upon themselves to support and enhance the competence of the technically unsophisticated workshops around rural Sweden.

The legacy of stakeholderism

Another difference between Ford and Volvo was of course the political economy of their respective countries. Volvo was embedded in an economic system in which collaboration with labour unions was obligatory. In 1938, a landmark agreement – the Saltsjöbaden accord – was signed by representatives from Swedish capitalists and workers, thus forging a 30-year-long truce on the labour market. Between the 1930s and 1950s, Swedish politicians and economists implemented a specific economic doctrine – "The Swedish Model of capitalism" – in which strong ties between labour unions and capitalists could be used as an additional regulatory lever. The specifics of this model will be described in chapter six; what matters at this point in the discussion is that corporate executives were legally obliged to collaborate and negotiate with unions.

However, even by Swedish standards the links between Volvo and the unions were particularly strong. This could partly be due to the fact that Gothenburg has traditionally been the 'worker's capital' of Sweden. Assar Gabrielsson, the co-founder and CEO, was an exponent of the employer variety of this Gothenburg ethos, espousing the kind of religious values that signifies the Swedish tradition of social

liberalism. The religious (i.e. protestant ethic) values implied that Gabrielsson ran the firm in a frugal fashion, emphasising the responsibilities of an honest employer. (Hökerberg, 2000: 191) Spending on executive benefits, such as luxurious offices, was completely out of the question. Gabrielsson even decreed that only black furniture was to be bought for the office, as special coatings would involve extra cost and make the space too conspicuous-looking. (Hälleby, 1990: 40-41; 21-22) This modesty has remained within the firm: Volvo's offices – even that of the CEO – are still surprisingly spartan in character.

The other facet of Gabrielsson's values – the social liberalism – also remained within the firm, not least through PG Gyllenhammar's explicit support and work for the Swedish liberal party. (cf. Gyllenhammar, Palmgren & Petersson, 1991: 204) This can be contrasted with the other main power centre within 20th-century Swedish industry, the Wallenberg sphere, whose corporate culture rests on conservative values. The Volvo/Wallenberg feud can also be analysed through an economic geography lens. Whereas Wallenberg was (and still is) deeply enmeshed in the Stockholm establishment, Volvo has always sought to build upon their foundation in Gothenburg. This has implied strong links with the local municipalities (as shown in the case of the TRUST collaboration, see previous section), and a good deal of local philanthropy. Volvo has, for instance, financed the Gothenburg Symphony Orchestra (which subsequently became the Swedish national orchestra), the building of an opera house in the Gothenburg harbour, and the local business school. However, the patriot streak in the Volvo corporate culture can sometimes degenerate into provincialism. For instance, in the mid-1990s, when investigating where to build a new Volvo

'showroom'⁵⁸, central Stockholm emerged as the most favourable location. The then CEO, Sören Gyll – a non-gothenburger – nevertheless had to fight long and hard to convince his colleagues to swallow their patriot pride and allow the showroom to be built outside of Gothenburg. (Hökerberg, 2000: 107)

The schism between Volvo and the Wallenberg sphere has however revolved primarily around power, rather than politics or patriotism. The Wallenberg family is a phenomenon unique to Sweden: In no other country has one family managed to control practically all industrial activity for centuries on end. Since 1927, Volvo executives have consistently striven to form a second power base in Swedish industry, while keeping the Wallenbergs at bay. Gabrielsson warned Engellau to "never let the Wallenbergs into the company"; an expression that has remained key to the Volvo culture. (53) Conversely, the Wallenberg leaders have consistently tried to gain control over the growing Volvo empire. For Volvo's part, staying as independent as possible from outside influence has been imperative, mainly because all likely outside (Swedish) influence has been likely to be from the Wallenbergs. In line with this, the firm has had the policy of preventing the formation of powerful ownership concentration: Since SKF (the company from which Volvo was spun off) sold off its stake, the company has aimed to maintain ownership stakes of less than six percent of the total stock. In times where the Wallenbergs have attempted to acquire a larger stake, a tit-for-tat fight has erupted, with the two antagonists trying to score strategic acquisitional points against each other. (90)

⁵⁸ A showroom is a space for showcasing, but not necessarily selling, the top-of-the-line range of cars.

The legacy of this aspiration to remain independent is that Volvo is a firm in which management executives, not board members or shareholders, have wielded the most power. This fact was, again, most striking during the tenure of Gyllenhammar, when the firm embarked on a number of extravagant projects that were not particularly liked by the shareholders. (Elsässer, 1995: 231-235) By the same token, the stock market generally disapproved of Gyllenhammar's way of running the company. The Volvo CEO did not care much about making the business look appealing for financial analysts, forming complicated alliances and setting up diverse ventures. Essentially, the analysts claimed that he was running the corporation towards other objectives than shareholder value, arguing that he was more interested in power and influence than business. (Hökerberg, 2000: 193) This did however make the CEO well liked, almost adored, by other actors: Union leaders, factory workers, politicians, journalists, as well as the average Swede. (For years, he was voted "most admired person" in Sweden, outshining both royal and showbiz celebrities.)

Gyllenhammar has remained unapologetic towards the financial markets, and has also taken great pride in his relative independence from short-termist shareholder interests and stock price variations. Towards the end of his time at Volvo, in 1991, Gyllenhammar wrote:

In real life, there is not just one set of stakeholders – i.e. shareholders – in and around a firm. [...] The model for business in society is fortunately considerably more complex than that. It is founded upon the fact that there are a number of interests to be accommodated. The shareholder interest is of course important, but it is best accommodated if one takes a long-term view and accommodates other stakeholders at the same time. This is a continual balancing act, in which one must never forget one's responsibilities towards shareholders, but equally not

forgetting one's *responsibilities towards society*. Nor must one forget *the employee's* ability to grow, provided that one invests in them. (Gyllenhammar, Palmgren & Petersson, 1991: 102. Italics added)

The discourse about accommodating a wider set of stakeholders while accommodating shareholders, and remembering the responsibilities towards society, is very similar to the one that subsequently (in the late 1990s) became popularised as Corporate Social Responsibility (CSR). In this respect, Gyllenhammar was ahead of his time. One thing that separates the passage above from the contemporary discourse on CSR is Gyllenhammar's emphasis on the employee as the main stakeholder; the CSR discourse tends to focus less specifically on worker rights.

Gyllenhammar was also an opponent of corporate executives holding shares in their own firm, or receiving bonuses based on share price performance. A decade before the corporate scandals related to the likes of Enron and Worldcom, he writes that executives with such remuneration packages

lack the ability to accommodate all stakeholders in the complex model of business [mentioned in the passage above], and will focus on the interests of shareholders, of which he [sic] is one.

Moreover, such executives are also likely to act in a short-termist manner, fail to invest in R&D or be tempted into insider trading. "That is the point where greed triumphs over reason." (103) Gyllenhammar's views on this matter are, in fact, the extrapolation of the 'honest employer' ethos founded by Gabrielsson. In Volvo mythology, the most prevalent anecdotes are the ones about how the Volvo CEOs have stifled tendencies towards executive greed. Gunnar Engellau is said to have confiscated a watch given to a sales executive by a foreign Volvo importer. (Olsson & Moberger, 2002: 95) Also, P.G. Gyllenhammar – following a journalist's

questioning of him receiving shares from a company acquired by Volvo – donated the proceeds to a cancer research charity, stating that "no one lays a finger on my honour" (Hökerberg, 2000: 193).

The elements of the story above shows Volvo's general ethos of stakeholderism and social responsibility. There are however more practical examples of innovations that have reframed the automobile (and other) markets.

Humanised production and industrial democracy

At the time Gyllenhammar superseded Engellau as CEO in the early 1970s, Volvo was finding it increasingly difficult to attract labour to the assembly plants. One ominous trend was that youth was shunning the monotonous labour, choosing to work in different settings. The fact that roughly half the work force was of non-Swedish origin did (in the Sweden of the 1970s) indicate that factory line assembly primarily attracted the unprivileged with limited choices on the labour market.⁵⁹ Another worrying fact was that 12.5% of the workers were away on sick leave – a considerably higher number than the 7.2% national average. (Gyllenhammar, Palmgren & Petersson, 1991: 234) Moreover, the staff turnover was at times as high as 150%, which means that the average worker stayed no more than eight months at the job before leaving the firm. (Ekman, 2003: 23)

In hindsight, most observers blame these statistics on the methods of production that were being used at the time. In the late 1960s, the production techniques in operation were, crudely put, no more than a mere extrapolation of the principles laid down by

⁵⁹ Nevertheless, the high number of first or second generation immigrants is partly explained by the fact that Volvo has consistently had a multi-nationality labour force.

Frederick Winslow Taylor and Henry Ford in the early part of the century. Work specialisation had proceeded to the point where job tasks consisted of repetitions no longer than five to fifteen seconds, ninety seconds at the most. Volvo had, under Gabrielsson, championed this American production approach in Sweden, and up until the 1960s it was effectively spread across Sweden. Not only did Volvo help their subcontractors with the introduction of such approaches: the establishment of a new occupation – production engineers – often educated at Chalmers University of Technology, assisted in the proliferation.

As late as 1964, Volvo had opened a new plant in Torslanda, Gothenburg, designed along these 'rationalist' lines. It was then hailed as the state-of-the-art in manufacturing, with both the Swedish king and prime minister attending the opening ceremony. However, by the end of the 1960s, alternative theories of production were being elaborated, and this time the new theories emerged in Scandinavia, not the US. The main theorist was the Norwegian academic Einar Thorsrud, and the new set of production theories came to be known as the 'socio-technical approach' ('socio-tekniken'). As the name implies, Thorsrud added a social component to the socially impoverished outlook of the traditional Fordist approaches, thus explaining why the labour force was shunning the plants, and why plant workers so frequently fell ill on the job. Moreover, his theories could explain why the department that grew the quickest in the old plants was the post-assembly (the department that corrects all the faults made 'upstream' in the assembly line). Workers were simply too bored and stressed to perform their work tasks consistently. Instead, Thorsrud argued that factories had to reclaim the 'social component' in manufacturing, organising workers in teams (as opposed to separating them from each other). Secondly, workers should

be enabled to grow personally through the construction of job tasks that both required and generated higher skills. Thirdly, work tasks ought to consist of longer repetitions, making the worker less bored and 'alienated' from the product manufactured.

This shift in production theory discussed within academia went hand in hand with the socially turbulent nature of the late 1960s. The 1968 student revolts in Paris and Berkeley had a Stockholm equivalent, with a students doing a sit-in in the Stockholm University student union building. More fundamentally, the left and the right in Swedish politics polarised, including the labour unions and the employer's unions. The worker's union radicalised, arguing for further state ownership of private industry, as did the employer's union, with a new director pushing a hard-line neoliberal agenda. This marked the end of the 'spirit of the Saltsjöbaden accord', effectively toppling the thirty-year truce in the Swedish labour market.

Thus, Volvo was very much a part of all the components that theorists of 'post-fordism' say led to the breakdown of Fordism. The assembly line-oriented 'mode of production' had alienated workers and failed to lead to further productivity, thus disrupting the mode of accumulation. The 'mode of regulation' – corporatism and collective bargaining – had started to deteriorate, and so had the trust in the Good employer that previously had provided a 'mode of societalisation'.⁶⁰ (Add to this the fact that, as explained above, Volvo had experienced the saturation of the national market, spurring internationalisation and globalisation of its operations.)

⁶⁰ I am here using the taxonomy of Amin (1994).

It was in the wake of all this turbulence that Gyllenhammar started his tenure as CEO. At this point, he had already become known for his interest in societal issues, and in December 1970 (a few months before starting his job) he wrote in an internal memo:

The traditional way of organising the management of the company's human resources is wholly inappropriate. The company's labour force [...] is to be given the same attention by top management as other strategic priorities. [...] Management should therefore be augmented by expertise in areas related to working environment, individual behaviour, group behaviour and human relationships. (Gyllenhammar, Palmgren & Petersson, 1991: 234)

One of the first tasks that awaited Gyllenhammar was to make some crucial decisions about production facilities. Following the realisation that Volvo's production capacity was not enough to meet the expected demand of the mid 1970s, Gyllenhammar's predecessors had decided that a new plant was to be built. A few weeks into his job, the new CEO was thus in charge of designing and building a new plant – a task for which (according to some) he lacked the 'proper' qualifications. Gyllenhammar was not an engineer (he was a law graduate) and had no experience of heavy industry, having previously worked in the insurance industry. Following his recommendation of augmenting top management with new expertise, he assigned a sociologist by the name of Berth Jönsson to lead the research leading up to the design of the new plant. The research exercise resulted in thirteen 'social' criteria that the facilities had to meet (aside from the standard technical and economic constraints), related to issues of motivation, identity and human relationships. Most of the production engineering orthodoxy sneered at the project, or at least deemed it too shaky to implement full

scale. Gyllenhammar was however adamant in his view that the new philosophy would materialise in the form of a fully operational plant. (Ekman, 2003: 26)

The specifications for the new facilities were then passed on to the senior production engineers at the Torslanda plant, Gyllenhammar prompting them: "The plant is small, which enables you to think in new ways. Go through the objectives and come back with a proposal on how to meet them." (Gyllenhammar, Palmgren & Petersson, 1991: 237) A few months later, the engineers returned with a design using all the latest machinery and tools, but unfortunately the design was essentially a more refined version of the traditional, Fordist Torslanda plant. Gyllenhammar told the engineers try again, urging them to break out of their old ways of thinking. The engineers returned a second time, this time with a plant that had larger windows and a nicer colouring. Nevertheless, the plant was unmistakably Fordist. The CEO dropped the senior engineers from the project, and instead recruited a 32-year old worker from the production floor to the project. The new recruit subsequently led a team of 25 professionals remitted with coming up with something different from the traditional Fordist design. Two weeks later, the team emerged from the old fire station that they had used as an office, presenting their new design. The proposed solution involved an unorthodox star-shaped building plan, in which workers would operate in teams that autonomously controlled the work speed. The work teams could therefore plan their working day, as long as they managed to build the number of cars that they previously had agreed to (in a 'contract' with Volvo). Each team had their own entrance to the plant, as well as their own sauna and recreational space. In order to make this set-up work technically, the design team had developed a carrier on which the workers would gradually assemble the vehicle.

The new plant was 10% more expensive to build than the typical Fordist equivalent. Gyllenhammar was however convinced that this extra cost could easily be offset against improved worker motivation and retention: Management had conducted a thorough 'social calculation' that pointed in that direction. (As it turned out, the social calculation was correct.) Nevertheless, Gyllenhammar had managed to give Volvo some extra space for experimentation in terms of finance. At this time, Swedish legislation forced local corporations to funnel extraordinary profits into company-specific investment funds. These funds could be retrieved by the corporation, but only for financing of investments that in some way were 'socially worthwhile'; a judgement made by the Swedish state. Using his good contacts with the polity, Gyllenhammar managed to convince the then Minister of Finance, Gunnar Sträng, that the next Volvo plant was such a socially worthwhile investment. The main argument was related to regional politics: Gyllenhammar offered to build the plant in Kalmar, a city in rural south-eastern Sweden that desperately needed work opportunities.

In this way, the building of the new plant was the result of Gyllenhammar managing a network of actors. This network included allies such as sceptical prospective workers and the Swedish Minister of Finance. Gyllenhammar's efforts also involved 'mobilising of the world' with the help of production engineering academics and sociologists with a new corporate remit, Volvo production engineers. These actors quickly formed an autonomised expert group, which were subsequently drawn upon as the humanised production approach spread across the world. Public representation was also necessary, in order to legitimate the endeavour to the radicalised left, the unions and the rural population of Kalmar. In the centre of this network was

Gyllenhammar, using his diplomat management style to construct the 'links and knots' necessary to launch his pet project.

The Kalmar plant opened in 1974, and quickly became synonymous with a radical new production philosophy. Scientists and production experts from across the world lined up to visit the new plant, and travelling to study the 'Scandinavian model of production' became common among managers, union officials and government officials. Such trips, in which Einar Thorsrud was the guide, would start in Gothenburg, where Gyllenhammar would show the traditional Torslanda plant. The trip would then continue to Kalmar to view the new plant, and then to Oslo, where Thorsrud would summarise the lessons learned. (Maccoby, 1995) Gyllenhammar was of course pleased with the attention, and added to it through the writing of an article in *Harvard Business Review*. Volvo also spread the word through international TV advertising, showing happy young workers assembling cars in a seemingly handicraft manner. The Kalmar plant thus founded the image of Volvo as a responsible manufacturer and a trailblazer towards the next big thing – a post-Fordist mode of production. Some even argue that Gyllenhammar was more concerned with what the plant did for the Volvo brand, than what it did for the people working in it. (Granath, 1998) Again, as in the case of car safety, the original intention was inconsequential to the actual result: The actual outcome was significant, not only within Volvo. The practices of study trips, *Harvard Business Review* articles, and advertisements all served as effective tools for spreading the new production approach to other firms and other industries. Executives in manufacturing industries across the world did their best to introduce Volvo's humanised production in their own plants.

The original intention of the plant – that the worker should be able to build a full car – actually did not materialise in Kalmar, but in the next production facility built during the Gyllenhammar era. In this plant, finalised in 1989 and again financed through investment funds, the humanised production ideal was taken even further (partly though deeper involvement from the unions). However, at this time, the Scandinavian production ideals had gone out of vogue, and Japanese production philosophies had taken over. Production engineers across the world became less and less interested in Thorsrud's ideas, and instead turned to other approaches. *The Machine that Changed the World*, an MIT-led worldwide study of the automobile industry (partly funded by Volvo, featuring researchers from Chalmers University of Technology), became the new manufacturers' bible. The text showed, through naked statistics, that Toyota's 'lean production' was superior to Volvo's humanised production. One of the authors of the report, Daniel Jones, stated that

I feel sympathy for the thoughts behind the Swedish model, but unfortunately it constitutes a blind alley. (Hökerberg, 2000: 128)

Unfortunately, the author was correct. In the wake of a profitability crisis, Volvo was forced to reconsider their manufacturing organisation. The investigators concluded that the Kalmar and Uddevalla plants had to be shut down, and this recommendation was executed in 1992. In hindsight, some experts have concluded that when building the two plants, Volvo forgot to monitor what the competitors did to make production more efficient. Instead of learning from the industry expertise, the firm (and Gyllenhammar in particular) was too heavily influenced by the demands of the unions and the state. From the mid-1990s, the two plants are used as case studies in the education of production engineers at Chalmers. They are however (somewhat

derogatorily) portrayed as a utopian social experiment that failed, their educational merits limited to highlighting the de-humanising tendencies of Fordist production.⁶¹

Even the sociologists who write about the Scandinavian approach as a potentially stable post-Fordist mode of production are becoming fewer and more far between.⁶²

Nonetheless, the discussion on Volvo's failed attempt to break the assembly line tradition has continued. One interesting explanation points to a "deeply founded Taylorist culture" among the engineers. (Granath, 1998) While great progress was made on being progressive in the social dimensions of humanised production (participation, group work, personal development etc.), the firm failed to develop the technical tools (for instance the carrier mentioned above) that would facilitate the new approach. This was not due to sociologists claiming too much power in relation to engineers, but due to the fact that the engineers did not believe in the new approach devised by Gyllenhammar. So, while Gyllenhammar successfully enrolled ministers, sociologists, the radicalised left, workers and so on, he failed to secure the enrolment of his own production engineers. Those remitted to investigate and develop suitable technical systems were simply not committed to that task – they neglected the remit to make the new idea 'durable'. For the same reason, documentation of the experiments made in relation to the Uddevalla plant was nearly binned by the firm as the plant was shut down. Instead, Chalmers researchers kept the information, using it to revamp the plant when it was re-opened.

⁶¹ This was, at least, the case when the author studied production engineering in the late 1990s.

⁶² One late example of a sociologist writing of a Scandinavian post-Fordism is Jessop (1994).

The hostility towards the new production approach was, somewhat surprisingly, shared by the labour unions. This was primarily borne out of fear that the wild plans of Gyllenhammar would reduce productivity, ultimately affecting the workers in the form of layoffs. There was also a concern that the new, skilled assembly workers in Kalmar and Uddevalla would leave the union. Thirdly, the unions feared that the previous skills in assembly line production would be obsolete, and that young workers with a different skill set would usurp the senior workers. (The concerns were however primarily expressed among the Volvo branch of the unions; the central organisation deemed the new production approach promising for workers in general.) For these reasons, the unions expressed another preferred development trajectory – towards what was called 'industrial democracy'. This ideal, implying that union representatives should be given better influence over the top-level decisions made in the firm, became the second pillar of Gyllenhammar's vision of the Good Company.

In the early 1970s, while planning the Kalmar plant, Gyllenhammar introduced union representation on two levels, enabling workers to exert influence on top management and on the board of directors. In order to tie the unions closer to the top management, a new organisational function was introduced in 1971. This was called the *corporate assembly*, consisting of 24 members (16 of which represented various unions) who met four times per year. This body provided a forum for top management and the union representatives to continually discuss the challenges and future decisions that await the firm. In some areas, such as investment in working environment improvements, the assembly was given executive power and a corresponding budget. In 1974, unions were also allowed to appoint two of the members of the board of directors. Two years later, this became a legal requirement in Sweden.

Volvo's tradition of worker protection and close union links notwithstanding, a new generation of professionals grew up to challenge the firm's reputation as a Good Company. As the notion of being a good corporate citizen shifted, Volvo learned from its own that it is not only the role of employer that necessitates responsibility.

Reinterpreting the meaning of corporate citizenship

In 1996, having worked for three years at Volvo's sales company in Hong Kong, a young professional named Monica joined Volvo's Global Management Development programme. (The 'GMD' is one of those fast-track programmes in which young, promising professionals spend time at various departments within the firm for a two-year period.) During this traineeship, Monica became increasingly interested in the corporate philosophy and strategy that was being communicated to the programme attendees. Gradually, she found that something was missing in how Volvo was construed as a company. While stationed in Asia (between late 1997 and early 1999), she found that the corporate philosophy that was meant to reflect how Volvo thinks and acts was in no way aligned with how operations were actually run. Monica felt that Volvo did not understand the markets in which it operated, that there was a lack of respect between Volvo and local importers, and that there was no trust in sharing information with suppliers.⁶³

Having completed the programme, Monica felt uneasy with the situation, and contemplated leaving the firm. She expressed her concerns to her superiors, and asked a human resources executive for a transfer, while flagging for a possible

⁶³ The following is based on interviews with Monica, 10 December 2002 and 14 April 2003, Gothenburg.

departure from the firm. The manager was not pleased, asking what work activities could keep her in the company. Monica replied that she wanted to work with any of the following areas:

- Implementation of corporate philosophy (i.e. making Volvo what it purported to be);
- The diversity issue (i.e. widening the pool of competencies and experiences in the firm, while dismantling the employee norm – the Swedish, white, male, heterosexual, protestant engineer);
- Corporate Social Responsibility (phrasing it in terms of "Volvo's role in society", as the CSR acronym was not widely used at this point);
- Sustainable mobility (i.e. developing Volvo's strategies for a shift towards environmentally and socially advantageous transport systems).

Monica got a chance to discuss her interests with the head of product planning, who concluded the meeting by saying: "I don't really understand what you are talking about, but it sounds interesting." Monica was then given three months to develop her thoughts at the product strategy department. As she started researching the area, she quickly learned that within the international business community, the area of CSR was in fact buzzing with activity. At this time, a wealth of knowledge was being created by the international business community, which was becoming increasingly aware of the societal repercussions of their practices. Monica's strongest influence was Gary Elkington of the UK-based consultancy SustainAbility, who assisted Shell in developing the first triple-bottom-line report (an annual report that features the

social and environmental performance of corporations).⁶⁴ This body of knowledge and experience from trustworthy corporations in other industries proved helpful in her effort to prove to the rest of the organisation that CSR was a big issue. Not least the two stories of how Shell mishandled public opinion – the ones about the Brent Spar oilrig and about human rights violations in Nigeria – became narratives that she frequently drew upon as exemplary cases of the need to listen to civil society organisations.⁶⁵

The next step was to mobilise support to form an official organisational structure around these issues. Monica thus organised a couple of informal workshops, which laid the foundation for the forming of the Corporate Citizenship Strategy Group. This was a discussion forum, aimed at producing a strategy document on how Volvo should approach their social responsibilities in a structured way. The group was formed by a handful of managers from departments such as product strategy, governmental affairs, and public affairs. The first meeting was held in early 1999, and the five-page document was completed one year later. In March 2000, Monica was sent on part-time executive education, having persuaded her superiors that the firm needed to get a better grasp of the latest developments within this new form of engaging with the social. Monica's part-time executive Masters' programme on Corporate Citizenship was based in the UK, and taught the participants the new social reporting practices that were under development. More importantly, it also trained the participants to become so-called 'change agents' within their home

⁶⁴ Shell (1997) was an early example of such a report.

⁶⁵ For more on these two stories, see Klein (2000).

corporations – half of the course was dedicated to teaching the students how to change the organisation from the inside.

During the part-time studies, Monica was made 'Corporate Citizenship manager' at Volvo – the first job function of this kind. This new function was to be based in the Public Affairs department; the organisational body that deals with press inquiries, publishing the internal magazine, and arranges launch events for new products. Locating the Corporate Citizenship manager in this relatively peripheral communications department may seem odd: After all, the aim of the new Corporate Citizenship creed was to introduce new accounting and management practices in order to change the firm's operations in the core of the firm. This seemingly odd arrangement is explained by the fact that the Public Affairs department also strived to oversee the firm's long-term, strategic communications. Under this organisational structure, two professionals had been remitted with the communication of the issues of safety and environmental care. These two areas of concern – the origins of which are mentioned previously in this chapter – were now explicitly elevated as Volvo's brand values. (At this time, quality also constituted a brand value, overseen by its own communications professional. However, after a while the need to communicate quality aspects seemed less important, so that position was abolished.) From this perspective, placing the Corporate Citizenship professional in the strategic communications team made perfect sense for two reasons:

- I. *The creation of a holistic set of brand values:* The top management (including the Director of Communications, head of the Public Affairs department) found that Corporate Citizenship really was a key component in the Volvo brand, especially bearing the socially progressive history of the firm in mind. Monica

would then be neatly organisationally placed right next to the other two 'feel-good' brand values – safety and environmental care.

II. *Setting up a new publishing structure:* In order for Volvo to comply with the CSR discourse emerging within the rest of the business community, the firm urgently needed to publish a triple-bottom-line report. (This was stated in the Corporate Citizenship strategy document; an approach adopted from Shell/SustainAbility.) No structures for this were in place in the firm, and as making publications is the remit of the Public Affairs department, it was natural for the new job function to be placed in that department.

Paradoxically, in persuading top management that publishing a Corporate Citizenship report was necessary – partly through pointing to how most of the industry was following Shell's example – Monica had put herself in a difficult position. Having been moved to Public Affairs, her role as a change agent was made more difficult. The department in question is (as mentioned above) relatively peripheral to the core operations of the firm, and significantly less strategic in its approach than the Department of Product Planning (from which she was transferred). Monica found the move to be a big setback, interpreting it as her failure to persuade her superiors of the strategic role of CSR. While she remained committed to the strategic aspects of CSR, her new boss preferred that Volvo's efforts should be on the communicative aspects of CSR. Instead of focusing on strategically changing Volvo's practices, Monica was asked to communicate the cases where Volvo already did well. The situation became increasingly difficult to maintain, and eventually (in early 2001) Monica left the position as Corporate Citizenship manager. She did however stay within the company, moving to the Human Resources department to

focus solely (and more strategically) on diversity issues. Again, she managed to persuade the organisation that a specific focus was needed on this particular matter, and was thus placed in another newly established job function; that of 'Global Diversity Director'. In pointing to the merits of a diverse labour force, she enjoyed great support from the CEO and the vice CEO; both of whom had a personal interest in the diversity issue. Another reason for the readiness to embrace the diversity agenda was Volvo's history of hosting sizable non-Swedish communities within their labour force. Some also argue that the focus on diversity was the result of Ford Motor Company acquiring Volvo Car Company. As an American employer, Ford had more thorough experience of debates on ethnicity than the 'old' Volvo.

After Monica's departure, the position of Corporate Citizenship manager remained vacant for six months. The replacement for the job, Anna, had also been at Volvo for a long time. She had started out as communicator on environment at Volvo Cars, and then moved on to work for AB Volvo (the mother company that owns all the Volvo sub-businesses) in Brussels. In Belgium, she worked on developing sustainable mobility and public transport solutions in conjunction with various European Union agencies. For personal reasons – she wanted to spend time with her husband in Sweden, and did not particularly like her Brussels boss – she transferred back to Volvo Cars in Gothenburg. She then took a position in the marketing department, focusing on brand management, before she was recruited to the Public Affairs department (that Monica had just left). Having interviewed her, the new vice president of communications deemed Anna most suitable for the position as safety communicator. Anna held that position for a few months, but as the work progressed she felt that her role was superfluous – a similar work function had been established

at the Volvo Safety Centre (the innovation unit focusing on developing new safety features).

Eventually, in August 2001, Anna was transferred to the role as Corporate Citizenship manager, filling the vacancy that Monica's departure had opened up. In the new job, Anna started to (re-)pursue the agenda of sustainable mobility – an interest that she inherited from her previous positions as environment communicator and sustainable mobility specialist in Brussels. Thus, Corporate Citizenship at Volvo had by then diverged into two areas, driven by two distinct organisational agencies:

- Anna, based in Public Affairs, focusing her efforts on sustainable mobility from a relatively peripheral position within the firm;
- Monica, based in Human Resources, focusing solely on diversity on a strategic level, relatively close to top management.

So, to sum up this section, Volvo's work within corporate citizenship (i.e. how the corporation relates to societal and social issues) has thus gone through two phases. During the first phase, from the start-up of the firm until the 1980s, Volvo was primarily relating to worker issues, yielding innovations and concepts such as humanised production and industrial democracy. These were – as we shall see in the next section – highly entangled in the political economy of Sweden: the union collaboration, macroeconomic frameworks and social engineering of 'the Swedish model' were imperative for the development of such overflows. However, in the 1990s, a new reading of 'corporate citizenship' has emerged, bringing new societal stakeholders (such as NGOs) into the fold and involving new practices (such as

triple-bottom-line reporting), which are largely unrelated to the political economy of Sweden. The next section will explore this shift in greater detail.

4.5 Political economy and the framing of overflow inventions

This last section of the chapter will argue that the changing interpretation and implementation of 'corporate citizenship' signifies a larger shift in how overflows are invented around Volvo. The shifting logic of overflow inventions reflects the shifting political economy of Sweden: one particular mode of overflow invention emerged as a result of the welfarist political economy of the 'Fordist' era; another mode of overflow invention can be detected in the liberalised economy of today's Sweden. Today's Volvo operates in an economy modelled on the ideals of neoliberal economists, performed into being by auditors; yesterday's Volvo operated in an economy modelled on the ideals of Marxist/Keynesian economists, performed into being by 'rationalisation engineers'. Thus, the section argues, there is a structural component to how overflows are invented.

Overflow inventions during the period of the Swedish model

When reviewing the overflow inventions previously mentioned in this chapter – especially the ones related to safety and corporate citizenship – the narrative frequently ties into the Swedish political economy.

Thus, when the car safety discourse was developed within Volvo, a significant share of the investments that went into building reframing expertise came from state expenditure, and these investments were primarily related to worker protection. Early attempts to build knowledge on the issue came from publicly funded MDs like Dr

Lindgren. The key innovation, the seatbelt, was conceived by a group of engineers within a state utility (Vattenfall). Crucially, this organisation was sufficiently funded to launch an extensive R&D programme on protecting car-borne workers. The initiative was pursued by the new general director, who (as any general director of a public utility at the time) was expected to provide exemplary working conditions for labourers. The initiative was also supported heavily by unions (who at the time enjoyed both high membership rates and ample influence). The prime instigator was however the safety inspector: an influential engineer whose remit was to champion worker protection. The state utility (together with the State Authority for Vehicle Testing and the State Traffic Safety Council) also provided further development of measurement techniques related to safety (such as crash tests). Later in the process, the road authority became a valuable partner for Volvo in building knowledge on car safety.

With regard to corporate citizenship, the scientific discourse ('socio-tekniken') that supported the humanised production initiative was developed within Scandinavian academia, based on Marxist-inspired concepts of worker alienation. CEO Gyllenhammar assimilated the discourse, and found that new expertises were needed for understanding the reality of workers. Thus he brought in a young worker from the workshop floor to lead the plant design project. The new, more socially aware expertise also emanated in the "social calculation" that concluded that the 10% more expensive plant would be a profitable investment. However, the paramount factor that made the vision of humanised production become a reality was the fact that Volvo was allowed to use their investment fund to finance the plant. Gyllenhammar's successful bid to argue that building the plant was societally worthwhile gave the

firm a state-legitimised space for experimentation. The industrial democracy initiative was largely instigated by unions. At the time, in the wake of the late 1960s radicalisation of the political left, Gyllenhammar was one of the corporate leaders who remained accommodating to worker demands, often staying closer to the unions than to the board of directors. Again, the concept that led to the overflow invention was developed by state-sponsored researchers. Specifically, the Working Life Institute⁶⁶ was prolific in this area – they established the concept of industrial democracy as a scientific field, founding an academic journal on the topic in 1979.

These overflow inventions can thus be traced back to the political economy (the institutional set-up, as well as the economic theories) of Sweden. In many ways, the overflows invented emerged as a result of the so-called Swedish Model of capitalism, and its focus on mitigating the capital-labour tension.⁶⁷ This economic model rested on three pillars:

- First, it featured corporatist enrolment of unions in business practices. After a lengthy process of building fora for negotiations on worker issues, the Swedish economy was based upon a 'historical compromise' between capital and labour (sealed through the 1938 'Saltsjöbaden Accord'). Employers accepted the unions as legitimate partners, and agreed to let unions engage in regulation of health and safety.

⁶⁶ "Arbetslivsinstitutet" in Swedish.

⁶⁷ To some, the term "the Swedish model of capitalism" is a misnomer: During the period of the Swedish model, the political economy could best be described as a mixed economy with large parts of the economy owned and run by the state. Moreover, private enterprise was heavily regulated. Nevertheless, in terms of capital ownership, the Swedish Model was very much a capitalist system. As will be expanded upon later in this chapter, the model was founded upon the idea that private capital holdings were sacred – i.e. not to be socialised into public assets.

- Secondly, it involved a specific macroeconomic framework. Structural transformation of the economy was prompted through the establishment of uniform wage levels. This benefited large, profitable industries, while eliminating small, unprofitable ones. The resulting extraordinary profits of big business were capped, and placed in 'investment funds', so as not to fuel inflation. Investments were thus directed towards socially worthwhile causes – i.e. ones that mitigated the capital-labour tension.
- Thirdly, science was deployed to mitigate the capital-labour tension. In order to boost the economy, 'work rationalisation' served as common aim for capital, labour and the polity. However, 'misrationalisation' – exploitation of the workers – was to be prevented. Capital agreed to embrace initiatives to protect workers, as long as they were motivated by science. A certain kind of 'rationalisation engineers' thus emerged as mediators between capital and labour. Moreover, new job functions were created for 'work safety inspectors' (appointed in conjunction with unions), and new legislation on worker protection was introduced.

These institutions emerged from a consensus that "the worker issue"⁶⁸ was the key economic problem to be governed. During the first decade of the 20th century, the Swedish social democrat party (SAP) sought to do this through enrolling both the trade unions congress (LO) and the employers' association in the building of welfare institutions, thus laying the foundation for Swedish tri-partite corporatism. (Rothstein, 2003; Ryner, 2002) This was sealed by a particular brand of

⁶⁸ "Arbetsfrågan" in Swedish.

macroeconomics, developed by LO economists Gösta Rehn and Rudolf Meidner with the original intent to secure the legitimacy, the cohesion and the independence of the union movement. (Blyth, 2002; Erixon, 2003) Thus, the unions were extraordinarily influential in shaping the Swedish political economy.⁶⁹ As posited by Andrew Martin,

the dominating position LO occupies in Sweden's political economy would seem to rest in significant measure on the power of its economic ideas, which have been essential to the effective utilisation of the power it derives from its numbers and organisational structure. (Martin, 1984: 342)

The discourse of 'work rationalisation' emerged as an extension of the Taylorist scientific management, popularised in Sweden by industrialists such as Volvo's Gustaf Larson (mentioned above). Over time, the new stratum of 'rationalisation engineers' started to explore an extended role, which stretched beyond making industry more effective. The engineers thus formed an ambition to act as mediating group between representatives of labour and capital. (DeGeer, 1978: 22) In this endeavour, they got support from the government, and founded an 'engineering

⁶⁹ Erixon (2003: 31) writes that via the introduction of their economic model, the LO economists Rehn and Meidner had gone from playing a "narrow expert role", to serving as "ideologists" on a national (as well as international) level. However, on the contrary, it was their recognition as 'narrow experts' that made them such successful 'ideologists': Although the LO economic plan was explicitly devised to strengthen the union movement, its ideas soon became more than just an interjection from a party with vested interest. As the discourse of the LO economists was kept neatly inside the confines of the academic discipline of economic theory, their economic model was elevated from the domain of 'subjective' politics. Instead, over time, the programme was accepted as solid scientific fact, with the economists emerging as modest witnesses to the natural laws of the Swedish economy. In effect, this implied that unions distanced themselves from being seen as activist groups pushing subjective political agendas (in Latour's 'subject-society pole'). Instead, the union movement was recognised as a productive force on par with the corporations, with a clear and objective role to play in supposed natural laws of the economy (in the 'Nature pole').

sciences academy' that acted as a mediator between the two parties. Magnus Ryner writes:

The 'consensus' of the Swedish model can be seen as a product negotiated and agreed by [...] different social groups, and the discourse of rationalisation provided them with a common intersubjective framework through which they could define common norms, including norms of how to deal with differences and conflict. (Ryner, 2002: 73)

The role of engineers was crucial, as the employers' acceptance of any regulation rested on the belief that such measures were based on the 'scientific rationality' of psychology and medicine. The rationalisation experts' influence can thus be explained by their (supposed) 'modest witness' position: Drawing on their 'scientific objectivity', they were legitimate arbiters in the tug-of-war between labour and capital – not least because they provided technical and economic metrics around which to negotiate. For instance, the experts made it possible for the negotiating parties to offset wage level rises with improvements in worker conditions in a seemingly fair and objective manner. Thus, new health and safety norms, and new job functions with the remit to measure and prevent worker strain were made mandatory in Swedish firms.

In his essay on framing and overflowing, Callon is keen to "highlight the role of investment – in particular technological – in the emergence of economic agents" (1998a: 244). The framing/overflowing dialectic requires substantial investments to be made, and thus structural determinants of investment matter for the ontopolitics of markets. Interestingly, in terms of investment, the Swedish Model had one major implication – it made sure that extraordinary investments were funnelled into research on worker protection. Thus, the reframing activities around Volvo were

themselves framed within the overall political economy, based upon the notion of the capital-labour tension as paramount.

The three characteristics mentioned above – union enrolment, the macroeconomic framework and rationalisation engineering – all play an imperative role in the overflow inventions charted in the previous three sections. The institutionalised union representation reoccurs frequently when reviewing Volvo's previous overflow inventions. The initiative to conduct R&D on car safety within Vattenfall was a result of union pressure, and industrial democracy was the direct result of union pressure. In this way, Volvo's success with car safety is partly the outcome of the institutionalised worker protection of the Swedish model, as argued in Andréasson & Bäcklund (2000). Moreover, the notion of humanised production was elaborated upon in close collaboration with unions.

The macroeconomic framework (uniform wage levels and the investment fund policy) was crucial for enabling Volvo to experiment with humanised production in the Kalmar plant. The SAP/LO ambition to direct excess profits into socially worthwhile causes did indeed affect the investment decisions of top executives. For instance, Volvo CEO Engellau has conceded that Volvo's success owes a great deal to the investment fund policy, which has enabled the firm to make long-term investments that might otherwise not have been made. Thus, the political economy granted the firm high profit margins, enabling it to make large investments, as long as it could be proved that these investments were making life easier for workers.

Rationalisation engineers played a significant role within both safety and humanised production. In the case of safety, the specific worker protection job functions proved

influential in the investment in car safety R&D (not least within Vattenfall). The research was thus the outcome of union demands on tripartite regulation of health and safety standards at work, and employers' demands that this regulation had to be governed by rational science. In the further development of safety and crash testing, the rationalisation discourse and pursuit of measurement proved influential. Also, the SAP's science-based approach to governance, manifested in the instigation of expert-led public authorities on motoring, also influenced Volvo's overflow inventions. In the case of safety, several public agencies were drawn upon in order to retrieve and expand knowledge.

When taking a broader perspective on developments, it is noticeable how unions were consistently playing the role of representatives of 'the public'. Indeed, as mentioned above, that was the very intention of the SAP – and particularly LO – when founding the institutions of the Swedish model. Similarly, the tension between capital and labour was seen as the paramount social problem to be governed. These two components – unions representing the public, and the capital-labour nexus as key social friction – flowed directly from the understanding of society along the lines of half-Marxist, half-Keynesian political economy. Accordingly, Volvo's overflow inventions were either directly or indirectly related to the quest of exploring various forms of exploitation of 'The Worker'. Unions played a significant role in these overflow inventions.

In this way, the economic theories of the Swedish model were self-supporting. The political economy theories granted worker-related overflows a superior position to other overflows, causing great resources to be ploughed into worker-related overflows, thus legitimating the privileged position of the worker-related overflow.

However, as critics such as Yvonne Hirdman (1989) argue, the SAP and LO theorists failed to see other 'victims' in society. This yielded a societal model in which victims could only be victims through the identity of a male, white, LO-affiliated worker, while other forms of victimisation were scarcely recognised.

This logic of overflow invention is however not present in today's Volvo. Nowadays, 'corporate citizenship' practices are not forged in collaboration with unions, nor are they based on the worker as the prime victim. This is due to the fact that the institutions and systems of knowledge generation that spawned the worker-related overflow invention are simply not present anymore.

Another Sweden, another Volvo: neoliberalisation and americanisation

Theorists explain the demise of the Swedish model in different ways, but to cut a long story short, the 1970s and the 1980s saw a gradual dismantling of the Swedish model institutions.⁷⁰ In 1991, the social democrat government scrapped its hundred-year old pledge to focus on full employment, stating that the fight against inflation was its paramount objective. Economic globalisation played a significant role in this shift of focus. During the first years of the 1990s, the poor state of the public finances caused Sweden to be subjected to 'runs' on its currency. The objective of the SAP during the first half of the 1990s was thus to "sanitise" public finances from debt, resulting in substantial cuts in the public sector. These cuts manifested the view

⁷⁰ Blyth (2002) speaks about a 'second great transformation', in which the Swedish economy was re-disembedded. Ryner (2002) speaks about an "organic crisis" of the Swedish model, causing the social democrats to yield to 'third way' ideology, effectively leading to a neo-liberalisation of the economy. Other scholars point to structural changes in the world economy – notably economic globalisation – that simply made Sweden's particular institutional set-up unsustainable. (Sverenius, 1999: 120-122)

that the Swedish model was obsolete – a view not least held by foreign economic and financial experts.

In 1995, as the country was re-borrowing money on the international money markets, Prime Minister Göran Persson was prompted by Wall Street analysts to take firm action on public debt. (Persson, 1997: 98-106) As later explained by the then head of LO, the Wall Street analysts had made demands on the prime minister about the future direction of the Swedish political economy: The experts refused to grant credit to a societal model that they deemed obsolete. Acquiescing to the financial analysts, Persson made large numbers of public sector workers redundant, even though he knew that this would have no impact on state finances. (Instead of wages, the newly unemployed received welfare benefits from the state.) This, Persson explained to the union chief, was a necessary measure to appease the "smirking" financial analysts, with their antipathy for the large public sector in Sweden. (Sverenius, 1999: 167-168)

However, even Rudolf Meidner agrees that the political economy of the Swedish model (or at least the Rehn-Meidner model) is obsolete in today's globalised economy. "Everything is a product of its time", he writes. "Our programme is not valid anymore. If Sweden [through deliberate public policy] maintains lower profit levels than elsewhere, we run the risk of seeing our corporations moving abroad." (Meidner, 2003: 219) The issue of corporations potentially leaving the country due to the tax burden thus became the prime issue of disagreement between capital and

labour in Sweden during the late 1990s.⁷¹ In this way, some may argue, Sweden (or at least the Swedish model) has fallen victim to the disruptive forces caused by the international interconnectedness of finance and commerce – a theme frequently explored in literature on globalisation.⁷²

In many ways, the development of Volvo Car Corporation encapsulates the fate of the Swedish model. In 1999, the arch-typical Swedish carmaker was acquired by Ford Motor Company, and thus became an American-dominated entity, governed via neoliberal (or at least neoclassical) financial economics, with the opportunity of shifting its manufacturing jobs and tax payments to wherever it suits the firm.

With regard to tax payments, Volvo Car Company (being a Sweden-based subsidiary of Ford) is formally supposed to pay its corporate tax in Sweden. However, due to the technique of 'transfer pricing'⁷³, Ford can steer corporate profits to the US mother company, and thus pay no taxes in Sweden.⁷⁴ Nevertheless, this is less of a worry for the SAP leadership, who deem it most important that Volvo Car Company's long-term survival and growth is guaranteed (so that local jobs and income tax can be secured). Similarly, Leif Johansson, the then-CEO who decided to sell Volvo Cars to Ford, stands by his decision. In an interview, he states:

⁷¹ For instance, in 1997, 100 corporate executives co-signed an op-ed piece in the broadsheet *Dagens Nyheter*, covertly threatening to move abroad unless conditions for Swedish business were improved.

⁷² For an example of text on this phenomenon, see for instance Martin & Schumann (1997).

⁷³ In practice, this is achieved through overcharging Volvo when it purchases goods and services from the rest of the Ford family of companies. For instance, Volvo has had to pay royalties to Ford for having utilised technologies that were in fact developed by Volvo prior to the acquisition.

⁷⁴ A survey conducted by the Swedish public service television showed that this is commonplace in Sweden: The top multinational corporations operating in Sweden have an average global profit margin of 6%, while in Sweden the profit margin is 1.5%. In other words, multinationals routinely register less profit in Sweden than elsewhere. (The 'profit margin' metric depicts profit in relation to turnover.) See 'Jakten på den försvunna skatten', *SVT*, 10 April 2003.

The company was too small to bear the high R&D costs on its own. [...] Besides, production remained in Sweden. The alternative may well have been shutting production down, or a buyer who gradually moved the manufacturing elsewhere.⁷⁵

Ownership structures aside, the main implications of the Ford acquisition are, however, found in shifts regarding what expertises are legitimated. As a result of the deregulation of the Swedish industry, the agenda-setting of unions (for instance regarding what cars to build, and how to build them) is less significant in contemporary operations. Union officials are thus no longer functioning as the sole representatives of 'the public'. Nor is worker protection expertise the prime body of knowledge that 'rationalises' the firm's operations. Previously, cadres of engineers – mediating or representing the interests of the unions – constituted the prime expertise that shaped operations. Today, union-related engineers are few; instead, a new cadre has risen in influence. Experts in financial management have become increasingly dominant in steering the actions of the firm. After the acquisition, the top management team remained Volvo-led; all management positions were assumed by Volvo employees, not Ford executives. There was one exception – the position of Chief Financial Officer, which was filled by a Ford executive and given increased power.⁷⁶ Moreover, more stringent financial management and more thorough audits were introduced in the firm. Volvo is by no means an anomaly in this sense: As Neil Fligstein has shown, during the past couple of decades, financial economics has taken over as the dominant expertise within contemporary corporations. (Fligstein, 1990) At Volvo, yearly audits of operations are performed by Ford financial experts.

⁷⁵ Quote taken from interview in business daily *Dagens Industri*. See Bell Dahlberg (2003).

⁷⁶ This is, incidentally, a common approach when American corporations acquire foreign firms.

These two-week exercises yield a rating (comparing a certain department to all other departments within Ford), and a list of instructions of what to improve before the next rating.

One point of conflict between the Ford auditors and the Volvo professionals concerns the firm's external procurement. Volvo, the auditors argue, are not active enough in switching suppliers, and tend to hang on to established relationships with local suppliers. In the minds of these auditors, Volvo's supplier relations are simply too dependent on trust, long-term engagement and local connection. In short, the auditors want to dismantle the 'Volvo way of building cars' (as pioneered during the founding of the firm, explained earlier in this chapter). Instead, Volvo must become more market-like in their procurement; they should shop around more among the suppliers tied to Ford Motor Company, and try to co-procure with other Ford-owned car manufacturers. Thus, the auditors want a 'cleaner', more flexible neoclassical market model to be put in place.

The Swedes are not impressed by this idea. First, the trust-based relationship with local suppliers is what makes the firm innovative. Secondly, the times when Volvo has tried to co-procure with other Ford firms, the partnering car manufacturer has pulled out, and Volvo is left with a bad deal. Thirdly, severing the ties to the local suppliers will undermine the efforts to remain a Swedish brand. Fourthly, the auditors are devising a policy that is not only bad for the firm, but also for the surrounding Swedish society – the supplier industries are providing employment for tens of thousands of Swedish citizens. In this way, the auditors serve as the intra-company equivalents to the "smirking" Wall Street analysts who told the Swedish prime minister to cut public sector jobs.

The schism between Volvo professionals and Ford auditors is however a well-publicised issue. In an *Automotive Week* article that caused intense discussion within the automotive industry, the hostility towards Ford was rolled out in public view. With regard to Ford's rigid auditing, the article explains that

the demands of the Ford bureaucracy in Dearborn for information are straining Volvo's much smaller organization.

"We just don't have enough people to feed them [the Ford auditors]," said one frustrated Volvo official. "They may know how to run a Ford company, but they don't know how to run a Volvo company." (Wernle, 2003)

In the same article, an anonymous Ford official states that Volvo is "unbelievably overstaffed compared with Ford", and that the Swedish firm is "making money, but it's not a very good return on investment". In other words, based on the Ford official's neoliberal model of a firm, Volvo is likely to be more productive if it downsizes its staff. The cause of the rift between Ford and Volvo is the fact that Volvo executives have a different understanding of what makes a firm operate well. This difference in opinion is more than anything else culturally contingent. The *Automotive Week* article continues:

Volvo's Swedish culture is [...] very different from Ford's. After World War II, Ford's Whiz Kids executive team built a hierarchical culture based on the ideals of the American military, where many of them had served. Reporting relationships are clearly defined all the way up to the top. Little has changed.

"We have a different business climate in Sweden," said a former Volvo official. "It's not so hierarchic. People are more open to debate and

question things a lot further down the line and deeper into the organization.

"There's a very strong empowerment of the way people act, take decisions and implement decisions," the ex-Volvo executive added. "They [employees] actually safeguard a company against bad decisions from owners or from managers. There is an individual commitment to the product and the way things are carried out. That means you may get things done faster in some American companies because they just obey orders. In Swedish companies there has to be a process. You have to have a buy-in [from employees]."

The "business climate" referred to in the article – the lack of hierarchy, the focus on individual empowerment, the need for buy-in from employees – can to a large extent be explained by the heritage of the previous focus on worker protection and strong union involvement. Interestingly, it is not primarily workers who want to preserve this way of managing the firm – instead, it is the top management officials who believe in flat organisations and empowerment. The Swedish model political economy has thus been institutionalised in management thinking. Neoliberal economic theory has spawned one management style; wage relation-based economics has spawned another.

It seems that the neoliberal management discourse is the stronger one in this case – partly because the new owner of Volvo Car Company espouses this view. More importantly, the same discourse is (probably not by coincidence) promoted by influential expertise: In the *Automotive Week* article, John Casesa, who is automotive industry analyst for the New York City-based investment bank Merrill Lynch, says that "to create value, the cost structure of these brands has to come down, they all need more product [sic]". In order for Ford shares to perform well on the stock

market, Ford executives must ensure that cuts are actually made at Volvo. Again, there is some similarity between the Wall Street expertise's pressure on Volvo executives to cut staff, and the pressure on the prime minister of Sweden to cut the public sector.

The Ford/Volvo friction cannot only be explained through differences in how firms ought to be run. The friction also arises from the fact that Volvo wants to retain this uniqueness. The Ford official in the *Automotive Week* article explains that Ford is "starting to lean on Volvo to be more integrated into Ford and they [Volvo] don't like it. They don't want to be more integrated." The reader may recall how the Volvo CEO, when speaking to the Public Affairs professionals, stated that all that Volvo can do is to rely on its brand – its uniqueness. (See chapter five.) The executive's prompting the employees to "think Volvo and think Swedish" in everything that they do, becomes more significant when it is related to the Volvo resistance towards the conforming discipline of Ford. From Volvo's point of view, they produce premium cars, and cannot extract that premium from customers unless they differ from the mainstream of car models, Ford included.

This highlights the paradox of the consolidating car industry. Costs must come down, and this is to be achieved through sharing parts and platforms with other manufacturers. But, as Wall Street analyst Casesa says, brands "must remain distinctive enough to earn high revenue per unit". In other words, cars must become more alike, and at the same time seem more different. In the context of Volvo, this means seeming more Swedish than ever, while in effect being increasingly internationally standardised. Thus, one could argue that Volvo is one of the "brand bullies" that Naomi Klein is critiquing: The Volvo company is supposed to be

unique, but is actually a branch of a multinational, oligopolic empire; the Volvo product is supposed to be distinct, but is actually a standardised commodity, largely indistinguishable from other cars; the Volvo brand signifies values and virtues, while it capitalises upon the opportunities for irresponsible behaviour granted to corporations by deregulation and economic globalisation. (Klein, 2000)

New politics emerging

The representation of today's Volvo Car Corporation as a neoliberalised and americanised firm, largely devoid of the progress-oriented and worker-friendly ideals of the past, is undoubtedly a gloomy one. However, this historical chapter argues in conclusion that new forms of politics are emerging in the wake of the decline of the Swedish Model. Not only are Volvo practices (and the Swedish economy in general) now subjected to critiques from several kinds of victims; the modes of 'being political' in relation to Volvo's practices have also changed.

In an effort to explain why the ruling social democrats in Sweden have succumbed to a "neoliberal" agenda, Magnus Ryner writes that in the 1980s the SAP failed to mobilise voters around a pro-worker agenda. Given the demise of a proletariat proper, the social democrats tried to modify the meaning of the word "worker". Instead of being associated with the proletariat, the notion of 'The Worker' was to be extended 'upwards' to include all wage-takers. This strategy failed; the Swedes did not mobilise around this agenda. (Ryner, 2002: 22) Nevertheless, other types of 'victims' emerged. As mentioned above, the 1980s saw the green movement placing the environment on the public agenda. Starting from the 1980s, Sweden introduced strict policies on environmental care – policies that forced Volvo to tighten up their act regarding pollution from manufacturing plants. As also mentioned above, one

part of the legislation, 'Miljöbalken', led to substantial improvements in the working environment, both in plants and offices. It was in response to this legislation that Volvo started accruing knowledge on materials and chemicals, paving the way for subsequent initiatives.⁷⁷

The main outcome of this 'pluralisation' of legitimate victims that ensued after the demise of the Swedish model has been the increased institutional focus on gender equality. (As shall be shown in the next chapter, the institutional focus on gender equality is strong inside today's Volvo Car Corporation.) Feminist issues have been frequently discussed in Swedish public debate since the 1970s, but debates intensified after the 1991 elections. A feminist network of intellectuals – "Stödstrumporna" – threatened to form a feminist party, and became public proponents of a harder line on gender inequalities. Over time, the network abandoned its independence from political parties, and started to collaborate with the social democrat government. One served as an expert for the cabinet, another advised the minister of culture, and several of them worked in a newly established commission on gender equality. Susanna Popova claims that, in this way, the feminist discourse had penetrated the higher echelons of Swedish power:

The outcome of the efforts of "Stödstrumporna" was that women within academia, often members themselves, got more resources and more positions within government and public service. Based upon this development, a publicly financed state feminism has evolved, within which politicians have allied themselves with media feminists. (Popova, 2004: 110)

⁷⁷ Notes from meeting with Ulf Liljenroth, former Volvo employee, Gothenburg, 19 May 2003.

The "publicly financed state feminism" that Popova refers to is manifested in investments in gender theory research. First, a state-sponsored national secretariat for gender studies has been established in Gothenburg. Moreover, as the state has demanded that Swedish research must become gender-aware, the "gender aspect" has become a near-obligatory component of academic initiatives in Sweden. The research funding process thus encourages researchers to follow a gender theory-informed approach to its problem; indeed, funding is sometimes earmarked for such approaches. Some commentators argue that gender theory has thus become hegemonic in Swedish academic life, in the sense that it is a body of theory that each researcher must to relate to in some way.⁷⁸ Secondly, on a more specific level, the social democratic government has instigated and funded a series of commissions on gender issues, especially within private enterprise, with the intention of finding ways to 'smash the glass ceiling'.⁷⁹ Following this research – which states that changes in gender balance are progressing too slowly – the minister of gender equality started talking in terms of positive discrimination laws. In 1999, she warned that unless at least every fourth board member is female by 2004, mandatory female representation would be introduced. This caused frenzy among business leaders, scrambling to develop policies that will enable them to meet the 25% female representation target before the minister's deadline.

The Volvo CEO is arguably the Swedish business leader who been the most ambitious in meeting the goals set by the minister of gender equality. For instance, Volvo has set up a target stating that by 2005, every fifth manager (on all

⁷⁸ From 'Godmorgon, Världen!', Swedish radio *PI*, 23 May 2004.

⁷⁹ See for instance Wahl (2003) and Wetterberg (2002).

management levels) must be female. The CEO has also spoken candidly in public about what he sees as structural discrimination within the firm, causing certain individuals to move up the ranks more slowly.⁸⁰ However, he is against positive discrimination in the boardrooms, and has thus sought to prove that other routes towards gender equality are equally effective. As we shall see in the next chapter, this has cleared the path for gender politics within today's Volvo Car Corporation.

During the Swedish Model, the practices of the firm could be contested via union mobilisation or state regulation. In other words, dissent and civic co-determination was primarily mediated through tri-partite corporatism and representative democracy. In order to 'be political' regarding the business practices of Volvo – that is, to act in a way that "opens up the possibility for disagreement" (Barry, 2002) around business practices – individuals would vote SAP or join LO. However, after the dismantling of the Swedish model (sketched in the previous subsection), these spaces for unionised or social-democratic political action have diminished. The next chapter will explore how the spaces for contesting what kind of cars that Volvo should make (and around how these cars are made) are now opening up in other sites around the firm. Rather than denouncing the practices of professionals working with CSR – or, as it is called at Volvo, "Corporate Citizenship" – as empty spin-doctoring, the text will point to how these new work practices grant individuals new ways of being political.

⁸⁰ In an interview for a book on ethnic diversity in Swedish business, the CEO stated that prejudice (be it conscious or unconscious) among managers is what prevents Volvo from becoming a more ethnically diverse. The Swedish confederation of business, which was supposed to publish the book, censored the interview, arguing that the quotes from the CEO were untrue. This, in turn, caused a debate in the media, in which the CEO maintained that he stood by every word in the interview. See Can, 2002a; 2002b; 2002c.

4.6 Conclusion: a history of entanglements

Summing up this chapter, there are three points that need to be reiterated. First, when studying the emergence of areas of contestation of Volvo's practices, it is apparent that Volvo participated in the invention of overflows. Callon's rendering of the framing-overflowing dialectic focuses on how actors outside of the market frame – hurt groups and orphan groups – make efforts to reframe the market. The history of Volvo, as presented in this chapter, suggests that firms themselves can actively participate in attaching new realities to its business practices. Though this phenomenon primarily emerges as a matter of contingency, actors within firms may rationalise reframing activities as brand strategy or as a means to position the firm in the face of a seemingly inevitable reframing of the industry.

Secondly, overflow inventions are highly entangled processes, in which the firm engages in the mobilisation of actors from 'subjective' society, as well as actors from within the naturalised world of technoscience and business. There are a number of examples where actors and processes in Latour's subject/society pole are entangled in the invention of overflows. In the case of car safety, early overflow inventions were instigated by concerned civil society members. This activism was transformed into a rational business plan as they passed via the private kinship ties of the Volvo CEO. Other Volvo-adopted innovations, notably the seatbelt, were conceived as publicly financed worker protection initiatives within a state utility. The original inventors were not Volvo engineers, but a collective of union representatives and safety inspectors – actors who largely were politically appointed. Moreover, the international spread of the safety innovation was heavily contingent on the support of the burgeoning US consumer rights movement.

In the case of humanised production, the Volvo CEO weaved together social democrat ministers, worker alienation ideology and the radicalised left in the development of novel production approaches. Those same actors, along with the local unions, were also crucial for developing industrial democracy. Moving on to the Lambda rod project, innovation was prompted by the decisions of the US polity. In both cases related to environmental care, overflow co-invention with NGOs and public authorities were key – the California Air Resources Board (Lambda rod), and the Gothenburg municipalities and the World Wildlife Foundation (Bi-Fuel). The Bi-Fuel innovation was moreover bound up with the political and cultural specifics of Volvo – the 80-year feud between Gothenburg industrialists and the Stockholm establishment, as well as the strong 'underground' culture that is the signature of Volvo R&D.

However, though subject/society elements feature prominently in the stories of overflow inventions, objects in Latour's Nature pole cannot be left out of these stories. In the case of safety, the legacy systems of clunky car production played a critical role: Invoking the safety discourse was a means to find a new 'unique sales proposition' for the Volvo sturdiness. (Note especially how in 1953 the firm started dubbing all its previous 'quality features' as 'safety features'.) Legacy technological systems had a lasting influence on the subsequent development of car safety; for instance, many solutions were translated from previous work conducted in the context of aeroplanes etc. Nature elements were also enrolled as the experts set out to show how what harm a car crash can do to the human body – through medical professionals' accounts of traffic victims, through accident statistics and through simulated crashes with crash test dummies.

Similarly, Nature elements featured in the humanised production project: The endeavour was entangled in the existing repertoire of tools for car production, and the possibilities for reinventing these technologies. Again, studies of the naturalised human body (this time in relation to factory labour) were crucial for keeping the project sustainable. In the case of industrial democracy, the existing corporate structures (featuring a team of top executives and a board of directors) framed the modes of discussion with the unions. Thus, the new methods for worker co-determination mirrored the established corporate structure of one executive assembly and one board-level assembly. The Lambda rod project was moreover shaped by the fact that Volvo was the only car manufacturer that had switched to fuel injection, forcing the engineers down a more radical route which would subsequently lead to the Clean Air Act. In the Bi-Fuel case, the impetus to start the project, and the politically contentious choice of natural gas as alternative fuel was heavily dependent on technological contingencies: First, the engineers were free to explore new possibilities as a new standard engine was under development; secondly, natural gas seemed like a good option as a small, external firm had already converted a Volvo engine to natural gas.

Thus, the history writing of this chapter follows Latour's plea for writing stories that merge both 'internalist' and 'externalist' explanations. (Latour, 1999: 85) In other words: the story of the seatbelt featured new scientific findings regarding traffic accidents and human bodies, as well as American consumer rights activists; the story of humanised production featured electronically guided carriers, as well as the Swedish worker-centric ideology. From this perspective, Volvo emerges as a locus of the 'links and knots' that tie these heterogeneous networks together. These elaborate

practices of entanglement imply that the notion of a discrete 'boundary' of the firm is problematic – arguably, Volvo stretches way beyond the walls of the office building and the manufacturing plant.

Thirdly, as mentioned in the previous section, the historic review of Volvo suggests that the Callonian approach to studying the framing and overflowing dialectic needs to be related to issues of political economy. In Callon's 'new' political economy, which brings out the ontopolitics of markets, 'old' political economy needs to be brought into consideration as a structural determinant of what kinds of overflows are invented.

5 Risk managers and change agents

- the hybridity of the activist professionals

This chapter presents the ethnographic findings of a one-year study of public affairs professionals at Volvo Car Corporation. The text will first provide an introduction of the organisational characteristics of the site studied (5.1). The chapter will then provide a depiction of the everyday work of the individual professionals working in the Brand Value Communication unit (5.2). It will also review the network of actors that these professionals draw upon (5.3). The final section of the text will explore the dynamics set in motion as an external researcher enters the site to support the professionals (5.4).

The text will argue that the professionals studied systematically engage in unofficial hybrid activities. They officially construe their job activities focusing on 'protecting the firm from external risks' by 'objectively scanning' for actors 'out there' (notably NGOs) who contest the business practices of the firm. However, unofficially, they support and further the causes of these external actors by spreading their ideas and knowledges inside the firm. In this process, the professionals draw upon a number of hybrid actors, such as consultancies and NGO officials, which straddle the business and activist worlds. The professionals also collaborate with researchers in order to develop tools for measuring and managing the risks 'out there' – again, with the unofficial function of turning activist claims into management fact.

Prologue: "We build cars"

It is my first day at the office, and Anna shows me around at the Public Affairs department. We sit down in a conference room, and she starts to go through some basic facts about the company: Volvo employs 27,000 people; the US constitutes the largest market; car assembly takes place in Sweden, Belgium and the Netherlands. Anna then tells me that there is one crucial fact that I need to bear in mind. Most people within Volvo have a very narrow view of what the firm does.

As far as they are concerned, "we build cars".

Anna argues that "they" tend to see the car as a stable product with a distinct, well-defined, and uncontested role in society. Moreover, as Volvo simply 'builds cars', "they" think that the corporation has a distinct, well-defined and uncontested role in society. For "them", there is no need for professionals to worry about wider societal processes, as the car and the business as a whole does not have anything to do with these processes. From the tone of her voice and the expression on her face, I get the feeling that she disagrees.

During my first meeting with Monica, a few months later, she too complains about how "they" care too little about societal and political processes. The result, she feels, is an organisation that is too inert, too conservative for her liking. Paraphrasing a recent branding slogan, she ironises:

"ReVolution"? I don't think so!

These early encounters gave rise to a number of questions: Who are "they"? What is the foundation of the organisation's "inertia"? Why do Anna and Monica want to bring politics into the corporate sphere? Are they allowed to do so? Are they already

doing just that? Where does that leave me, as a researcher? As it happened, these queries remained fundamental to the subsequent work inside the firm.

5.1 The present organisation of the contested areas of the business

This study focuses on the part of the Volvo Car Corporation that recognises the contesting of the existing business, and spreads this recognition across the firm. As we shall see, the group of professionals working with strategic communications (mentioned at the end of the previous chapter) has come to assume this role within the organisation.

The Brand Value Communication team

In March 2002, Elisabet joined the Public Affairs team of 'strategic communicators', assuming the role of safety communicator. (This position had remained vacant since August 2001, when Anna transferred to the role of Corporate Citizenship manager.) Elisabet had worked in the Public Affairs department even before the job as safety communicator, editing the internal magazine *Agenda*. Since 2001, the team had also included Lars, in charge of environmental communication. Prior to joining the Public Affairs department, Lars had worked with environmental issues elsewhere in the firm. Together, Lars, Anna and Elisabet formed what was now a fairly stable organisational entity, all working under the supervision of the director of strategic communication. It was however not until the end of 2002, when this director left Volvo for another job, that it was fully established and dubbed 'the Brand Value Communication team'. The supervision of the team is passed onto Lars (titled Director of Brand Value Communication), leaving the position as environment

communicator open to be filled by another professional. It is this structure of the team (see figure 5.1 below) that the ethnography will study.

The remit of these four professionals is two-fold:

- To inform the external world about Volvo's practices that relate to any of the three areas of contestation. This involves representing the firm at public events, producing information materials and reports, maintaining web pages etc.
- To scan and listen to the external world for views on and reactions to Volvo's practices that relate to any of the three areas of contestation. This is done via attendance at public events, replying to letters and e-mails sent to the firm, participating in staged dialogues with stakeholders etc.

As such, the BVC team have unique access to external actors, be they other firms, media representatives, state or municipal authorities, civil society groups, academics, students, or lay people. It is this exceptional position – in the interface between the firm and societal stakeholders – that enables the Brand Value Communication professionals to assume roles in which they recognise the contesting of Volvo's business, and manage to spread this knowledge within the firm. As such, they are managing the boundary of Volvo's business.

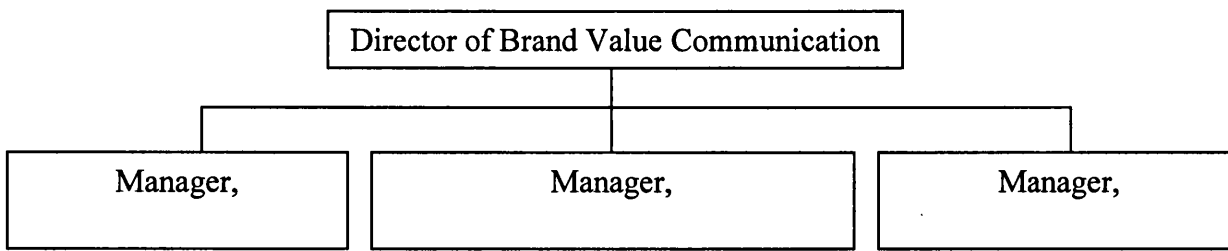


Figure 5.1: The organisation of the Brand Value Communication team.

Apart from the mere execution of communication – the talking and listening – the team also devises strategies for communication. This implies making judgements on how to communicate and how to position the firm within a certain sensitive area – for instance, whether or not to supply a certain environmental feature. However, such strategic decisions must (according to the official remit) be made from a communication and brand perspective, not from an overall strategy perspective. The BVC team's recommendations do, therefore, carry limited weight within the organisation – the fact that supplying a new environmental feature makes good communication and brand sense, does not necessarily mean that it increases profitability. This opens up space for organisational politics, as the link between sound communication with the public and a strong brand on the one hand, and profitability on the other, is a highly contested matter. Another area of internal contestation is the extent to which environmental care is good for the Volvo brand. Unfortunately for the BVC professionals, they are at a disadvantage when engaging in such internal politics. The prime reason for this is that the team is based in the Public Affairs department, whose organisational legitimacy when it comes to strategic issues is fairly low.

For understanding this lack of organisational legitimacy, one must study Public Affairs as a whole. The department employs roughly twenty professionals, divided into four specialised teams. Apart from the BVC team, the other three units are:

- Internal communication, which publishes the internal magazine *Agenda*, and maintains the intranet site;
- Press relations, which answers press requests; and
- Events management, which schedules product launches and motor show attendance etc.

The activities of the department are thus communication-based. Although other departments may be communication-heavy in other respects, the public affairs professionals are all formally remitted with communicating (as opposed to constructing, selling or building). The department is therefore predominantly populated by journalism-trained employees, and the engineer count is zero. Both of these properties set the unit apart from the rest of the firm. Another rare characteristic is the predominance of women employees – in all other Volvo departments (Human Resources being the exception) men are in the majority. This gender pattern is consistent on all levels of the organisation: In Public Affairs and Human Resources, 55% of the managers are female, whereas in the rest of the firm this number is 17%.⁸¹ These two off-the-norm characteristics – the arts-based (rather than science-based) skill set, and the female predominance – have arguably shaped the intra-firm image of Public Affairs. The department is generally regarded to be, as one PA

⁸¹ The figures were presented in the internal magazine *Agenda* in March 2002.

professional phrases it, "a kindergarten".⁸² The work conducted there is, according to the bulk of the engineers and economists in the firm, non-productive and insignificant to the overall mission of the firm (i.e. designing, building, and selling cars). At best, the Public Affairs professionals are seen as good for short-term fire fighting when the media is having a go at the firm. Consequently, such professionals supposedly lack the skills and understanding to bring anything to the future direction of the company. Herein lies the BVC professionals' dilemma when relating to employees from elsewhere in the firm.

The department's marginalized position in the organisation is exacerbated by the physical location of its offices. The Volvo Car Company buildings are scattered across a large area in Torslanda (a part of northern Gothenburg virtually occupied by Volvo). Public Affairs is located in the PVH building, a two-storey modernist creation whose concrete grey exterior blends nicely with the sloping hill that it is built into. PVH is one of the more stylishly constructed Volvo buildings, and even though it does not host the top management offices, its airy vestibule gives it the feeling of being the building where Volvo is to represent itself to the external world. Thus, it hosts the two departments most concerned with the representation of Volvo – Marketing and Branding on the second floor, and Public Affairs on the first. However, the hard engineering core of the firm is located in close proximity to the 'representationists'. Through a back door, the PVH building attaches to a larger complex of never-ending corridors and vast office landscapes, in which the cadres of engineers are constructing away on the next hatchback model. The separate worlds of

⁸² Telephone interview, October 2003, Gothenburg.

the engineers and the communicators are thus connected via this back door, enabling the two tribes' paths to cross once per day, during lunch. In a time window between 11.45 and 12.33 – during the designated 48-minute break – all employees coalesce in the canteen, on the second floor of the PVH building. The back door is however not capable of achieving miracles: During the meal, the cliques remain separated from each other. The tribes see, but never speak to each other.

Formal and informal organisational structures

The main cause of the division between the engineers and the communicators is the fact that, figuratively speaking, the PVH building's 'back door' is rarely used while employees are on duty. When representing the firm through an organisational chart, the separation is plain to see. A simplified sketch of the firm looks as follows:

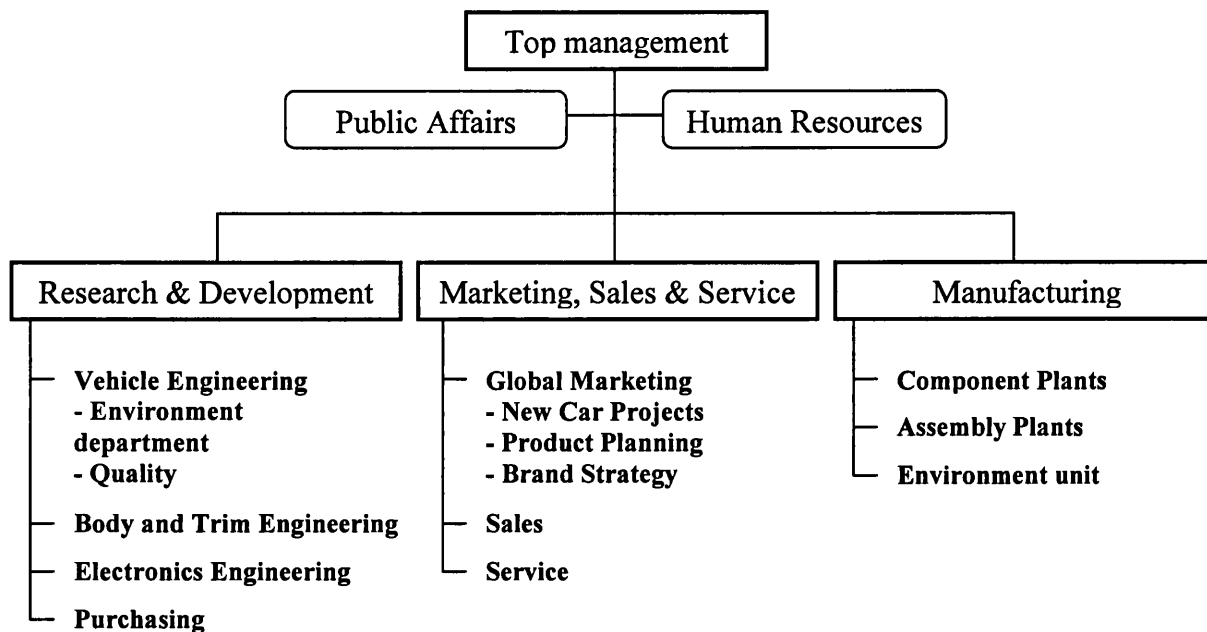


Figure 5.2: The Volvo Car Company organisational chart. (Note: The chart does not include all subunits.)

Figure 5.2 shows how both Public Affairs and Human Resources are 'staff functions' meant to administer to and support the management. This means that they are dissociated from the three heavyweight departments (R&D, Manufacturing, and Marketing/Sales/Service) that conduct the daily operations of a automobile firm – constructing, building, and selling cars. These departments are also significantly larger than Public Affairs, each employing roughly a hundred times as many staff (2000, rather than twenty).

The organisation chart also shows where Volvo's previous efforts within the contested areas of the business have made their imprint. The developments within safety have led to the forming of the Volvo Safety Centre (introduced in the Safety section above), which is situated under Vehicle Engineering within Research & Development department. The VSC employs roughly 400 engineers, and acts as an

innovation unit that continuously qualifies the notion of safety and proposes new ways of distinguishing Volvos from other cars.

Similarly, the developments within environmental care have spawned a specific department under Vehicle Engineering. The Environment department acts as an instance of awareness-raising within the entire R&D department. For example, when any of the engineers in the large R&D department logs onto the intranet, s/he is met by a prompt to learn the environmental policy of the firm. Thus, as mentioned in the section about the Lambda Rod, the environmental care ethos (that initially guided the team remitted with coming up with a Clean Air Act compliant motor) has over time spread across the engineering organisation. Environmental care has also left an imprint on the Manufacturing department, which features a five-person Environment Unit that oversees the environmental impact of Volvo's manufacturing plants. This is, of course, the result of the disputes (also mentioned above) on industrial pollution that Volvo was subjected to in the early 1980s.

Both areas – safety and environment – are on the radar screens of the departments that oversee the strategic decisions of the firm. Such strategic departments include New Car Projects, Product Planning and Brand Strategy, all located under Global Marketing. Of these three, New Car Projects is a particularly influential organisational body: It is a council consisting of high executives from across the firm, remitted with giving the go-ahead for the building of new car models. While the third area of contestation, Corporate Citizenship, has started to appear on the radar screens of the branding department, it is telling that the R&D and Manufacturing departments lack formal structures related to this issue. As yet,

corporate citizenship issues are only dealt with by the relatively peripheral Public Affairs and Human Resources (in charge of the diversity issue) departments.

However, as staff functions, they are organisationally close to the top management, i.e. the Volvo Cars Management Team ("VCMT"), which consists of the CEO/President, the deputy CEO, and heads of each department. For instance, the head of Public Affairs is a part of the VCMT, and his title is thus 'Senior Vice President of Communications'. This grants the BVC team relatively good access to top management; the Director of Brand Value Communications answers directly to the head of Public Affairs (the Senior Vice President of Communications) and is thus only two levels down from the CEO. As we shall see in the next chapter, Lars and the others can therefore use alternative routes to influence the operations of the firm. The departments that the BVC team is separated from – both in terms of physical arrangements and of organisational chart location – can be reached through using top management as allies, thus compensating for the Public Affairs professionals' relative lack of organisational legitimacy.

Volvo is known for being a firm run through unofficial networks, not the official decision lines. (Hökerberg, 2000: 108) This thesis is very apt in relation to the BVC team. The fact that the professionals have learned to leverage their good access to top management makes the reality somewhat more complicated than the organisational chart would suggest. This – along with the fact that special forms of institutionalised collaboration between the BVC and other departments – moulds an informal structure of the organisation that is quite different from the formal one. A sketch of the informal organisation (with respect to the BVC team) looks as follows:

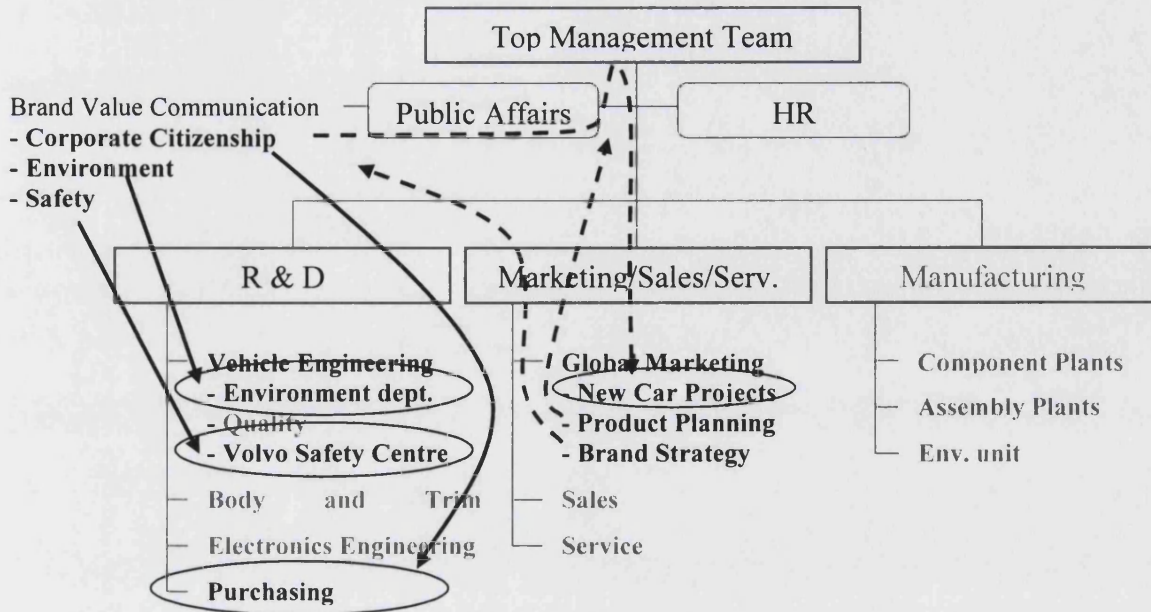


Figure 5.3: The Brand Value Communication team's networks of collaboration and influence, superimposed over the formal Volvo Car Company organisational chart.

The lined arrows in figure 5.3 show the institutionalised modes of collaboration that the BVC team is enmeshed in. The corporate citizenship manager is for instance collaborating with Purchasing in R&D, trying to enrol the department in initiatives to further fair work practices among the suppliers in the third world. This collaboration is institutionalised in the form of the 'Corporate Citizenship Council', where the Purchasing department is represented. The environment manager is similarly working with the R&D Environment department. However, the environment communicator is not only (like the corporate citizenship counterpart) informing the environment engineers on what the external world expects from Volvo; s/he also learns what to communicate to the external world. The interaction is thus less one-sided than that of the corporate citizenship manager and the purchasing department. Lastly, the safety manager collaborates with the Volvo Safety Centre in the R&D department. Here, the interaction is again becoming more one-sided, but in the opposite direction: the safety communicator is less occupied with 'teaching' her

engineer counterparts about the external world, but focuses on communicating the new safety features to the external world.

The dotted arrows highlight the flows of influence that are being exerted through the firm. As mentioned above, the BVC professionals ally themselves with the top management in order to influence the core operational departments of the firm. Through this network, the BVC team can for instance lobby the New Car Projects unit on the features of the future Volvo products. Conversely, other sub-departments within Global Marketing exert great influence on the BVC team. For instance, the Product Planning department is generally recognised as the one guiding the top management on the strategic direction of the firm, implying that the BVC team always has to work within the constraints stated by this department. Another influential sub-department is Brand Strategy. Since the BVC team is, as its name highlights, communicating the brand values of the firm, the objectives of the team are directly contingent upon the Branding department's decisions on what brand values to represent. The figure also shows that the Manufacturing department is, from the BVC perspective, a very 'remote' department: No institutionalised means of collaboration exist. Moreover, there is no 'back door' that would enable plant workers to have their lunch in the PVH building, next to the communicator, seller and engineer tribes.

Following this introduction to the site in which the Brand Value Communications professionals operate, the text will now move on to provide a richer description of professionals in action. In the remainder of the chapter, the professionals that manage the contested areas of the firm's business will be studied in detail as they negotiate the floating frames of the automotive industry.

5.2 The everyday work of the BVC team

As mentioned towards the end of the previous chapter, the BVC team was formally established in 2002, and its official remit is to:

- Inform the public on Volvo's work in the three areas of contestation
- Listen to the public's views on the three areas
- Judge how to communicate and position the firm in the three areas

The team conducts these tasks in the Public Affairs department's open-plan office space, with the team members' desks arranged so as to form a star-shaped huddle. The desks constitute the team's home base, during the working week, 8.30 to 17.00, Monday to Friday. Once or twice a week, the professionals work late; the BVC members are more likely to work late than the rest of the Public Affairs department. (However, the person who works the longest hours is the head of the department, the firm's Communications Director.) The following is a depiction of a few instances of the everyday work of the team.

The group meeting: reviewing entanglements in the making

Every other week, the BVC team members converge for a group meeting; a setting in which to survey the ongoing work of each member and plan for future developments. The four-person team then leaves the open-plan space of the Public Affairs department for a group room in the PVH building.⁸³ The atmosphere is jovial, and the official format of the meeting seems exceedingly formal for the professionals who work, lunch and joke with each other pretty much every day of the week.

⁸³ The following is based upon a meeting held in Gothenburg, 7 April 2003.

Nevertheless, the meeting follows the traditional mould, starting with Lars, the head of the team, introducing the items on the meeting's agenda. He then hands over to Erik, who starts presenting his ongoing work.

Erik is the acting corporate citizenship professional, filling the vacancy created when the regular corporate citizenship manager, Anna (mentioned in the previous chapter), left for parental leave. Erik has a background within environmental consulting, and has also worked within the environment department of the city of Gothenburg. It was there that he developed an interest in issues of sustainable mobility and liveable cities, much as his predecessor Anna developed similar interests while working close to the EU Commission. His background in public service gives him a somewhat different perspective on the firm from the typical Volvo employee. For Erik, the company is not a sacred entity; the values of environmental care and good corporate citizenship are. He thus sees his task within Volvo as one of spreading these values, with less regard to financial metrics or horsepower output. In many ways, he still thinks in terms of 'public interest', though now embedded within the firm that he previously used to scrutinise from the outside. Like others in the BVC team, Erik is politically interested, and tends to sympathise with the views of the green left. He moreover actively engages in the politics he believes in, such as the deteriorating state of the public schools in his borough.

During his presentation at the group meeting, Erik tells the other team members that most of his time is spent on finalising the corporate citizenship report – an annual report monitoring the social and environmental performance ('triple-bottom-line') of the firm. Being a relatively novel kind of corporate publication, the procedures for putting it together are yet to be streamlined. Erik's job is thus to come up with the

key messages and overall design of the report, write text for the report, get others to write their text, and to correspond with external bodies. A lot of his time is also spent chasing up the relevant data, some of which is barely monitored or whose metrics keep changing. During this last stage of the report's production, Erik is also dependent on other departments within the firm giving their feedback on a draft version of the text. In this role, Erik has a considerable influence over how the firm is perceived by the outside world, deciding what tone and language that Volvo ought to use. More importantly – as we shall see in the next section – he influences the metrics by which Volvo is to measure (and thus manage) the corporate citizenship aspects of its operation.

Erik's focus on the compilation of the report is therefore seen as natural by the rest of the team. Indeed, the corporate citizenship job function was initially based upon that single task, and as a stand-in he is not expected to come up with – or, for that matter, to champion – any groundbreaking initiatives within his area of contestation. However, while Anna was still in post, she would launch initiatives within the 'hot topics' of corporate citizenship. Apart from the already mentioned issue of sustainable mobility, one such hot topic is that of how the business community of the west relates to the developing world. Volvo is spared from heavy scrutiny in this respect, since the corporate entity has yet to conduct any manufacturing operations in the developing world. However, the firm is very concerned with the practices of affiliated firms, for instance potential corruption within local sales companies, and inferior labour practices among suppliers.

Erik does however air one initiative that he would like to realise: A customer poll in Volvo's sales offices, asking prospective buyers on whether they prefer cleaner cars

or stronger cars. He is here referring to the notion – most vocally touted by environmental NGOs – that the car industry is blindly putting all R&D and marketing effort on ever-faster and ever-bigger cars, not realising that the consumers might actually prefer smaller and more environmentally friendly cars. The purpose of the initiative, which he has argued for since his arrival at the firm four months earlier, is two-fold. For one, the initiative conveys an image to consumers of Volvo as concerned with both the environment, as well as the wishes of the consumer. However, the main purpose is intra-organisational: Erik believes that the poll outcome would serve as a suitable tool for persuasion when arguing for the need to develop smaller and cleaner Volvos. The poll, or alternatively the focus group (which is discussed as an alternative method), would thus be used less as a branding exercise, and more as a means to fight an intra-organisational political battle. By proving something about the nature of the consumers, he can influence engineers and top executives within the firm to start developing smaller, more eco-friendly vehicles. The group warms to the idea, and encourages Erik to move forward with the initiative.

The next one to speak during the group meeting is Kristina. She is the environmental communications professional; a position previously held by Lars before he was appointed director of the newly established BVC team. By BVC standards, Kristina has a relatively orthodox background, having spent most of her career within Volvo. Prior to joining the team, she worked for the business intelligence unit within the global marketing department, gathering data about the automotive market. Her skill set is thus primarily linked to marketing, and her style of working is considerably more 'corporate' than that of Erik. She is also the one in the team who is the least

outspokenly political. Where Erik and others are operating like subversive activists, Kristina works as the model efficient administrator.

Kristina dutifully spends ample time on the mundane arranging of Volvo's environmental events, such as the Volvo Environmental Award and the Volvo Ocean Adventure. During the meeting however, she quickly moves on to discuss her change initiatives within the environmental field, such as the efforts to communicate the merits of the Bi-Fuel car. As mentioned in the previous chapter, the Bi-Fuel car is seen as a dead project by most of the engineering organisation. The car has reached its sales target, and most Volvo employees would say that it has also reached its sales limit, given the current state of the automotive market. Further sales are contingent upon changes in the socio-political framing of the market. Therefore, a small group consisting of employees from Public Affairs, Governmental Affairs, and Marketing have been informally created, aiming to break the stalemate and re-start the rollout of the vehicle through new measures. One such measure is the forging of alliances with environmental authorities and NGOs (via Public Affairs), enrolling them for claiming the environmental benefits of the car. Such an alliance can prove useful in re-negotiations with treasury and environmental regulators regarding more favourable purchasing terms for buyers (via the Governmental Affairs department).

Kristina moves on to two other initiatives – Clean Compartments and Premair. Both of the initiatives are eco-friendly car features that have previously been developed, now pending their introduction. Kristina's role in these instances is to promote the implementation of these features, making sure that new cars are actually supplied with these features. This implies struggling against other departments to bring out their environmental and brand benefits, arguing that these benefits outweigh the

corresponding engineering and manufacturing costs. Thus, in all three initiatives (Bi-Fuel, Clean Compartments and Premair), she finds herself in a position at odds with the mainstream of the organisation: She promotes an alternative ontology of environmental externalities and of brand benefits, one that clashes with the one represented by the current state of affairs.

The next person to speak is Elisabet, the safety communication professional. Already introduced in the previous chapter, Elisabet is a journalist by training, and used to be the editor of the internal magazine before joining the BVC team. At the time of the meeting, she divides her time evenly between her role as safety communicator, and as project manager for Volvo's new concept car. (More on this car will follow later in this chapter.) Compared to Erik or Kristina, she rarely finds herself in confrontations with the rest of the organisation when promoting her brand value: The drive to build safe cars is deeply enmeshed in all the departments of the firm. This has caused her to construe her role as safety communicator as one of pure information dissemination, of telling the public what Volvo is doing on safety. The other form of communication – bringing in views and knowledges from outside the firm – is less pronounced in her case.

Nevertheless, at the meeting, Elisabet brings up some of the issues that she is working on. The first one is related to child safety. In order to retain Volvo's 'ownership' of the safety concept, the firm continually redefines the notion of what actually constitutes a "safe car". As in the case of Kristina's initiative, Elisabet has to defend the standard supply of these child safety features and argue that their benefits outweigh their costs. In this case, she can find support from civil society groups (such as the Ralph Nader-founded Public Citizen) who are equally pushing the child

safety issue. The second issue discussed by Elisabet relates to the measurement techniques used by EuroNCAP – a European safety rating agency – when rating cars' safety. Volvo, and some traffic safety experts, claim that the crash test methodologies used by EuroNCAP are too specific to reflect "real-life safety". Any car can easily be built to meet those specific criteria, without actually being safe in a real-life accident. Volvo's solution to this problem is to alter the measurement criteria so that actual crash statistics are integrated into the safety assessment. Elisabet explains that this solution will be promoted via the support of the Swedish road authorities. The third issue brought up by Elisabet is the one of how to react to the demand for 'bull bars' – heavy-duty metal pipes mounted over the front bumper – on the new Volvo SUV. Some American retailers have already started to sell them, and the Swedish sales company has also indicated an interest in them. However, the very release of the SUV has been a controversial matter, and Elisabet has argued that the bull bars would seriously tarnish Volvo's safety image. Thus, she (and other safety experts within the firm) has managed to get bull bars banned in all markets.

After the three brand value communicators have spoken, Lars, the director of the team, starts to elaborate on his current activities. Also introduced in the previous chapter, Lars used to work elsewhere in the firm as environmental communicator before joining the BVC team. He has been at Volvo for most of his career, having worked briefly at the United Nations in New York after he graduated with a degree in environmental management from Gothenburg University. Like Erik, Lars is politically interested and has elaborate progressive views on everything from environmental issues, via global political economy, to gender issues. Being the one in the team who has been communicating brand values the longest, he is the savviest

of the bunch when it comes to understanding the political dynamics of the organisation.

When speaking at the meeting about the initiatives he is involved in, his awareness of organisational politics is clearly visible. He is preparing a meeting with the vice president of Global Marketing, who is in charge of the key strategic departments mentioned in the previous section (New Car Projects, Product Planning and Brand Strategy). The appointment with the top executive is meant to be a way for the team to explain the merits of the work that it is doing, and show why such work is strategically important. This is to be done by the team members going through some of the initiatives that they are working on, cherry-picked so as to seem most urgent. The ulterior motive of the appointment is to state the claim that the BVC team's work ought to feed into the strategic decision-making of the mentioned key departments.

The meeting with the marketing president is important: Lars' big quest is to tie his team closer to the more strategic decision-making inside the firm. The remit of Erik, Kristina and Elisabet is to stay abreast of what goes on outside the traditional attention span of the firm. Lars is arguing against the current management focus on internal efficiency, competitor benchmarking, and customer mapping. Instead, he prompts executives to listen to all the citizens outside the automotive industry, pleading for the firm to change its practices. Executives must listen, he says, as sometimes the outside protesters have it their way: sometimes the public prefers to believe the protesters, leaving the companies sidelined. In those cases, it is better to see the protester-fuelled change coming, prepare for it, and maybe even capitalise on it. Lars therefore likes to talk about both 'risk management' as well as 'opportunity management': He is fully aware that he will get top executives' attention if he can

claim to manage the risks created by civil society organisations, be they reputational, financial or other. However, in order not to scare executives into panic and apathy, he argues that the civil society pressures also yield great business opportunities. Risk and opportunity are two sides of the same coin. Based on this argument, he is trying to get the BVC team more involved in the strategic decision-making. However, this is an uphill struggle, not least due to the low esteem of the Public Affairs department (described in the previous section).

The discussions held during this routine group meeting suggest that the activities of the BVC team in no way correspond to the modern conception of markets and firms (as sketched in chapter two). For one, the team members do not operate in a depoliticised 'culture of no culture': Lars and Erik are highly entangled in the environmental politics and personal agendas to which they are affiliated elsewhere. Such politics (in Latour's 'subject/society pole') is brought right into the firm (in the 'Nature pole'), via the professionals' previous experiences in universities, the polity and NGOs. Political struggle is also translated from their current engagements in civil society groups and from social relations with actors outside the corporate sphere.

The political contamination of the firm is enacted through arguing for alternative perspectives on the reality of the current business practices. These 'ontopolitics' concern 1) the nature of Volvo's externalities, and 2) how the external world views Volvo and cars in general. Kristina is arguing for the implementation of environmental features, calling for the rest of the firm to re-consider the realities of environmental degradation. Elisabet is arguing for the banning of 'bull bars', pointing to the realities of car safety. Erik is arguing for the rest of the firm to start building

smaller cars, inventing new realities regarding the customers with the aid of surveys and focus groups. The team also engages in ontopolitics with external enemies; note for instance Elisabet's efforts to contest the safety metrics of EuroNCAP, and Kristina's efforts to prove to the Swedish treasury that the Bi-Fuel car is sufficiently environmentally friendly to be granted tax exemptions. In these ontopolitical battles, the BVC team members can be analysed in the same way that STS studies scientists: The professionals mobilise the world through statistics (Elisabet on "real life safety"), as well as surveys and focus groups (Erik on consumer preferences); they also secure resources through mobilising allies such as environmental authorities and NGOs (Kristina and Bi-Fuel), as well as the Swedish road authorities (Elisabet on "real life safety").

Thus, the BVC team participates in the continual invention of overflows around the business practices of Volvo. By assembling facts (and facts-in-the-making) on externalities, and presenting it to the rest of the firm, they bring out 'speculative frames'⁸⁴ for the firm. In Lars's mind, the current state of affairs at Volvo makes the company unresponsive to such speculative frames. The firm is thus unimaginative in its rejection of alternative views on the realities of the firm's entanglements in society, and it is narrow-minded in its lack of understanding that such alternative views exist. As will be evident later in this chapter, Lars's quest to incorporate several speculative frames – several scenarios on the social and environmental

⁸⁴ In chapter two, 'speculative frames' (inspired by Haraway's notion of SF as speculative fiction) were defined as "alternative frames" that deviate from the current frame convention, but might potentially become the convention in the future.

responsibilities potentially tied to the corporation in the future – into the high-level strategies of the firm is something that guides many of the BVC team's activities.

On the phone: building alliances with the activists

Come to us, we fix everything; we have the access to the NGOs!

Lars jokingly shouts to his aides in the Brand Value Communications team, but the triumphant yelling is really addressed to the rest of the Volvo Car Corporation.⁸⁵ It is afternoon, two days after the group meeting, and Lars has just finished a telephone conversation with the Swedish branch of the World Wildlife Foundation. The NGO offered its help in instigating a replication of the large-scale Bi-Fuel/TRUST project previously deployed in the Gothenburg region. (As explained in the previous chapter, the project involved Volvo supplying natural gas cars, the local energy utility supplying gas and the local municipalities providing incentives to spread the alternative fuel.) By now, Volvo has branded the experiment 'Planet Göteborg', with the intent to export the whole model to other cities. It is exactly such a translation that the WWF representative proposed: After a successful deployment of the model in Gothenburg, the WWF would like to see a 'Planet Stockholm' up and running.

The rest of the team members are visibly enthused about the opportunity. The project in question is one of the BVC team's pet projects, and the team members have worked hard to keep it afloat. Especially Kristina is pleased, as this is a breakthrough for her informal group of professionals hoping to boost the spread of the Bi-Fuel (as described during the group meeting). The development of a new partnership in Stockholm is exactly the kind of restructuring of the market framework needed to

⁸⁵ The following is based upon events in Gothenburg, 9 April 2003.

sell more Bi-Fuel cars. Such a shift would create a whole new revenue stream for Volvo, and also 'charge' the environmental aspects of the Volvo brand. Therefore, the Bi-Fuel issue is one that has caught the attention of the top executives of the firm.

However, Volvo's plans to promote the use of natural gas clash with other agendas in a wider debate on the future of the Swedish energy supply. The firm is thus involved in a lively debate among environmentalists, economists, corporations, bureaucrats and politicians about what route to take.⁸⁶ Historically, Sweden has opted out from using natural gas: There has been no political will to expand the use of it, as it is neither renewable, nor domestically produced. This policy aside, companies have started using the existing pipeline that stretches from Denmark along the west coast of Sweden. An extension of the line has now been built stretching eastwards from Gothenburg, and further extensions (to Stockholm and the Norwegian border, as well as a supply pipeline from Germany) are planned. The cluster of natural gas proponents claims that it is cheaper than oil or petrol, that it emits less carbon dioxide, and that it is the only realistic means to reduce the dependence on oil from the Middle East. For Volvo's standpoint, this natural gas issue is not only about the Swedish market. By securing a strong domestic demand, the firm is in a better position to develop products for the large European market. Again, as so often in Volvo's past, the Stockholm-Gothenburg divide is very pronounced: Decision makers in the capital city are against the use of natural gas, industrialists in Gothenburg are invariably for it.⁸⁷

⁸⁶ For an example of the terms of the debate, listen to 'Studio Ett' on Swedish radio, October 2003.

⁸⁷ The gulf between the two coasts is light-heartedly expressed during an interview with Volvo's deputy CEO: When asked to comment upon the fact that European motor tourists relying on natural

Given this large-scale power struggle – pitting Stockholm-based politicians and renewable fuel advocates against Gothenburg-based politicians, Volvo, energy utilities, and the small-business community – the environmental NGOs have assumed the role of the independent arbitrators. Seen in this light, Lars's phone call from the World Wildlife Foundation was exceptionally significant. The NGO's endorsement of spreading Volvo's natural gas experiment – to Stockholm of all places – may prove to be a deciding factor in the future development of the Bi-Fuel market. Lars knows this – hence the triumphalism. As soon as Lars explains the contents of the phone call to the fellow BVC team members, the professionals are instantly talking about what this potential partnership might mean for their status within the firm. When it comes to sheer inter-departmental 'realpolitik', the fact that the BVC can 'claim' the securing of the WWF partnership furthers the intra-firm political aim of getting recognised as relevant and strategic. The Planet Stockholm story shows that the BVC team, through its good contacts within the NGO community, holds the key to unlock new sizable markets for the firm.

While this particular phone call was special in its implication, this mode of work is very ordinary. The BVC team members spend a large share of their time on the phone with representatives from NGOs, and this has resulted in a vast network of contacts within the NGO community, acquired through heavy investment in phone time or other forms of networking. Often these contacts are very close – for instance, Lars knows the woman who called from the Swedish WWF well. Indeed, he prefers

gas can only visit the west coast of Sweden, the executive replied that it was just as well for them. ('Studio Ett' on Swedish radio, October 2003)

to view the civil society organisations as co-workers, friends, allies and consultants.

When asked to explain his relationship to them, he says:

They are highly competent, very open for collaboration. They are a great resource – my work would have been considerably more difficult had they not existed.⁸⁸

Lars's deep professional respect towards the activist community is thus apparent. This respect often blends with sympathy for the views espoused by the NGOs. Nevertheless, he is very aware of the fact that he is not an NGO employee himself. Nor does he want to become one; given his skills and previous experience, he feels that he is more likely to produce change from the inside of a corporation. To him, being an activist inside a corporation does not constitute a contradiction. Thus, Lars knows that his place is within Volvo, and constructs his strategies on this basis.

Erik has yet to reach this clarity in terms of vision and purpose for his Volvo job. Being new to the firm, his network of personal contacts was not acquired during his work as a Volvo Public Affairs employee. Instead, his network consists of previous acquaintances within the relevant communities – the NGO community, the environmental consultancy community, and the regulator community – from a time when he was part of these communities. Having just left his outsider position, he is careful not to become a 'sell-out', especially as he knows that his stint in the corporate world probably is a brief one. In order to be legit to re-enter his 'communities of origin', he is therefore constantly balancing the constraints of the corporation with his personal beliefs. Although these two may not necessarily clash,

⁸⁸ Interview, Gothenburg, 4 November 2002.

he is concerned with how members of the outside communities rate his achievements. Obviously still thinking like a member of any of those communities, he often comments upon slow progress in a certain field in terms of how the "outside world would hardly be impressed" by Volvo's achievements.⁸⁹ In some respects, he is also thinking about his own legacy within the firm; will the NGO community see him as trustworthy after his work in the firm? Will they conclude that he did all that he could, or will they shut him out? Most of all, are they still 'on the same side' – are Erik's goals still aligned with the ones of the NGO community?

The official work remit of the BVC team involves drawing on whatever networks of contacts they have in order to stay abreast of as much as possible of the goings-on among the civil society organisations. From this huge body of information – phone conversations, hearsay, draft reports etc. – the BVC professionals are meant to construct an overall picture of the 'hot topics' within their respective areas (safety, environment, or corporate citizenship). When they deem that a topic is 'hot' enough to represent a major disruption of the status quo, it is their duty to pass the information on to the rest of the firm.

However, though the BVC team members officially (inside the firm) speak of this "scanning" process as an 'objective' one – that is, a discovery of the contesting of the Volvo business as it unfolds 'out there', as a natural phenomena – their actual practices suggest that something else is going on.⁹⁰ As we shall see, their actual

⁸⁹ Interview, Gothenburg, 22 April 2003.

⁹⁰ During the remainder of this text, 'objective' is used as irony. Thus, 'objective' (written with inverted commas) refers to 'that which, according to the moderns, supposedly resides in Latour's Nature pole'.

"scanning" activities are intrinsically bound up with 'subjective' factors.⁹¹ First, as inferred above, the forming of the personal networks that are the tools for scanning is highly contingent upon personal chemistry, and the past experiences of the individual. Lars might choose to forge a working relationship with an NGO representative that he gets on with, and Erik's personal acquaintances are reflections of his previous occupation. The sources from which to build a representation of business contestations can in no way reflect an 'objective' sample of the supposedly most influential set of stakeholders. Secondly, the formation of an overall picture of hot topics is highly contingent upon the BVC professional's previous experience regarding the risks facing the firm and the industry. Lars, with a skill set based upon environmental management, might for instance put environmental issues higher on the agenda than safety-related ones. Thus, the supposedly 'objective' scanning of the world reflects the personal ontologies and worldviews of the BVC professionals.

Thirdly, the contested areas that the BVC professionals 'discover' tend to be bound up with their own personal ideals and political convictions.⁹² Following their environmentalist political beliefs, Erik and Anna frequently argue the case for a move towards sustainable mobility solutions. They do so in private (speaking as citizens), and in the line of business duty (speaking as corporate representatives). Interestingly, the BVC actors can afford to let their personal politics and professional roles merge, and still come across as 'objective' because they have an information advantage in relation to the rest of the firm: they supposedly have the best idea of

⁹¹ As in the case of 'objective', the word 'subjective' is also used as irony, referring to 'that which, according to the moderns, supposedly resides in Latour's subject/society pole'.

⁹² Here, 'political' refers to the modern sense of politics – the issues debated in parliaments and within civil society, again in Latour's subject/society pole, detached from the naturalised world of non-humans.

what the civil society organisations 'out there' feel strongly about. In a sense, the professionals are thus actively translating the knowledges and discourses created by civil society actors, bending it into shape and peddling it inside the firm. In another sense, the BVC professionals are themselves members of the civil society movements 'out there'. Though officially they are merely informing the executives and engineers of the firm of the views of the outside world, the BVC professionals are in fact intra-corporate extensions of the activists on the outside of the firm.

The links between the firm and NGOs are thus closer than the modernist view of markets and firms would suggest. The professionals are not shielded from contact with the activists, but rather in very close contact. Similarly, the BVC professionals do not see the NGOs as antagonists, but partners. Civil society organisations are actively enrolled as allies – constituting "a great resource" – either for proving a point towards the outside world, but most importantly when the BVC members are proving a point inside the firm. Links are also close on a personal level, as shown by Lars's sympathy for the NGOs. Erik has even made it a career choice to move between the two, thus influencing his mode of action inside the firm: Through making sure that he is changing the firm from the inside, remaining aligned with the goals of the NGO community, he can maintain this balancing act.

One remarkable feature of the NGO community and the BVC team is their hybrid character – how they appropriate the politics and 'subjectivity' from the subject/society pole, and translate it into objective naturalised fact in order to change the firm. The BVC professional's hybrid character is nevertheless unacknowledged by the rest of the firm, and largely by the professionals themselves. By and large, the team members understand the contesting of the business as being carried out 'out

there' – the fact that the overflows invented by the civil society actors happen to be in line with the ideals of the professionals is seen as a series of happy coincidents. In any case, that is how they would respond if someone asked them if they are letting their own political agendas influence their professional roles. Then again, none of their Volvo peers push them on this issue, and the BVC professionals themselves do not discuss it amongst themselves. To BVC professionals, hybridity – although they do not recognise it as such – is the normal mode of operation. The only way of doing their job is to treat the politics around the Volvo business as 'objective' fact, and the implications for their roles as 'unbiased' professionals are never explicated. There even seems to be a tacit agreement amongst the professionals not to discuss this issue – not in meetings, not at the office, not during lunch, not in any setting related to their professional roles.

We are change agents; they are conservative engineers

The team members mentioned above – Lars, Erik, Kristina and Elisabet – have all assumed an 'activist professional' approach to their work. While their official job remit is to simply pass on the views of the public to those inside the firm (as well as communicate the firm's practices and positions to a wider public), they often go out of their way to 'massage the message' in a way that increases the potency of the message. Again, as mentioned in the previous subsection, the professionals do not distinguish between the two: for the professionals, the official job remit of monitoring and "scanning" and the unofficial mediation of the political agendas of civil society organisations blur into one.

In a sense, activism is hardwired into their job description, although this was almost certainly not the original intention when it was created. Their official job is to

actively communicate brand values, and also proactively protect the brand reputation. However, since the agenda of the brand values that they are promoting – especially environment and corporate citizenship – are largely dictated by civil society organisations, they inevitably become the internal representatives of the NGOs. In effect, it is in the BVC team's interest to get the firm to comply with practically all the demands of the civil society organisations: First, on a proactive level, the team is remitted with protecting the firm from bad publicity. Secondly, on the active level, within the nascent CSR profession which the team members are a part, success is measured by the number and intensity of changes championed during their tenure.

With regard to the first point – following the official remit of protecting the firm from bad publicity – the BVC members have an institutional incentive to overstate some of the threats facing the firm. After all, it is Lars, Erik, Kristina and Elisabet who become scapegoats if Volvo is caught in a storm of public protests. Thus, the nature of the job function frames them into arguing the necessities of 'being good' – making safe and environmentally friendly cars, while acting like a responsible corporate citizen. On the other hand, the 'cry wolf' phenomenon serves to temper the professionals somewhat – they are fully aware that the rest of the organisation sees them as excessively alarmist and completely lacking in comprehension of the basic cost-benefit analysis that guides all corporate decision-making. For this reason, the BVC team is constantly trying to develop (or adopt existing) methodologies to prove and assess risks. The deployment of such methodological tools would make the efforts of the team more compatible with the cost-benefit analyses of the rest of the firm, and grant their claims scientific legitimacy.

The second point – the emergence of a CSR profession – also contributes to the activist identity. Amongst themselves, activist professionals judge their success in terms of changes achieved within their respective firms. During lunch in the PVH building canteen, Kristina explains how she is letting a number of graduate students examine the household electrics firm Electrolux.⁹³ Her equivalent in Electrolux is widely known within activist professional circles (i.e. the Volvo BVC team and their equivalents elsewhere) to have successfully changed the environmental practices of Electrolux. Kristina is interested in how this person managed this change, and wants to integrate the results of the study into an internal report for the strategists within the Product Planning department. Apparently, the status of the Electrolux activist professional is high enough for him to be very sought-after on the labour market of similar positions. This is because the hiring of activist professionals is usually conducted by other activist professionals. For instance, Lars hired Erik for his credentials as a knowledgeable person with potential of being an able change agent. In this sense – the new job functions created, the activist professionals' knowledge about their equivalents elsewhere, the emergence of a specific labour market, the academic study of the job function – one can actually speak of a new profession in the making. One special feature of this profession is the fact that the professionals seem to construe career paths that readily traverse traditional sector boundaries. Thus, as already mentioned, Erik has previously worked within the NGO and public sectors on environmental issues – and he may well see himself moving back to any of those after his employment at Volvo.

⁹³ Lunch discussion, Gothenburg, 1 April 2003.

Both previous points show that the work description of the activist professionals invariably leads to 'change agency' and extension of the NGO agenda. Strong political or idealistic motives on the part of the individual activist professional are not a necessary condition in order to breed change. Kristina is a good example of this – she does not believe strongly in the agendas pushed by the NGOs, nevertheless the efficient administrative skills required by her job cause her to peddle them anyway. The ambitions of active and conscious activism thus differ within the BVC team, ranging from Kristina at one end, and Lars at the other.

There are a number of factors that point to Lars's high level of conscious activism. As is evident in the group meeting, Lars is not content with 'just' changing certain specific practices of the firm – he wants to change the very structure of it. His vision of the firm is one in which the knowledges of the civil society organisations are better harnessed and fed into the organisation. This would imply a large-scale reorganisation of the firm, with new job functions being created. As also explained above, Lars is also the one in the team who is most interested and skilled at playing the organisational politics game. Most of all, Lars's conscious activism is apparent as he consciously construes his work as a kind of internal activism. In an interview, he explains his work as a form of internal entrepreneurship, in which his aim is change.⁹⁴ The subject of change is not so much the top management – the top executives are often surprisingly progressive, he says. The real conservative force in the firm is the cadre of engineers, whose vision is limited by their sheer entanglement in monstrous technological systems.

⁹⁴ Interview, Gothenburg, 4 November 2002.

Where they see technical [...] impossibilities, I see that we have to do something because the external world [i.e. the civil society, the public] demands that we do. They say that nothing is going to happen [R&D-wise] in that area, so there is no point of us doing anything. I say we have to at least try to do something.

Here, Lars expresses an important point: The BVC professionals and the engineers are entangled in different networks. The activist professionals are entangled – professionally and personally – in networks that stretch into civil society, to NGOs and other extra-Volvo agencies. The engineers, on the other hand, are entangled in the legacy technological systems within Volvo. Hence, BVC team members see the engineers as conservative, and the engineers find the ideas and visions of the BVC team unrealistic.⁹⁵ Lars has nevertheless taken it upon himself to battle the conservatism of the engineers. This internal change agency, he says, takes up 50% of his working time; the other half is spent on the official remit of communicating brand values. He is thus aware of the fact that he is stretching his formal remit somewhat, but believes that what he does is within the limits of what he informally should be doing for the firm. In his view, the move towards greater recognition of civil society organisations is inevitable.

This moderate optimism distinguishes him from Erik. Though Erik is as sympathetic towards the NGOs as Lars, his view about the possibilities for corporate change is considerably bleaker. During an informal conversation, Erik lays out his scepticism towards any wholesale changes in how the firm actually relates to the external

⁹⁵ In terms of epistemology and methodology, this is an important point: Volvo as a company would have emerged as a completely different kind of corporation had I studied it from the perspective of the engineers.

world.⁹⁶ He refers to conversation with a senior executive, in which Erik detected a certain knee-jerk reaction to the influence of activist civil society organisations. The basic "instinct" of the executives, he complains, is not to listen to and learn from such actors, but to marginalize them. Moreover, Erik is wary of hidden agendas from the executives' side, especially when it comes to issues of corporate social responsibility. The big question is, he says, "what the top management actually say to top politicians behind closed doors". This scepticism resembles the attitudes of the more hard-line activist groups that criticise corporations for using the notion of corporate social responsibility to whitewash their actual intentions and practices. Erik is therefore less likely to engage in the intra-political game to change the firm – he is simply less of a believer in such change than Lars is.

The ambitions of the activist professionals also differ depending on the issue at hand. Elisabet, for instance, is less active in driving the safety agenda; the engineers working in the 'core' of the firm are themselves very much driving the state-of-the-art. However, when it comes to her other main project – the women-designed concept car – she has undoubtedly been a force for change. Her attempts to even out the gender balance within the firm have been a long-standing battle of hers. For instance, in the mid-1990s she was an early member of the company's Women's Business Advisory Board; an internal working group set up to further the promotion of women into the managerial and executive ranks. More importantly, during her time as editor of the internal magazine, the publication became an influential tool for spreading the virtues of gender, ethnic, and sexual preference diversity.

⁹⁶ Informal conversation, Gothenburg, 8 September 2003.

Apart from the professionals mentioned in the chapter (Lars, Erik, Kristina and Elisabet), two persons mentioned in the previous chapter – Monica and Anna – can also be described as activist professionals. In relation to the continuum described above, with Kristina being passive-administrative and Lars being active-transformative, the two are both to be placed at Lars's end of the scale.

Monica is no less skilled in playing the organisational politics game than Lars, and can claim the forming of the corporate citizenship function, as well as Volvo's heavy involvement in diversity as her achievements. Though no longer formally connected to the BVC team, her work within diversity intersects with the work of Lars, Erik and Anna on a regular basis. Her current initiatives involve a number of projects to further diversity thinking within various departments of the firm: Setting up diversity-aware recruiting processes, establishing a diversity reference group within product development, promoting 'alternative' customer group awareness within marketing etc.

By the same token, Anna shares Lars's belief in the importance of bringing the views and knowledges of civil society organisations into the strategic decision-making of the corporation. As far as her achievements go, she can claim to have done some of the early groundwork for making the corporate citizenship function a force to be reckoned with in the rest of the organisation – forging new organisational practices, such as stakeholder dialogues and the corporate citizenship council. (We will come back to these practices later in this chapter.) This was, of course, before she left for parental leave and was temporarily replaced by Erik.

One key property of the activist professionals – all six of them – is that they occupy an ambiguous position in relation to Volvo and other organisations. In the discussion of how Lars and Erik have built up their networks of contacts within the NGO community, it was noticeable that the activist professionals have an ambiguous relationship to the firm. Both Lars and Erik are in an unconventional position, being both insiders and outsiders in the firm. They are working at Volvo premises, on the Volvo payroll, but see the civil society organisations as their co-workers – as their 'us'. The 'them', on the other hand, is the mass of engineers in the inert core of the firm, entangled in the monsters of technological systems. Lars sometimes talks about them as "the people over there", pointing to the premises where the engineers are working.⁹⁷ The BVC team members are aware of their extraordinary insider/outsider position, but differ in their approach to it. Lars, having been in this position the longest, seems thoroughly comfortable with his role and remit, as well as clear about his objectives. Erik, on the other hand, being new to the firm and having previous alliances that he wants to maintain, is somewhat hesitant and constantly feeling his way within his role and remit. He is uncertain about the how far he can push a certain issue without losing the trust of the organisation, or how little he can push that same issue without losing the trust of the NGO community. He is moreover ambivalent about his work objectives, sometimes even questioning the point of being in the job in the first place.

Correspondingly, the activist professionals have an ambiguous relationship to civil society organisations. Note the difference in how such organisations are construed at

⁹⁷ Informal conversation, 9 December 2002

the group meeting, and during the afternoon on the phone: During the group meeting, the professionals discuss the civil society organisations as potential critics of Volvo's current business. They constitute – to use a word often used by the BVC team – a "risk". One of the purposes of the meeting is to discuss how such risks manifest themselves, how to approach the risks (i.e. how to approach the demands put forward by civil society organisations), and – most importantly – how to convey the severity of the risk to the rest of the firm. Thus, the term 'risk' is primarily drawn upon when the team members communicate with the rest of the firm. During the afternoon on the phone, however, the view of the civil society organisations is completely different. Instead of construing the organisations as risks, the BVC members now see them as allies; as partners with whom to collaborate. Alternatively, the NGOs are seen as guides to the risks facing the firm: When Lars says that "[t]hey are a great resource – my work would have been considerably more difficult had they not existed", he construes NGOs as trend spotters sharing their expertise on where public opinion is going.

The BVC team's dual construction of the NGOs leads to a paradox: The NGOs are on the one hand seen to create 'risks', for instance putting pressure on Volvo to focus on sustainable mobility. On the other hand, the NGOs are seen as collaborators within that same domain of 'risk'; for instance setting up a new Bi-Fuel/Planet Göteborg experiment. Alternatively, the NGOs are also seen as detached observers of that same 'risk', consulting the likes of Lars on where the winds of public opinion are blowing with reference to sustainable mobility. Nevertheless, this paradox has the effect of legitimising the demands of the civil society organisations towards the rest of the firm. It enables the BVC team members to say things like "public opinion is

pushing us to do things within sustainable mobility, but luckily we have just started off a promising collaboration with some experts in the field" or "public opinion is pushing us to do things within sustainable mobility, and some experts we have spoken to say that alternative fuels for cars is at the top of the activists' agenda".

This suggests that the invention of overflows is contingent upon actors – BVC team members aided by NGOs – shifting between the official, 'objective' inside-out perspective, and the unofficial, 'subjective' outside-in perspectives. Looking out from the inside of the firm, the BVC professionals tell their Volvo peers that NGOs' activities generate objective 'risks'. On the other hand, operating from an outsider position, the BVC team also collaborates with these same NGOs in the invention of overflows (i.e. in the invention of these same 'risks'), trying to influence the entangled engineers on the inside of the firm. In shifting from 'inside-out' to 'outside-in' perspectives, the BVC professionals effectively alternate between operating in the Nature and subject/society poles. The NGOs make similar shifts in their camp. From inside the NGO community, they conduct 'subjective' politics⁹⁸ through running campaigns against firms. However, they are also asked (for instance by BVC team members) to step out of their role as campaigners, and speak as experts on the 'objective' features of the NGO community and the risks that they present. Through these shifts, 'subjective' politics and 'objective' management facts are woven together, and new overflows are invented. These overflow inventions are conceived by actors who alternate between the Nature and subject/society poles. Overflows thus emerge

⁹⁸ Again, I am here referring to the kind of political action that is supposedly (according to the moderns) contained in Latour's subject/society pole.

neither as pure objective fact, nor as pure subjective opinion; rather, they are the result of the successive weaving of both.

Lunchtime: where worlds collide

The previous subsections have explained how the BVC operates as a mediator, in many ways closer to civil society organisations than to the rest of the firm. To the activist professionals, 'them' is not the activists on the outside, but the engineers inside the firm. This disconnection from the rest of the firm is visible in many ways. The physical ordering of the office spaces, as discussed earlier in this chapter, is one manifestation of it. Another is the tendency for the BVC team members to get carried away in debating political issues – such as what to do about global warming – and overlook the mundane practices of constructing, building and selling cars. A frequent source of amusement within the team is when someone highlights this fact: one of the activist professionals suddenly disengages from the perennial discussion on social and environmental problems, and exclaims something like "Hey, which is Volvo's role in this dilemma – we build cars, remember?". Another team member replies smugly: "Oh, really, is that what we do here? Frankly, we don't engage with such worldly matters." The team then giggles sheepishly.

This joke on "worldly matters" is in many ways a telling one: the disconnection between the BVC team and the entangled engineers is very much down to conflicting worldviews. The speculative frames of the BVC team are, after all, hypothetical. 'Reality', on the other hand, is the assumptions that are instilled in the technological systems of the firm. The activist professionals thus find themselves in 'reality check' moments, where their disconnection from the engineers is particularly striking. These reality checks tend to occur when (and where) the activist professionals are –

unexpectedly and outside their formal duties – forced to interact with someone who represents the engineering side of the firm. The prime scene for this is the cafeteria at lunchtime. One afternoon, Erik comes back from the canteen, smiling to himself in amused bewilderment.⁹⁹ He explains that he just had lunch with an acquaintance from military service, whom he had not met in ten years. (Erik had intended to have lunch by himself, but bumped into the old friend and they started talking.) As it turns out, the guy is now working as an engineer within motor development, which caused Erik to direct the conversation towards the issue of emissions reduction. ACEA (the European car manufacturers' association) has an overall objective for the industry, stating that by 2008 the average car output of carbon dioxide is to be reduced by 25%. Erik is quite concerned about this: he thinks most carmakers will fail to meet this requirement. He thus deems it a 'high-risk area', one in which Volvo should be making great efforts.

However, the old acquaintance speaks from a completely different worldview. He knows about the ACEA objective, but does not see the urgency of working towards it. On the contrary, his view is that it doesn't really matter whether Volvo makes the target or not; Volvo's output of carbon dioxide will be counted as part of the wider portfolio of Ford brands. As Volvo only makes big cars, he feels it is legitimate that other brands in the Ford family ought to take more of the emissions reduction burden. Besides, he does not particularly like the notion of an emissions reduction target in the first place. He sees emissions reduction as a draconian regulation that prevents the firm from making a better product.

⁹⁹ Based upon an informal conversation, Gothenburg, 16 April 2003.

Erik is baffled; before the lunch discussion, he was under the impression that there was a consensus on the urgency of this issue – he assumed that the rest of the organisation shared his view on the realities of CO2 emissions, ACEA targets and Volvo's environmental policy. His immediate thoughts after the lunch revolve around how these realities can be communicated. One thing that springs to his mind is the internal magazine, for which he has recently written an article on work/leisure balance among the employees, drawing on statistics collated from the corporate citizenship report. As there is obviously a need for highlighting the realities of emissions reduction, he reasons, maybe he ought to write a similar one for that purpose?

This lunch discussion was probably Erik's first encounter with a conservative engineer, entangled in the nuts-and-bolts 'realities' of the motorcar. His amazement with the worldview held by the engineer shows how disconnected he is from the part of the firm that actually constructs the cars – how different are the outlooks they have on what Volvo is, and what it ought to be. Another telling fact is also that these two parts of the firm only meet by chance, off duty, in the neutral space of the canteen, and that the thing that brings them into conversation is the fact that ten years ago they served in the Swedish military together. Paradoxically, for the work of the activist professional, it is imperative that they do meet and discuss. However, the mechanisms of bringing 'them' to think differently about the firm and its practices work in a much more roundabout way than that. As explained in the previous chapter, following an interview with Lars, the BVC team tends to lobby the top management (drawing on the relative proximity to it), and thus influence the inert

core of engineers indirectly. (We will return to this mode of influence later in this section.)

The different views of the realities of Volvo and its externalities, as hinted during Erik's lunch encounter, goes further than the simple question as to whether an emissions reduction target is to be met. As already mentioned, the BVC professionals may sometimes underestimate the extent to which the engineers' production capabilities are entangled in legacy systems. Similarly, the BVC team members deploy an alternative ontology when construing the nexus between the firm, technology and society. For engineers, this nexus is clean – they do not recognise the messy societal entanglements that the BVC team members point to. In any case, this is how the BVC professionals interpret the views of the engineers. For instance, Erik talks about how his old friend sees environmental regulation as bad because it impedes his department's drive towards objective betterment of their product. Such 'objective' betterment is betterment related to a few engine performance metrics – horsepower, torque and so on – that generally fail to recognise the societal implications of the engineers' work.

However, the BVC professionals' suggestion that engineers have an 'undersocialised' view of technology is a generalisation that is not entirely true. For instance, one day Elisabet cheerfully shows us an e-mail from the R&D department.¹⁰⁰ The department is in the process of developing a new anti-sleep device, featuring a beam of infrared light shining onto the driver's eyes. (If the driver's eyelids fail to stay open, the car will not respond to the driver pulling off the road.) During a test drive earlier that

¹⁰⁰ Based on field notes from Gothenburg, 20 August 2003.

same year, Elisabet warned the engineers that the new technology might not be received well by the public – notably, the new device constitutes a media risk, no matter how safe it is. In the e-mail, the engineers ask her to elaborate on this topic; a request that the BVC team is very happy about. This is, as far as they remember, the first time that the engineers have approached the team for advice on the public perception of their technology – the first time that they seem to accept the BVC team's view that technology is only as good as the public perceives it to be. The team members do, however, remain sceptical about the prospect of receiving further requests for help from the engineers – the separation between the two camps is just too wide, they conclude.¹⁰¹

The activist professionals' alternative worldview is also reflected in how they construe the car and its role in society. Again, this is noticeable when meeting non-activist professionals over lunch. During another lunch, Erik and Kristina end up sitting next to a representative from Governmental Affairs.¹⁰² The BVC professionals know this person; the two departments sometimes coordinate the firm's initiatives on corporate citizenship and environmental issues. Having finished his meal, the Governmental Affairs representative fires off a minor rant regarding the Swedish road authorities (Vägverket): One of the senior executives of the authority has made unflattering comments about the Volvo Bi-Fuel car – the car only runs on the west coast, it has limited market potential and so on. The representative is moreover critical of the fact that the executive in question is driving a small French car: "What

¹⁰¹ To my knowledge, no further requests were received from R&D during the remainder of the ethnography.

¹⁰² Based on events from 9 April 2003.

kind of safety message does that send to the car buyers?" The representative's rage also reflects a work-related disillusion with the authorities: His department is generally disappointed by the Swedish authorities' lack of support for the Bi-Fuel car. Most notably, they resent the fact that Japanese hybrid cars are granted a very advantageous tax reduction, whereas Volvo's hybrid cars are not. All in all, the governmental affairs person's argument boils down to the fact that the authorities should stop working against Volvo, and instead support the domestic car industry. Here, the representative expresses a commonly held view, especially among the employees who have been working for Volvo since the time of Swedish Model corporatism: The government should consider the realities of a loss of Swedish manufacturing jobs, and care less about the highly contested arguments on global environmental degradation.

On our way from the canteen, Erik, notes how interesting it is that his views are so different from the ones of the Governmental Affairs representative. Erik thinks that the road authorities should remain completely independent of business, and if domestic business concerns are to be included in their remit, then that has to be explicitly decreed by the prime minister. He goes on to say that his background of working in such authorities (the environment department in the city of Gothenburg) has probably been instrumental in giving him this perspective. He sums up by saying that he does not share the same infatuation with the firm or the product, exclaiming

I don't even like cars very much!

In this sentence, Erik touches upon another common trait among the activist professionals: the critical outlook regarding the firm's products. This, again, makes them more in line with the NGO community than the traditional Volvo employee

community, which generally is car manic and loyal to the firm. Monica takes a similar 'car-reflexive' stance – independently of Erik, she states that she is not a big fan of cars.¹⁰³ She also bemoans the firm's engineer-driven, instrumentally rational, and sometimes macho view of cars, which is reflected in how Volvoites speak about cars. She specifically objects to the top marketing executive who, in describing the new Volvo during a recent product launch, used the term "aggressive". "Eight times!", she exclaims. At the same time, she points out, that that same executive still – 40 years after Ralph Nader's car safety crusade – sees the word "death" as taboo when discussing cars. Instead, she prefers Gyllenhammar's view of Volvo's business, as espoused in his 1972 UN speech, in which all the negative side effects of car use (road deaths, environmental and urban degradation) are explicitly stated.

Anna is another 'car hater' among the activist professionals. When introducing me to the firm, on my first day in the office, she tells me to bear one thing in mind: the rest of the organisation's static view of what Volvo does. By tradition, Volvo management has been infatuated with the Product. In books written by and about former Volvo executives, as well as in the speeches by current top executives, the word "The Product" (written with capital letters) frequently re-occurs.¹⁰⁴ It is difficult to alter this set perception of Volvo's business: Volvo managers are not, Anna says, susceptible to thinking about their business in terms of producing a service (as has become fashionable within business recently). They cannot even stretch their mission to 'moving people'. No, she continues, according to them, "we build cars". No more, no less. This annoys Anna, who feels that this stifles ideas to re-think the firm's

¹⁰³ Based on interview, Gothenburg, 29 January 2003.

¹⁰⁴ See for instance Gyllenhammar, Palmgren & Petersson (1991), Ekman (2003) and Hälleby (1990).

practices. She would rather see a Volvo that construes its purpose as being a 'mobility provider', a constructive participant in the progressive re-organisation of urban transport systems. The current infatuation with the car – The Product – as a static concept is therefore something that Anna sees as unfortunate. She fears that through holding on to that view of the business, the firm will constitute a conservative force, maintaining a system in desperate need of radical change.

The 'car-hating' trait of the activist professionals can partly be explained by the fact that their educational background, work experiences and life stories tend to deviate substantially from the Volvo employee norm. First of all, none of the activist professionals are schooled as engineers. Lars studied environmental management, Anna studied international relations and conflict resolution, Monica took an interdisciplinary course focusing on Asia-Pacific studies, Elisabet studied journalism and so on. In other words, all of them have in some way or another been trained to see motoring from a social and political perspective. Secondly, most of them have had previous jobs in which Volvo and the car industry is seen from an outsider's perspective – Erik in the municipal environment department, Anna in partnership with the EU institutions, Lars in the UN, and Monica for a local retailer in Asia. Thirdly, both Anna and Monica independently state how they tend to see global industries in a different light, following their unorthodox upbringing. Both of them grew up in South America (Mexico and Brazil, respectively), witnessing degenerating urban environments, as well as great divides between rich and poor. Compare all these traits with the average Volvo employee: A male engineer, born and bred in Sweden, whose job experience is confined to industry (often only Volvo). Moreover, as a direct consequence of how engineers are educated, such a

person construes his (and very rarely her) role as an apolitical 'modest witness' to processes of Nature.

One last trait that the activist professionals share is subversive idealism and a drive to change things for the better. As mentioned above, this idealism is partly the result of the professionals being framed and entangled by previous experiences, education, current political engagements and so on. Had they not been framed, via personal experiences, as 'idealists' committed to environmental care and social responsibility, the team members could easily have operated as cynical spin doctors. (Remember: during the formation of Volvo Car Corporation's corporate citizenship function, some managers wanted the function to be about making the firm look good, rather than being good.) As mentioned earlier in this chapter, Monica wanted Corporate Citizenship at Volvo to be about changing the firm into being good, and left the job when she felt that the position was too heavily geared towards spin. Thus, during an interim period after the establishment of the function, the corporate citizenship position was construed as a narrow communicator role. Nevertheless, as Anna settled into the job, she managed to tweak her activities into focusing on changing the firm. This was largely due to the fact that the idea of making the firm look righteous, without driving actual change did not (and still does not) appeal to her. She refers to her personal background and formal education as an explanatory factor – had she been educated as a copywriter she might have been happy with just "burping up empty words" and not caring about the environment or social responsibilities.¹⁰⁵

¹⁰⁵ Interview, Gothenburg, 29 October, 2002.

Thus, as she did not want to be the public representative of a firm that operates in a blatantly irresponsible manner, she took it upon herself to expand her role.

Being political through mediation and alliance-building

In this way, in the case of Volvo, the corporate citizenship position is not predetermined – the remit of the BVC team allows them to be subversive change agents, but it also allows them to be cynical spin doctors. The mode of operation very much depends on the individuals, experiences and networks that fill these positions. There is thus an element of truth in the allegation (often expressed by NGOs) that corporations' efforts within CSR and Corporate Citizenship can amount to nothing but corporate spin and whitewash. More interestingly, the Volvo story can also be related to Andrew Barry's argument regarding Corporate Citizenship as an 'ethical assemblage'.

When Monica originally made the case for setting up the Corporate Citizenship Strategy Group, and subsequently argued that a 'Corporate Citizenship Manager' position had to be created, she drew upon examples from other firms. The prime influence was Shell, which had developed its Corporate Citizenship programme in response to the crises of Brent Spar and Nigeria.¹⁰⁶ As Barry (2003) writes, "the development of ethical concerns in the oil industry and elsewhere is, in part, a response to political events". Shell's pioneering work on developing the triple-bottom-line approach to annual reporting – as introduced in the 1997 publication *Profits and Principles* – may indeed be seen as an instrumentalist effort to instil public trust in the firm. (Shell, 1997)

¹⁰⁶ For more details on these crises, see Klein (2000: 378-387).

Following Monica's translation of Shell's ideas, Volvo's effort to engage actively in its "role in society" ended up being modelled upon another initiative, which in turn was developed with the intention of being an ethical assemblage. One result of this was the fact that constructive partnerships with civil society organisations were prevented: For the corporate citizenship professional, the problem with the Shell approach to corporate citizenship is that it focuses on reporting, causing the corresponding job function to be construed as a role strictly aimed at informing the public. The focus of the BVC team, on the other hand, is to engage in collaboration with stakeholders, bring novel ideas into the firm and thus transform the operations of the firm. (As already noted, the actions of the team, notably Lars, can be understood as a quest to achieve this goal.)

In this way, most of the Corporate Citizenship functions that have been established in contemporary corporations may well be set up with the intent to create trust among the public. The very success of the Shell approach (which has been widely adopted within business) may stem from the fact that it appears to help corporations retain trust. This suggests that there is a collective understanding among business leaders that it is in their interests – and in the interest of their peers in the business community – to adopt Shell's programme (triple-bottom-line reporting, publishing of social reports, stakeholder dialogues and so on). Interestingly, this would imply that when corporations are adopting Corporate Citizenship/Corporate Social Responsibility programmes, they are actually not primarily acting responsibly towards 'society' – they are acting responsibly towards the rest of the business community. This argument is strengthened by the fact that when developing the contemporary discourse on corporate citizenship, the agenda has been set by the likes

of Shell and its consultancy – not the civil society that it is supposed to be responsible towards.

However, on the level of the individual firm, the establishment of corporate citizenship job functions may equally be highly contingent (as shown in the Volvo case). Monica drew upon the Shell approach as a model simply because Shell was a well-respected firm having done something constructive to tackle the issue of "the role of business in society". As a junior manager, she would have had a hard time selling top management a previously untried concept, perhaps developed in collaboration with an NGO such as Greenpeace. Also, the introduction of the corporate citizenship function (and the subsequent forming of the BVC team) has not served the "anti-political"¹⁰⁷ purposes that Barry assigns to corporate citizenship efforts. Instead, rather than shutting down the spaces for contestation of Volvo's business, the activist professionals (and the networks that they form) have come to extend the contestation of Volvo's operations.

Nevertheless, the opportunities for the BVC team to 'be political' through contesting given business practices are determined by their ability to make their claims seem credible and 'objective'. Paradoxically, the space for being political (by arguing for alternative business practices) diminishes if they seem to be political (in terms of ideology, activism and so on). Posing as apolitical enables the professionals to be political. Or, in Latourian terms, the "gesture of purification" (pointing to 'objective' risks 'out there') allows the professionals to be such "effective entanglers" (Latour,

¹⁰⁷ 'Anti-political' in the sense of "suppressing potential spaces of contestation; placing limits on the possibilities for debate and confrontation". (Barry, 2002)

2003a: 39). The only way of swaying the opinions of engineers and executives is for the activist professionals to skilfully construct objective management facts through weaving together elements from both the Nature and subject/society poles.

In order to be credible in their construction of objective management fact, the BVC team needs to be trusted as legitimate Volvoites with the firm's best interests in mind. How else can a group of employees, based in a peripheral part of the company, lacking basic car-building skills and belief in The Product, have any legitimacy in telling the firm to jeopardise profits for the sake of yielding to the demands of a seemingly arbitrary set of marginal interest groups? Arguably, most top executives are likely to view such employees as a threat to the company for which they are personally responsible. The activist professionals must therefore engage in goal translations with the rest of the firm – in other words, skilfully present their ideas as being in the interest of Volvo, not just the 'greater good'.

Consider the case of Erik; a person with close links within the activist community, who is only with the firm on a temporary basis (for one year or a year and a half). Inevitably, Erik is subjected to a vast amount of sensitive information, for instance documents on the practices and decision-making of the firm. To some extent, the leaking of such information can be partly prevented through various confidentiality agreements. Nevertheless, there is a wealth of more tacit information – a top executive's interest or disinterest in a certain sensitive area, the 'true' rationales behind a certain decision – that the company cannot prevent him from sharing with the outside activist communities. All of this notwithstanding, Erik was let into the firm because Lars vouched for him. There are mainly two reasons for why Lars can

vouch for Erik: first, because Erik's work follows certain practices that Lars himself has taken part in designing; second, partly because Lars simply trusts Erik.

Lars, in turn, is vouched for by the head of Public Affairs, who is in turn respected by the top management. Thus, a chain of alliances – resting on both work practices and interpersonal trust – has evolved. This chain runs through the organisation and thus secures the activist professionals' position within the firm. As explained in the previous subsections, the BVC team members ensure that this chain of alliances also extends outside the corporate walls. Let's recap Lars's view of the NGO community, as quoted above:

They are highly competent, very open for collaboration. They are a great resource – my work would have been considerably more difficult had they not existed.

Compare this with a top executive's view of civil society organisations:

As for those activists on the street; it is not possible to have a discussion with them!¹⁰⁸

The top executive is referring to the 2001 EU summit in Gothenburg, when civil society organisations' protests escalated into violent riots. Protesters were put under siege by the police in the high school in which they were staying, one protester was shot by a policeman, and large parts of the city centre were severely vandalised. Interestingly, the top executive tends to associate civil society organisations with these hard-core protesters, all of which are thoroughly anti-business. To be fair, the executive is probably fully aware that not all civil society organisations are militant

¹⁰⁸ Based on informal discussion, Gothenburg, 15 September 2003.

and anti-corporate, but a slight tendency to generalise is nevertheless discernible. The generalising tendency is especially noticeable when discussing the increased political role of the NGOs. The top executive does not see civil society organisations as legitimate complements to the traditional political institutions, such as political parties and unions (with which he has close links).

Lars, on the other hand, has a more nuanced view of the civil society organisations. He knows that while some organisations are militant, most of them are not. He knows that while some are against everything corporate, most are highly cooperative. Most of all, he knows that given this diversity, it is crucial to discriminate between the organisations – to find the ones which can prove fruitful partners for collaboration, the ones which are likely to have the most significant impact on the industry, and so on. From his point of view, the task of the BVC professionals is to keep track of all these organisations, judge how to relate to them (collaborate, obey, monitor etc.), find a potential fit between their objectives and the firm's objectives, and maintain good relations with the ones chosen for collaboration. This cannot be done by top executives – the scanning, assessment, and management of the relations with NGOs is a full-time occupation. (Again, Lars does not – at least not officially – recognise the ways in which the representation of this external world is a reflection of the BVC team.)

The management of the relation to an NGO is partly a matter of establishing new work practices. However, interpersonal trust does play a significant role in facilitating collaborations. Given that there is a widely held view that NGOs are always anti-corporate, and that corporations are consistently ignoring NGO claims, collaborations between the two parties can be fragile, resting on a small number of

people in each camp that trust each other. In the case of the BVC team, there is however a reasonable likelihood that such trusting individuals exist: As has been described above, the activist professionals are personally thoroughly entangled in civil society organisations. For instance, Erik's concern with staying 'true' to his old beliefs and thus retaining his previous civil society contacts is essential for the maintenance of some of his alliances. Viewed in this way, the BVC function operates as an apparatus for connecting, and mediating between, the world of NGOs and the world of Volvo engineers.

So, to sum up this section: the BVC professionals have an official remit to safeguard the brand values through monitoring the claims of NGOs, and relate them to the realities of Volvo engineers. However, as they do this they unofficially end up participating in overflow inventions around Volvo's business. The activist professionals' ability and personal motivation to engage in these activities largely stems from their personal – but nevertheless unacknowledged – entanglement in these external worlds. The mediation that they take part in entails both non-human actors (such as work practices and metrics) and human actors (such as NGO acquaintances); the next section will focus on how this mediating apparatus is made durable through a network of heterogeneous tools and practices.

5.3 The networks of the BVC team

In this section, the networks around the BVC team are studied – that is, the tools and actors that the activist professionals draw upon for constructing objective management fact. The text will focus on three things – the establishment of new measurement practices, the forging of new internal and external fora, as well as the

emergence of new professional roles. These three elements will be introduced in the order that the narrative permits.

Corporate citizenship reporting: measurement and management

As explained in the previous section, most of the activist professionals' efforts to transform Volvo emerge when they extend their official remits and start to engage in unofficial, hybrid activities. However, this particular sub-section will explore the extent to which Erik's formal role as corporate citizenship professional is in itself transformative. The introduction of new practices for measuring environmental and social performance, which is what Erik (and formerly Anna) is formally remitted with doing, is explicitly focusing on bringing certain environmental and social externalities into the market frame. Indeed, one of the founding axioms of the Corporate Social Responsibility/triple-bottom-line reporting discourse has always (since Shell pioneered the approach) been: 'What gets measured, gets managed'. That is, as regular practices for measuring the social and environmental performance of a firm are institutionalised, the firm will naturally start managing the social and environmental aspects of their operations in a better way. This implies that, for Erik, invoking the triple-bottom-line discourse and implementing such measurement practices is a powerful way to get leverage on the firm's practices. The measurement methodology thus becomes his tool for change.

Erik, as well as the rest of the BVC team, is a firm believer in the management-through-measurement approach. During the aforementioned lunch discussion between him, Kristina, and a Governmental Affairs representative, all participants agree that introducing metrics and regularly monitoring progress is the only way to

make the firm manage areas such as environmental care and corporate citizenship.¹⁰⁹

The professionals are furthermore of the opinion that quantification is crucial when stating your case within Volvo, and the automotive industry in general. One needs to point to numbers, in order to have an impact within the firm. This also explains the BVC team's desperate search for methodologies by which they can prove and quantify the risks created if and when Volvo fails to listen to the NGO community.

This is, then, one of the core dilemmas of the BVC team. Their job is to manage subjective, socio-political, 'intangible' phenomena – the environmental and social impact of the firm, as well as the risk presented by the NGO community. The team's problem is how to make the rest of the firm recognise these phenomena; how to argue that intangible impacts and risks are actually real, and thus should be integrated into the management processes. It is when arguing this case that they are hampered by insufficient or non-existent practices of proof, measurement and objectification. For the activist professionals, quantification thus appears as the panacea that will objectify and naturalise the subjective socio-political mess that they are supposed to manage. Anna, while she was in the same position, pointed to the same dilemma. For her, the difficulties of objectification and naturalisation were also related to the fact that what she is remitted with managing are often related to processes, not the product. Process-related side effects of the firm – human rights for suppliers' employees, a Volvo SUV's impact on the cityscape and so on – are less suitable for objectification and measurement than properties of 'The Product'.¹¹⁰

¹⁰⁹ Based on events in Gothenburg, 9 April 2003.

¹¹⁰ Based on informal discussion, Gothenburg, 25 October 2002.

Thus, while 'measurement breeds management' makes complete sense in theory, the reality of the corporate citizenship professional is more complicated. It is easy to overlook the fact that the institutionalisation of new measurement practices is by no means a straightforward process. This is evident when studying Erik's efforts to put together the corporate citizenship report. Entering the job, he was at first moderately optimistic, envisioning a process of collating data from across the firm, and then funnelling the data into a nicely formatted report. He also expected that when collating the data in various departments, he would benefit from a company-wide consensus on the use and relevance of the social and environmental metrics. While in the job, what he found was that the process of putting the report together was considerably more complicated. He soon realised that he himself would have to forge the new practices of measurement. Over time he became increasingly disgruntled, weighed down by the sheer sluggishness of the institutionalisation of new metrics.

In this process, there were a number of impediments to Erik's trying to construct a systematic monitoring, reporting, and management of a new set of metrics. The first impediment that Erik stumbled into a few months into his job was the fact that sometimes the data needed for the report was simply not monitored. When planning to publish detailed data on sick leave – for instance the ratio of long-term versus short-term – he found that it was not available.¹¹¹ It would then be up to him to pressure the Human Resources department to start measuring this data. This is however a daunting task for a fairly junior manager from Public Affairs; Erik simply does not have sufficient influence to force them to introduce such measurement

¹¹¹ Based on informal discussion, Gothenburg, 9 April 2003.

practices. In order to have this influence, he would need to ask for support from top management.

Provided Erik gets to the point where the metric is starting to be monitored, the next set of impediments present themselves – how to arrive at a shared view of what to do with the measured data. As already mentioned in the anecdote about his lunch encounter with the friend from military service, the fact that a certain metric is introduced does not mean that there is a company-wide consensus on how to deal with the measured phenomenon. As the reader may recall, Erik tied the metric of 'average carbon dioxide output per car sold' to the ACEA objectives of reducing the CO₂ output by 25%. The acquaintance from the military service, and to some extent the whole engine R&D department, did know about this objective, but did not take it as seriously as Erik did. There is thus a problem within big organisations to reach a consensual view on how the firm should respond to a certain outcome of the measured phenomenon.

This is because, *pace* Haraway, that which is "real can also be Other" (Law, 2004: 4). Though the new metric may yield a new reality, this newly invented reality is only "partially connected" to the mainstream worldview materialised in the business practices. In actual social practices there is no binary opposition between the real and the unreal: Instead, there is "a contested gradient of realness", and the extent to which this realness is enacted is contingent upon who invented it. In this case, the inventor is Erik from the peripheral Public Affairs department – causing the entangled engineers to ignore the metric.

During an informal discussion, Erik gives an example of how the same problem has materialised in a different matter: how the manufacturing plants are heated.¹¹² In this case, he says, there is an established measure in place: the quantity of CO₂ emitted from the manufacturing of cars. During the exceptional weather conditions of the winter of 2002/2003, electricity prices surged and the plant managers therefore switched from electrical heating to natural gas heating. This caused the firm to emit more CO₂ than in the previous year – a change clearly stated in Erik's corporate citizenship report.¹¹³ Although the plant managers knew that switching to natural gas would cause a negative outcome with regard to the CO₂-emissions metric, they had no means (barring the state CO₂ tax) weighing that outcome against the economic benefits of attaining cheaper heating. In this way, while the state's taxing of CO₂ emissions in production might change corporate practices somewhat, Erik's monitoring and reporting of the metric is inconsequential. There is no internal feedback mechanism that makes plant managers factor in the negative impact on the brand caused by their switching from electrical heating. It is difficult for the plant managers to assess just how detrimental it is for the firm that the next corporate citizenship report will show a negative trend in terms of CO₂ emissions. Again, this is where the BVC team is in desperate need of a legitimate method of quantifying the brand image risk caused by such events.

While Erik is lacking a method of quantifying the damage of a tarnished brand, the importance of the brand *per se* is well recognised within the highest echelons of the firm. Two days prior to Erik discussing the carbon dioxide issue with me, the CEO

¹¹² Based on informal discussion with Erik, Gothenburg, 3 April 2003.

¹¹³ See Volvo's Corporate Citizenship report 2002, page 24.

visited the Public Affairs department.¹¹⁴ As an impromptu open meeting decided at the last minute, the aim was to have an informal chat with the 20 or so employees in the office at that time. It was a forum for the Public Affairs professionals to pose whatever questions they might have, and for the executive to speak about his vision for the firm. Having started out by thanking the employees for hanging in there during the harsh couple of years that had just passed, the CEO moved on to discuss how Volvo is to remain successful. He says that he is "more and more convinced" that the most-recently released car will be successful, and – more importantly – that "no one else but us, here on Hisingen [the Gothenburg island on which Volvo is situated], could have produced this car". He talks about how the new car fits into the long tradition of Volvo hatchbacks and their proven functionality. It is, he says, only from this Swedishness and this tradition that Volvo can build future success. Great challenges lie ahead – Volvo is now competing with the German manufacturers, in five years time it might be the Korean ones, and another five years down the line Volvo will have to face the threat of the Chinese manufacturers. Given this turbulence and lack of continuity, all that Volvo can do is to rely on its brand. The firm must stop thinking in terms of "bench engineering" – benchmarking the firm in relation to the competitors, thus ending up mimicking the rest of the industry. Instead, Volvo must think in terms of 'brand engineering' – polishing what it means to be Volvo. The CEO therefore prompted the employees to "think Volvo and think Swedish" in everything they do. In that way, the firm will outlive the German, Korean and Chinese competitors. And, he concludes smilingly, "brand thinking outlives everything". Thus, the importance of the 'Swedish brand' is just as important

¹¹⁴ Based on field notes, Gothenburg, 1 April 2003.

as it was in the 1920s and 1930s. Paradoxically, one can even state that 'swedishness' gained in importance the moment the firm became American-owned.

The CEO's brand discourse is thus an exceptionally strong one within the firm, and Erik's medium-term plan is to win the argument against the plant managers by invoking this discourse. His argument would thus be that minding the CO2 emissions from production, as well as the other metrics monitored in the corporate citizenship report, is a form of 'brand engineering'. Nevertheless, he is not alone in this ambition. Other employees pushing other agendas, for instance quality or motor performance, also argue that minding car quality or performance is a form of brand engineering. So, in the short term, all that Erik can do to discipline the plant managers is to simply, in his own words, "cling onto them like a leech".¹¹⁵ While still in post, Anna complained about the same thing, saying that the lion's share of her time is spent on "shouting at other departments" to make them behave.¹¹⁶ While Anna seemed to have the necessary mental stamina for such 'disciplining-through-nagging', Erik seems more prone to lose his motivation for such work. Returning from a meeting, which was spent reviewing a plethora of missed targets, he concedes: "I felt increasingly tired by the end of the meeting. Maybe I slept too little last night."¹¹⁷

Although the nagging at other departments to meet social and environmental targets may sometimes prove daunting, Erik does have an indirect disciplining role: The fact that he is remitted with editing a document that is to be released to the public (not least NGO) domain does after all grant him some power. The editing of the report is

¹¹⁵ Based on informal discussion with Erik, Gothenburg, 3 April 2003.

¹¹⁶ Based on informal discussion, 29 October 2002.

¹¹⁷ Based on informal discussion, 22 April 2003.

a process by which Erik compiles the necessary data, puts it into a written report (featuring tables and charts), which is subsequently sent out for review across the firm. At this time, various departments can make corrections, suggest that a certain sentence ought to be rephrased, or that some information is to be omitted. In this process, Erik – being an activist professional concerned with not losing his outsider community credibility – finds it imperative that the report is truthful and not "watered down". This is partly in order to protect the firm from the risk of being found out to be hiding something, but also due to the fact that Erik simply does not want to engage in spin doctoring.¹¹⁸

Given the fact that the departments of the firm are concerned with not looking bad, the review process before publishing often ends up being a minor confrontation between Erik and other interested parties. For instance, if one of the metrics published in the report shows a negative trend, the department in charge might ask for the metric to be omitted – especially if the slump is a temporary one. Erik – arguing the case of remaining open – is nevertheless relatively unyielding in this respect. (Seven out of 18 of the metrics in the 2002 report did show a negative trend.) In some ways, Erik thinks, the confrontation itself might serve a purpose by warning departments that unless they manage their metrics, they will be 'outed' next year. In this sense, the corporate citizenship report is a powerful tool helping Erik to push his agenda.

Another form of confrontation concerns the phrasing of texts in the report. Here, Erik tends to write in a tone that is close to what he deems to be the mainstream position

¹¹⁸ Based on informal discussion, 3 April 2003.

of the firm: "I have some kind of compass for what is accepted", he says.¹¹⁹ He cannot, in this instance be too radical about the stances and pledges of the firm, as he knows that such formulations will be omitted by the review process. Moreover, and maybe more importantly, his overall influence within the firm is (as mentioned above) dependent on the trust of the rest of the organisation. He can therefore ill afford to be marginalized as a loony radical. In some cases he does manage to "slip in" a bold sentence or a minor pledge in the text that passes the review process.¹²⁰ One such sentence is about how Volvo sales offices should not peddle unnecessarily big cars to consumers. However small such a sentence may seem, it does have an impact by giving the external communities a pledge that Volvo must adhere to. Again, it is interesting to see how he chooses to take this risk (of damaging his intra-organisational trust) within the area that he is mostly interested in: sustainable mobility.

Implementing the 'triple-bottom-line' set of metrics is a thus a slow process, and as we shall see there are other ways by which the BVC team drives change. The triple-bottom-line approach is however instructive in understanding how these other ways of driving change operate: In theory, the new set of metrics is supposed to create new 'knowledges' by which to manage the firm. For instance, measurement of CO₂ output in manufacturing created the knowledge that the emissions are at a certain level, and that it needs to be lowered. In order to manage the firm according to the new knowledges, an elaborate network of 'channels' is needed to spread knowledge and coordinate modes of action. For instance, the measurement of CO₂ is supposed to be

¹¹⁹ Based on informal discussion, 1 April 2003.

¹²⁰ Based on informal discussion, 17 March 2003.

channelled to the plant managers, together with the knowledge that such emissions damage the brand image. From that, the managers can choose their mode of action.

As the problems with institutionalising the triple-bottom-line approach shows, 'hardwiring' of new knowledges and new channels is a slow process. Again, it is the unofficial hybrid activities of the BVC team that open up new spaces for contestation. In the following subsections, we shall see how they manage to invent overflows through the creation of new fora for discussing externalities.

The post-Johannesburg workshop: building internal fora

One afternoon, Anna and Lars leave the Public Affairs premises for a meeting room next to the canteen area in the PVH building.¹²¹ Anna is staging a minor event, a presentation and workshop meant to discuss the recently completed World Summit on Sustainable Development in Johannesburg. In the room, a group of twelve people have assembled, two of whom are standing up, waiting to start their presentation. Anna welcomes everyone and introduces herself, inviting the participants to do the same. There are some familiar faces among the participants – Monica, Stephen Wallman (the Lambda rod innovator and subsequent head of Governmental Affairs), and the Governmental Affairs representative who dislikes the road authorities (see previous section on Erik's and Kristina's lunch encounter). The other attendees also introduce themselves – a woman from market intelligence, a male senior manager from Global Marketing, a male head engineer from R&D and so on. During the last self-introduction, the group's attention is quickly diverted as a woman sweeps into the room, nods and smiles hastily at everyone, and sits down. A sense of excitement

¹²¹ The following is based on field notes from Gothenburg, 30 October 2002.

and urgency fills the room; all attendees suddenly sit straighter and seem more alert. The eminent latecomer is the CEO's right-hand person, and her very attendance has just turned the sleepy afternoon get-together into a significant event with potentially strategic implications.

The two speakers start their presentation: The more corporate-looking person introduces himself as the CEO of a consultancy named RespectEUROPE, and that today's presentation is a report on the proceedings and outcomes from the Johannesburg summit. (The summit was held between August 26 and September 9, roughly a month before this meeting.) He goes on to explain how such summits work: The objective of Johannesburg was, according to the UN General Assembly (UNGA) Resolution 55/199, to stage a ten-year review of the progress made since the 1992 Earth Summit in Rio and thus reinvigorate the global commitment to sustainable development. The WSSD in Johannesburg was thus the continuation of the previous UN summits on the environment, starting from the first one in Stockholm 1972 (incidentally the one in which Gyllenhammar made his critical comments about the car industry). Summits like the WSSD lead to two types of outcomes:

- I. Political declarations, in which Heads of State and Government commit to taking a certain action. These follow plans for implementation, which are negotiated by governments and set out the mode of future action in more detail.
- II. Commitments by governments and all other stakeholders to a broad range of partnership activities that will implement sustainable development at the national, regional and international level.

The summit was thus attended by a plethora of organisations – governments, corporations, and civil society organisations – trying to influence the outcomes. Parallel to the official decision-making of the summit, a number of side-activities were organised. For instance, an official Civil Society Forum hosting more than 500 organisations from across the world, and the corporate sphere held similar events in a nearby hotel complex. Prior to the summit, NGOs and the business community had come up with a common agenda, negotiated at four preparatory coordination meetings ('Prepcoms') during the spring.

The consultancy CEO goes on to say that the aim of today's presentation is to inform Volvo about the official outcomes of the summit. However, more importantly, the consultancy will give the firm an overall picture of the demands relevant to the business community that were raised during the unofficial events, and give some advice in approaching such demands. He then hands over to his colleague, the consultant who actually attended the event, and wrote the report that is distributed during the presentation. During the first half of his presentation, the consultant gives an account of the most heavily discussed issues: The shift from fossil to renewable energy sources, securing the supply of water for drinking and sanitation, and rules for corporate accountability. He also explains which organisations were most visible, and what causes they supported. For instance, the World Business Council for Sustainable Development was highly visible, and the policy measure most strongly supported by civil society representatives was a 'Corporate Accountability Framework' for transnational corporations. He also tells the Volvo professionals how the Global Reporting Initiative, a system of social and environmental metrics

designed for corporate citizenship reports, was "dubbed the world standard" for such reports.

In the second half of his presentation, the consultant talks about the summit's implications for Volvo Car Company, notably within the field of sustainable mobility. He outlines the alarming data about car dependence that were presented in Johannesburg: Road transport generates 20% of the total output of greenhouse gases and is responsible for 1.5 million pollution-related deaths per year, yet the number of automobiles on the road looks set to triple in the next 50 years. Following these chilling statistics, the consultant presents some policy measures currently in the pipeline (such as road pricing, tolls, national parking taxes) and new energy sources developed for automobiles. He then moves on to what Volvo's competitors are doing in these areas. For instance, all major competitors are making large-scale R&D investments in hydrogen/fuel cell cars, many of them have entered partnerships with governments and the energy industry in order to spread alternative fuel use, and so on. The presentation concludes with a seven-point programme on what Volvo should and should not be doing in these areas, given the demands made by civil society organisations.

After the presentation, a roundtable discussion ensues. For most of the meeting attendees, the issues raised were by no means novel, especially for BVC team members present, but a sense of urgency is nevertheless apparent. Surprisingly, the senior managers from other departments seem intrigued; partly concerned, partly inspired by the message fed to them. The striking thing about the discussion is the consensus on the need for change – which is seen as a given – and the focus on elaborate strategies to transform Volvo from the inside. The professionals assembled

speak about change not only within Volvo but also throughout the industry, saying things like:

We can use this [strategy, tool etc.] to force companies to change!

Note the operative word "we" – apparently the meeting room is filled with 'activist professionals' with an 'outside-in' perspective of the firm. The meeting attendees have all become potential allies in the BVC team's quest to introduce alternative perspectives on the nature of the business. The consultants, feeding into this moment of inspired radicalism, answer that if change is to be achieved, then "this is what you should tell your top management".

After the meeting, Anna seems content with the report from the WSSD. However, she is even happier about the fact that the top management confidante made it to the meeting. The actual proceedings of the meeting were almost secondary – the point of the event was to mobilise allies. Hence, the attendance of the top executive was crucial, as it provided implicit support for Anna's cause. She can of course hope that the CEO aide directly influences the CEO, but more importantly Anna can now refer to the meeting's prominent attendees, and thus legitimise the sustainable development agenda. In a subsequent meeting with the top executives of the firm, she does this very thing. Top management regularly hold meetings to monitor progress within each department, and within this setting Anna successfully argues for more formal networks of collaboration to be put in place. She is given the remit to form a Corporate Citizenship Council – a cross-departmental group involving top management, meeting twice a year. For Anna, the council provides a forum for her to pursue her plans on a larger scale: The council coordinates overall action plans, monitors progress and gives the go-ahead to larger initiatives within corporate

citizenship. The very point of the council is to legitimise the agenda; to lock all the members into a consensus that managing corporate citizenship issues is in the interest of all parties. In other words, it is a goal translation enacted into an organisational structure. In turn, the very formation of this body, Anna believes, is the result of the successful enrolment of allies during previous informal events, not least good turnouts of important (as in well-connected) people.

Over the course of a year or so, Anna thus created a new internal forum in which to discuss and disseminate the demands made and discourses presented by civil society organisations. The formalised, durable structure – the Corporate Citizenship Council – was preceded by building informal networks, which were forged through the staging of ad hoc events such as the post-Johannesburg workshop. As mentioned in the previous chapter, Monica used the very same method when originally founding the corporate citizenship function: First organising workshops to raise awareness, state common goals and win allies, then forming the Corporate Citizenship Strategy Group to formalise an agenda, followed by the creation of a formal job function remitted with delivering that agenda. This mode of creating fora – from informal events with the aim of attracting allies, to the founding of durable organisational structures – is a frequently recurring pattern in the work of the internal activists.

In forging the informal networks through the post-Johannesburg workshop, Anna did not simply make people meet. She also used tools to a) spark non-BVC professionals' interest in the meeting, b) construct a legitimate sustainable development message, and c) sell that message to the meeting attendees. The main tool drawn upon in this instance was the consultancy, RespectEUROPE. Anna had made it clear to the meeting attendees that the meeting would be a presentation of a new report, tailor-

made for Volvo, by respectable experts. Moreover, as this report was purchased, it was seen to have value for the firm, and since she (that is Public Affairs) financed it, it would mean 'free' value for the representatives from other departments. This made the meeting very appealing to the invited attendees. Moreover, these consultants had done something that Volvo had not had time or money to do – actually attend the summit. They thus possessed crucial first-hand knowledge not available within the firm, which legitimated the message that they communicated. And, lastly, they communicated this message in a credible, yet inspiring way, thus prompting the listeners to act. All of this, of course, did further Anna's interest in spreading her agenda. As we shall see in the next sub-section, this consultancy plays a crucial role in the networks used by the BVC professionals.

The hybrid consultant: politics dressed up as business

During their presentation at Anna's post-Johannesburg workshop, the RespectEUROPE consultants conducted themselves in the typical management consultant manner. They wore suits, they used elaborate yet tasteful overhead projections, and they spoke in management lingo, truncated into bullet points (no less than three, but no more than seven). Moreover, they handed out neatly bound reports made from high-quality paper, featuring executive summaries and plenty of colourful (and somewhat superfluous) diagrams. The logo of the firm featured, in good management consultancy tradition, the names of the cities where local offices are established – Amsterdam, Copenhagen, London, Oslo, and Stockholm. From what one can gather, they probably charged Anna according to the same hourly rate that other management consultancies charge their clients.

But there were other traits of their presentation that obviously did not fit into the mould of the traditional management consultancy. As the sentiments expressed during the Volvo meeting increasingly took on the character of a Greenpeace rally, the consultants did not seem the least uncomfortable. Instead, they spurred the newly awakened change agents on, advising them on how to change the firm's practices from the inside. As far as their personal sympathies go, the consultants were fairly successful in keeping a professional distance to the environmental issues or NGOs discussed. Yet, at the same time, they did seem remarkably comfortable in formulating the arguments raised by the NGO community. Thus, there was an obvious hybrid character to their activities – partly as management consultants dealing with the objective and naturalised facts of business, partly as civil society activists dealing with subjective politics.

This hybrid character is apparent when studying how they describe themselves to various parties. To corporations, they sell themselves as a management consultancy; to the NGO community and to prospective employees, they say that they are a pressure group.¹²² In its self-definition, the consultancy manages to fuse these two facets of their work in the following way:

RespectEUROPE is a values-driven consultancy that inspires and assists the business community to become responsible corporate citizens. The company provides *strategic advice to corporate managements* and promotes a creative *stakeholder dialogue in society*.¹²³

¹²² Based on interview with business school graduate, Stockholm, 29 October 2003.

¹²³ The description (italics added) can be read in most reports and promotions material from the firm. See for instance the leaflet for the initiative *Discrimination is Everybody's Business*.

While being a consultancy that provides "strategic advice to corporate managements", the firm frames its activity in terms of being "values-driven" and promoting a "stakeholder dialogue in society" and more "responsible corporate citizens". The orthodoxy within either management consultancies or the NGO community would probably say that such a self-definition is oxymoronic. Providing strategic management advice on the one hand, while being values-driven on the other, are two activities that are mutually exclusive; they simply cannot be done at the same time.

The 'hybrid consultancy' disputes that view. Analogously to the view of the activist professionals inside Volvo, they feel that their translation of NGO demands into management advice is just as radical as the actual formulation of such demands. Conversely, and also in accord with the activist professionals' claims, they argue that a dialogue with stakeholders in civil society is a strategic matter, something that can benefit the corporation. If that then means that their consultancy services end up translating the demands and discourses into the corporate setting, then so be it – it does not by any means 'de-strategise' their advice. For RespectEUROPE, the activist component of their services is seen as necessary, given the fact that they specialise in monitoring and reporting the activities of activists. Indeed, prospective clients reading the obligatory consultant biographies on the RespectEUROPE website will find that the prime work experience of the Johannesburg-reporting consultant is the establishment of the Swedish chapter of anti-globalisation organisation ATTAC. Paradoxically, this NGO has by many Swedes come to be associated with the Gothenburg riots – the event that tainted the top Volvo executive's view of civil society organisations. Again, the chain of enrolments is in full operation: A top

executive might not have hired the ATTAC-based consultant, whereas Anna did, based on her more nuanced view of such organisations. Similarly, the hybrid consultant had to struggle hard to manage his alliances on the NGO side. Many of his friends from ATTAC were, based on their ideological convictions, highly critical of his move to work with (and not against) corporations.¹²⁴

A hybrid consultancy is in many ways conducting the same activities as activist professionals: It sorts among the plethora of civil society organisations, keeps track of all the demands put on the firm, judges which ones are urgent and which ones are not, and translates these demands into plans for corporate action. Depending on how close the collaboration with the client is, the expected developments within civil society can be matched with the overall strategic decisions of the firm. The consultancy argues that it can provide this service because it possesses a diverse set of competencies; it knows the dynamics of the business world, as well as the dynamics of the civil society organisations. Like other management consultancies, it also argues that its independence and outside perspective can provide value for the client, and that it has invested in knowledge not possessed by the firm (such as having sent a consultant to a summit in Johannesburg).

Bringing in RespectEUROPE for the post-Johannesburg workshop was something that benefited Anna's interests. Nevertheless, she did not approach the hybrid consultancy, asking them to attend at the workshop. As it happens, the workshop was but one out of several projects in a long-standing collaboration between Volvo and the consultancy. Rather than Anna approaching them, the pattern of collaboration is

¹²⁴ Based on interview with one of these friends, Gothenburg, September 2004.

one in which the consulting firm tries to sell various projects to her. Anna then decides whether to, as she says, "let them run" a certain project for her. This pattern of 'pitching' for work is not by any means uncommon within the consultancy trade – on the contrary, it is how most consultancy services are sold – but it is nevertheless interesting in this particular case. Given the fact that the hybrid consultancy services have the effect of contesting and changing the firm's practices, the consultancy is in fact an actor that continually politicises corporate practices and contests market frames. RespectEUROPE's business is to sell new projects – they therefore end up persistently supplying the activist professionals with ideas on how to translate the NGO agenda into new change initiatives.

RespectEUROPE is by no means alone in doing what they are doing – in fact, the corporate responsibility consultancy sector is booming.¹²⁵ In other words, there is now a whole industry of companies whose very existence is built upon the proposition that overflows around corporations are proliferating, and that these overflows need to be managed. And as with any other consultancy trade, it is in this sector's interest to prove the necessity of its services – to make executives aware of all the problems 'out there' that can only be solved using their solutions. Again, as in the case of the BVC team, the official rhetoric of the consultants seems to bracket their own participation in creating the phenomena that they are supposedly describing.

¹²⁵ For more on the booming CSR consultancy sector, see 'Cornering the niche market in responsible behaviour', *The Observer*, 25 April 2004.

Volvo's collaboration with RespectEUROPE commenced in 2001. At this time, Monica – having just assumed her new role as Global Diversity Director – was trying to get a couple of organisational initiatives off the ground. One of these was to establish a durable structure through which to drive her diversity agenda. The new institutionalised forum was formatted as a council, in the same vein as the subsequent Corporate Citizenship Council (mentioned in the previous sub-section). Thus, the Global Diversity Council meant that a panel of cross-departmental executives and representatives from top management met twice a year to discuss and decide on issues of diversity. For these meetings, the first one held in May 2001, Monica asked RespectEUROPE for assistance. The consultants thus prepared the meeting agendas, moderated the discussion, and assisted in the building of strategies to drive change. This structure has persisted, with the hybrid consultancy being an integral part. Over time, the council has pushed through a number of diversity initiatives:

- "The Car-builder project": Offering employment and a trainee programme (teaching the Swedish language and cultural patterns) to newly arrived refugees.
- Plural Project: A collaborative project with other Swedish firms, sharing knowledge on how to promote diversity.
- Diversity reference group: Establishing an organisational body, composed of off-the-norm employees, which gives assistance in the development of new products.
- Diversity marketing projects: Prompting the marketing department to find customer groups previously neglected by marketers.

Over time, an elaborate discourse on diversity evolved within the firm. This discourse states that diversity within the workforce – be it related to gender, ethnic origin, sexual preference, life experiences, skills or any other property – is key for the long-term survival of the firm. The reasons why this is so are manifold. One such reason, often espoused by the CEO, is that with too conformist a work force, the firm will simply not understand the pluralism of its customers (most of whom are not male, not Swedish and not engineers). Another reason, upheld by Monica and Erik, is the fact that diversity breeds creativity and innovation within the firm. A third reason relates to the recruitment base of the firm; if the firm tends to employ only a certain kind of individual, it is likely to miss out on competent individuals who do not fit the norm. Lastly, there is of course a social justice-based reason for breaking down stereotypes and smashing glass ceilings. What is remarkable is the strength and ubiquitous nature of this discourse – it very much permeates the firm. This is the result of a number of factors; heavy endorsement from the CEO, strong diversity communication via the internal magazine, and able activist professionalism on Monica's part. Nevertheless, some of the inspiration for the discourse has undoubtedly come from RespectEUROPE. The consultancy has proved a crucial resource for Monica when developing and spreading the discourse, has framed the terms of discussion in the Global Diversity Council, and has given advice to the top management on how practically to manage the issue.

The hybrid consultancy has therefore exerted a strong influence on the firm:

- It is drawn upon as a resource when legitimating a BVC team member's agenda, with view to establishing a new internal forum within a certain contested area.

- It pitches a steady stream of ideas for initiatives on how to change the firm to better comply with the demands of the NGOs.
- It sets the agenda for structured internal discussion on contested areas, and it comes up with action plans for the practical management of such areas.

In terms of hybridity and mediation, the hybrid consultancy is an illuminating example of how subjective politics can be turned into objective management fact. Politics is literally dressed up as business through the deployment of suits and ties, overhead slides and bullet points, as well as high-quality paper reports and management language. Expert legitimacy is also acquired through pitching for jobs in a suitably professional manner, through lists of references from previous clients, and through senior partners with a wide social network that includes executives in corporations that may be potential clients. All of the above are however features that can be used to describe any management consultant. Just like the overflow inventions of the BVC team and the NGO community, the management facts sold by the hybrid consultant emerge from quasi-objects woven together from both the Nature and the subject/society pole. Again, this is not necessarily different from any other management consultancy – mainstream management facts (or fads) are also forged via the mobilising actors in both poles. However, the hybrid consultancy is conspicuous in the allies that it enrolls; allies who are outspokenly political and activist-oriented.

Politicising gender and automobiles

RespectEUROPE is not the only example of a hybrid consultancy that has been enrolled by activist professionals: Elisabet has instigated a project in conjunction with a similar consultant.

Previously in the text it was noted that Elisabet's role as a safety communicator has had less of an 'activist' character; the drive to further the safety agenda is coming more from the engineers at the Volvo Safety Centre. However, she has had a long-standing interest in gender issues within the firm.¹²⁶ As an editor of the internal magazine *Agenda*, gender aspects had a prominent role: During her editorship, between 2000 and mid 2002, every issue has contained at least one feature on it, and most of the time the cover featured some kind of diversity-oriented headline. For some years back, Elisabet has also been involved in (and sometimes chairing) the Women's Business Advisory Board – a career network for women within Volvo that, like so many other initiatives, started as an informal initiative that subsequently got institutionally recognised. In November 2001, the WBAB arranged a workshop on 'Women in Management', with a view to developing strategies to help women rise to the executive ranks. The CEO was a strong supporter of the seminar; the previous year he had set an objective for the firm to have at least 25% women on all executive and managerial levels.

For this seminar, the WBAB had brought in an expert by the name of Martha Barletta as the main attraction. Barletta heads the US-based consultancy TrendSight, which specialises in teaching clients how to tap into "the women's market".¹²⁷ According to the consultancy's website, the advice provided to clients is founded on:

¹²⁶ It must be said that Elisabet is not the only BVC professional who is involved in gender issues and would categorise herself as a feminist. Lars is as versed in feminist issues, assuming a fairly radical feminist perspective on gender politics. Thus, as noted in the previous section, both of these professionals are entangled in personal politics, which influence their agency in the workplace.

¹²⁷ See TrendSight's website www.trendsight.com.

Marketing Experience: Over 20 years of hands-on, senior level marketing planning and execution with some of the most sophisticated marketers and agencies in the US means we understand marketing strategy, brand positioning, customer research, advertising, promotion, affiliation marketing, retail merchandising, collateral, loyalty programs, website marketing, sales communications and other keys to the success of an effective marketing program.

Understanding of Corporate Organization and Implementation: Front-line experience with leading companies across a variety of industries has taught us what it takes to marshal internal corporate resources for a program that works in the field.

However, TrendSight claims that its skill set is primarily based in another field:

Gender expertise: A working knowledge of gender difference findings from a wide variety of fields – including brain physiology, genetic biology, anthropology, psychology, human development, communications, corporate relations etc. – all interpreted through the twin prisms of marketing and consumer motivation, translates to insights that deliver a positive customer decision on your brand.

The consultancy is thus careful to point out that, while knowledgeable in the issue of gender, they are a marketing consultancy – not an NGO for the furthering of gender equality. The text is consistently flowing within the confines of the established marketing and branding discourse. Nevertheless, there is also a difference feminist agenda in the activities of the consultancy. For instance, the lengthy reading list on the website – published as a affirmation of the consultancy's thorough gender expertise – features difference feminist titles such as:

- *The First Sex – the natural talents of women and how they are changing the world*

- *Smashing the Glass Ceiling*
- *In a Different Voice – psychological theory and women's development*
- *Hardball for Women – winning at the game of business*

In this way, TrendSight uses the notion of naturalised gender as a means to exert influence. The feminist agenda is explicit when *Dagens Industri* (the Swedish equivalent of *The Financial Times*), reports from the Volvo seminar:

Martha Barletta [...] uses statistics and economics to demonstrate that company profits increase when women are a part of management. "It is easier to achieve gender equality in companies by spreading this knowledge than by enacting laws", she explain[s].¹²⁸

Thus, although using traditional marketing discourse to claim objectivity, Barletta's agenda is transformative and political, and it becomes even more so when enrolled by the Women's Business Advisory Board. As the seminar, featuring top executives, is framed along the lines of how to 'smash the glass ceiling', TrendSight's advice becomes all the more forceful. During her Women in Management lecture, Barletta (again drawing upon her gender expertise) argued that women are better managers than men, partly due to the make-up of their brains. *Dagens Industri* continues:

"I thought that women and men made equally good managers. The fact that women are better than men comes as news to me," commented Sven Eckerstein, Senior Vice President HR, after the lecture. "Now we have a sound reason for seeking female managers, even if more men than women apply for these positions," he added.

¹²⁸ 'More women in executive positions', *Dagens Industri*, November 2001.

In this way, the 'objective knowledge' about women's brains legitimated further efforts within the field. During the workshop discussions that followed Barletta's remarks, the difference feminism was translated into new action plans for changing the recruitment processes. The most significant outcome of the seminar did however spring from another of Barletta's remarks – the one that female consumers are more discerning than male ones. This serves as the foundation of her marketing motto: "If you can fulfil women's expectations, you will exceed men's expectations." By this she means that if a product is developed with a female audience in mind, that product is likely to reach a double-sized market – both the male and the female one. This is, of course, a radical departure from traditional automotive product development and marketing, which is done by men, for men. During the workshop, one of the discussion groups came up with an idea to translate this motto into a tangible project: Why not let an all-woman team lead the development of the next concept car? The idea was pitched to the top management, who gave the go-ahead for the project before the end of 2001.

The project – which eventually got the name YCC (Your Concept Car) – was assigned a management team consisting of five women from across the firm. One of these women was Elisabet, who towards the end of 2002 started allocating 50 percent of her time to the project. Besides the five project managers, a team of 60 employees (with an even distribution of men and women) were involved in the construction of the car, which was finally unveiled in March 2004. However, the media had started reporting extensively on the project a year and a half before this date. In the discussion as to why Volvo is running the project, the company gave a number of reasons: As a means to create female role models and thus smash the glass ceiling, as

a means to break the male norm within product development and marketing and so on. Some external observers (such as a researcher from Chalmers University of Technology studying the project) argued that the YCC was a valid project if – and only if – it was specifically aimed at women as a customer group. Interestingly, the CEO was adamant that the YCC was not a car designed with women as the prime audience.¹²⁹ Rather than an instrumentalist project aimed at a certain consumer, he preferred to see it as an experimental project on gender in organisations. Thus, he was one of the few who did not feel the need to legitimate the project on the grounds of objectively seeking to reach new customers. The general consensus was that this was not about subjective politics: The rationale for the project always referred back to Barletta's quote on fulfilling women's and exceeding men's expectations – so much so that the researcher found that the whole organisation was "hiding behind the quote".

Upon its release, during the 2004 Geneva motor show, the gender experiment did indeed spark ample debate. Reactions in the press were predominantly positive – again, Volvo had proved itself to be the ultimate progressive Swedish enterprise. BBC News online reported

Swedes being Swedes, the Volvo concept car remains eminently sensible. Only this time, it is common sense spelt with an F for Feminine rather than Farmer.¹³⁰

¹²⁹ Interview with Maria Bäckman (Chalmers University of Technology Ph.D. student), 29 January 2004.

¹³⁰ 'Girl Power softens Volvo's edges', *BBC News Online*, 3 March, 2004.

Competitors did however disparage the concept car, interestingly through invoking a seemingly feminist discourse. Robert Lutz, vice chairman of General Motors, argued that the whole idea was sexist: "Most women would say 'I send my husband out to do the shopping. Let him have the car with the rubber bumpers.'" Michael Ganal, head of sales and marketing at BMW, complained that the project was

not even a theory, it is nonsense. [...] We never approach a car by asking, 'Is the car more used by males or females?' We ask, 'What is the purpose of the car?'¹³¹

Thus, the high-ranking executives ended up battling each other along the lines of a classical 'difference feminist' versus 'sameness feminist' dispute – what are the dangers of a naturalised conception of gender? Though the feminist hybrid consultant espoused theories that to some may seem dated and dangerous, her work with Volvo had the effect of introducing an alternative perspective on the automotive industry, politicising the relation between gender and automobiles.

The story of Barletta and the YCC project is thus yet another example of a hybrid consultant's role in mediating between subjective politics and objective management fact. Like RespectEUROPE, TrendSight deploys a number of attributes in order to secure legitimacy as experts and thus construct management imperatives. As a result, a change in the internal structure of the firm (and to some degree the structure of the industry) was set in motion. However, in one respect, RespectEUROPE has had more influence over Volvo than Barletta: Not only has RespectEUROPE had an influence on the internal structure of the firm; the influence has also stretched to a

¹³¹ 'Guys pan a car built by women, for women', *New York Times*, 6 March, 2004.

reconfiguration of Volvo's relations to the external world. The above text has shown how the BVC team enrolled the hybrid consultancy when networking inside the firm. The next subsection will study how the hybrid consultancy has played a formative role in the creation of formalised networks with the civil society organisations.

Stakeholder dialogues: building external fora

In 2001, Monica launched a Volvo-led public initiative on furthering employee diversity in corporations. The initiative, dubbed 'Discrimination is Everybody's Business', was run under the framework of the Global Compact – a UN-led corporate responsibility forum. Within this framework, corporations are encouraged to enter partnerships with a handful of other firms and various civil society groups, thus developing knowledge on how to manage difficult societal issues. The outcomes of such partnerships are then discussed among a larger pool of Global Compact-enlisted corporations and stakeholders. To get help with administrating such a large project, Monica approached RespectEUROPE (who at this time were also organising the Global Diversity Council). The consultancy was initially remitted with putting together a report on what Volvo and the partnering companies are doing within the field of employee diversity. The consultancy then staged and moderated a workshop, held during the 2001 World Conference Against Racism in Durban, and put together another report on the outcomes of the workshop. The initiative was well executed and considered a success. The project was also a success for Monica who – by using the existing high-profile forum of the UN – had committed Volvo to distinguish itself as leading the field in terms of employee diversity.

The UN Global Compact is one example of the emergence of structured fora, in which corporations and civil society organisations can exchange views and

knowledge on corporate practices. After Johannesburg, such collaborative efforts – dubbed 'partnerships' – have become a key concept within UN and other international policy circles. Countless bureaucrats and diplomats are currently trying to find ways of furthering the spread of such initiatives; ways of getting corporations and NGOs to talk to each other. However, while partnerships tend to be construed as one-off projects, many corporations already engage in discussions with stakeholders on a regular basis. Such 'stakeholder dialogues' are increasingly becoming an obligatory part of Corporate Social Responsibility practice. A stakeholder dialogue is a gathering of representatives from ten to twenty stakeholders, primarily civil society organisations, but also regulatory bodies and governmental agencies. The stakeholders attending the meeting are meant to discuss and state their views on the practices of the firm in question. The objective of the meeting is for the firm to listen to the attendees, not to argue and defend itself, which means that no more than a couple of company representatives attend these meetings.

Usually, an independent third party does the moderating and reporting from the meeting. In the case of Volvo's stakeholder dialogue in Stockholm, this third party is RespectEUROPE – yet another example of the consultancy's close relationship to the firm. As described in the previous sub-section, it was RespectEUROPE that offered Anna the service of arranging the stakeholder dialogue. The hybrid consultancy is thus an instrumental actor in spreading the practice of entering such external fora. Moreover, the staging of such dialogues can only be done by such hybrid entities – it is the very hybrid character of the consultancy that makes it a legitimate, 'independent' third party.

Volvo arranges three stakeholder dialogues per year: One in Stockholm, one in London, and one in Washington, each featuring a different set of stakeholders. In Volvo's first year of staging dialogues, during the winter and spring of 2002/2003, Erik and Lars represented Volvo. The Stockholm dialogue featured representatives from the local chapters of Amnesty International and the World Wildlife Foundation, staff from various Swedish governmental agencies (the Agency for International Development and Aid, the Agency of Integration, and the Foreign Office), as well as a business ethics professor from the Stockholm School of Economics. The discussion was partly based specifically on Volvo's Corporate Citizenship report, but also involved an open-ended discussion on wider issues. RespectEUROPE had arranged it so that by the end of the initial presentations, the participants (who all attended voluntarily, without pay) split up into different groups for deeper discussion. When returning from the meeting, Lars expresses his admiration of the representatives present at the meeting. He is however surprised by the lack of antagonism – the discussion was unexpectedly consensual. The meeting did not highlight any major areas of contestation previously unknown to the BVC team – which points to the fact that the team already has a good grasp of where contestations arise. Still, when arguing with the rest of the firm, it helps to be able to refer to the stakeholder dialogues: For instance, in an article in the internal magazine *Agenda*, the discussions held with the stakeholders are reported at length.¹³² Though the Stockholm stakeholders tended to focus mostly on the familiar sustainable mobility theme, there was however a somewhat novel issue that emerged from the talks: Corruption among suppliers and sales companies in the developing world.

¹³² See *Agenda*, December 2003.

Coming back from the London dialogue, Lars explains how the UK stakeholders (Friends of the Earth, Amnesty UK and others) focused on another issue: Volvo's Sports Utility Vehicle. Interestingly, until the stakeholder dialogue, Lars had not realised the magnitude of the civil society organisations' dismay about the large vehicles. This is nevertheless understandable, given the fact that the Swedish debate on the SUV issue has remained a fairly select one, confined to the arts sections of the highbrow broadsheets. The criticism from one of the London stakeholders (Charles Secrett from Friends of the Earth) is reiterated in the *Agenda* article: "SUVs are the vehicles that are the most detrimental to the environment. Volvo ought to stake a claim within Ford to become a global leader in producing more environmentally friendly vehicles." In the Washington dialogue, the focus of the debate pointed in yet another direction: safety and consumer rights, partly reflecting the different set of stakeholders – The Consumers' Union and the National Highway Traffic Safety Administration. Having completed all three dialogues, Lars and Erik were happy with the outcomes. The fact that new, undetected contested areas did emerge, suggests that this structured external forum serves as a good complement to the BVC team members' more informal everyday networking over the phone.

One thing that both Lars and Erik keep reiterating is their admiration for the sheer professionalism of the stakeholders. Especially the US-based ones assumed a consultant-like role; they had done their homework and had very specific proposals on what Volvo ought to do in a certain area of contestation. Notably, the US actors provided rationales for action steeped in a marketing discourse. Though this tendency was most apparent in Washington, the same can be said about the other stakeholders. Many of the panellists had been to similar meetings before, and thus

they knew how to make the most of the situation. As noted by Lars, they all opted for collaboration rather than antagonism, and business reasoning rather than ethical argumentation. One can even say that all this implies that a certain degree of professionalisation is spreading among the civil society actors.

The hybrid activist and the adopted orphan group

One morning at the office, Anna forwards an e-mail to Lars, asking him what he makes of it.¹³³ A few days back, while representing Volvo Car Corporation at a public event in Stockholm, she bumped into the 'Global Policy Advisor' of the Swedish chapter of the World Wildlife Foundation. The following day, the WWF representative sent Anna a message, elaborating upon the brief discussion that they had after the event. In the e-mail, he asks whether Volvo is interested in rethinking their business in terms of providing a service instead of selling a product, and also asks about the firm's approach to sustainable mobility solutions such as car-pooling. The NGO employee moves on to explain his own activities: He works with long-term environmental challenges, and wants to collaborate with progressive companies within industries that most NGOs see as hopeless. (He mentions the airline industry as one of those.) Essentially, the message constitutes an invitation to a potential collaboration between himself and Volvo.

The ideas alluded to in the message are of course music to Anna's ears; as mentioned before, her main interests lie within this field. Her point is that transport systems, especially urban ones, are inevitably going to be restructured: Mobility systems can simply not expand in the way that they have previously expanded, each traveller in

¹³³ Based on events from Gothenburg, 25 October 2002.

their own vehicle. Although her vision is probably as elaborate as that of the WWF representative, she feels vindicated by the fact that someone else is reasoning along the same lines. This feeling is underlined by the optimistic tone of the message; the NGO employee is speaking in terms of "embarking on a journey to reduce CO2 emissions". The fact that he ends the e-mail with "take care and keep on fighting" suggests that the two activists – the internal one and the external one – have already formed a bond of mutual respect for each other. Following these initial acts of introduction, the Global Policy Advisor subsequently becomes a permanent node in the BVC team's network of contacts. As such, he conducts specific tasks, such as participating as a panellist in the Stockholm stakeholder dialogue, as well as serving as a general source of knowledge and inspiration within sustainable mobility and corporate social responsibility.

Anna's new acquaintance is thus part environmental activist, part guru, and part consultant. Unlike the consultants from RespectEUROPE, he is formally based in the activist camp; nevertheless he is as much of a hybrid entity as they are. In his role as a 'hybrid activist', he is another example of the professionalisation of the civil society organisations.

Although the hybrid activist's formal title at the WWF is 'Global Policy Advisor', he can be labelled in many ways. In a conceptual, bold-brushstroke article on corporate ethics (Pamlin, 2002), he is titled "external world analyst" (the Swedish 'omvärldsanalytiker') – a title often appropriated by former journalists and celebrities trying to launch a second career selling expert advice on 'where the world

is going'.¹³⁴ Though formally affiliated with the World Wildlife Foundation, the hybrid activist is operating as a 'free agent', doing environmental lobbying and collaborating with various firms on an individual basis. Therefore, when one tries to reach him in his WWF office, the secretary explains that he is very rarely there. Always away at some environmental summit or doing some consultancy work, he is best reached on his mobile, she says. (Unless, of course, the hybrid activist is off on one of his six-month travelling breaks in Asia, from which he draws his inspiration.) The office secretary does not seem to mind, however: On the contrary, she sees him as their highly visible 'star activist'. One could frankly say that he is good for their brand, although that word is not commonly used for NGOs.

NGOs like the WWF and Greenpeace are nevertheless highly brand aware, says the hybrid activist, who has been affiliated to both organisations in the past.¹³⁵ He illustrates this statement by explaining his current effort to make the WWF more active within the field of Corporate Social Responsibility: In order to attain strong influence, he must think beyond the small Swedish chapter and focus his efforts on the large UK branch. However, in trying to found new initiatives there, he must sell his idea to the part of the organisation that he refers to as "the branding people". Apparently, the UK office is a 250-person operation, and many of employees work on fine-tuning the brand of the organisation: After all, the organisation's impact is correlated with its success in fund raising, which in turn is dependent on the public perception of the organisation and its causes. He goes on to explain that Greenpeace

¹³⁴ "The world" in this instance can have a plethora of meanings: Fashion, consumer preferences, social trends, public opinion, international politics, environmental resource usage and so on.

¹³⁵ Based on interview in Stockholm, 28 November 2002.

is even more brand-focused. Whereas WWF's branding people are primarily engaged in communicating the existing brand, the Greenpeace branders are actively reconfiguring their areas of engagement, depending on shifts in public opinion.

Equally, the WWF representative is very aware of his own brand. His title of Global Policy Advisor for a major NGO does of course boost this brand. While essentially being an individual who writes thoughtful articles on corporate ethics and inspires corporations when constructing blue-sky environmental visions, his affiliation to the WWF makes him a certificated expert in his field. For instance, when forwarding his original message to Lars, Anna refers to the hybrid activist not by name, but as "the WWF". At the same time, besides his NGO affiliation, he runs his personal website, where one can learn more about him and his work, read his articles and get in touch with him. His way of construing his work role as a free agent switching between various organisational affiliations, viewing himself as a brand or a one-person enterprise.¹³⁶ Interestingly, it is within the civil society organisations that we find this new form of professional conduct.

The WWF representative's professionalism aside, the collaboration with Volvo has remained on the level of informal contacts and participation in stakeholder dialogues. Any tangible outcomes, in terms of actual projects delivered, have yet to materialise. There are nevertheless examples of ongoing collaborations with 'professionalized civil society organisations' that are more tangible. As mentioned in the previous chapter, the 1980s saw Volvo getting involved in the removal of toxic chemicals and

¹³⁶ Incidentally, this is very much in line with the late 1990s theories of 'The New Economy', in which many individuals will work as free agents; 'Me Inc'. See for instance Davis & Meyer (1998).

materials from both plants and products. One of the events that influenced the drive to phase out such chemicals was the fact that in one of the Swedish plants, some of the assembly workers developed allergic rashes.¹³⁷ The company doctor managed to identify the allergy-inducing chemical, which was subsequently phased out. In order to anticipate similar problems arising in the future, the company continued to actively identify and remove toxic chemicals. However, the company lacked the necessary expertise regarding what chemicals cause allergies, and how to prioritise among them. One of the few organisations that possessed such knowledge was the Swedish Asthma and Allergy Association (AAF), and upon invitation from Volvo, the two organisations started to collaborate around the removal of chemicals.

In relation to the automotive industry, the AAF represents a so-called orphan group – a group of individuals who are not served by the traditional market arrangement.¹³⁸ Such groups of individuals often actively seek to influence market actors, trying to make the market serve them. In this case however, the market actor – Volvo, that is – came to the AAF for expert advice on how to clean up their factories. As we shall see, the advisory role of the orphan group became increasingly enmeshed in Volvo's strategic knowledge base – so much so that we can speak of the AAF as an 'adopted orphan group'.

During the 1990s, the collaboration with AAF moved from cleaning up production, to cleaning up the product. The big idea became making driver compartments that

¹³⁷ Based on interview with Stephen Wallman, Gothenburg, 6 April 2003.

¹³⁸ The terminology is borrowed from Michel Callon (see chapter 2). Note that the AAF can equally be said to represent a hurt group – one that is adversely affected by the 'externalities' of a market arrangement. However, in relation to the automotive industry, the orphan group identity is more apt – they are more disserved by the automotive industry than adversely affected by it.

are free of toxic chemicals and materials. This was an attempt to find a new sales pitch for environmental care, making it less of a collective issue through bringing it down to a personal level: Car buyers might not care about ruining the global environment for coming generations, but tend to get more aware when their personal health is at risk.¹³⁹ Also, it was something that Volvo could do quite easily, as they had already charted toxins and removed chemicals from production. Again, in this process, the expertise regarding what chemicals and materials to remove was provided by the AAF. The outcome of this process has been a steady improvement of the car interiors. Throughout this time, there were however ongoing talks within product planning about radicalising the concept – by introducing a car that was 'completely' stripped of allergens and toxins. The car would be specifically aimed at customers with asthma and allergy problems; a narrow market it may seem, but considering that Volvo's total sales only constitutes one percent of the world market for cars, the orphaned asthma and allergy buyers actually do constitute a significant market share.

The radical "clean compartment" initiative has yet to be realised, but the idea is nevertheless still in the back of many employees' minds – not least within the BVC team. In order to re-examine the potential of the concept, Lars assembles a group of representatives from Product Planning, the R&D department's Environmental Unit, the BVC team, and Brand Strategy. As Lars goes through an action plan for seeing a tentative initiative through, the AAF's impact on Volvo's knowledge base was evident. Point for point, the same pattern reoccurs: The engineers from product

¹³⁹ Based on interview with Stephen Wallman, Gothenburg, 31 October 2002.

planning and R&D know exactly how a certain material can be removed, and how much extra it would cost to do so. This straightforward knowledge obviously stems from Volvo's traditional engineering skills. However, when it comes to making skilled judgements based on more intricate knowledge – which chemicals are most contested, which ones ought to be phased out first, what practical measures have the most impact – the engineers keep on referring to the AAF as the original source of knowledge. Often, the AAF-derived insights deviate from the high-tech solutions of the engineers. Many of them are unexpectedly simple, yet ingenious; for instance, one key priority for making cars more suitable for asthma and allergy users is to make compartments that are easily cleaned.

Interestingly, for the engineers, the distinction between 'their' and AAF's knowledge seems to be less of an issue. Rather, it is the non-engineers present who are baffled by the reliance on AAF. For the engineers, the two bodies of knowledge seem to merge quite well, again showing just how integrated the adopted orphan group's knowledge has become. Nor do the engineers see the original ideas of the AAF as subjective and political, peddled by a pressure group with vested interests. Instead, the AAF-derived insights are now seen simply as objective and useful knowledge. The clean compartment story is probably the most striking example of how civil society organisations manage to create situated knowledge around motoring, in collaboration with Volvo engineers. These diffracting actors come to interfere with the world view of the engineers – even to the point where the engineers do not reflect upon where they got this world view from.

In the previous section, we saw how the BVC team members bend and expand their remit of communicating and forging Volvo's brand values. These 'activist

professionals' strive to construct objective management fact from messy, subjective processes that emerge in the societal sphere. They thus end up mediating the ideas and knowledges of civil society organisations into the firm. This section has pointed to a special pattern in how the BVC team operates, building networks to change Volvo's practices:

- The activist professionals participate in the invention of overflows by channelling knowledges originating from civil society organisations and other non-business actors into the firm. Thus, they present an alternative view of the realities of the business. The mediation of these knowledges is facilitated by a number of new professional roles – 'hybrid consultants', 'hybrid activists', 'adopted orphan groups', and so on – that operate in between Volvo and the non-business organisations.
- The activist professionals exert influence through the creation of fora, in which they can present their newly-forged objective management fact – their alternative view of Volvo's overflows. Creating such fora usually involves setting up informal networks, which are subsequently institutionalised into durable structures. These fora can be internal (such as the Women's Business Advisory Board; the diversity, corporate citizenship and environmental councils) and external (stakeholder dialogues, forged everyday contacts with NGOs, the Global Compact). Such fora have a dual relationship to the new professional roles: The new professionals are often drawn upon when forming durable fora (e.g. RespectEUROPE and the corporate citizenship council, Barletta and the YCC project), and the fora often come to include members of

the new professional roles (e.g. the WWF representative and RespectEUROPE in the stakeholder dialogue).

So far, this chapter has pointed to a number of heterogeneous elements that the activist professionals draw upon in their work: previous experiences, NGO contacts, hybrid consultancies, knowledges from civil society organisations, new metrics, fora for discussing overflows and so on. There is however yet another element that they mobilise during their work: the notion of 'risk'. The next, and last, section of this chapter will elaborate upon how the discourse of 'risk' has strengthened the intra-corporate influence of the activist professionals. As executives have come to recognise the external world as more 'risky', the BVC team is increasingly touting itself as the corporate function that can manage and prevent such risks.

5.4 Risk management and the scientist

Throughout this chapter, the word 'risk' has appeared frequently: the BVC professionals often use it to describe overflow inventions happening 'out there'. As already pointed out, although the professionals participate in inventing overflows, they see risks as emerging 'out there', irrespective of their own actions. This section will explore how the very conception of the BVC team follows a recent tendency of executives to see the external world as a 'riskier' place. The *raison d'être* of the team is thus tightly linked to the notion of risk, and risk serves as a language within which the activist professionals can emphasise their importance. First, the section will explore the emergence of the view of the world as a riskier place, followed by a study of how the BVC team has positioned itself in relation to this view. Notably, the section will focus on how the BVC team draws upon scientific expertise to develop a

'risk management' methodology, enabling them to (officially) anticipate future overflow inventions – and (unofficially) participate in such inventions.

Towards a riskier view of the world: the EMF crisis

During a couple of turbulent weeks in the spring of 2002, Volvo found itself in a crisis following the fact that supposedly dangerous electro-magnetic fields (EMF) had been detected in their recently released S80 model. Experts from research institutes, concerned lay people and industry journalists laid out the case against the firm, and the press headlines read: "This is how dangerous your Volvo is". Volvo employees and executives could only watch in disbelief, not really understanding what had hit them.

This crisis unravelled before the BVC team had been institutionalised as a coherent function. (As mentioned in chapter four and in the beginning of this chapter, the team was formed in the end of 2002 from what used to be a more informal organisation of 'strategic communicators'.) As the newly formed function came together at a time when 'risk management' was put high on the agenda, the team started to construe itself as a function that could potentially prevent such crises from happening again. Lars developed a vision of an organisation with close relations with the external communities (such as NGOs), which would enable it to spot such overflow inventions in good time. In this way, the company would be able to steer clear of trouble, and maybe even take advantage of great shifts in the industry. Needless to say, these relations to the external communities were to be managed through the BVC team. As a risk management unit, the team could claim stronger influence over the strategic decision-making of the firm.

For a closer examination of Lars's argument, and a clearer view of why the incident created such risk awareness, a deeper probe into the EMF story is needed: The build-up to the crisis started in 1999, when the new Volvo top-of-the-line model S80 had just been released.¹⁴⁰ Bengt Skyman, an engineer working for the Swedish equivalent of Network Rail ("Banverket" in Swedish), had received an S80 as a company car. Having used the car for a while, he noticed how at times there was a certain numbness in his left leg. (A keen sportsman, he was very receptive to the feeling.) While attending a seminar on electro-magnetic fields (EMFs) in train engines and other vehicles, he started wondering whether automobiles can also host significant levels of EMF: could that be the cause of the numbness? Being an engineer himself, Skyman got hold of some professional tools to measure his new car. The measurement device verified that the S80 did indeed show a detectable level of EMF in the driver compartment, especially around the area where the driver places his/her left leg.

This should not present a problem: in relation to EU Commission recommendations, the EMF inside the new Volvo was 10-100 times below the specified limit. Nevertheless, Skyman continued his probe though contacting *Vi Bilägare*; a consumer rights-oriented car magazine owned by the Swedish co-operative society. As Marianne Sterner, the journalist that received Skyman's query, was in charge of conducting the magazine's car tests, she decided that the magazine should measure the EMF levels in the ten most sold cars in Sweden. This test – showing that the Volvo EMF levels were higher than other cars – was published on 14 February 2002.

¹⁴⁰ Based on telephone interview with Marianne Sterner, Stockholm, 16 August 2002.

On the same day as the publication of *Vi Bilägare*, the tabloids ran their versions of the story. It was also covered by television, reported in the news and debated in talk shows.

The media relations professionals at the public affairs department did not know how to deal with the torrent of queries that suddenly faced them.¹⁴¹ First, no proactive measures had been prepared. Secondly, it was unclear who was responsible for this issue; electro-magnetic fields had not been linked to their product before. The result was that the company initially dismissed the results as insignificant. One reporter recalls them as saying "driving our car is no more dangerous than walking on the streets of Gothenburg". While this was – from a scientific point of view – true, it made the firm seem arrogant. At this point, it did not matter that the levels of EMF were well below the EU Commission guidelines.

During the weeks that followed, the debate revolved around how large a risk EMFs are, with various experts presenting research findings and views. Skyman assumed an increasingly withdrawn role, mainly answering e-mails from concerned Volvo owners and radiation experts. Instead, Kjell Hansson-Mild from the Work Life Institute in Umeå took centre stage in the debate. Hansson-Mild is an internationally acclaimed expert on EMFs in work environments, but also (equally important) very media-friendly. (Sterner describes him as an interviewer's dream, as he readily delivers sensationalist opinions that make good newspaper headlines. Another reporter even claims that he is attention seeking.) Hansson-Mild was the main critic

¹⁴¹ Note: the professionals referred to here are not the BVC professionals – the team had not been institutionalised at this point.

of Volvo's claims of the benign nature of the EMFs, making his ideas heard through *Vi Bilägare*, as well as through the tabloids. His position was that the EMFs in the S80 were indeed dangerous, pointing to American studies that had shown that levels lower than the ones in the Volvo could cause miscarriages. The public proved receptive to his claims, not least due to the ongoing debate about the perils of mobile phone radiation.

The tabloids were the ones most ardently driving the story, painting a bleak view of the corporation. In the usual tabloid manner, the paper set out a day-by-day plan for the coming week's coverage of the scoop: On the first day, breaking the original story; on the second day, reporting on the sales drop of Volvo cars, and so on.¹⁴² One paper also elaborated a new slant on the story, pointing to the fact that Volvo Penta (a part of the Swedish Volvo group), had regulations on EMFs in the working environment of their employees. The levels permitted were, the paper found, lower than the ones registered in the Volvo S80. (The fact that the two companies were different entities, with entirely different owners, did not filter through to the public.) Thus, Volvo Car Corporation was not only seen as arrogant; it was also dubbed hypocritical and insincere. The issue ceased to be one just about fear of EMF risks; it was also about whether corporations can be trusted to act in an ethical manner.

On 20 February, less than one week after the initial story broke, Volvo issued a press statement in which they withdrew from their original position. The company promised that they would change the construction of the car models in question. Present owners of the S80 were told that they could have their cars altered.

¹⁴² Based on telephone interview with Sven-Anders Eriksson, Stockholm, 19 August 2002.

However, at this point, the damage had already been done. Purchases amounting to roughly four million pounds had been lost, customer services had been swamped with phone calls from concerned Volvo owners, Volvo employees had been harassed by infuriated customers, and the brand image of Volvo as 'the Safe Car' had been considerably tarnished.

Through this episode, Volvo learnt the risks of operating in a world where an amorphous network of laypersons, journalists and independent researchers invent new overflows.¹⁴³ Though they did not know each other, the different actors collaborated in a surprisingly organised fashion: journalists forwarded e-mails from concerned S80 owners to Skyman, who logged the complaints and answered questions. Hansson-Mild found media channels through which he could spread his knowledge, journalists found a media-friendly expert. Starting it all was Skyman, a member of a 'hurt group' as well as 'researcher in the wild', who translated his expertise and measurement devices from one application to another.

Interestingly, when funnelled through the media, this ad hoc heterogeneous group of non-establishment experts came across as more legitimate than the expertise of the established authorities. In other words, for the wider public, Skyman's construction of scientific fact was more robust than that of Volvo and the EU Commission. The process was set off by Skyman and Sterner forging an alliance, in which Skyman obtained access to resources for a large-scale test of cars, and Sterner access to a

¹⁴³ In many ways, the EMF episode displays a pattern of knowledge production that Gibbons et al. (1994: 3-8) call 'mode 2': Knowledge was produced in the context of the application (i.e. the new S80 model); the research was transdisciplinary; the forms of research collaboration were decentralised and temporary; and (most importantly) social accountability and reflexivity was 'built in' as part and parcel of the initiative.

scoop. Together, they mobilised the world (i.e. the electro-magnetic fields) through using measurement devices in a new setting (the automobile), and staging a pseudo-scientific test. Luckily for the non-establishment network, Skyman and Hansson-Mild were already a part of a semi-autonomised profession – engineers studying electro-magnetic fields in the workplace. However, most of all, the Skyman network won the legitimacy battle against Volvo on the basis of public representation. Hansson-Mild came across as an expert with the public interest in mind; the Volvo press officer came across as arrogant, especially given recent debates on corporate scandals.

The way in which the EMF issue erupted thus caused concern within Volvo. At some point in the process, Volvo lost the ontological battle regarding the nature of their cars. The firm claimed that the S80 was – as a matter of EU Commission-certified scientific fact – way below the recommended levels. Nevertheless, the interactions among civil society actors and the public became a circuit of knowledge production (and generation of criticism) that the firm could not compete with. The EMF episode also fuelled an impression that the 'risk' of becoming subject to such storms of public criticism had increased.

The impression that the non-business actors play a significant role in shaping the impression of Volvo was in itself not novel. The former press representative (who was active throughout the 1990s) explains his job as "feverishly searching for a third party" to support Volvo's position on an issue.¹⁴⁴ But the EMF issue pointed to a new problem. It was not a simple problem of bad press from the media, or a smear

¹⁴⁴ Based on interview with Ingmar Hesslefors, Gothenburg, 8 August 2002.

campaign from a particular interest group. It was a problem in which Volvo's role as experts on cars had been superseded by that of non-established, self-made experts within civil society. So, on the back of this risk awareness, the newly formed BVC team was remitted with coming up with some kind of methodology and process for assessing and managing 'risks'.

The risk assessment tool and the social scientist

In the aftermath of the EMF crisis, during spring 2002, Lars and Anna (in the soon-to-be-founded BVC team) began to discuss how an integrated 'risk management' process within the firm might be put in place. Notably, they started thinking in terms of developing a model with which to assess various upcoming risks, enabling them to focus on the risks deemed most significant. The modelling of the magnitude of the risk would factor in two metrics; likelihood and impact. Thus, the assessment of the risk posed by an EMF-like situation would be based on 1) the likelihood of the crisis developing, and 2) the financial costs and brand-value deterioration that such an event would bring with it. Each of the two metrics would be given a value – as judged by the skilled assessor, either Lars or Anna – which would be factored together, yielding a 'risk index' indicating the urgency of the risk. This very approach is, incidentally, commonly adopted by various public affairs and risk management consultancies.¹⁴⁵

The intention of Lars and Anna was to take contested aspects of the firm's operations – gathered through the everyday contacts with NGOs, stakeholder dialogues etc. – and run them through the risk model. Although the model would enable the activist

¹⁴⁵ Based on interview with Michael Seymour, Edelman, London, 8 March 2002.

professionals to prioritise risks of particular urgency, it also had a more profound aim. The risk tool would serve as a tool for legitimisation: When making the case inside the firm that a certain area of Volvo's practices ought to be changed, the risk model outcome could be referred to as a guarantor that calls for caution are legitimate and justified. In other words, the risk tool would act as a device that forges objective management fact out of the subjective and political realities that Lars and Anna deal with. Through quantifying risks, they were in a better position to state their claims – as mentioned earlier, the BVC team has a weak bargaining position as they are pointing to phenomena that often are intangible and incalculable.

A couple of issues did however complicate the construction of this 'objectification device': First, for Lars and Anna, the quantification of the negative impact on the brand was, at best, an arbitrary judgement. Secondly, while Lars and Anna were reasonably credible in estimating the impact of an issue, their assessment of the likelihood of an issue such as EMF erupting would probably be dismissed as unfounded by the rest of the firm. In other words, any pseudo-scientific means of quantifying risk constructed by Lars and Anna was unlikely to be durable – the activist professionals were unlikely to be granted expert status on this issue.

One Friday afternoon in April 2002, in the aftermath of the EMF crisis and in the midst of the ensuing discussions on how to build a credible risk assessment model, Anna received a phone call from a research student.¹⁴⁶ The student, who was in the early phases of a doctoral programme at a prestigious university and looking for a case study for his dissertation, asked whether Volvo Car Company would be

¹⁴⁶ Based on events in Gothenburg, 5 April 2002.

interested in some form of collaboration. Anna replied that, as it happens, the company is in the process of developing a risk assessment model, and could do with some assistance. After a thirty-minute telephone discussion, Anna told the research student that she would speak to her superior, and try to arrange a meeting. In the meantime, the researcher was to send over a research proposal. Though the researcher did not know about the ongoing discussions within Volvo, the proposal touched upon the very themes that the professionals had just been discussing – the notion of risk, disputes between corporations and civil society organisations etc. Consequently, the researcher was invited to the PVH building to meet with Anna, Lars and their superior (then in charge of the strategic communications team that later would become the BVC team).¹⁴⁷ The meeting was primarily a means for the respective parties to get to know each other, but also a way to find out whether they shared a common agenda: The Volvo representatives explained the intentions of their risk assessment model, and the researcher reiterated his research interests. As there seemed to be an obvious fit, the researcher was offered a one-year project employment to develop the specified model.

The rationale for the enrolment of the social science researcher was primarily that Lars and Anna simply did not have any time to spend on elaborating the model. Assigning a consultancy to do the job for them was out of the question; buying such a project was likely to be expensive. Besides, Anna and Lars did not know what consultancy to approach for such advice. Thus, employing the researcher for a year seemed like a good option; he was relatively speaking inexpensive, and (unlike the

¹⁴⁷ Based on events in Gothenburg, 11 April 2002.

consultancy that produces a report and then vanishes) he could provide continual hands-on support. Secondly, he seemed to have a good grasp of the area, both academically (his presentation kept on referring back to academic theories) and practically (he had some knowledge of the state-of-the-art within 'issue management', having spoken to a consultant from a leading London public affairs consultancy). Thirdly, the Chalmers University of Technology alumni seemed trustworthy and professional, attending the meeting in a suit and speaking over a pre-prepared PowerPoint presentation. Most of all, the researcher's standing as a 'scientist' from a leading international university was appealing to the public affairs professionals, whose aim was to develop a credible – maybe even scientific – tool with which to legitimise their claims for the firm to take external stakeholders more into account when conducting its business.

In August 2002, the researcher officially started his employment at the firm. The agreement between the two parties was fairly loosely stated – the researcher could spend as much or little time as he wanted in the office, as long as he delivered a functioning model by the end of the employment. Thus, from this early point in the collaboration, a significant amount of trust was already instilled in the relationship. This trust was further underpinned as the researcher made a conscious effort to spend ample time in the office, chat to the other professionals, and always have lunch with the rest of the team. During his first month of employment, the researcher remained in Gothenburg, being in the office practically every working day. During the remainder of the employment, he divided his time between Volvo in Gothenburg and at his university in London, spending two weeks at a time in each city.

With regard to the actual project to be delivered by the researcher, the work was laid out in an informal fashion. The project began in a most inconspicuous fashion: Anna, Lars and the researcher simply stated the formal aims of the project while drinking coffee in the cafeteria. Similar cafeteria meetings were to be held in later stages, to follow up on proceedings. The methods used for arriving at such a model were primarily qualitative – interviews with Volvo employees as well as external individuals. The researcher's initial intention was to base the model on the dynamics seen in previous cases of 'risks' developing and crises ensuing, and that these cases could be either Volvo-related, or interesting parallel cases in other industries. Anna had prepared a list of Volvo professionals who could give some guidance as to what cases they would like to learn from, and more generally what they would like to see come out the project. Moreover, these contacts could be drawn upon as interviewees when researching the dynamics that led up to actual Volvo-related crises. As it happened, the researcher eventually focused on Volvo-related crises, and constructed his model of how risks develop through marrying the findings from the cases with established sociological theories.

As time progressed, the researcher became increasingly enmeshed in the firm, meeting with an increasingly large circle of employees, thus building a network of his own. Most of the Public Affairs department were early supporters of the 'risk model' project, following an introduction of researcher and project at the weekly departmental meeting. Equally, top management became strong supporters at an early stage, as Lars reported about it at a top-level meeting.¹⁴⁸ The researcher was

¹⁴⁸ Based on informal discussion, 5 December 2002.

therefore increasingly seen as an asset to the firm, partly because as a sociologist in training, he would discuss the complex issue of firm-society interactions on a higher level. During one lunch, a visiting Human Resources representative asked about the job description of the researcher. Lars replied: "He is our independent freethinker". In the afternoons, the researcher and Erik would often end up discussing the future of corporations, society and politics at length. These discussions tended to shoot off on abstract tangents, at which point Kristina would jokingly refer to them as "the geniuses in deliberation". Thus, the researcher was granted a special status as a 'scientist'; as a person whose ideas had a particular objective standing.

For the activist professionals (notably Lars, Anna and Monica), the merit of the researcher's work was primarily related to its transformative potential. In an interview, while discussing Monica's role as a "change agent", she replies:

You are influencing us through this work, you know? I sure hope so, and I hope you are [interested in the notion of influencing the organisation].¹⁴⁹

For this reason, the activist professionals took it upon themselves to further the credibility of the researcher within the firm. Lars, who had gradually realised that his vision of the BVC team as a strategic entity coincided with the thoughts of the researcher, became the researcher's strongest patron within the organisation. During one of those afternoons in which the "geniuses" Erik and the researcher were "in deliberation", the topic of the day was a leading article in the Swedish broadsheet

¹⁴⁹ Based on interview, Gothenburg, 29 January 2003.

Svenska Dagbladet.¹⁵⁰ Following the release of a think tank publication, the piece was slating the concept of Corporate Social Responsibility: Companies (such as Volvo Car Corporation) that engage in CSR activities and listen to NGOs are effectively undermining the market economy and thus failing society.¹⁵¹ The researcher, who had read the original think tank publication, obviously felt strongly about the issue and was arguing strongly against the leader article. Lars suggested that the researcher should write down the reasons why Volvo is not undermining the market economy and failing society through their CSR efforts. In the meantime, Lars would speak to his superiors about a potential 'Volvo reply' to the broadsheet's criticism. The researcher thus drafted a document, which was subsequently sent back and forth between Public Affairs and the CEO's office for alterations. The resulting text was an article by the CEO, conspicuously published in *Dagens Industri*.

In the article, the CEO assured readers that Volvo's success was – contrary to the view of *Svenska Dagbladet* – built upon listening to new kinds of stakeholders. The best example of this is the case of car safety; hardly an area in which Volvo has failed society. The CEO also lauded the stands taken by Gyllenhammar in relation to the environment, and the current efforts around diversity. The article had a significant impact, not least within the firm. Clippings from it went up on office refrigerators, and a visiting delegation of CEOs was noticeably impressed by the firm's foresight. Not least the activist professionals were pleased; each had their areas of interest mentioned in the article, and the overall argument was indeed that their

¹⁵⁰ Based on events in Gothenburg, 23 May 2003.

¹⁵¹ See 'Kapitalism med ett mänskligt ansikte', *Svenska Dagbladet*, May 2003. The book referred to is David Henderson's *Misguided Virtue*, published in the UK by the neoliberal think tank Institute of Economic Affairs. The Swedish translation referred to in the *Svenska Dagbladet* article is called *Missriktad Välvilja*, published by the Swedish neoliberal think tank Timbro.

role in the company is significant and strategic. However, most of all, the article had made the researcher credible within the highest echelons of the firm. He was now recognised not only as an expert, but also as a trustworthy character – his initiative and effort to assist in the drafting of the article proved to be his rite of passage. Subsequently, partly as a gesture of thanks, he was flown in from London to advise the CEO on issues around the corporation's role in society. The ground has been laid for future collaboration in the area.

Transformative scientific labour

Towards the end of his year of employment, the researcher had completed his risk management tool. In line with the task set out by Lars and Anna, he had constructed a model that assessed the likelihood that a certain issue would materialise into a major crisis for the organisation. (This 'likelihood assessment' was, as the reader may recall, the aspect of risk management that Lars and Anna had not managed to create themselves.) From an early point in the collaboration, the researcher had talked about 'issue networks' – networks of heterogeneous actors with complementary skills that together contest a certain aspect of corporate practice, and thus 'reframe' the business. This notion emanated from the researcher's interpretation of previous experiences within Volvo, as well as from sociological theory. All previous Volvo crises, he argued, had erupted in this manner – the EMF crisis was a good example of this, so was car safety etc. In making this argument, he would also substantiate his claims by referring to various streams of thought in contemporary social science, all pointing to the impact that civil society organisations have on the structuring of markets, knowledge creation, and politics. He would thus invoke concepts such as 'hot' and

'cold' situations of public disputes, 'researchers in the wild', 'mode 1' and 'mode 2' of knowledge production, as well as 'sub-politics'.

The task of the 'risk assessor' must therefore be, for each potential issue, to 'scan' the outside communities for issue networks in-the-making. In order to simplify this exercise, he had 'bundled' the heterogeneous actors into five 'type actors', representing human professional groups – Experts, Activists, Media, Laypersons, and Industry. Each bundled type actor would comprise of a number of human and non-human actors: for instance, the 'Expert' represented not only a human being, but also various measurement equipment, the research institution to which the human actor was affiliated etc.

The model, as developed by the researcher, would fit into the ongoing work of the BVC team, forming a three-step process:

1. Scanning for issues within contested areas, via everyday contacts with external communities, stakeholder dialogues etc.
2. Analysing issues through the lens of the researcher's model, thus assessing whether a certain issue is particularly risky or could potentially yield a strategic opportunity.
3. The devising of action plans, based on the analysis of each issue. Such action plans could involve tasks like setting up partnerships with NGOs or simply finding ways to comply with a certain demand from civil society actors.

The process would thus work as a heuristic for the organisation, aimed at systematically listening to, and potentially adopting knowledges from external communities. In many ways, this heuristic was biased in both its premises and its

recommendations: Demands from civil society are seen as strongly disciplining for the industry, striking partnerships with NGOs is always preferable in relation to marginalizing them and so forth. Moreover, the very institutionalisation of the model would mean that the knowledge mediation and 'activist professionalism' of the BVC team would be hardwired into the organisation. In this way, the researcher had taken on the agenda of the BVC team (making their mediation of external knowledges into a matter of corporate strategy). He had also become yet another hybrid actor that supports the BVC team. Fully aware of the arbitrariness and the performative potential of his work – manifested in the risk management heuristic proposed to the firm – he had chosen to speak for the actors that he deemed disenfranchised. As in the case of the activist professionals, the hybrid consultants, the hybrid activists, his actions within the firm were highly entangled in political beliefs, subjective perspectives on society, personal motivations and so on.

Once Lars is introduced to the model, he immediately deems it ready to be sold to the rest of the organisation. The risk management tool is then funnelled into the internal political process explained previously in this chapter: The approach has to be sold in the appropriate internal fora. For Lars, the internal fora most suitable for disseminating (and shoring up support for) the model are the ones established within the environmental field – the environmental communication group on a middle management level, and the environmental council at top management level. Lars therefore schedules in the researcher's participation in upcoming meetings in both of these fora – first the communication group, then the council. The researcher, at his end, prepares a presentation for the upcoming meetings.

The first meeting, the one with the environmental communication group, features middle managers from several departments – branding, product planning, production etc.¹⁵² The researcher starts off his presentation discussing the EMF crisis and its impact on the firm – the immediate financial impact, as well the long-term brand-detrimental effects. The argument points to a need for a structured way to anticipate issues developing, thus enabling the firm to prevent future crises. He then moves on to explain how the EMF issue developed over time, highlighting the fact that such issues can indeed be anticipated in time. He also notes how issues can be opportunities – such as in the car safety case. He then moves on to explain the model of issue networks (Experts, Activists, Media, Laypersons, and Industry), showing how it can be used to analyse a number of issues. The model shows how one particular issue comes out as not only 'risky', but also as a strategic opportunity – the one of building car compartments that are 'radically clean' from toxic chemicals and materials (see previous section). For this issue, the researcher even presents an action plan, which includes strengthening the collaboration with the Asthma and Allergy Association, developing measurement frameworks for chemicals etc. The action plan is heavily inspired by how Volvo has acted in the area of safety – the researcher is drawing parallels between the reframing of the industry within car safety, and a potential reframing of the industry with respect to 'clean compartments'.

The assembled professionals all approve of the argument and the model, passing it on for approval in the environmental council. One objection was however made: The engineer from production does not see the relation between the 'proven and tangible'

¹⁵² Based on events in Gothenburg, 20 August 2003.

risks of car safety, and the 'unproven and intangible' effects of chemicals in the compartment. Science, he argues, has proven that car safety is a legitimate concern, and that 'clean compartments' is an illegitimate one. According to science, Volvo should not rethink the construction of their car compartments. The researcher replies that the same could be said about car safety back in the 1950s, when Engellau made Volvo into the Safe Car, but the engineer does not seem to agree. The two antagonists obviously do not subscribe to the same view of science and technology, which impacts their analysis of how Volvo should act within the issue of clean compartments. After the meeting, Lars explains to the researcher that that is how it always is with 'them' (the engineers): He has often (from a brand communication perspective) had to point out that scientists are never unanimous, and that Volvo should only care about public opinion – a complex interplay between journalists, lay opinion, scientists, activists, business interests etc. It does not matter what Volvo experts say on this issue, as the public is more likely to trust other experts. Again, that is why – in the words of the ex media relations officer – the public affairs professionals are "feverishly looking for a third party" to support the Volvo experts' claims.

One week later, the all-important environmental council meeting is held.¹⁵³ Lars introduces the researcher to the top executives, mentioning all his trustworthiness credentials, and the presentation of the risk assessment project ensues. This time, no objections about science versus public opinion are raised – the executives are instead very receptive to the ideas presented. They understand full well that civil society

¹⁵³ Based on events in Gothenburg, 26 August 2003.

organisations and other external actors are a force to be reckoned with, and welcome a structured approach to managing this new aspect of their business. During the discussion after the presentation, the researcher – for the first time during his 16-month contact with the firm – realises that his enrolment into the firm was largely the result of the EMF crisis. Since the events of February 2002, the issue of 'risk' has been high on the agenda, spurring efforts to build a risk management framework. The main topic of the discussion was however how to proceed with the institutionalisation of such a framework. The council decided that the researcher and Lars should do a feasibility study of the points raised in the 'clean compartment' action plan. In an upcoming council meeting, the proceedings would be reassessed.

The discussion on how to institutionalise the researcher's approach also featured a subtle, yet highly significant comment. The Senior Vice President of Communications – i.e. the head of the Public Affairs department – noted that "someone should do this full-time". By this, he meant that a new 'risk management' job function really ought to be created within the firm. Following the meeting, this has become an overarching goal of Lars and the head of Public Affairs – the institutionalisation of a job function between the BVC team and the top management. This person would serve to bridge the gap between the top-level strategic decision makers, and the views and knowledges mediated by the BVC team. Thus, the new post would serve as the ultimate 'internal forum' for mediating demands from outside stakeholders, realising Lars's original intention, as stated in the beginning of this chapter – to restructure Volvo Car Corporation so that the BVC team's insights become harnessed strategically.

In this way, the researcher's participation in the organisational processes led to the planning of a new job function (the 'risk manager' position), using established internal fora (the environment council and the environmental communication group) as spaces for deliberation. The risk management project held the promise of finally providing the activist professionals with a tool that captures the essence of their work – a tool that turns messy, 'subjective', societal processes into legitimate, 'objective' management fact. Nevertheless, after the environmental council meeting, the project stopped in its tracks. As no formal go-ahead was given to the founding of the risk management function, the social scientist chose to remain detached from the firm and instead focus on his writing.

Epilogue: "I am not a corporate person"

More than a year after having left the field, with little contact with the BVC team, I meet up with Anna in a café in central Gothenburg. I ask her about her future battles within the corporation, and she asks whether I can help out in these battles. Specifically, she wants to implement the risk assessment tool that I had prepared for the firm. Thus, inside the firm, the CEMLA model is alive and well, even though I have been largely absent for more than a year. The haphazard creation that was my ticket to access the firm has claimed a life of its own.

We move on to talk about career choices, and she states that although she could move on to work for all kinds of other good causes, she wants to continue within Volvo. Working for Volvo has never been an end to itself, but she still feels it is her best chance to make a difference. As we sit there, finally meeting outside the corporate premises, Anna allows herself to explicate her position:

I am not a corporate person, I am an environmental activist!

Unfortunately, my slow wit prevents me from coming up with a swift reply: "I am not an academic person, I am also an activist!"

A few months later, we are both speakers at a conference in Gothenburg on corporate social responsibility. I speak about the new hybrid actors that straddle the business and civil society spheres – how they work and why they are significant. As I speak, I suddenly become highly conscious of the fact that the reality that I am presenting to the audience is Anna's. Conversely, Anna's presentation consists largely of the arguments and narratives that I have presented in chapter four of this thesis. Not that she has ever read the chapter – but after my year working with the activist

professionals, it has become increasingly difficult to distinguish their ideas from mine and vice versa.

As Anna explains how the safety issue emerged – about Volvo enmeshed in networks, entanglements and contingencies – I realise that my ethnography has even intervened in the corporate storytelling. Fortunately, the safety narrative recounted by Anna has remained amodern and entanglement-focused. Not only CEMLA, but also my story, has stayed with the firm during my year of absence.

6 Conclusions

This final chapter will first recapitulate the six theoretical and methodological issue sets raised previously in the dissertation. Each of these seven issue sets will then be responded to, in the context of the findings of the empirical study (6.1). The chapter ends with a more general statement of conclusions (6.2).

6.1 The theoretical and methodological issues revisited

Chapter two set out a research agenda for studying markets and firms as modern constructions: Pointing to how economics makes a strict separation between naturalised, objective markets and firms on the one hand, and cultural, subjective 'society' on the other, the chapter brought out the similarities with Bruno Latour's critique of the moderns. (This 'modern settlement' was sketched in figure 2.2.) Following this line of argument, the text argued that the supposedly 'pure' modern objects and subjects explicated by modern social sciences have to be supplemented with 'unofficial' hybrids that mediate between the subjects and objects. Thus, the first set of issues to explore was the potential existence of hybrids in the context of firms and markets. (I)

The text also extended the Latourian critique of the moderns to another aspect of markets and firms. Michel Callon has pointed to the need for markets to have clear boundaries between those social realities that are to be factored into market calculation, and those that can be ignored. This 'frame' of the market is however incessantly contested, as social actors plead for a reconstruction of the market so that it takes previously ignored social realities into account. This contesting of markets

takes the form of 'inventions' – ontopolitical efforts to prove a certain side effect of a market process. The chapter brought out several sets of issues that relate to such 'overflow inventions'. For instance, how do 'overflow inventors' invent new objective realities – are these inventors like the scientists portrayed by STS, skilfully entangling humans and non-humans to produce objective fact? (II) Moreover, has the logic of these overflow inventions gone through a change in recent years – are markets getting 'hotter' (as Callon argues), and are market institutions undergoing a re-modernisation (as Latour hopes)? (III)

As mentioned in chapter two, Callon's *The Laws of the Markets* assumes a black-boxed firm that relates to external actors in a uniform manner. This text has set out to open up this black box, especially in relation to the processes of reframing and overflow invention. Thus, two conjoined sets of issues emerge: First, can there be several frames that co-exist inside a firm? (IV) Secondly, in what instances can actors within firms actively instigate reframings and invent overflows in conjunction with extra-firm actors? (V) Finally, chapter two also raised the issue of performative economics, notably in relation to the state: In what ways is economic action – as well as overflow invention – in and around firms formatted by economics and the state? (VI)

Chapter three explored the criticisms directed towards the theoretical and methodological approaches developed within STS and ANT. In particular, the text explored the charges that ANT research reproduces power structures; how it colludes with social actors already in power and may provide functionalist explanations for the processes studied. These criticisms are highly pertinent in the context of the chosen case study – a large multinational corporation that wields significant

influence in society. The issues to be explored are thus: How can an ANT-inspired study be conducted in ways that do not simply reproduce the given power structures and the given mode of operations? How can alternative modes of economic agency be supported by interventionist ethnography? (VII)

The remainder of this section will explore these issues further in relation to the case of Volvo Car Corporation. This Volvo case is, of course, a special one: as explored in chapter four, Volvo is shaped by particular historical contingencies. Thus, the conclusions below are not applicable to some generic notion of The Corporation. Indeed, one of the key arguments in this text is that the notion of such a generic Corporation is in itself problematic.

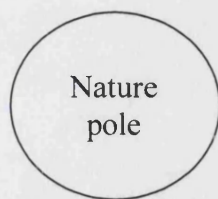
I. The capitalist machine contains entanglements, hybrids and subjectivity

An organisation, a market, an institution, are not supralunar objects made of a different matter from our poor local sublunar relations. The only difference stems from the fact that they are made up of hybrids and have to mobilise a great number of objects for their description. The capitalism of Karl Marx or Fernand Braudel is not the total capitalism of the Marxists. (Latour, 1993: 121)

In chapters four and five, a number of projects – a number of overflow inventions – have been charted. In chronological order, these projects are: The Safe Car, humanised production, industrial democracy, the Lambda rod, the Bi-Fuel engine, clean compartments, Your Concept Car, and the Electro-Magnetic Fields case. Each of these cases involved intricate weaving of elements from both the Latourian Nature pole and the subject/society pole (previously sketched in figure 2.2). Consequently,

none of the cases can be properly understood if one ignores the Nature-culture entanglements, leaving either Nature or subject/society elements out of the story.

Though the cases mentioned are technical innovations conceived in the supposedly objective corporate sphere, the entanglement of subject/society elements was indeed crucial for all of them. (For a schematic presentation of how these overflow inventions featured such elements, see figure 6.1.) Chapter four stated some of these elements in the case of car safety and humanised production – concerned civil society members, union representatives, safety inspectors, CEO family ties, the US consumer rights movement, social democrat ministers, Volvo's 'underground culture' and so on.



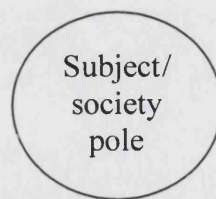
Nature
pole

Processes and logics

- The laws of the market (equilibrium markets, the value theory of labour, 'disruptive technologies' etc.)
- The laws of the firm (theory of the firm, the firm as a profit-maximising monolith, resource-based view etc.)
- Technoscientific discovery

Actors and institutions

- Employees, firms
- Scientists and engineers, laboratories



Subject/
society
pole

Processes and logics

- Politics
- Ideology
- Activism
- Idealism
- Previous personal experiences
- Family and kinship ties

Actors and institutions

- Activist groups and trade unions
- State authorities
- Local communities
- Families and non-professional, social networks

Cases of overflow invention

Safety

- Rationalisation engineers
- State utilities
- Union pressure
- Activist medical experts
- CEO kinship ties
- Bulky car legacy

The Lambda rod

- Legislative pressure
- Marketing considerations
- US public authorities

The Bi-Fuel car

- 'Gothenburg spirit' and 'underground culture'
- NGO support
- Existing solution

Humanised Production

- Rationalisation engineers
- Investment funds
- Political radicalisation
- Worker alienation and production theories
- Production methodologies

Industrial democracy

- Worker participation theories
- Union pressure
- Political radicalisation
- Existing corp. structures

Clean compartments

- Adopted orphan group
- Researchers in the wild
- Multiple rationality debate

Your Concept Car

- Hybrid consultant
- Gender marketing
- 'Publicly financed state feminism'

Electro-Magnetic Fields

- Researchers in the wild
- Media storytelling
- Proliferating technoscience

Mediating agencies

Past actors

- Rationalisation engineers
- Unions
- Safety inspectors
- Medical experts
- Executives' networks

Present actors

- Activist professionals
- Hybrid consultants
- Hybrid activists
- Adopted orphan groups
- Researchers in the wild

Present functions

- The BVC team
- Environmental, Diversity, Corp. citizenship Councils
- Women's Bus. Adv. Board
- New 'risk mgmt function'?

Figure 6.1: The entanglements and hybrids around Volvo Car Corporation. Adapted from Latour (1993: 11).

In the contemporary cases of overflow inventions, entanglements with subject/society elements are as prominent as ever. The clean compartment project is a direct result of Volvo professionals taking knowledge derived from the political struggle of an NGO (the Asthma and Allergy Association) and applying it in the context of the Volvo product. Similarly, Your Concept Car emerged as the result of a feminist struggle, conducted both internally (by the Women's Business Advisory Board) and externally (by Martha Barletta of TrendSight). The agenda of integrating gender-related knowledge in the product development of the firm was moreover actuated by the threat of a pending legislation on female representation in corporations. This, in turn, emerged in the wake of an increased focus on gender issues by Swedish moulders of opinion (by critics referred to as 'publicly financed state feminism'). Lastly, the Electro-Magnetic Fields case shows how overflow invention was conducted by lay individuals and journalists – not the supposedly 'objective' experts inside Volvo or within academia.

Chapter four also mentioned that objects in Latour's Nature pole also featured prominently in the stories of overflow inventions – the cases of car safety and humanised production featured legacy technological systems, crash test dummies to simulate naturalised human bodies, accident statistics and so on. Again, the same holds true for contemporary Volvo. The clean compartment project would not have been possible had Volvo not already made a considerable effort in charting chemicals and eliminating the most hazardous ones from the production process. (The chemicals charting was however, in turn, prompted by the Swedish legislation on environmental care, Miljöbalken). Finally, the 'researchers in the wild' that featured in the EMF case were not only enrolling the media community, but also the

Electro-Magnetic Fields in the car. Thus, as concluded in chapter four, the firm emerges as a locus for 'links and knots' that hold these entanglements in place.

This raises (at least) two important points. First: all actions leading up to these overflow inventions cannot be explained through greed or the profit motive. To argue that all these processes were subsumed under some basic Natural laws of Capitalism would imply a hugely 'flattened' rendering (*pace* Richard Powers) of the sheer diversity, historicity and contingency of the stories. As we have seen, there is a rich and diverse set of motivations and explanations for why the cases evolved the way that they did. Powers' top executive wanted his firm to "make profit", "give meaningful employment", "do something", "maximise the net worth of the firm", "progress" and so on. (See chapter two.) Similarly, professionals within Volvo have formulated several aims: To be "the pinnacle of modernity"; to "get a Swedish automotive industry in motion"; to "manufacture in the Volvo way"; to have their cars greeted with "Go, Volvo!" as they pass on the street, to "have a positive impact on the surrounding society"; to help Swedes "see and explore the wonderful country that they call [theirs]"; to "never let the Wallenbergs into the company"; to "smash the glass ceiling [for women to proceed up the career ladder]"; to "at least try to do something [for the environment]"; to be "a change agent" and to "force companies to change".

The corporation studied in this case thus hardly qualifies as the rational, objective, greedy profit machine sketched by modern economics. Instead, the corporation emerges as an ongoing endeavour that unravels in indeterminate and contingent directions, following a multiplicity of factors. The industrialist aims of organisation

come across as ambitious – but also ambiguous, as efforts 'to progress' co-exist with efforts to remedy the ills of past progress.

Thus, secondly: The corporation is more inert than evil. Note how Lars, the activist professional and change agent, does not see top executives as his main adversaries. Nor do the auditors from Ford's General Audit Office – the ones trying to discipline the firm into operating along the lines of the neoclassical production function – constitute his main opponents. Instead, for Lars and the others in the BVC team, it is the engineers that represent the enemy – the "them". This view has emerged from his constantly recurring battles with the engineers over the changes that he sees as necessary, and "they" see as impossible. Battles thus rage around which reality to live by – the engineers' reality of intra-corporate legacy technological systems, and the BVC professionals' reality of extra-corporate demands and risk.

The 'activist professionals' in the BVC team do however know that their professional success flows from their ability to make these two worlds fit together. Their job remit is to assess all the subjective, political claims of the external world, and transform the ones they find the most relevant into objective management fact. In order to do this, they draw on a number of expert groups: They draw upon 'hybrid consultants' that provide professional consultancy services on how to manage contested issues related to the business. The BVC team also work with 'hybrid activists' – members of civil society organisations that offer advice to corporations based on their knowledge of specific issues (and their knowledge about the activist community). The world inhabited by these actors also hosts 'adopted orphan groups' (groups previously ignored by incumbent market actors, which have created products or knowledge that has subsequently been adopted by the mainstream actors), and 'researchers in the

wild'. All the actors mentioned are hybrid actors whose prime function is to mediate between the Nature and subject/society poles. (See figure 6.1.)

The BVC team members also develop tools and methodologies to turn subjective politics into objective management fact. They thus place heavy emphasis on 'risk' assessment methodologies, which legitimate and substantiate the 'subjective' claims of the external world. Another key activity of the BVC team is to construct assemblies – formal organisational structures – in which to deliberate contentious issues and present the newly invented objective management facts. The 'councils' (the corporate citizenship council, the diversity council, the environment council), the Women's Business Advisory Board, as well as the BVC team itself are examples of such hybrid functions. Along with these formal structures, the informal networks of the BVC professionals also constitute a space through which subjective politics can flow into the firm. (See figure 6.1.)

However, these properties are not specific to the Volvo of today – the Volvo of The Swedish Model of capitalism also featured hybrid actors and organisational functions. As explained in chapter four, rationalisation engineers came to play a crucial role in the bargaining between capital and labour, objectifying labour strain so that it could be brought into the market frame. Thus, the rationalisation engineers engaged in 'anti-politics' that settled contested issues, and thus either "obtained influence over the bargaining parties", or got co-opted by those same parties. Similarly, the union-appointed safety inspectors also came to play a crucial role in turning worker strain into objective management fact. The unions themselves were elevated into being the guardians of the public interest, and written into the objective market laws as such, by union economists Rehn and Meidner. Moreover, the case of

safety also showed how medical experts such as Stig Lindgren acted as hybrid actors, mediating between the subjective and objective. The hybrid organisational structures of this time included for instance the corporate assembly. As shown in the safety case, informal structures also played an influential role: the personal networks of the CEO proved to be a locus of subjective politics being turned into objective management fact.

These entanglements and hybrids – in today's Volvo, as well as in the Volvo of the 20th century – suggest that the modern separation between objective markets and firms, and subjective, cultural and political society is an illusion. Markets are not modern; markets have never been modern.

Subjectivity plays a crucial role in the work of the BVC professionals. As they assess the claims of the external world, and as they decide which claims are to be brought into the firm, professionals draw on their subjective rendering of reality. First, the work of the activist professionals is highly contingent upon the personal networks that the professionals have established, causing some overflows to be more emphasised than others. Secondly, the personal knowledge base and previous experience of the activist professional also frames the actions of the activist professional. Thirdly, the ideals and interests of the activist professionals also play a large role. As the professionals are the designated experts at managing external world risk, they have ample space for pushing their own 'pet projects'.

This enables the BVC professionals to construe themselves as political actors, as internal entrepreneurs and "change agents" intent on pushing the issues that they find meaningful (be it environmental issues or labour rights in the developing world). The

actors really do believe in the issues that they pursue – for them, their activities at Volvo are not 'just a job'. They do not get out of bed every morning wanting to sell more cars; they want to pursue their own political goals. Therefore, it is misleading to present the firm as a collective of de-subjectified, rational bureaucrats. As the activist professionals enter corporate premises, they bring their personal agenda and web of entanglements with them. Thus, these entanglements with the outside world do actually affect the professionals' actions inside the firm.

The activist professionals are highly conscious of the political nature of their job – and of the particular ways in which their job is political. Though they admire and respect the more 'officially' political actions of NGOs, they know that their way of being political is somewhat different. The BVC team members know that it is up to them to make the claims of the NGOs to seem less like politics and more like incontrovertible facts. For them, the job within Volvo has become their way of being political.

The motives and origins of these individuals' drive to be political can to some degree be traced back to very tangible elements. Thus, the BVC team members tend to have unorthodox academic schooling (environmental science, international relations, interdisciplinary Asia-Pacific studies), and equally unorthodox personal and professional backgrounds that configure their ontologies. However, at a certain point, it becomes impossible to trace all the elements that lead up to the actions of the BVC professionals. Thus, the notion of interests as "temporarily stabilised outcomes of previous processes of enrolment" (Callon & Law, 1982: 622) appears to be a somewhat cumbersome manner of describing the subjectivities of the BVC professionals.

II. Overflow inventors are modern entanglers

[It] is because of [the] distance between their gesture of purification and their practice of entanglement that they were such good and creative scientists, such effective modernizers. (Latour, 2003a: 39)

The stories of reframings sketched in the previous section pointed to how overflow inventors in and around Volvo engage in elaborate entanglements of Nature and subject/society elements. Looking at these processes in greater detail, these overflow inventors shadow the *modus operandi* of modern scientists: They engage in processes of 'mobilising the world', alliance-building, autonomisation, public representation and tying 'links and knots' (Latour, 1999a). Overflow inventors can thus be studied in the same way that STS has analysed scientists.

When inventing the concept of car safety, CEO Engellau enrolled a number of allies, notably the medical expert Stig Lindgren. Through Lindgren, Volvo obtained access to a number of resources and technical solutions previously developed by safety inspectors at the state utility Vattenfall. This collective of actors worked together to mobilise the world through accident statistics, evidence from casualty wards, crash test methodologies, seatbelts, crash test dummies and so forth. Lindgren, the Vattenfall safety inspectors and engineers, the Volvo 'chief safety engineer', worker protection experts at unions, insurance company professionals increasingly came together to form an autonomised expert group: traffic safety experts. Subsequently, this expertise came to be incorporated in independent, safety-specific organisational bodies, such as the Swedish road authorities and the Swedish automotive test authority. Public representation efforts were imperative in order to gain public acceptance of the new safety measures (originally, consumers did not want seatbelts), of safety regulation and of the public financing of safety measures. Thus, Volvo's

1950s adverts that subtly highlighted the hazards of motoring, and the report on 28,000 accidents were instrumental in creating legitimacy for the creation of The Safe Car. Interestingly, in terms of public representation, Volvo received able assistance from Ralph Nader and his crusade against American carmakers' "acts of industrial irresponsibility".

A similar story can be told of CEO Gyllenhammar and his ambition to humanise factory production. Again, a host of allies were enrolled in order to claim resources: Ministers of industry (for investment fund assets), unions (for political support, internally and externally), rationalisation engineers (for knowledge on worker strain), sociologists (for theories on post-Fordism and worker alienation), production theorists (for theories on production efficiency), the radicalised left (for political support), workers (for ideas and reduced absenteeism), *Harvard Business Review* editors (for publicity), and production engineers (for new technical solutions). Constructing and building the post-Fordist humanised production plant involved a number of measures to mobilise the world: Measurement of worker strain, simulation of work flows, the construction of a new computerised production carrier, new architectural solutions, the invention of 'social calculation'. As in the case of car safety, a new brand of production engineers/sociologists emerged in companies and within academia, spreading their knowledge as foreign soon-to-be experts visited the Kalmar and Uddevalla plants. CEO Gyllenhammar, ever the statesman, skilfully managed public representation, talking about a new production regime to secure Sweden's wealth to a country influenced by a radicalised political left and union movement. As mentioned in chapter four, the eventual failure of the project was down to Gyllenhammar's failure to properly enrol the production engineers at Volvo,

who were stuck in a "deeply founded Taylorist culture" and thus neglected to make the new ideas technically durable.

This mode of analysis can also be used to understand the very founding of the Volvo venture. In embarking on their industrialist endeavour, founders Gabrielsson and Larson mobilised the world through steel processing and rationalisation of production, and thus assisted in the founding of an autonomised expert group – the hugely influential rationalisation engineers. Alliances were forged with the local steelworks, and also with the polity (together with other large-scale industrial ventures) during the forging of the Swedish Model. Public representation was secured through the rhetoric of building a car for Swedes, by Swedes, as well as the rhetoric of the modern social democrat ideals of "the people's home". Equally, the current attempts of the BVC team to invent overflows can be read in a similar way: Erik wants to push for a smaller car to be built by mobilising the world through surveys that will reveal the true tastes of Volvo customers; Elisabet wants to spread the idea of 'real life safety' through crash statistics and alliances with the Swedish road authorities, and so on.

However, aside from all this deliberate entanglement of Nature and subject/society elements, the overflow inventors in and around Volvo are quintessentially modern in the ways that they officially disentangle the results of their entanglements. In the same way that scientists publicly proclaim that their scientific findings are disentangled and 'tidy' (Barry, 2001: 23), Volvo professionals post-construct processes so as to appear rational. For instance, it is only during close scrutiny that the entanglements of the safety story emerge. The official story – not least the one put forward by the corporation – is that the safety innovations all emerged from the

Volvo safety labs, developed single-handedly by the Volvo chief safety engineer. The ties to Vattenfall, to the worker protection legislation, to Lindgren the medical expert, and to local authorities are severed – and the only thing that remains in the official, post-constructed story is the genius inventor. Similarly, the official stories of humanised production tend to portray CEO Gyllenhammar as the visionary leader who anticipated an objective shift in the logic of the economy, and thus created the new plant together with brilliant Volvo experts. (cf. Ekman, 2003) Again, the ties to investment funds, academic scholars, the radicalised union movement and so on are severed. In both these cases, this disentanglement flows from the general ambition of moderns to see innovations as unravelling as discoveries of a Nature 'out there', but also from the more specific ambitions of firms to be recognised as the sealed vessel where such discoveries are made. In other words, branding concerns prompted official disentanglement.

The efforts to officially disentangle these innovation processes also emerge as attempts to legitimate decisions made in the past. Thus, Engellau's decision to make The Safe Car, and Gyllenhammar's decision to develop the humanised production plant, were the right ones to make in those particular situations because they were deduced from new discoveries regarding the Nature of the business. If it emerges that subjectivity and politics did have a role to play – that proceedings were in fact not subsumed under the unyielding natural logic of business or technology – then the decisions made become all the more contentious. Note for instance how Ulla-Britt Fräjdin-Hellqvist, who was in charge of the development of the Bi-Fuel car, post-rationalises the project as not about environmental politics. Instead, it followed the laws of "natural science and economics". Again, the ties to the underground culture

of Volvo R&D, the drive to do something for the environment (after having been criticised by NGOs and other firms), and the old feud between Gothenburg and Stockholm are severed, in order to officially portray the project as an outcome of objective discoveries regarding Nature and business.

In the more recent examples of overflow inventions, the same tendency of official disentanglement reappears. The YCC case is probably the most striking example of how the official disentanglement of corporate processes emerge: Even though the issues of gender relations are highly politicised, subjective and contentious, the naturalistic approach to gender – as proposed by hybrid consultant Martha Barletta – closed down the space for contestation. During the making of the all-women designed car, the obvious entanglements with the politics and the feminist struggle were severed. Rather than subjective politics, the project was an objective attempt – again based upon the laws of natural science (biology) and economics (marketing) – to make cars that more consumers will want to buy. As stated in the newspaper article: "Martha Barletta [...] uses statistics and economics to demonstrate that company profits increase when women are a part of management."

Thus, a fundamental reason for why the YCC project came into being was the deliberate, official disentangling of all the difficult subjective and political aspects from the project. As soon as the issues of gender equality were presented in a supposedly objective manner, top managers could allow themselves to embrace the ideas. Note how the Senior Vice President of Human Resources reasons about gender equality after a seminar with Barletta: "The fact that women are better than men comes as news to me [...] Now we have a sound reason for seeking female managers."

Interestingly, the CEO did not feel that he had a need for an objective rationale for the YCC project – he was happy with seeing it as an experiment, not necessarily linked to a certain customer group. So was the team behind the YCC (including Elisabet), as they had initiated the project because of all these political connotations; because of the entanglements that were officially disentangled from the project. However, for most external observers, YCC was a valid project if – and only if – it was specifically designed to target women as a customer group. The researcher from the technical university was one of these observers. Having followed the project for a while, she complained about how the targeting of a supposed female customer group was not strong enough, causing her to question the point of the whole project. As the project lacked an objective rationale, she felt that the project was "hiding behind" the slogan of the project: "If you can fulfil women's expectations, you will exceed men's expectations." In this way, outside observers themselves assisted in the official disentangling of politics from the YCC project. For them, there was no other way of understanding the project – as it was a corporate project, it could surely not have been about politics and feminism?

Thus, inside the corporation, the modern gesture of official disentanglement appears in many guises: There is a desire for executives and professionals to brand their corporation as inventive and innovative, and also a desire to legitimate decisions as inevitable and necessary, bound by laws of nature or economics. There is moreover a tendency for outside observers to interpret corporate activities as nothing but objective. All these factors coalesce to uphold the myth of the objective, naturalised and disentangled firm.

The BVC team members do however differ somewhat from the archetypal modern scientists, as they are highly reflexive regarding their Janus-faced entanglement/disentanglement practices. The team members recognise that their work consists of creating facts through first forging entanglements with political actors and subjective processes outside the business domain, and then acting as if the facts created are apolitical and objective. Having to manage the messy processes in the subject/society pole, and then prompt action inside the supposedly 'objective' corporate space, they have been forced to recognise that this is the logic that they have to take at face value.

Therefore, the activist professionals play 'the modern game' for strategic purposes – as a means to get their points across. Again, the YCC is an interesting example: Hybrid consultant Martha Barletta and the activist professionals in the Women's Business Advisory Board are fully aware of the fact that the efforts to peddle the gender marketing discourse and the YCC project are political endeavours. Indeed, that is why they spend so much time and energy on it. Nevertheless, they know that in order to be politically effective – to set projects in motion – they have to depoliticise their efforts. Hence, Barletta distances herself from the highly contentious issue (discussed by feminists proper) of enacting legislation on gender equality: "It is easier to achieve gender equality in companies by spreading this [supposedly objective] knowledge". Barletta and the WBAB activist professionals know that they are pushing a political agenda, but they do so through officially disentangling this agenda from their supposedly objective activities.

The same deliberate disentanglement is detectable among the BVC team members. The topic of quantification and measurement in order to objectify is frequently

recurring in everyday discussions. For instance, Anna has lamented the fact that all her topics are soft, intangible and more related to the process of building and selling the Volvo car, rather than the car itself. This, she finds, makes her claims inside the organisation impotent – the cold, objective reality of the steel car will always take precedence. Hence, there was a need to bring in an external, objective researcher to provide the BVC team with a means to objectify all the subjective and political processes in the external world. Along the way, the researcher was prompted to fashion this 'risk management' tool in such a way that it would be potent during internal discussions; for instance, the researcher was advised by Erik to integrate as many numbers as possible in the tool. The researcher willingly cooperated in this endeavour: Having been schooled at a technical university and business school, he had been exposed to many objective management tools in the past. Increasingly, his aim became to produce a similar tool – or almost a cliché version of such tools. So, although the BVC professionals and the researcher are more reflexive about their official disentanglement efforts, some elements of their work end up reproducing the myth of the objective, disentangled firm, separated from the processes in the subject/society pole.

III. Re-modernisation is a local phenomenon

I only have to show that something has changed in relation to what the moderns had been doing without saying and what – for the last 10, 20 or 30 years – they are now *explicitly* saying. [...] that objects are now presented in a more 'risky' fashion, that is, with their uncertain and puzzled makers and users *attached* to them? (Latour, 2003a: 39; 43)

In 'hot' situations, everything becomes controversial: the identification of overflows and intermediaries, the distribution of source and target agents, the way effects are measured. (Callon, 1998a: 260)

While the BVC team members exert influence by playing the modern game – and thus end up buttressing the modern illusion of the disentangled firm – they have however embarked on a modest 're-modernisation' of the firm. After all, they are explicitly advocating the strategic entanglement of subject/society elements into the practices of the firm, pointing to the 'strategic opportunities' that stem from assuming new responsibilities and collaborating with NGOs. By arguing that there are 'risks' to be prevented, the activist professionals present Volvo's business in a more 'risky' fashion, attaching uncertain makers and users to its products and processes. Interestingly, top management officials accept this re-modernised worldview: As they are presented with the case for a risk management function, they fully agree with the analysis of their business as 'risky'. Moreover, they readily accept that the safety case emerged through entanglements with subjective and political processes in society, and that the firm can ill afford to not take such entanglements into consideration.

For the BVC professionals, and for these executives, the impression of their business as risky owes a great deal to the EMF case. Their sense of risk was heightened due to the fact that the overflow invention was carried out by a new and unexpected set of actors. Entanglements that had previously been bracketed – following consensual decisions by relevant agencies (Volvo engineers, EU Commission experts, legislators and so on) – were now being explicated and put into public view by a lay person, a journalist and an independent researcher. To the Volvo professionals, this represented a shift in how they view the products that they sell, the process by which these are produced, and the production of expertise around these products and processes. Increasingly, they have come to see that they no longer have the

knowledge prerogative on how to disentangle their products and processes from society. In short, the risk awareness of the BVC professionals and top executives emerged from a perception of markets getting hotter.

First, the fact that professionals now want to manage the generic 'risk' is an extension of the trend towards recognising more and more kinds of overflows. In the Volvo of the Swedish Model, the worker issue was the paramount form of entanglement linked to the firm. Subsequently, car safety emerged as something that also needed to be managed, followed by the successive introduction of environment and corporate citizenship functions. As it turns out, even the broad definition of 'corporate citizenship' is too narrow to encompass all the aspects of the business now subject to scrutiny. In other words, today's Volvo is not only affecting society through potentially exploiting 'the Worker'; the identities of today's victims of corporate conduct are diverse. Thus, the corporation is now linked to the militarising of the cityscape, the undermining of Christian values, the reinforcement of heteronormativity, and so forth. The forms of entanglement around the Volvo enterprise are thus proliferating.

Secondly, as shown in the EMF case, there has been a pluralisation of actors that engage in such contestations. Whereas the Swedish model saw unions and rationalisation engineers having a privileged position as representatives of the public, today the firm has to relate to a plethora of NGOs, lay individuals, 'researchers in the wild' etc. In other words, the loci of technoscientific activity are also proliferating. Thirdly, as also shown in the EMF case, the very metrics used to describe an overflow have themselves become the subject of disputes.

Nevertheless, the BVC team members and the top executives constitute only a pocket of re-modernisation in an otherwise modern firm. For instance, the notion of entangling subjective and political agencies into the R&D process makes little sense to most engineers. Note the meeting where Lars discusses the clean compartment issue with a construction engineer: The engineer rejects the need for further measures to be taken in eliminating certain chemicals from the car compartment, as science has yet to prove that they are indeed hazardous. When Lars points out that lay people are concerned about this issue, and that the media has also shown great interest in it, the engineer counters by saying that Volvo's actions must be founded on scientific fact. As far as Lars is concerned, following the activities of actors such as lay people and the media is instrumental in anticipating the ongoing march of 'science'. The engineer rejects such an approach, arguing that scientific facts are forged in labs, not in society.

This argument does not impress Lars, who has no choice but to deal with the 'unscientific', subjective outside world; as far as his work remit goes, it does not matter whether claims are 'scientific' or not. When managing a brand and public opinion, the BVC team members have to follow a pragmatist epistemology: Truth becomes what works (for members of the public). Truth becomes what you can – and, more importantly, cannot – get away with as a company in the face of public scrutiny. But as the engineer does not subscribe to the same pragmatist approach to science, nor to the belief that re-modernisation is occurring, Lars has no choice but to keep on playing the modern game.

IV. The firm consists of competing subuniverses

[E]ach world, whilst it is attended to, is real after its own fashion; only the reality lapses with the attention (James, 1950)

The episode of Lars and the construction engineer showed that different actors within the firm apply different epistemologies to their work activities. The same goes for ontologies; there are several worldviews represented within the firm. Again, clashes between different views of reality often emerge between BVC professionals and engineers. Erik's brief lunch encounter with a friend from military service is telling: During the course of the conversation about the environmental externalities and intra-firm environmental targets, Erik realised that the engineer works from a different perspective on the world. Between the two employees, there was no consensus on the existence or nature of environmental overflows, and even less of a consensus on what has been agreed in terms of managing these supposed overflows.

As touched upon previously in this chapter, the worldviews of the BVC professionals stem from unorthodox personal and educational backgrounds, from their affinity with NGOs and aversion towards engineers, and the fact that they "don't even like cars very much". Thus, Erik works in the face of realities related to environmental degradation, global warming, public protests, the Kyoto protocol, strict internal CO2 targets – in the world of the engineer, these realities do not exist. Moreover, though the engineer may recognise the existence of some of Erik's social and environmental metrics and targets, these may not be high priorities for the engineer. So even though these metrics and targets are real to the engineer, they are also Other. Conversely, the engineer is faced with realities of budgets, torque requirements and the supply of camshafts, which are less real for Erik.

The stories of previous reframings within Volvo show that the phenomenon of competing frames is by no means limited to the Volvo of today. On the contrary, clashes between ontologies were inevitable during previous overflow inventions. When proposing to build The Safe Car, CEO Engellau attached a new set of realities to Volvo's activities; realities that did not square with the worldviews of the rest of the firm. Instead, the sales and marketing department pointed to the impossibility of selling cars with safety belts, given the reigning marketing strategy and the previous experiences of Ford. Similarly, the construction department argued that such safe cars could not be built given the technical possibilities of that time. Equally, the realities that would legitimate 'humanised production', as presented by CEO Gyllenhammar, did not square with the worldviews of the production engineers. The failure of the project was, as noted above, largely down to the fact that these engineers never really switched ontologies – they never started to construct manufacturing equipment based on non-Taylorist principles.

Going back to the example of Erik's lunch encounter with the engineer (who also happened to be a friend from military service), there is one crucial point to be made: Neither the frame of Erik, nor the frame of the engineer, will ever be implemented as an established frame from which 'the firm' operates in some unified manner. Instead, actual outcomes are based on a 'garbage can' process: Some parts of the ontology and metrics of Erik are enacted; some parts of the ontology and metrics of the engineer are enacted. So, rather than following a certain agreed policy or metrological system of managing environmental issues, Volvo's frame with regard to environmental overflows is contingent, based on the co-existence of, and clashes between, several frames. The ontopolitical process of reaching a consensus on a certain regulatory

socio-technical framework, and then putting it in place, is never really finalised: In practice, consensus is never reached. Therefore, the market that "never ceases to emerge and re-emerge in the course of long and stormy negotiations" (Callon, 1998a: 266) not only gains its dynamism from an external world that contests and re-contests the business practices of corporations. The frames within which firms operate are also destabilised by the fact that actors within the firm cannot agree on the nature of entanglements around these practices.

V. Overflow invention is a form of brand management

[T]he impurity of actors, objects and calculations is a crucial strategic tool for market actors themselves, all of whom have as much interest in destabilising markets as in stabilising them. (Slater, 2002: 243)

As mentioned above, the reframings that Volvo has taken part in are generally post-rationalised as processes that made objective business sense: Inventing the concept of car safety was the only way that Volvo could sell cars outside Sweden, given the bulkiness of their products. Worker retention was a costly problem that forced CEO Gyllenhammar to develop humanised production facilities. The Lambda rod was developed because Volvo could ill afford to lose out on the US market. The Bi-Fuel was an attempt to create a lock-in in the market; to make natural gas the alternative fuel of choice. Building clean compartments was primarily an effort to forge a brand identity given the previous knowledge on chemicals, and the YCC project was a means to tap into a neglected consumer group.

Though such modern post-constructions tell only half the story (obfuscating the entanglements with Latour's subject/society pole), business rationales have doubtlessly played a significant part in enacting these reframings. After all, it was in

order to re-brand Volvo that CEO Engellau chose to attach the new realities of motoring hazard to the car. As he made the Volvo product incongruent with the frame of the market – by inventing new motoring overflows – a wholesale reframing of the market was set in motion. The dangers of motoring were such robust overflow inventions that over time it was impossible for other auto manufacturers not to attach the realities of car crashes to their business as well. Therefore, the frame of the market is not only destabilised because actors within firms cannot agree on the nature of overflows (as in the case of Erik and the engineer) – there is also a perceived business imperative for executives and brand managers to destabilise the frame of the market by making their product incongruent with the frame of the market.

This perceived management imperative to attach new realities to the Volvo product is as strong today as it was in the 1950s. Within contemporary strategic thought, there is a strong focus on distinguishing the product and 'developing the brand identity'.¹⁵⁴ Consequently, the actors who most willingly participate in overflow inventions within Volvo are actors who in some way are remitted with managing the brand – the Brand Value Communications professionals, the top executives, the marketers and so on. The privileged position of brand management can thus serve as an instigator of overflow inventions. Just as the Volvo of the 1950s invested heavily in safety research – creating new positions, expertises and organisational structures – today's Volvo invests in research on the contested areas of the firm (i.e.

¹⁵⁴ Moreover, contemporary strategy theory also puts a strong emphasis on building and anticipating "disruptive" knowledges that "shape the structures" and move the "boundaries" of the future market. Recent management bestsellers point out that "companies not only compete within the boundaries of existing industries, they compete to shape the structure of future industries" (Hamel & Prahalad, 1994: 23), and that it is "in disruptive innovations, where we know the least about the market, that there are such strong first-mover advantages" (Christensen, 1997: xxvi).

environmental care, health, gender equality and so on), as defined by the brand identity. Thus, for the Volvo BVC team, the brand is not so much the result of how well the Volvo logo has colonised consumers' minds and public spaces (*pace* Naomi Klein); rather, it is what emerges from the entanglements that they have managed to create in their respective areas of contestation (i.e. safety, environment and corporate citizenship).

VI. Reframings are framed by (the) political economy

The true question concerning the state is this: how and with what methods and efficiency does it contribute to the performance of calculative agencies and the organisation of their relations? (Callon, 1998b: 40-41)

In today's Volvo, the overflow invention activities are partly guided by the brand identity; the focus on safety, environment and corporate citizenship. Nevertheless, as explored above, overflow inventions emerge in a less determinate and deliberate fashion, involving agencies far beyond the control of Volvo executives. Chapter four highlighted the link between overflow inventions and the political economy of Sweden. (Here, 'political economy' means both the institutional set-up and the Marx-inspired economic theory.) Up until the 1980s, during the Swedish Model of capitalism, overflow inventions were primarily related to worker protection, conceived in conjunction with the state and unions, via publicly controlled finance. Conversely, from the 1980s and onwards, after the decline of the Swedish Model, overflow inventions followed a different pattern. Reframings were more not so much related to worker rights, but rather to the environment, gender equality, and so forth. Moreover, they were conceived in conjunction with civil society actors (notably NGOs), often via private finance.

As shown in chapter four, the overflow inventions during the Swedish Model were directly tied to the political economy innovations developed by the Social democrat Workers' Party (SAP) and the confederation of unions (LO): Investment funds, union bargaining, safety inspectors, rationalisation engineers, and tri-partite worker protection regulation. The measures to manage the overflows of the market – especially the deployment of the expertise of rationalisation engineers, safety inspectors etc. – served the purpose of objectifying and quantifying the subjective experiences of workers. Through quantification, it was possible to bring these subjectivities into the frame of the market, for instance in the context of wage bargaining. Governing the worker-related overflows implied a creation of hybrids that mediated between the subjective/political reality of society, and the objective/rational reality of the firm and market. These hybrids were thus imperative in 'the performance of calculative agencies and the organisation of their relations'.

However, on a more profound level, these institutions also directed the kinds of overflow inventions that were conceived. Following William James' view that reality is forged on the basis of where we place attention, the Swedish Model economic framework invented a certain view of reality – notably a certain view of the victims created within capitalism. In other words, the political economy influenced what subjective experiences – and whose subjective experiences – were made objective and 'real'. Conversely, the political economy also steered whose subjective experiences were not to be converted into objective fact. Note for instance Hirdman (1989), who argues that the Swedish Model was suitable for recognising the strain on male workers, while remaining less sensitive to the subjugation of women.

Enter economics. The Swedish Model institutions were to a large degree the result of the abstract theories of political economists. Like other scientists, they drew upon a series of entanglements – such as the strong role of unions, the tradition of engineering expertise, and the history of Swedish industry – as they experimented their way towards their specific kind of political economy. However, the abstract theories did constitute the blueprint that brought all these entities together. LO economists Rehn and Meidner thus produced a model that would benefit the unions, draw upon engineers as mediators between capital and labour, and enrol large companies in heavy industry as key allies.

The brand of economics put forward by Rehn and Meidner was based upon the assumption that the capital-labour nexus was the key problem to be managed in the economy. As already mentioned, the institutions subsequently set up to invent worker-related overflows buttressed this view of the world. Thus, the steady stream of overflows detected by these institutions verified the economic model upon which they were based. The political economy of the Swedish Model was constitutive of the reality that it was purporting to describe.

However, this does not imply that the Rehn-Meidner model was performative in MacKenzie's sense of the word. The 'verisimilitude' approach is not useful in this instance: one cannot (on the basis of the circumstances described above) show that the theory of, say, profits driving inflation became a self-fulfilling prophecy. The performativity of the Swedish Model economics was not so much a matter of creating economic regularities that mirrored certain macroeconomic laws; rather, performativity followed from the deployment of science and engineering to prove the predominance of the capital-labour tension. Thus, rather seeing economic theory as a

technology that simultaneously describes and creates the regularities of the market, this kind of performativity sees economic theory configuring subjectivities. In other words, economics-related expertises (in this case the technologies and science of worker protection) played a central role in configuring the ontologies that buttressed a certain ideological belief (in this case the predominance of the capital-labour nexus).

The performativity of Rehn-Meidner economics can be approached via Gibson-Graham's critique of how political economy uses the essentialised and naturalised concept of "capitalism" as an economic and social descriptor. Gibson-Graham's notion of 'capitalocentrism' (the tendency to understand all forms of social life with reference to capitalism), and their argument on how political economy invents new ways of proving the supposedly natural laws of capitalism, aptly describes how the Swedish political economy came to focus specifically on inventing worker-related overflows. The stronger claim of Gibson-Graham – that political economy has marginalized and suppressed non-capitalist economic practices, thus buttressing existing capitalist practices – is however not supported in the story about The Swedish Model.

The performativity through 'capitalocentric overflow invention' did however have ideological implications, as it legitimated the 'scientific' claim that the subjugation of LO-associated workers is the paramount problem to be governed in the economic system. As such, the performativity of the Swedish Model economics also relates to theories of governmentality. Equally, one can relate it to Bourdieu's discussion on neoliberalism as a 'strong discourse' (Bourdieu, 1998) – only with Marxist political economy as the dominant stream of thought. After all, the story of the Swedish

Model is about how a "scientific programme" (underconsumptionist economics, the Rehn-Meidner programme) was "converted into a plan of political action" (macroeconomic policies, union codetermination, expert-assisted bargaining), and made itself "empirically viable" (as investment funds, worker-protection expertises and so on brought a raft of worker-related overflows into being).

In today's Volvo, the state has less of a role to play in performing calculative agencies. As the institutions of the Swedish Model have been dismantled, the previous focus on overflows related to the capital-labour tension is no longer present. Instead, there has been a shift to overflows related to the environment, gender equality, and a host of other issues. These ontopolitics of the market are not, to the same extent, governed by the state or the political economy of Sweden. As already mentioned, civil society actors play a more influential role in overflow inventions. Thus, it is not only the corporations that have lost knowledge prerogative on the ontopolitics of markets: the influence of the state and the unions has also waned. Similarly, political economy is no longer a strong discourse that performates the activities of Volvo. Instead, it is neoclassical economics that is being performed into being, for instance through auditing practices. This does not significantly affect the BVC professionals, whose efforts to reframe the firm go on irrespective of neoclassical audits. Indeed, the activist professionals have taken it upon themselves to describe 'risks' and co-invent overflows within the neoclassical discourse.

VII. Performing other worlds into being

Anthropology can only participate, along with the actors, or rather with certain actors in a position to produce small differences, in showing that other worlds are possible and that humans in society (in markets) have multiple and uncertain forms that emerge through trials. It is up to

social scientists to recognise the moment when, still fragile and enigmatic, they appear. (Callon, 2005: 19)

The point is to make a difference in the world, to cast our lot for some ways of life and not others. To do that, one must be in the action, be finite and dirty, not transcendent and clean. Knowledge-making technologies [...] must be made relentlessly visible and open to critical intervention. (Haraway, 1997: 36)

As mentioned in chapter three, over time this research project gravitated increasingly towards interventionism. More so than I expected, I found myself in a position of power; a situation that I found could not be resolved without taking sides. Over time, I became a part of the BVC team, assisting them in producing diffracting accounts of the reality of Volvo's business. Increasingly, the work became one of using my research status to make their "anthropological program" (Callon, 2005) more durable, through supplying them with the tools necessary. (These tools include assessment methodologies, accounts of external world 'risk' and shifting modes of knowledge production etc.) Whether these tools are useful enough to keep another logic (of relating to the external world) together remains to be seen. The hope is at least that the tools will support the BVC team's ambition to make the processes and products of the firm more contestable. Though it may be too much to hope for, further work along the same trajectory – such as the institution of a risk management function that brings the engineers into the debates on entanglements – may even extend the re-modernising ambitions of the activist professionals.

As I moved closer to the role of the interventionist ethnographer, I expected hesitation and scepticism from the part of the actors inside the firm. As it turned out, the professionals expected me to act and intervene, and never expressed any doubts

over my role as actor-researcher. The hesitation and scepticism that I have met comes largely from academic peers, to whom research is about doing the God-trick, and to whom reality is found in the abstract rather than in the concrete.

The developments within Volvo Car Corporation, as sketched in this text, may well point to some 'general tendency' in the economy. Maybe activist professionals and other hybrid actors are on the rise in other large corporations, and maybe there is a general trend towards a greater recognition of the entanglements. 'Us researchers' can even propagate such a general remodernising tendency: I agree with Latour (2003a: 46) that it "makes perfect sense [...] to propose an interpretation of science, subjectivities and industry that builds Dewey's public, even though the proof is not all there".

During the project, the peddling this re-modernised view of the firm has emerged in unexpected ways – for instance when my 'CEMLA model' actually does widen the perspectives of Volvo managers, or when my 'entangled' story of car safety is used in Volvo's corporate storytelling. However, as mentioned earlier in this chapter, it is also tempting to follow the inclination of activist professionals to play along in the 'modern game' in order to pursue our common agenda. This causes a problem: As we deploy tools to objectify the subjective and political, we fail to undermine the myth of incontrovertible, objective management facts, and thus we participate in reproducing the modern myth of markets and firms. The project to re-modernise the firm can thus be seen to fall apart the very moment that our objectification tool is introduced. Similarly, the project of making the firm's products and processes 'relentlessly visible and open to critical intervention' potentially falls apart as a new, 'totalising' practice of entanglement/disentanglement is put in place.

Nevertheless, this 'dirtiness' is the price that has to be paid for building durable practices that can create new publics around matters of concern. Us researchers studying the economy must make 'modesty' (Haraway, 1997) our main virtue. First, we must recognise that the judgement regarding which matters of concern are to be brought forward cannot rest upon anything but our own political and moral convictions about our chosen fields of study. Secondly, no matter how good we are at performing new realities into being and supporting emerging new anthropologies for economic actors, the tools that we provide are likely to be ephemeral and local. If there is a 'general tendency' of corporations re-modernising, it is unlikely to follow any one path prescribed by any one 'STS researcher-cum-management guru'. Corporations will invariably re-modernise in their own ways, with their own legacies, using their own tools and knowledges. The risk of my CEMLA-model turning into a ubiquitous totalising discourse is – I am sure the reader will agree – slim.

6.2 The problematic boundary of the firm and the politicised borders of the market

This text has interrogated the boundaries of the firm, and the borders of the market device. It has shown that the notion of a distinct boundary of the firm is problematic, as entanglements and networks with the 'outside world' proliferate to the point where it is difficult to demarcate 'the inside' and 'the outside' of the firm. The same goes for the modern separation of the supposedly 'objective', naturalised space of business, and the 'subjective' space of society – the Volvo stories point to the existence of hybrids that mediate between the two.

The text has also explored the politicised border of the 'technological zone' that is the market. In a number of cases, overflow inventions have been charted, highlighting how actors inside the firm have participated in these inventions. Chapter four pointed out how reframings of the automotive market were made durable through legal regulations, the establishment of standards, the diffusion of technological solutions and so on. Chapter five showed how NGOs and consultancies co-invent overflows with actors inside the firm, especially the professionals in the Brand Value Communication team. For the latter actors, the notion of 'risk' has become a useful 'ontopolitical' tool with which to measure and quantify realities (for instance related to environmental degradation or social problems) that have yet to be attached to the firm's business practices. These 'activist professionals' portray such 'risk' as something that emerges 'out there', irrespective of their actions – nevertheless, they are invariably (though unofficially) taking part in the invention of such overflows.

In this text, the Volvo Car Corporation does not appear to be the rational monolith of the orthodox economists and the critical global justice writers. Instead, it emerges as the quintessential modern monster, in many ways akin to what Richard Powers calls a "kind of aggregate life that arises out of accident, accretion, law, peculiarities of circumstance [...] a huge aggregate where no one's pulling the strings anymore, and the CEO is following the inertial lead of this mass" (Miller, 1998b). Hence, I found that my role was not to 'objectively' describe (like orthodox economists) or 'critically' denounce (like the global justice writers) this aggregate life. If the "critic is not the one who debunks, but the one who assembles" publics around "matters of concern" (Latour, 2004a), researchers can choose to either intervene and interfere – or to

become a constitutive actor in the corporate inertia. Either way, they cannot disentangle themselves from the ontopolitics of markets.

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