Title Knowledge Transfer Across Cultural Boundaries in the Global Economy Based on the Model of Travel of Ideas Exemplified by the Quality Transfer in Car Manufacture from West Europe to Poland

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KNOWLEDGE TRANSFER ACROSS CULTURAL BOUNDARIES IN THE GLOBAL ECONOMY BASED ON THE MODEL OF TRAVEL OF IDEAS EXEMPLIFIED BY THE QUALITY TRANSFER IN CAR MANUFACTURE FROM WEST EUROPE TO POLAND.

by

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[1] Sirotka (pol.) – an orphan.

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ABSTRACT

The idea of quality has travelled globally for many years as a result of globalisation (Crosby, 1979; Deming, 1989). It has become a key factor of increased competition in the global economy, which led to the attempts of international companies to transfer quality to different locations and cultures in order to achieve high-quality standards globally. Car manufacture became an important field for the international knowledge transfer. A quest to achieve high quality in car manufacturing has travelled along various management tools and production models since 1911 (Tolliday, 1998) and after 1990 it also began to travel to Eastern Europe, including Poland.

The concept of quality in car manufacture in Poland is a good example of an idea that was successfully translated. Due to the absence of research on this topic it was chosen as a subject for this study. Henceforth, this thesis investigated the travel of the idea of quality in the car manufacturing industry, from Western Europe to Poland. The research explored the process by which this idea was negotiated within General Motors company, in particular its two plants - Vauxhall Luton in the UK and Opel Polska in Poland. A group of 30 managers involved in the knowledge transfer between these two locations were interviewed by means of ethnographic and the Repertory Grid techniques. A combination of these two methods contributed to our knowledge about the possible methods that can assist the exploration of the organisational cultures and values embedded in them. Additionally, the application of this methodological approach gave us an insight into the Resistance to Change phenomenon and possible factors behind it.

The thesis identified reverse translation as an important area for future research. Reverse translation may be equally important as the forward process (Boyer et al, 1998), and in this study we argued that the initial

research, prior to reverse translation and the identification of the appropriate type of RD to be implemented, can play a crucial role in the outcome of this process.

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Chapter 1. Introduction

1.1 Overview

Discussion on globalisation has been running for years and it has resulted in many diverse opinions, from its staunch supporters (e.g. Hedgetts & Luthans, 1997; Ohmae, 1990) to its extreme opponents (Costea, 1999). The author would like to join this discussion by placing herself between these contrary views and sharing the opinion of Giddens (1996), who described globalisation as having some positive effects contributing to a new shape of local cultural identity and self-expression.

Eastern European economies have been evolving under completely different circumstances to other Western European countries in the last half a century. A development of the Eastern block was centrally controlled from Moscow: the borders were closed; the contact with the West cut off. The mechanisms developed in the command economy were far different from those in the free market economy. The command economy shaped the market of the Eastern block, but also the mentality, attitudes to work and the notion of many concepts among the people in Eastern Europe, for example, the notion of quality discussed in this dissertation. Due to the completely different way of development between the East and the West, many issues are beyond comprehension for a contemporary Western reader. The notion of quality in car manufacture is one of them, as will be elucidated in this writing.

Globalisation inevitably led to attempts to transfer know-how and expertise to markets in different locations and cultures, where the particular organisation was willing to begin to operate. Hence, the need for understanding the conditions for successful knowledge transfer became especially important. In order to operate successfully, organisations engaged in the process of constant ideas transfer between their

international divisions. The increased integration of national economies stimulated this process even more. It resulted in the expansion of financial and physical capital in international markets and the rise of globalisation.

This study's objective is to understand the circumstances in which ideas are transferred across cultural and, consequently, linguistic boundaries and whether *successfully or unsuccessfully*. Organisational actors involved in the knowledge exchange define the criteria for success. In order to create a model describing the process by which ideas travel, one idea travelling between two locations was chosen in order to exemplify this process. It is the idea of quality in the car manufacturing industry as understood in Western Europe. We will trace the travel of this concept between Western Europe and the post-command economies, particularly Poland.

This chapter aims to describe the rationale for this choice, introduce the main issues and discuss how they will be addressed.

1.2 Knowledge transfer in the global economy

Many authors (e.g. Jankowicz, 1996a; Kostera, 1995) consider globalisation as a process of mutual influence, where the meaning is mutually created rather than a one-way process. It results in various types of relation between parties depending on the mutual negotiation of connectivity (Hirst & Thompson, 1996). This approach to globalisation indicates that different parties are engaged in the organisation and exchange of capital, raw materials, finished goods, and labour (Hedgetts and Luthans, 1997). As stated before, the author shares the opinion of Giddens (1996) and Amin (1997) who described globalisation as having some positive effects on the new shape of local cultural identity and self-expression, resulting from the process of mutual meaning creation.

One of the consequences of the global economy is that organisations attempt to transfer knowledge between different locations and cultures if

they want to achieve high-quality results globally. In order to understand the complexity of this process, we need to explore the way in which ideas travel between cultures in more detail. In order to do so, one particular model, the model of 'Travel of Ideas' (Czarniawska & Joerges, 1996), was chosen. This model will enable us to trace the process of disembedding and reembedding one idea in different locations.

The spread of ideas has traditionally been described as 'diffusion' (Rogers, 1995). Latour (1986) offered the translation model as an alternative for this approach. Translation is the key concept for understanding organisational change (Czarniawska and Sevón, 1996). The translation model implies a complex process, where there is a creation of a new link and partial modification of the two agents involved in the process. This concept involves the consideration for what exists as well as what is created (Latour, 1993) and that includes all artefacts in which an idea is embedded. This new way of looking at the process of ideas transfer draws our attention to the relationships between humans and ideas, and ideas and objects. People play a crucial role here. They are not only the creators and users of the idea, but they also serve as the vehicle for the translation process. They create the energy necessary for ideas to travel.

Change, according to Czarniawska and Sevon (1996), is 'a result of a blend of intentions, random events and institutional norms, all processed in a collective apparatus of sense-making' (ibid. p. 11). This work will look at the complex process of change in an organisational context. We will trace the complexity and uniqueness of the blend of past events, intentions of parties involved and the institutions developed as the result of this sense-making process.

Changes are exciting for spectators, only when they are dramatic and fundamental. To watch the actors and the scenery transform in the most

unexpected and drastic ways is fascinating as well as stimulating. Unfortunately, the life of an average spectator of Western Europe's scene does not present him/her with such huge events. The time of revolutions is over. The European Union reinforces the blurring of some differences between countries and cultures started by globalisation. One might think that there is not much out there exciting enough to watch.

The border between Western and Eastern Europe is nevertheless a very interesting line, which once crossed, could provide us with a fascinating spectacle that the Western viewer might want to watch. It's a spectacle of change; change of a system, change of religion, change of beliefs, values, norms and institutions. The stage is in constant transformation, the actors hardly manage to keep up with the changing of their costumes; some actors play many different roles, and these roles change too. Is it possible to make sense out of such a seemingly chaotic show? I believe it is, and I will try to achieve it in this thesis.

1.3 Western ideas begin to travel to Eastern Europe

The globalisation process in the Eastern block, which began in 1990, is a good example of ideas-spreading where the mutual meaning creation played a crucial role. Despite a close geographical distance between Eastern and Western Europe, the distance to mutual understanding was quite far. It is arguable that the process of ideas translation caused a lot of friction and some concepts were resisted by the local cultures, but many were diffused and resulted in the creative translations of ideas.

After the opening up of the boundaries in the post-command economies in the 1990s, the two worlds of the West and the East were suddenly confronted with each other. People from the Eastern block were able to travel freely for the first time in fifty years to the land of prosperity, which previously they only knew from the tales of other people, or their occasional visits to the West. So far, they were usually the recipients of the Western ideas but did not have the opportunity to take an active part in

their creation or institutionalisation. Hence, their knowledge of some ideas was restricted, as it did not include the whole institutionalisation chain. Their familiarity with the Western ideas was often one-way, rarely in the flesh and often came from the media. This seemingly small aspect played a crucial role in the later development of the post-command economies. Not knowing the reality of the free market and other things in the West, people only knew the images of the final effects and products of capitalism, which were usually associated with luxury and well-being. Hence, the aspiration to 'catch up' with the West is understandable. Nevertheless, this drive to make up for the lost years of stagnation under Moscow's government resulted in many cases of uncritical willingness to accept some Western concepts as a miracle cure for the problems of the post-command economies.

Western investors coming to Eastern Europe as a main emerging market promising good opportunities had to deal with the years of history under communism. As much as people in the East were open and prepared to absorb Western capital and investments, they were often not ready to change their fundamental beliefs and values, which they developed in the previous system in order to cope successfully in dramatically different conditions than those of the West. The juxtaposition of different values and work attitudes often resulted in frustration on both sides: the investors and the local people. The international global companies had to negotiate the ways in which they were going to operate in the Eastern markets if they wanted to be successful.

One of the consequences of global economy is that organisations need to communicate between different cultures. Culture plays a crucial role in the process of mutual meaning creation. There is a correlation between economic success and the reconciliation of values in business practice (Trompenaars and Hampden-Turner, 1997), which will be supported in this

research. Culture is the only thing we know, a 'bubble' through which we perceive the world (Czarniawska-Joerges, 1992).

Czarniawska's model of 'Travel of Ideas' is a useful tool enabling us to trace the disembedding and reembedding of one idea in two cultures. The study of the culture, and the values of the parties involved in the process, is necessary in order to identify the criteria for successful knowledge transfer.

1.4 Quality as an example of an idea that travelled globally

Quality has travelled globally for many years (Deming, 1989; Crosby, 1979). It has become a key factor of increased competition in the global economy. Globalisation resulted in the attempts of international companies to transfer quality to different locations and cultures in order to achieve high-quality standards globally. Car manufacture became an important field for the international knowledge transfer. A quest to achieve high quality in car manufacturing has travelled along various management tools and production models since 1911 (Tolliday, 1998).

After the opening up of the boundaries in the post-command economies in the 1990s, quality in the car manufacturing industry also began to travel to Eastern Europe, including Poland. The concept of quality in car manufacture in Poland is a good example of an idea that was successfully translated. This most recent stage of this process hasn't been explored in detail yet. Therefore, the idea of quality in the car manufacturing industry lends itself to this study and the exploration of its translation between Western and Eastern Europe offers an opportunity to contribute to our current knowledge of this process.

1.5 Aims and objectives of the research

The aim of this research is to investigate the ways in which knowledge is transferred across cultural and linguistic boundaries. This will enable us to identify and understand the circumstances in which ideas are transferred,

and whether *successfully or unsuccessfully*. The cultural change and the process of the quality transfer across cultural boundaries will be described in detail.

The objectives of this research are as follows:

1) To investigate the travel of one particular idea; the idea of quality in the car manufacturing industry, from Western Europe to Poland. The research will explore the process by which the idea of quality was negotiated between the two parties and the factors that influenced this process. The success or otherwise of the quality transfer to Poland will be thus defined by the party providing the idea of quality and the party receiving it.

2) To create a model of the process by which ideas travel across cultural boundaries with the factors determining its success or failure. This will include general guidelines for a procedure by which the Western notion of quality (something built into the production process) can be introduced to other cultures in the post-command economies.

3) To contribute to an effective combination of two research methods derived from two disciplines: ethnographic interview (sociological approach) and Repgrid (psychological approach). It will result in the creation of an efficient approach to analysing (organisational) culture and the exploration of values embodied in it (Dobosz-Bourne, 2002).

1.6 Methodological approach

In order to create a model of the process by which ideas travel across cultural boundaries, with the factors determining its success or failure, two approaches are combined, i.e. sociologically- and psychologically-based approaches. This study will include the exploration of both cultures, as well as the individuals involved in this process. The research used some ethnographic techniques derived from anthropology, which represents the most distinctive methodological approach in the study of ideas diffusion (Rogers, 1995). The incorporation of the ethnographic interview and non-participant observation enabled the study of two cultures, between which the process of ideas translation took place. The exploration of personal

values in two locations involved in quality transfer was achieved by employing the research methods derived from Personal Construct Psychology (Kelly, 1955): the Repertory Grid Technique (Stewart and Stewart, 1982), followed by Laddering (Hinkle, 1965) and Resistance to Change Technique (Fransella and Bannister, 1977). This set of constructivist techniques will serve as an in-depth exploration of the values embedded in each culture, which may not have been discovered in the ethnographic picture. They will also explore the disembedding and reembedding of the idea of quality in the translation process, and its meaning for organisational actors, providing triangulation for the first part of the research conducted by means of the ethnographic methods. It will also allow the streamlining of the ethnographic research process by incorporating the Repertory Grid Technique as an effective way of identifying the personal values of organisational actors (Dobosz-Bourne, 2002), which represents a very important contribution to knowledge.

By the in-depth exploration of values shared by actors in each culture, the quality transfer will be illustrated as a process of negotiation over meaning between both parties. This will contribute to our better understanding of globalisation as a process that creates the new shape of local cultural identity and self-expression (Amin, 1997).

The empirical study was conducted in two phases:
a) The ethnographic interviews carried out at the Vauxhall Luton Plant in England and Opel Polska in Gliwice, Poland. It consisted of 30 in-depth, key-informant interviews and non-participant observation in both locations.
b) A second stage consisted of 28 Repertory Grid Interviews with the same key-informants who were involved in the process of the translation of the idea of quality from Poland back to England. This stage involved the application of three constructivist techniques: the Repertory Grid interview, Laddering and Resistance to Change technique.

The literature review was done after the ethnographic interviews were complete according to the ethnographic mode of research and in order to triangulate the ethnographic findings by means of exploring its main themes in the literature.

1.7 Outline of the thesis

The thesis consists of the following chapters:

Chapter 2 includes the literature review of several disciplines and the issues calling for investigation. Despite being the first part of the thesis, this chapter was written after Chapter 4 in order to follow the ethnographic method of writing conventions.

Globalisation is the starting point of Chapter 4, as the focus of the thesis remains on the process, which takes place in the global economy. Here the three different perspectives are presented along with the author's approach.

Next, the issues of cultures and subcultures are discussed as a necessary aspect for understanding the issues behind globalisation and the international knowledge transfer. This section is followed by a review of the literature on communication across different cultures.

Quality as an idea to study is consequently presented in the review of the literature on this topic. To specify the area of this research, the field of the car manufacturing industry is introduced along with the notion of quality in the automotive industry as a concept, which has travelled globally for many years. This part describes the travel of the idea of quality within this industry to Eastern Europe. Here, the field, where the original contribution to knowledge can be made, is identified.

Chapter 3 presents the way in which the objectives of this research can be achieved, that is, the methodology. Here, the combination of sociological and psychological approaches is discussed along with the set of

techniques derived from these two disciplines, those being the ethnography and the Repertory Grid Technique. The empirical work was carried out in two phases as described previously.

The next two chapters are the core of this thesis. Chapter 4 is a narrative describing the issues that emerged from the ethnographic study. It tells the story about the way in which the notion of quality as something built into a system has travelled in the car manufacturing industry from Western Europe to Poland. The process of the disembedding and reembedding of this idea in England and in Poland will be described here in detail.

The processes of institutionalisation of the idea of quality in these two locations are further investigated in Chapter 5. Here, the personal constructs of the respondents are analysed and the explicit definition of quality as understood in General Motors is presented.

Chapter 6 presents the study of values of the British and Polish managers. It describes the similarities and differences between the values and shared assumptions in the organisational cultures of Vauxhall Luton and Opel Polska plants. In this way, the study includes the investigation of the criteria for the success of the translation process.

The discussion and conclusions from this research are presented in Chapter 7. The analysis of the factors determining the success of the process in which ideas are transferred, resulted in the creation of the model for effective future quality transfers. The general guidelines for a procedure by which the Western notion of quality, as something built into a system, can be introduced to other cultures in the post-command economies are listed.

Chapter 2. Background literature

2.1 Globalisation

Increased integration of national economies has resulted in the expansion of financial and physical capital in international markets, and the rise of globalisation. Discussion on the latter subject has been running for years and has resulted in many diverse opinions. There are three dominant approaches to globalisation, which have been termed globalist, traditionalist and transformationalist perspectives (Held, 2000).

Globalists take the view that globalisation is a real and tangible phenomenon and its impact can be felt everywhere. Adherents of this process, positive globalists, see it as a universal 'best practice' for doing business, which enhances the undisturbed transfer across national and cultural boundaries (Hedgetts and Luthans, 1997; Ohmae, 1990). They assert that globalisation is the key to efficiency and effectiveness as it offers unique opportunities, such as economy of scale, reduced costs, increased quality, as well as providing strategic survival mechanisms in an unstable and dynamic environment (Marquardt, 1999). Ohmae (1995) proposed that the advance of globalisation has been so strong that nation-states have lost most of their power to control their own affairs. Nations have lost most of their sovereignty, and politicians, most of their influence. Nations have become 'fictions' and global market-places are indifferent to national borders.

The opposing group of pessimistic globalists perceive it as a standardised approach leading to homogenisation and marginalisation of human diversity and, in some cases, leads to most of the world's current crises (Costea, 1999). They emphasise the dominance of major economic and political interests, such as the USA and Western Europe, who can impose their own agenda on the world and resist all pressures for change.

The sceptics of globalisation, so called traditionalists (e.g. Hirst and Thompson, 1996), claim that its benefits, its trials and the global economy are not very different from those which existed during previous periods. According to this view, the degree of economic integration in world markets has often been greatly overestimated as most countries gain only a small amount of their income from external trade. A great amount of economic exchange takes place between regions or within the main trading blocks, like the European Union, rather than world-wide.

The author would like to join this discussion by placing herself between these contrary views and sharing the opinion of Giddens (1996, 1999) and other transformationalists as a result of what was learnt in the empirical work. Giddens described globalisation as having some positive effects contributing to the new shape of local cultural identity and self-expression. This way of approaching globalisation rejects the polarity of the globalist and traditionalist perspectives. Transformationalists acknowledge the reality of this process and of the notion of globalisation. While they agree on this aspect, they also claim that the impact and effects of globalisation have been exaggerated by globalists (e.g. Ohmae, 1995). According to Giddens (1999), the level of world trade is higher than ever and its range has developed significantly as well. Globalisation is indeed a very real phenomenon, but its influence is not only limited to economy. It is a political, technological and cultural issue as well as economical. It is a mistake to think of globalisation as concerning only the big systems. It is not an 'out there', remote phenomenon, but also an 'in here', realistic happening, influencing intimate and personal aspects of individuals' lives. According to this intermediate approach (e.g. Amin, 1997), globalisation puts into opposition an overlapping mixture of economies and territorial states with 'supra-national flows' mutually influencing each other. It should be considered as a process of mutual influence rather than as a one-way

practice and a process in which meaning is mutually negotiated (see e.g. Jankowicz, 1996a; Kostera, 1995; Lee, 1995).

Globalisation does not only 'pull away' power or influence from local communities and nations into the global arena. It also pulls it in the opposite direction and has an opposing effect. Globalisation is the reason for the revival of local cultural identities; it creates new economic and cultural zones within and across nations, and often results in 'reverse colonisation' when non-Western countries influence developments in the West (Giddens, 1999). According to Held et al (1999), globalisation is a set of processes embodying a transformation in the spatial organisation of social relations and transactions, generating flows and networks of activity and interaction. Globalisation invades local contexts of action but it does not destroy them. It results in various types of relation between parties depending on the mutual negotiation of connectivity, and creates new forms of local cultural autonomy and identity (Giddens, 1996).

This research is concerned with the result of globalisation as defined by transformationalists (e.g. Giddens, 1990, 1996; Amin, 1997) where 'local happenings are shaped by events occurring many miles away and vice versa' (Giddens, 1990: 64). This thesis will describe the way in which local happenings in Poland were shaped by events from Western Europe, by analysing the process of the global travel of one idea to Poland.

2.2 Cultures and subcultures

One of the consequences of a global economy is that organisations need to communicate between different cultures. When discussing international knowledge transfer we need to focus on the cultural aspects of globalisation in particular as they play a crucial role in the outcome of the mutual meaning creation of the parties involved. Thus, culture will be defined at this point and the importance of subcultures indicated. This provides an opportunity to introduce the notion of organisational culture.

Schein (1985) has described culture as existing on three interconnected levels:

1) Artefacts and creations - the visible manifestations of a culture (language, architecture, technology and other material outputs) and its visible system of organising interpersonal relationships (status levels, sex roles, age roles etc.).

2) Values and ideology – rules, principles, norms, values, morals and ethics.

3) Basic assumptions and premises – underlying and typically unconscious assumptions about the nature of truth and reality, the nature of human nature, time and space. These assumptions create the cultural core of essence, provide the key to deciphering the values and artefacts, and create the patterning that characterises cultural phenomena. This level is taken for granted and outside our awareness, hence it is the hardest to examine.

According to Hofstede (1991), cultures manifest themselves on the following levels:

1) practices (symbols, heroes, rituals)
2) values

The first level is visible to an outside observer, but the second one is invisible and determines the cultural meaning of the practices.

Each culture has different layers (Hofstede, 1991):

1) national (according to one's country or countries for people who migrated)
2) regional and/or ethnic and/or religious and/or linguistic (as most countries are composed of culturally different regions)
3) gender
4) generation (which separates grandparents from parents and parents from children)

5) social class (associated with educational opportunities and with a person's occupation or profession)
6) organisational or corporate (according to the way employees have been socialised by their work organisation)

Everyone belongs to a number of different subgroups and subcultures at the same time (Young, 1989). Thus, when exploring the process of knowledge transfer in global economy where culture is involved, one cannot consider only national culture. It is important to identify subcultures involved, especially in the case of this research - a corporate culture and its values - as the research has been carried out in an organisational background.

2.3 Communication across different cultures

The process of knowledge transfer in global economy involves the negotiation between organisational actors on the levels of national and also corporate culture. In order to understand the complexity of the global knowledge transfer, we need to explore the ways in which ideas travel between cultures in more detail.

2.3.1 Diffusion

Idea-spreading is traditionally discussed in terms of 'diffusion' (see Levitt and March, 1988; Mohr, 1969; Rogers, 1995), a process which has 'direction'. This concept is mainly used when describing the transfer of innovation (e.g. Deutschmann and Borda, 1962; Rogers, 1995). Diffusion of ideas has become a crucial subject for multinational companies. Their ability to transfer knowledge and practices globally often decides their survival or failure on the market. Hence, many authors emphasised the importance of understanding the factors determining success. It resulted in many different approaches to the subject of idea-spreading.

Hirschman (1967 in Czarniawska and Joerges, 1995) spoke of technology transfer and development projects as a 'pseudo-imitation' technique. It

involved building projects as a replica of a successful venture in an advanced country. It enabled the promotion of projects that would normally be discriminated against as too risky and uncertain to be realised. Bartlett and Ghoshal (1998) emphasised the need to diffuse world-wide innovations as an important reason for corporate internalisation. In the current international environment, the ability to diffuse ideas has become the primary source of competitive success. In most industries today, international companies compete with other giants of comparable global size and geographic diversity. In order to become a winner, the company must be market-sensitive and adaptive to technological trends, regardless of their origins, as well as being able to respond creatively to world-wide opportunities and threats. The ability to exploit new ideas and products globally in a rapid and efficient manner has become crucial for a company's survival (Bartlett and Ghoshal, 1998). Boyer et al (1998) agued that imitation or direct transplantation of ideas is rarely feasible, thus we should focus on the process of hybridisation, a complex interaction of ideas with national and societal effects.

2.3.1.1 Mechanisms for diffusion

Organisational literature distinguishes between three broad processes of diffusion: *coercive, mimetic* and *normative* (DiMaggio and Powell, 1983).

Coercive diffusion or isomorphism, as labelled by DiMaggio and Powell (1983), occurs when formal and informal pressures are exerted on the organisation. The pressures might come from other organisations the company is dependent upon or from the cultural expectations of the society in which the company operates. The examples would include rules established by governmental agencies, trade associations and unions (Levitt and March, 1988).

The second kind of diffusion, the *mimetic* process, stems from standard responses to uncertainty, which is a powerful force that encourages imitation (DiMaggio and Powell, 1983). This results in knowledge diffused by contacts among organisations and by the movement of personnel.

The third process is a two-stage diffusion resulting from normative pressures and professionalisation (DiMaggio and Powell, 1983). This process can be exemplified by ideas communicated through formal and informal educational institutions, experts and publications.

2.3.1.2 The main elements in the diffusion

Diffusion is a special type of communication in which participants create and share information with each other in order to reach mutual understanding (Rogers, 1995). It is a process consisting of four main elements:

1) a *new idea*,
2) is *communicated* through certain *channels*,
3) over *time*,
4) among the members of a *social system* (Rogers, 1995; Szulanski, 1996).

These are the factors which are likely to influence the difficulty or ease of the diffusion process. Different researchers emphasise different attributes which might influence the knowledge transfer. Rogers (1985), for example, places almost exclusive emphasis on the attributes of innovations. Bartlett and Goshal (1998) and Mohr (1969) consider the social system and communication channels as crucial. Nonaka (1995) and Arrow (1974 in Szulanski, 1996) stress the characteristics of the situation, such as time. Others (e.g. Szulanski, 1996) try to draw on all of these factors and create eclectic models enabling the measurement of their relative influence.

The following section explains all four sets of factors in more detail.

1) The nature of a new idea

Many authors (Edwards and Ferner, 2004; Szulanski, 1996) have argued that some ideas and practices are easier to transfer across national and cultural boundaries than others. One factor determining this process is a degree to which knowledge is 'codified' or 'tacit' (Lam, 1997). Some ideas

are highly embedded in complex social interactions and team relationships within organisations, hence they are not migratory or extremely 'sticky' (Badaracco, 1991 in Lam; 1997 Szulanski, 1996). Polanyi (1962 in Lam, 1997) argued that a large part of human knowledge cannot be articulated. He called it 'tacit knowledge' and stated that we know more than we can express verbally. George Kelly (1955) described this phenomenon as a preverbal construct, meaning 'one which continues to be used, even though it has no consistent word symbol' (Kelly, 1955:6). According to Lam (1997), this part of knowledge is acquired through practical experience and observation rather than formal learning. Tacit knowledge is also context bound as it is developed and accumulated according to the specific requirements of the firm. It is embedded in specific organisational procedures and routines understood and shared by organisational actors who have common experience and share common values. Speaking in Kelly's language and using his Sociality Corollary, in order to play a role in a social process, one must have a subsuming construction of those with whom s/he is conjoined in that process (Kelly, 1955). A good example of this shared 'tacit' knowledge is the Japanese societal model – the 'organisational' model. It is based on on-the-job experience, flexible utilisation of skills and the organic development of collective knowledge.

In contrast to this kind of knowledge formation, there is migratory knowledge (Lam, 1997) or as termed by Nonaka (1991), 'knowledge of rationality'. It is usually acquired through formal education and training in learning institutions, and it leads to certificates of qualification. It is highly standardised, context free and tends to develop into the 'best practice'. It is explicit and document-based, hence relatively easy to transfer. The British 'professional' model is a good example of this kind of knowledge. It encourages individual specialisation and ownership of knowledge. It leads to development of individual experts within specific functional groups, which is the reason why it puts the firm in a very vulnerable position when an individual leaves.

2) Communication channels

A communication channel is the means by which messages get from one individual to another (Rogers, 1995). The nature of the knowledge-exchange relationship between the organisational actors determines the outcome of this process. The understanding of the nature of communication flows can be enhanced by the concepts of homophily and heterophily, which explain the importance of the relationship between the actors involved in the diffusion process. According to Rogers (1995), most individuals evaluate an idea on the basis of the communication process between the donor and the recipient of the idea, rather than scientific studies involving the consequences of its adoption. The communication is likely to be most effective when it occurs between individuals who share certain attributes such as beliefs, education and social status; individuals who are homophilous.

One of the problems of knowledge transfer is that the parties are often heterophilous, hence the communication between them is ineffective. However, the very nature of diffusion entails some degree of heterophily between the actors and can contribute to the positive outcome of the knowledge transfer. Ideally, the parties should be homophilous on variables such as beliefs, education or social status, even though they are heterophilous regarding the new ideas which they attempt to diffuse (Rogers, 1995). Heterophilous communication has some informational potential and can contribute to the positive outcome of the knowledge transfer. Smith and Meiskins (1995) described a phenomenon called 'dominance effect'. They argued that organisations from countries low down the economic hierarchy have an interest in emulating practices from those higher up. This approach has been criticised for its implication of homogeneity within national economies, but it has also been appreciated for drawing attention to the interest among organisational actors, particularly senior managers, in emulating practices originating in

economically successful countries (Edwards and Ferner, 2004). The organisations of strong domestic companies tend to draw on the strengths of the home country and apply practices derived from there to their foreign subsidiaries. If the transfer of knowledge is to occur in this situation, it is likely to be evolutionary as a 'dominant' country will tend to use it as a way of consolidating its existing strengths. The opposite situation occurs in the case of an organisation from a 'non-dominant' group transferring knowledge to a subsidiary in a 'dominant' country. Then the process is likely to lead to transformative diffusion. Here the organisation can use its foreign subsidiary as a way of bringing about fundamental change, and as an opportunity to gain first-hand knowledge of practices they perceive as contributing to this country's success.

To summarise, the homophilous-heterophilous dimension is an important aspect of diffusion. Homophilous communication is smoother and easier for the participants. Nevertheless, it can create a barrier to diffusion, causing new ideas to spread only horizontally, rather than vertically, within the system. Heterophilous communication, even though more difficult for the participants, has a potential to stimulate the flow of ideas and enhance knowledge transfer, providing it is supported with the sufficient degree of homophily between the actors' existing beliefs and norms (Rogers, 1995).

3) Time

Time is an important element in the diffusion process. It is involved in the diffusion in the innovation-decision process, innovativeness, and an innovation's rate of adoption (Rogers, 1995). The innovation-decision process is the mental process through which an individual passes from first knowledge of an idea to forming an attitude towards it and either adopting or rejecting it. If the idea is adopted, the next step is its implementation and confirmation of this decision. Innovativeness is the degree to which an individual is relatively early in adopting new ideas than another member of a social system. This category consists of individuals

who vary from active information and new ideas-seekers reaching outside their local system, to laggards who are the last in a social system to adopt the idea and also the most traditional in their orientation. Rate of adoption is the relative speed with which the members of a social system adopt an idea.

4) Social system

A social system is a set of interrelated units that are engaged in joint problem solving to accomplish a common goal. It can consist of individuals, informal groups, organisations, and/or subsystems (Rogers, 1995:24). The social and communication structure of a system facilitates or impedes the diffusion of ideas in the system (Edwards and Ferner, 2004; Rogers, 1995; Szulanski, 1996). Another important characteristic of the social system is the norms established within it. Norms define a range of tolerable behaviour and serve as a guide for the organisational actors. If the norms within the social system are incompatible with those imposed by the outcome of diffusion, the adoption of a new idea can be rejected.

2.3.2 Translation

According to the diffusion model, the ideas and objects travelling through time and space require some initial force in order to trigger further movement, and this force constitutes its only energy. It is this movement that seems to cause people to behave in a certain way. The displacement of the objects is driven by inertia and can be either slowed down or accelerated by the action of people.

Latour (1986) suggested contrasting this model with the one of translation where the spread of all artefacts, in which an idea is embedded, is in the hands of people. Each of the people in the translation chain plays a crucial role in this process. They do not act as a resisting or transmitting force as in the model of diffusion; rather they are essential for the existence of the token. They 'may act in many different ways, letting the token drop, or modifying it, or deflecting it, or betraying it, or adding to it, or appropriating

it' (Latour, 1986: 267). The token is shaped by everyone's hands according to their projects, and its faithful transmission is rare. What occurs nevertheless is a result of translation.

The translation model surpasses the linguistic interpretation and means a complex process where the creation of a new link and partial modification of the two agents, those who translated and that which is translated, took place (Latour, 1993). The concept of translation comprises what exists and what is created. It points to the relationship between humans and ideas, ideas and objects. Contrary to the model of diffusion, it points at *people* as the necessary energy for ideas to travel. The people are the creators and users of an idea, who translate it for their own or somebody else's use. Translation also implies a process of negotiation between the actors where their identity, the possibility of interaction and the scope for manoeuvre are delimited and negotiated (Callon, 1986).

2.3.3 The model of 'Travel of Ideas'

Translation should be considered as a process that never ends. It should also be noted that it can fail too (Callon, 1986). In times of global economy when ideas frequently travel across cultural and linguistic boundaries, it is important to explore the factors determining the success or failure of this process. The model of 'Travel of Ideas' by Czarniawska and Joerges (1996) provide a good analytical framework for such an exploration.

Czarniawska and Joerges (1996), following the translation concept, developed a detailed, descriptive model for the spread of ideas (see Figure 1). It describes the process of disembedding and reembedding an idea in different locations. In order for an idea to travel, it must be disembedded from its cultural assumptions and be transferred in a form of an object to a different culture. The idea, which enters the chain of translation, acquires almost physical, objective attributes. In order to be put into action, the idea must be supplied with an image of action, either a

verbal or graphic picture, which enables its materialisation. Technology, such as mass storage or mass reproduction, speeds up the translation process, making it continuous and magnified. Technology transfers and development projects to developing countries are some of the examples of idea materialisation. This chain of events – reembedding of the idea in a new location - makes the idea understandable in this culture.

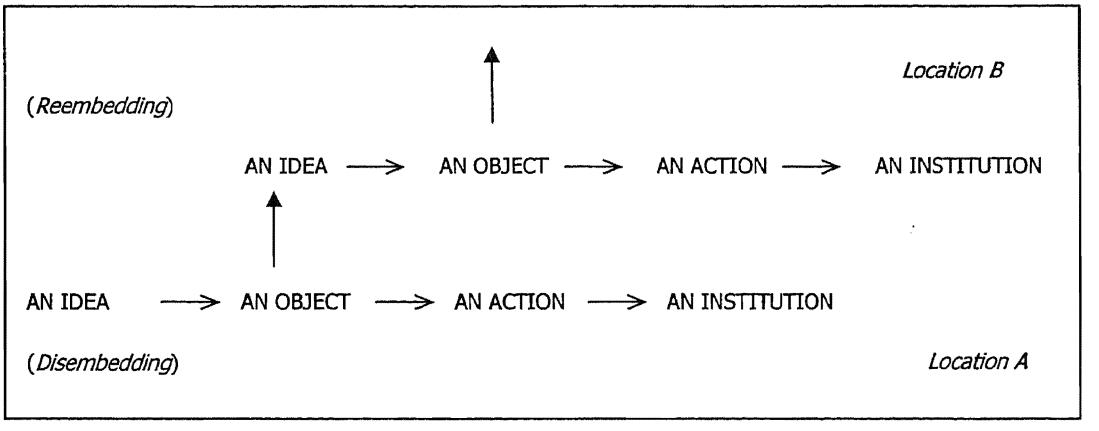

Figure 1 The model of 'Travel of Ideas' (Adopted from Czarniawska and Joerges, 1996)

By the application of the model of 'Travel of Ideas', we can trace the process of the disembedding and reembedding of the idea in different locations, that is, the process of communication between those two cultures. The meaning of the idea of values being embedded in different cultures can be investigated in detail. It also enables the identification of the factors contributing to the success or failure of the translation.

2.3.4 Resistance to change

The materialisation of the idea causes change: unknown objects appear, known objects change their appearance, practices become transformed. Resistance to change phenomenon (RTC) may occur as a reaction to the unknown, new ways of doing things people might be forced to do. As Jankowicz (1996a) argues, it is a legitimate process as knowledge is something that should be mutually negotiated and created. For the mutual

knowledge creation, values espoused by each party must be considered and respected. As values represent the personal constructs core to our role creation, they are not only the most resistant to change but also the most difficult to explore. Some values are deeply rooted in cultures as they have been used for ages in the recipient culture. The exposure of those values to potential change might appear as too threatening and thus, make the knowledge transfer impossible. Hence, for the new concept, new (organisational) culture must be considered in terms of its usefulness to replace an existing idea in accordance with the recipient's criteria.

Successful knowledge transfer is not a matter of simply copying all the elements of an idea chain from location A to B. Instead, it should copy the role and function that the idea plays in culture A into culture B. For this reason, ideas and practices may undergo transmutation following their transfer (Edwards and Ferner, 2004). Boyer et al (1998) refer to this process as to hybrydisation. The original function of an idea and the practice in the donor unit may be irrelevant to the purposes assigned to it in the recipient unit. This may apply even to highly 'codified' practices and ideas. The new function may emerge out of the process of translation not as the one originally intended. The impact of translation is thus in part a function of the way in which the recipient culture institutionalises the new practice. A given idea might not operate in the same fashion in the recipient country as it does in the donor country. Hence, actors in the recipient location might need to adapt it to pre-existing patterns of behaviour and power relations (e.g. Ortiz, 1998; Szulanski, 1996).

2.3.5 Power

Power plays a crucial role in promoting and maintaining the flow of ideas and practices between different subsidiaries of multinational companies (Edwards and Ferner, 2004). The ability of organisational actors to overcome the potential resistance of the actors in a different location is central to any process of organisational change. Thus, power relations

between organisational members become especially important when analysing the process of the transfer of knowledge.

Edwards and Ferner (2004) argued that diffusion is a political as well as technical issue. Their research showed that knowledge flows are parallel with corresponding power and resources flows. Szulanski (1996) argued that the transfer of knowledge might be problematic due to the reluctance of the source, as well as the recipient, to be involved in the process. The reluctance of the donor might stem from the fear of losing ownership, a position of privilege or superiority. Thus, it should not be assumed that the potential sources of knowledge are willing to participate in diffusion, especially in the increasing context of inter-site competition in multinational companies.

There are four main sociological approaches to power: one-dimensional, two-dimensional, three-dimensional (the radical structural view) and four-dimensional (the relational view).

1) One-dimensional approach to power, the behavioural view, takes a focus on behaviour in the making of decisions, over which there is overt conflict of interests (Dahl, 1957). In other words, A has power over B to the extent that s/he can get B to do something that B would not otherwise do.
2) A two-dimensional perspective involves the consideration of ways in which decisions are prevented from being taken on potential issues over which there is observable conflict of interests (Bacharach and Baratz, 1962). In other words, A prevents B from realizing that B has a problem, through deception and other illegitimate tactics, and thus B continues or begins to do what they otherwise would not do. If B had been given the information or the opportunity to raise issues and participate in decisions, s/he might act differently.
3) According to the radical structural view (Lukes, 1974), power includes the ability to determine the decisive socialisation process,

and therefore the power to produce reality. In other words, A educates and persuades B to accept their role in the order of things, and not to perceive any conflict of interest.

4) The fourth view, the relational view, is the extension of the radical structural view. Power, according to this approach, exists not as a property of social actors, but as quality of the relationship between them (Foucault, 1994; Latour, 1986). Each actor is empowered in certain ways, each limited in others, by the relationship.

The management literature also recognises other approaches offered in addition to the four views discussed so far. Thus, we can address the subject of power in organisations from perspectives such as the unitary and pluralist views of power, empowerment and the political organisation (Fulop and Linstead, 1999).

According to the unitary framework, management's authority is relatively automatic with its legitimacy sanctioned through hierarchical relations, rules and procedures. This perspective presents the exercise of power as associated with coercion, force and threats. The right to make all the critical decisions belongs to those at the top of the hierarchy, and their authority to do this is vested in their position. Thus, authority becomes the main form of power (Hatch, 2000).

Pluralist approaches to power shift the focus away from authority and concentrate on the study of power and influence in social interactions (Fulop and Linstead, 1999). This view focuses on explaining overt forms of influence and the power resources used to create unequal dependency relationships.

2.3.5.1 Empowerment

The concept of empowerment originally referred to 'change masters' or entrepreneurs and middle managers who successfully used power resources to change and innovate, so that new strategies, products, work

methods and structures could be created (Kanter, 1984). Empowerment strategies impose delegating power and authority to those employees who prosper on stress and challenge, and can be trusted to use power to the benefit of the organisation. They can participate in the creation of a more democratic and motivational workplace. This can be achieved by using open communication, inspirational goal setting and leadership, which can lead to the increase in the commitment and involvement of employees in the creation of the organisation's success (Hardy and Leiba-O'Sullivan, 1998). Empowerment can be in itself a politicised concept as shown for example in Goodall (1992). Snell and Chak (1998) argued that explicit democratic rights for employees and their political representation need to be established if empowerment of people is to take place.

2.3.5.2 The political organisation

The political perspective presents organisations as coalitions of individuals or groups who are largely pursuing their own agendas and interpretations of what constitute valid goals (Burrell and Morgan, 2003). According to this perspective, conflicts of interest arise in predictable ways due to the interdependencies and power differentials structured or built into organisations through such things as division of labour and task specialisation. Interdependence is further stimulated by the technologies adopted in organisations, particularly the extent to which they can be either substituted or routinised or used to deskill organisational members.

The exercise of power, the submission of some to the will of others, is inevitable in modern society. Nothing would be accomplished without it. It is a subject that should be approached with a sceptical mind but not with one that perceives it as inevitably evil (Galbraith, 1986). In this thesis, the relational view of power (Foucault, 1994; Latour, 1986) will be adopted as a basis for our understanding of the power relationships between organisational actors. This perspective perceives power as relational and dispersed among all members of the organisation. This is not a static and unchanging situation of domination, but a dynamic process where

resistance is born alongside power. In order to understand this process, it is necessary to look at the way in which discourse and argument come together with power in order to define knowledge, which composes the basis of people's actions. In this thesis, we will look at how knowledge is created and shaped by the organisational actors and in what ways power serves to their advantage or impediment.

2.4 Quality as the idea to study

Quality represents an idea that travelled globally (see Deming, 1989; Crosby, 1979; Ishikawa, 1986). Quality, according to Schremerhorn (1999), is the degree of excellence defined as the ability to meet customer needs 100% of the time. Other definitions of quality include minimising the gap between supplier standards and recipients' expectations (Zeithaml et al, 1990), or even 'delighting' the customer by surpassing his/her expectations regarding production quality and customer service (Moran and Riesenberger, 1994). High quality has become the main factor of increased competition between global companies. It resulted in the attempts of international companies trying to convey high-quality standards in all their foreign divisions and their attempts to transfer quality to different countries.

2.4.1 Total quality management

The search for quality improvements led to various operating philosophies evolving over the years. During the past two decades, simple inspection activities have been replaced or supplemented by quality control, quality assurance and now by Total Quality Management (TQM) (Dale et al, 1997). The origins of TQM are usually ascribed to Japan's search for quality improvements in the 1950s. By the 1960s, this combined the ideas of Deming and Juran with the use of statistical process control and teamwork. Deming (1989) and Juran (1993) argued that quality control should be conducted as an integral part of management control systems. This led to the notion that prevention (not detection) was the key and continuous improvement was the ultimate goal. During the 1980s, this

philosophy evolved into TQM and quality became a general management concern as the key to competitive advantage (Wilkinson, 1992).

There is an apparent lack of a generally accepted definition of TQM. According to Crosby (1979), it is 'zero defects' or 'right the first time'. Deming (1989) called it 'plan to check action' and Juran (1993) speaks of 'fitness for use'. The British Quality Association (BQA) has provided three alternatives to these definitions. They focus on 'soft' qualitative characteristics, 'hard' productive characteristics and the third definition consists of a mixture of both 'soft' and 'hard' characteristics (Thiagarajan and Zairi, 1997; Wilkinson, 1992).

According to the first definition of 'soft' qualitative characteristics, TQM is seen as consistent with open management style, delegated responsibility and increased autonomy of staff (Wilkinson, 1992). This side of TQM is concerned with creating customer awareness within an organisation. The factors of soft quality are intangible and difficult to measure as they are primarily related to leadership and employee involvement (Thiagarajan and Zairi, 1997).

'Hard' quality represents the production/operations management perspective. It places emphasis on the production aspects, such as systematic measurement and control of work, setting standards of performance and the use of statistical procedures to assess quality (Wilkinson, 1992).

As mentioned before, the third definition is a mixture of 'soft' and 'hard' aspects of quality. It combines the need for a scientific approach with the view that all employees are part of one team. Oakland (1995) sees this way of managing quality as the key to improving the effectiveness, flexibility and competitiveness of the business as a whole. According to this approach, TQM is conceptualised in a form of three interdependent

factors: management commitment, statistical process control, and teamworking. Another critical aspect in this view of TQM is the concept of the quality chain, indicating the interdependence of customer-supplier links throughout the organisation. Hence, TQM focuses primarily on the requirements of the customer, internal or external to the organisation (Oakland, 1995). The aim is to make quality the responsibility of all employees, rather than a specialist department, and in this way, quality becomes something 'built into' the process rather than inspected (Wilkinson et al, 1992). The benefits of such an approach are potentially huge. According to Oakland (1995), one third of an organisation's efforts is spent on repair and dealing with checks. By moving the focus from the production process to the customer (internal and external), TQM creates customer awareness within the organisation. It is a way of involving everybody in the process of improving their work, by which high quality and meeting customer requirements become inevitable results (Wilkinson et al, 1992). This particular idea was one of the chief issues uncovered in the ethnographic account of this thesis.

2.4.2 Quality translation in car manufacture

This thesis is concerned with the impact of an idea on a culture. It will be exemplified by the impact that the idea of quality had on the local culture in Poland, and that the notion of quality is unique to each culture and country. The development of the current shape of quality in each country was determined by the values embedded within its culture. The following section introduces the complex process by which the idea of quality travelled around the world within the field of car manufacture (see Figure 2), and the way in which it was introduced in different countries. This should reflect the complexity of the process of the quality transfer and the importance of the consideration of local values in the ideas translation.

Quality is a well-travelled idea in the manufacturing field. The automobile industry was especially important for quality development and its international spread. A quest to achieve high quality in car manufacturing

travelled along various management tools and production models (e.g. Boyer et al, 1998).

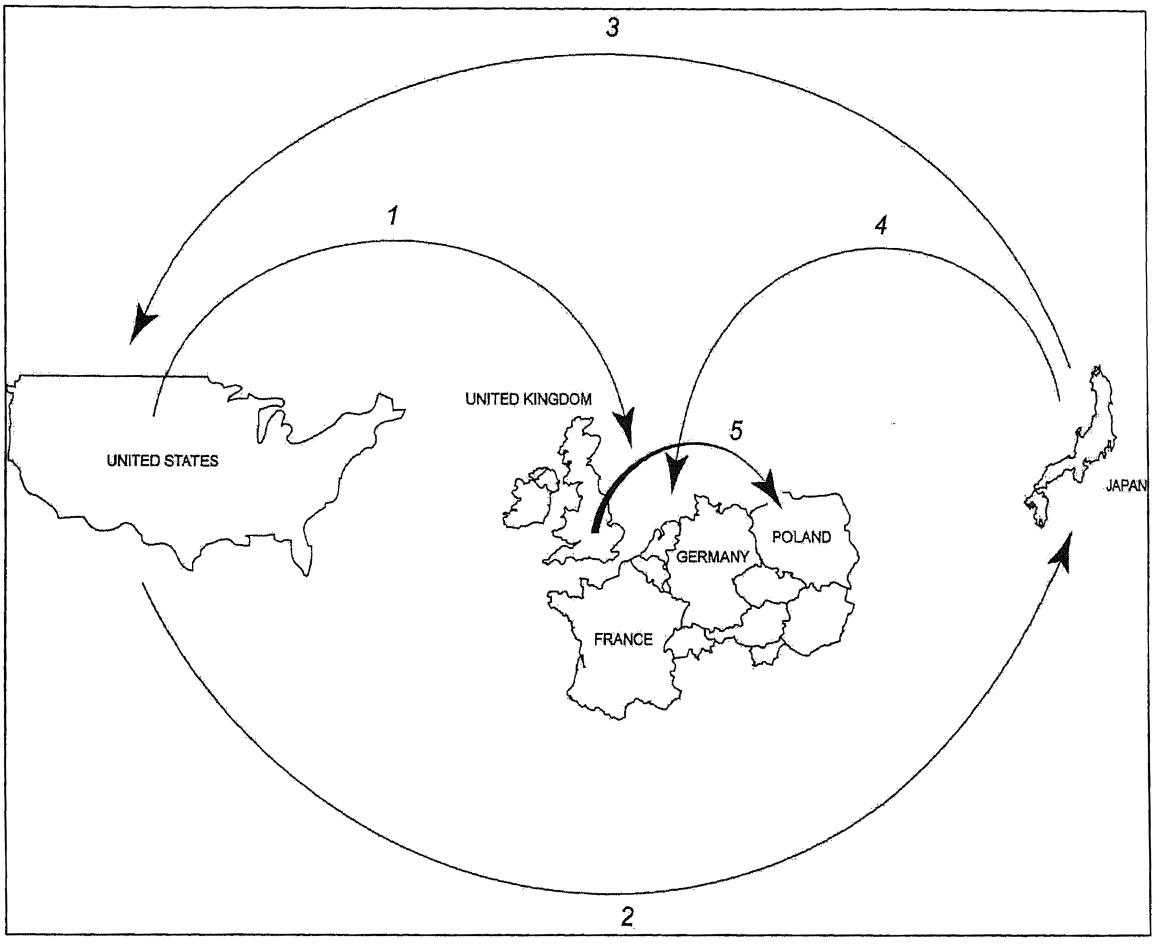

Figure 2 Global travel of the idea of quality in car manufacture.

2.4.2.1 Quality travels from America to Western Europe

The period between 1912 and 1914 was a time of great innovation and change in the car industry. High speed manufacturing on a huge scale was linked with huge productivity gains, thanks to Ford's assembly line and the incorporation of key manufacturing processes in-house. Ford's volume and rigorous quality needs increased the ability of its suppliers. This led to a high level of vertical integration and centralisation of manufacturing, which was successfully achieved by 1913 (Tolliday, 1998).

Low levels of inventories and stock production introduced by Ford show striking resemblance to contemporary 'just-in-time' and kanban systems (Williams et al, 1992). Ford essentially developed a high productivity system based on production coordination and labour control, with the assembly line providing the key to the enhanced centralised managerial control (Lewchuk, 1987). He attempted to transfer quality incorporated in mass production systems from America to Europe (see arrow 1, Figure 2) between 1911 and 1939.

Despite establishing an assembly plant in Manchester in 1911 and making it the largest car factory in Europe of that time, the diffusion of Ford's methods happened to be 'incomplete'. Ford attempted to 'Americanise' its British operations by introducing managing directors from the USA responsible for introducing a complete imitation of American products and methods. Rejected by the local staff, American managers invariably became the subject of abuse. Those Americans who adapted to the local conditions were perceived by Ford as traitors and were sent back to the USA (Tolliday, 1998). The rigidity of Ford's policy and management methods had detrimental results on its attempts to diffuse its methods and practices in Europe. The Manchester plant was closed in 1932 and replaced by a new green field factory in Dagenham. Nevertheless Ford failed to prosper in the British market before the Second World War and it was the British firms, Morris and Austin, which turned out to be successful in developing the most effective product and labour strategies for the British market. They incorporated some of Ford's methods in Britain in the 1920s, but attached higher priority to quality and continuous improvement. By the late 1930s, Morris was a highly economical and profitable producer and continued to flourish into the 1950s (Tolliday, 1998).

2.4.2.2 Quality travels from America to Japan

Quality found its way from America to Japan (see arrow 2, Figure 2) where it travelled to in the 1930s. Both major Japanese car producers of that time, Toyota and Nissan, admired and consciously drew on models of

American mass production. Nevertheless, they developed their own unique systems that suited Japan and its local environment.

Ford and General Motors established their subsidiaries in Japan in the 1930s and soon dominated the market. Nissan became a major parts supplier to Ford and GM, and directly imported American technology and engineering capabilities into its own operations. The Japanese Nissan plant prioritised direct technology transfer and was built from the disassembled Ford plant in Detroit. American engineers and consultants who ran the plant, designed the vehicles and tried to overcome the problems of poor quality from Japanese suppliers who supported this transfer.

Kichiiro Toyoda, the leader of the Toyota plant, studied Ford's plant personally and concluded that Japan could not replicate the Americans' high-volume production, with only the principle of line synchronisation being adopted. He was cautious about direct transfers and pursued systematic modification of American methods through the slow accumulation of technology, indirect learning and copying. He also focused on the use of native resources in their development. In the late 1930s, Toyota introduced their own 'just-in-time' production system inspired by Ford's principles of line synchronisation. After the Second World War, Nissan continued to contrast with Toyota, remaining focused on directly imported or imitated technology and best practices from America and Western Europe, whereas Toyota employed deeper learning through its emphasis on reverse engineering and copycat techniques.

Over the years, both companies incorporated the techniques used by their competitors. Nissan opened itself to the local market and Toyota incorporated some direct transfer methods. Still both companies struggled to find their own ways of developing quality control practices, alternative to those offered by American models. Pre-war quality control developed by

US vehicle producers was based on statistical quality control (SQC), which Nissan relied heavily on when developing its own statistically based Quality Control (QC). Toyota, on the other hand, decided not to introduce QC as a separate function (Tolliday, 1998). The post-war quality control development in Japan was strongly influenced by American management theorists, such as Deming and Juran, who placed emphasis on quality as the responsibility of all employees. The response to these ideas was fairly limited in the USA, but their impact on Japan was profound (Cusumano, 1989) and resulted in the introduction of the concept of built-in quality by Eiji Toyoda in 1960 (Tolliday, 1998).

2.4.2.3 Quality travels from Japan to America

In the 1970s, Japanese car manufacturers became highly competitive exporters of their products. This led to trade conflicts with the USA, which had so far dominated world car exports. The Japanese escaped this situation by introducing their plants in North America (see arrow 3, Figure 2) (e.g. Abo, 1998; Adleret et al, 1998). Toyota, for example, formed a joint venture with General Motors and established the NUMMI plant in northern California in 1983. The production system in the plant was modelled directly on Toyota's and included techniques such as kanban, Kaizen, visual control, poka-yoke (built-in quality), teamwork and standardised work. Toyota managed to transfer the bulk of its production system and administrative structure as well as supplier relations to the USA and achieved a world-class level in quality and productivity at the NUMMI plant (Adler et al, 1998).

2.4.2.4 Quality travels from Japan to Western Europe

By the mid-1960s, the British industry declined and the Japanese emerged as the principal challengers to the American industrial orthodoxy. Interest in Japanese work practices was intensified by the high level of Japanese direct investment in manufacturing in the USA during the 1980s. Quality travelled from Japan to Western Europe (see arrow 4, Figure 2) through Toyota and Nissan who, like Morris and Austin, developed successful and

durable productive models. The production systems developed by Austin, Morris and the British Motor Corporation (BMC) resembled in many ways the Toyota approach. British engineers, like the Japanese firms, drew on underlying principles of mass production rather than imitating them directly. The British, for example, like the Japanese, achieved effective multitasking and flexible allocation of work on the shopfloor. This was introduced by devolving control to the shopfloor and using incentive and piecework systems to drive labour effort. Toyota, in contrast, moved to direct control of the shopfloor through the use of standardised work and kaizen, which tightened central management control, an element missing from the British model. These differences proved to be critical in later development when diversity-orientated practices in Britain occurred to be less capable of continuous development than more controlled Japanese systems (Tolliday, 1998).

The Japanese concept of quality was further translated to Western Europe through the attempts undertaken by the Japanese car manufacturers to introduce their productive systems to the new plants located abroad (e.g. Dankbar, 1998; Jurgens, 1998). One interesting example of this process is the Eisenach plant of General Motors set up in Germany. The plant was modelled on the Japanese lean production system as introduced by Toyota at the NUMMI plant in America. It was established as a laboratory for the development of the new Opel production system and the model plant for new General Motors' plants in Eastern Europe, Latin America and South-East Asia (Jurgens, 1998).

2.4.3 Arrival of the idea of quality in the post-command economies

The particular field for this study is the movement in which market economic ideas impacted on the post-command economies of Central and Eastern Europe. Quality was one of the ideas, which came with the new ideas of car manufacturing after the opening up of the boundaries of the command economies in December 1989 (see arrow 5, Figure 2). Previously in Poland, the concept of quality was fairly restricted and it

applied mainly to these processes in manufacturing and food production where technical guidelines pertaining to the physical state of the product could be easily specified.

The car manufacturing sector was stimulated by the surplus of demand over supply with no competition. The quality of vehicles was a secondary issue as the production was directed to meet overwhelming customer demand (Dobosz and Jankowicz, 2002). The economy of shortage resulted in the replacement of quality by the maintenance of high production levels. 'The more you produce, the better you are' became a popular assumption and a value deeply rooted in the Polish economy (Kozminski, 1993; 150). This in consequence led to the market, which was relatively large, but its standards were low compared to Western Europe. The Polish workforce was highly educated but it lacked in discipline and quality standards as well as the understanding of principles of quality management (Kozminski, 1993). The notion of quality as understood in the Western car manufacturing industry was never fully institutionalised in Poland (Dobosz and Jankowicz, 2002). Despite the ability of the workforce to handle modern technology and equipment, quality in Polish car manufacture remained poor and has never reached Western European standards.

The economic transformation of Poland after 1989 resulted in the steady growth of foreign investment and the flow of Western economic ideas to the Polish industry. This process is particularly interesting and dramatic in car manufacture, which was relatively underdeveloped in quality standards as opposed to, say, the textile industry, which had a strong industrial tradition in Poland and its quality standards were relatively high (Kozminski, 1993).

This thesis examines the introduction and use of the Western concept of quality in the car manufacturing industry in Poland. The notion of quality in

Polish car manufacture in the past has been examined and the process of quality translation from Western Europe to Poland has been described in detail. The disembedding and reembedding of the idea of quality in these two locations will be examined with the factors determining its success or failure, as defined by the organisational actors. This will contribute to our better understanding of the translation process and result in the creation of the model by which the Western idea of quality could be introduced to other countries in the post-command economies successfully.

2.5 Chapter summary

The literature review identified some key issues that are clearly important to the understanding of process by which ideas of quality travel across cultural boundaries. They are as follows:

1) Globalisation as a process, which has some positive effects contributing to the new shape of local cultural identity and self-expression. The research intends to explore the process of transfer, exchange and negotiation of knowledge and ideas across national, cultural and linguistic boundaries.

2) It is important to explore the factors determining the success or failure of the ideas transfer across cultural and linguistic boundaries as global economy results in extended international communication among organisational actors. The model that offers us such an opportunity is Czarniawska's model. The process of disembedding and reembedding of an idea in different locations will be traced by means of its application. Thus, the meaning of an idea with the values embedded in it in different cultures will be investigated and the applicability of Czarniawska's model will be tested.
3) The research intends to examine the travel of ideas on the example of the idea of quality in the car manufacturing industry from Western Europe and England to Poland. This in itself is an original contribution to knowledge. It gives an opportunity to examine cultural change, as each culture has a different notion of quality. It will result in a descriptive model of the quality transfer process from the West to Poland, including the factors determining its success/failure. The identification of those factors will contribute to a better understanding of the process in detail so that people engaged in cross-cultural collaboration may perform more effectively in the future.

Chapter 3. Methodology

This chapter presents the approach adopted in this research and the methodology chosen for this study in order to investigate the ground covered in the literature review. An overview of the approach, the methods and the research design are described, together with a summary of the collection process of the empirical material.

3.1 Overview of the approach

The aim of this research is to understand the process in which ideas travel and become established in a new culture. One particular idea was chosen as a good example of a concept which travelled globally: the idea of quality in car manufacture as something procedurally built into the process of car production. We will investigate the process in which this concept was translated from England to Poland, and how it was impinged on Poland at various levels, for example, national, regional and municipal. The role of Poland in the global translation chain of quality will be analysed, which will lead to the creation of a model by which new concepts could be introduced in post-command economies and other countries from developing economies.

According to Szulanski (1996), knowledge transfer should be viewed as a distinct experience depending on the characteristics of everyone involved where the identity of the recipient can determine the outcome of the process. Hence, it is important to address the sociological concepts pertaining to different cultures as well as the psychological concepts pertaining to individuals involved in the knowledge transfer between two cultures. Czarniawska's model (Czarniawska and Joerges, 1996) provides a good framework where these concepts can be brought together. By means of adopting this model in this research, we will trace the disembedding and reembedding of the idea of quality in car manufacture in England and Poland. Further analysis of the cultural factors behind the

translation process and the individual construction and meaning of the concept of quality will enable the identification of the factors behind the success or failure of this process, as defined by the organisational actors themselves.

This research aims to understand the meaning of the concept of quality in two different cultures and trace the process of translation of this idea. The research paradigm adopted in this thesis is that of constructivism (Berger and Luckmann, 1976; Kelly, 1955). From this perspective, we can only interpret reality and not directly apprehend it in any absolute sense. No construction of reality is irrevocable as the alternative construction can always be offered (Bannister, 1981). The purpose of constructivist enquiry is to gain sufficient understanding in order to predict future outcomes (Jankowicz, 2000).

The study conducted in this thesis is an interpretive study aimed at production of a piece of grounded theory (Glaser and Strauss, 1967) about the process by which ideas are translated across cultural and linguistic boundaries. Hence, the study focuses on qualified descriptions and empirically generated theory about the phenomena under scrutiny. The organisation is treated as a social site, a community, and therefore traditional methods of studying communities, such as ethnography, phenomenology or hermeneutics are especially useful. People in organisations as well as the researcher are seen as active sense makers, and while theory may provide important sensitising conceptions, the key concepts and understandings are created by the participants of the research (Alvesson and Deetz, 2000).

3.2 Research methodology

Anthropology belongs to the social sciences and has the longest tradition of diffusion research. Therefore, in this research it is appropriate to use some ethnographic techniques derived from anthropology, such as in-depth interviews, participant and non-participant observation, as they

represent the most distinctive methodological approach in the study of ideas diffusion (Rogers, 1995). It will enable the researcher to achieve the following goals:

1) It will add to our understanding of the quality transfer from Western Europe to the post-command economies.
2) It will trace the process of disembedding and reembedding of the idea of quality across cultural boundaries.
3) It will provide an ethnographical description of the two cultures involved in the quality transfer.

The actual term ethnography has two meanings: the empirical work and the completed study in the form of a text (Alvesson and Deetz, 2000). In this thesis, we will refer to ethnography only in this latter meaning and use the term fieldwork in order to relate to the process of empirical work.

An important part of the research consists of the exploration of personal values in two locations involved in quality transfer. It will be achieved by employing the research methods derived from Personal Construct Psychology (Kelly, 1955), the Repertory Grid Technique (Stewart and Stewart, 1982), followed by Laddering (Hinkle, 1965) and the Resistance to Change Technique (Fransella and Bannister, 1977). This set of constructivist techniques will serve as an in-depth exploration of the values embedded in each culture, which might not have been discovered in the ethnographic picture. They will also explore the disembedding and reembedding of the idea of quality in the translation process, and its explicit meaning for organisational actors, providing triangulation for the first part of the research conducted by means of the ethnographic methods. It will also allow us to streamline the ethnographic research process by incorporating the Repertory Grid Technique as an effective way of identifying personal values of organisational actors (Dobosz-Bourne, 2002), which represent a very important contribution to knowledge

since it identifies the personal meanings underlying the actors' understanding of the concept of quality.

3.2.1 Ethnographic interviews

In anthropological tradition, the key for real understanding of a group of people lies in one's engagement in observation of this particular group for an extended period of time. Thus, anthropological fieldwork inevitably consists of an involvement in a culture over years, based on the participation of social events and learning the language of the group (Silverman, 1993). The idea is to introduce social action in one part of the world from the perspective of a different culture by being there, and currently, ethnographers are content to spend relatively brief periods of time gathering their data. What matters is to be there, observing events in their natural context (Alvesson and Skoldberg, 2000). Ethnography involves participation in people's every-day lives. This method, overt or covert, remains central in anthropology and is regarded by researchers as 'the key-stone of the claim to authenticity' (Hobbs and May, 1993: ix).

There are other methods widely used in ethnography, which, as summarised by Hammersley and Atkinson (1995), involve collecting whatever data are available, which might be useful in better understanding social events. Thus, apart from participant observation, ethnographers carry out in-depth interviews and collect any material artefacts available to them.

Ethnographic interviews are closer to conversations, however, they are never simply conversations because the ethnographer has a research agenda and must retain some control over proceedings. The questions are designed as triggers that stimulate the interviewee into talking about a particular area. They are relatively open-ended. The interviewer must be an active listener. He/she must listen in order to assess how the conversation relates to the research focus and how it may reflect the

circumstances of the interview and its future shape. Hence, they are often called reflexive interviews (Hammersley and Atkinson, 1995).

Looking at empirical material 'from the inside' should result in 'telling like it is' (Hobbs and May, 1993: ix). Ethnographists attempt to tell the stories from the field like the participants of the social world might tell them themselves. The crucial thing in writing ethnography is 'to have been there', resulting in 'thick description' (Geertz, 1973 in Alvesson and Skoldberg, 2000: 95). Researchers are able to write, quote, analyse and interpret what they've seen 'there', because they are back 'here'.

For the purposes of this research, the Key Informant Technique (Tremblay, 1982) and non-participant overt observation have been applied as central techniques in the ethnographic part. Thus, for the interviews semi-structured questions (approximately ten questions per interview) were designed as a means to stimulate conversation about the topic of quality transfer. The list comprised of two kinds of question:

1) Questions supplying information about the organisational culture and social patterns in the organisation.
2) Questions targeted at quality transfer from Western Europe to Poland and its meaning for the interviewee.

All interviews (approximately one hour each) were tape-recorded and full transcripts prepared. The transcriptions were completed in the original language of the interviewee, for example, English or Polish. Following the ethnographic mode of data analysis (Hammersley and Atkinson, 1995), the transcribed interviews were read by two people, the author and another judge, who derived a set of analysis categories according to a coding process as described by Holsti (1968). The result was a set of seven main categories with 13 subcategories and their dimensions, which have been used in the analysis of the data. A reliability check on the categories obtained and of the concepts allocated to categories was carried out as follows. Reproducibility was addressed by using

conventional content analysis procedures (Holsti, 1968), followed independently by each of the judges working on the transcripts. In order to address the consistency of the categories, there was a subsequent negotiation between them over meaning of content, and over mutual exclusivity and complete exhaustiveness of the category set. Additionally, non-participant observation has been applied as a way of achieving cohesion in the ethnographic study. It allowed the contextualising and a better understanding of the picture obtained from the interviews.

This part of the fieldwork resulted in a written 'thick description' of the translation chain of an idea of quality in car manufacture between England and Poland as interpreted by the author. In order to tell the story in the way in which the organisational actors might tell it themselves, the ethnography contains quotations from the field supplied by the respondents during the in-depth key informant interviews.

3.2.2 The Repertory Grid interviews

There are many ways of identifying the ways in which a person perceives a particular phenomenon or idea such as quality. The ethnographic interviews are one of the methods giving us some insight into this picture. However, there are not many methods that allow us to obtain an explicit definition of tacit knowledge or ideas which might be difficult to describe. The Repertory Grid Technique is unique in this aspect. It enables the identification of the way in which a person construes a particular idea by attaching verbal and explicit symbols meaning personal constructs, to this notion.

For the purposes of this study, the Repertory Grid interview was adopted as a tool to aid the elicitation of the explicit definition of quality as construed by UK and Polish managers in General Motors. Moreover, the technique will reveal the similarities and differences in the construction of quality in these two groups of respondents. We will explore whether or not the British managers use the same constructs as the Polish managers

when they speak and think about quality. If they use the same constructs, the study will reveal if they choose the same or the opposite end. These details of their construction of quality can have significant impact on the picture that will emerge in the findings that otherwise might remain limited. The exploration of the constructs of quality in the Vauxhall Luton and Opel Polska plants will assist further investigation of the key issues that arose in the ethnographic part of this thesis, listed in part 4.10.

The ethnographic interviews and its transcripts can be used as a rich source of data in choosing appropriate elements for the Repgrid interview. Elements are the basic units in the Grid, which are systematically compared to identify the individual's constructs. Critical incidents as identified through the ethnographic interview can be used as elements, which have the advantage of being understood by the interviewee since they were supplied by the interviewee him or herself. Once the elements have been chosen and some 8 to 12 constructs elicited, laddering provides a way of teasing out the meaning and providing verbal labels for the superordinate constructs, (often more difficult than in the case of the initial, subordinate constructs) (Neimeyer et al, 2000).

In this study, eight critical incidents (Flanagan, 1954) related to quality in car manufacture were selected from the transcripts of the ethnographic interviews from two locations (different cultures) and different departments of the organisation. They served as the elements elicited from respondents and were applied in the Repertory Grid Technique.

3.2.3 The study of values

The ethnographic interview may not reveal the respondents' assumptions or values, especially when these are taken for granted, or lie outside the interviewees' awareness. Thus, reaching the stage of the third level of the organisational culture in ethnography is very difficult and often impossible. In order to overcome this constraint, a set of constructivist techniques were applied as a means of identifying personal values and the third level

of the organisational culture. Therefore, the Repertory Grid Technique will be followed by Laddering (Hinkle, 1965) and the Resistance to Change Technique (RTC) (Fransella, 1977). This will help us to understand how some of the events and processes described in the ethnography were construed in detail (Dobosz-Bourne, 2002).

Access to central and presumably important constructs is an aid to understanding of the personal meaning systems (Neimeyer et al, 2000). Personal Construct Psychology has the tools and techniques to access core features of an individual's construing at its disposal. The Repertory Grid Technique provides a means for identifying people's attitudes or beliefs (see Stewart and Stewart, 1982). Although Repgrid technique involves filling in a record sheet with an interviewee in order to define the relationship between elements and constructs, the accent of inquiry is to listen closely to the respondent. For this reason, the term 'Repertory Grid Interview' can be used as more appropriate as it doesn't evoke the connotations people have with traditional questionnaires and psychometric tests as used in Psychology.

The Repertory Grid interview can play a central role in our attempt to make sense of the respondent's construing of the world. It can be followed by an important tool used in accessing people's superordinate constructs, that is the Laddering technique introduced by Hinkle in 1965. This technique became popular among constructivist psychologists as a convenient means of accessing the core features of a person's meaning system and has since been applied extensively in environmental and architectural design, career counselling and business applications (Jankowicz, 1990; Neimeyer et al, 2000; Stewart and Stewart, 1982). It works by identifying the personal reasons for construct preferences, eliciting reasons iteratively until basic underlying reasons, identified with personal values, are reached (Jankowicz, 2003: 189).

> "Constructs functioning at this level of superordination are of fundamental importance; an awareness of them is essential for understanding the world of another human being – or ourselves." (Hinkle, 1965: 34 in Neimeyer et al, 2000)

At this point, once a set of values has been obtained, the ability to prioritise the personal values by means of the Resistance to Change Technique is especially useful, and serves to round up the ethnographic procedure, by identifying where, in any subsequent intervention, change may be possible, and where it would be resisted, since the values at stake are too central, superordinate, and might not be open to argument.

Requesting a person to make very difficult choices between various combinations of his/her personal values/constructs identifies his/her real priorities and may assist in minimising social desirability response effects (Jankowicz, 1996b). Content analysis of the superordinate constructs and values elicited in the Repgrid interviews with all respondents led to identification of those values and superordinate constructs, which are shared by the people in the organisation, and of those which apply only to subgroups/subcultures within the organisation (Young, 1989). Including this picture in this thesis and providing this level of complex description of organisational culture provided very rich data with the potential for a more complete analysis of the second and third levels of organisational culture.

All Repertory Grid interviews and Resistance to Change forms were content analysed following Honey's (1979) technique. Similar to the content analysis of the ethnographic material, category definitions for the Repertory Grid data were derived using a conventional content analysis procedure (Holsti, 1968), followed independently by the author and the second judge. The reliability check was calculated as an Index of Agreement, with both judges agreeing on the allocation of 78.9% of the constructs categorised, indicating good although not perfect agreement.

3.3 Research design

The research was carried out in two places – two divisions of General Motors company – at the Vauxhall Luton plant in England and in Opel Polska in Gliwice, Poland. Ethnographic interviews, followed by Grid interviews, were carried out with key informants in order to obtain a description of the ways in which quality ideas in car manufacture came to Poland. The disembedding and reembedding of an idea of quality in England and in Poland was traced and its success/failure defined according to the criteria supplied by the informants.

For the ethnographic study, 30 key informants (Tremblay, 1982) were chosen on the basis of their direct involvement in the quality transfer from England to Poland. On the British side, there was a group of 16 managers, consisting of people involved in the managerial activities at the Vauxhall plant as well as the creation of the Polish plant, Opel Polska. On the Polish side, there were 12 Polish managers trained by the English ones. This group also included two German engineers in managerial positions in Opel Polska. All managers had corresponding roles in each of the two places as implied by Czarniawska's model. Sample size was determined by the information supplied by respondents according to ethnographic methodology, meaning the sample is enlarged until it results in a clear, unanimous picture of the phenomenon under scrutiny. The sample of 30 people included all English and German managers who were involved in setting up the Polish plant and people trained by them during the initial years, thus creating a sample of 30 key decision makers in the transfer of quality from Western Europe to Poland (Tremblay, 1982).

The second part of the study consisted of the Repertory Grid interviews, followed by Laddering, and the Resistance to Change Technique carried out on a sample of 28 respondents interviewed in the ethnographic part. Unfortunately, two respondents from the original English sample were unavailable due to the Vauxhall plant closure and reallocation of the staff.

3.4 Chapter summary

In this thesis, the process by which ideas travel across cultural and linguistic boundaries was investigated from the constructivist perspective by carrying out the interpretative study of the translation of the idea of quality in car manufacture between England and Poland. Two main research techniques were adopted in the service of triangulation: the ethnographic interview and methods derived from the Personal Construct Psychology, that is the Repertory Grid interview, followed by Laddering, and the Resistance to Change Technique.

Chapter 4. The ethnography

This chapter presents an ethnographic account of the main study carried out at the Vauxhall car plant in Luton, England and Opel Polska in Gliwice, Poland. It is a narrative of the process by which the idea of quality was translated from England to Poland. The structure of the chapter follows each element of the translation chain (see Figure 1). The first part presents two locations between which the transfer took place – Vauxhall Motors (UK) and Opel Polska (Poland). Part 4.3 introduces the 'travelling' of ideas related to the concept of quality that, via General Motors, arrived in England and then transferred to Poland. Part 4.4 describes the ideas related to quality that were residing in these two locations prior to the arrival of General Motors. When travelling ideas meet ideas in residence, friction energy is produced, which makes creative translations possible. This friction energy, in which the meeting of ideas results in creative processes, is discussed in part 4.5, and their translations in part 4.6. This is then followed by a description of the Japanese and German influences that shaped the translation chain of quality in Poland (4.8). The chapter concludes with a summary of the process of quality translation between England and Poland, and presents elements of the translation chain and the final shape of the concept of quality in these two locations (4.9).

4.1 Introduction

> "I remember 20 years ago or more, maybe 30 years ago, when I was a young guy growing up in England, in a small-town, Japanese cars were considered as a joke. Quality was bad. Nobody liked them. We used to laugh at Japanese cars. Nobody does that any more."
>
> *English Manager 1*
>
> *(Nissan UK, GME, Opel Polska)*

"The expansion of the Japanese in the eighties was a big thing; it was the 'Japanese miracle'. You know, a manufacturing miracle. And I wanted to be part of it. I wanted to learn. It was an exciting thing."

English Manager 2

(Nissan UK, Vauxhall Luton, Opel Polska)

This is a story of another Cinderella in the car manufacturing industry - Poland. Once a country where the 'Maluch'[2] used to reign supreme and determined existing quality standards and expectations, it became the country that achieved the best quality results in car production in Europe with Opel, in 2001. In the same way that the Japanese car manufacturing miracle was exciting for English people in the 1980s, the 'Opel miracle' is exciting for Polish people now, and many people want to be a part of it - and this story will tell you why.

4.2 Two locations

The process of ideas translation described in this thesis took place between two General Motors' plants in the UK and Poland. In this section, these plants will be introduced.

4.2.1 Brown field - Vauxhall Luton plant

The Vauxhall plant in Luton, England, was founded in 1903 and acquired by General Motors in 1925. It employs 10,000 people directly and supports about 100,000 further jobs in the UK.

"When I started here [38 years ago] Vauxhall was very much like that picture there. We didn't just assemble cars, we made engines, we made back axles, we made gearboxes, and we had our own grand plating plant. We just did everything to make the car; from a lump of metal, we made a car. We designed our own parts on cars

[2] The Fiat 125P, named 'Maluch' ('Tiny'); it used to be the most popular/available car in Poland until the 1990s despite its poor quality and small size.

at that stage. And when I started here at Vauxhall when that picture was taken, there were 26,000 people that worked on this side.
English Manager 6
(Vauxhall Luton, Opel Polska)

The Vauxhall plant has a very long and rich history. It used to be one of the biggest and best employers in the Luton area. It was an independent plant, planning and assembling all of its products (e.g. engines, exhausts) or getting them made locally. After General Motors acquired the plant, the majority of UK operations were shifted abroad. The company became centrally governed by General Motors and started operating as all other General Motors plants. From massive production, it changed the system into lean manufacturing. All planning operations have been shifted to ITDC[3] in Germany. Many local suppliers have been swapped for other, foreign suppliers from the General Motors network. Vauxhall became part of the GM Family and was transformed into a lean manufacturing plant. This transformation happened after the plant had already existed for 22 years and had had a well-established culture, workforce and facilities.

"When I first came here, it was full of autocratic, dictatorial managers, who dictated the daily events. And it was with people who literally did what they were told to do. Today, it's much more dynamic, it's much faster. It's much more stressful but there is a greater involvement and it's not the arrogant kind of 'big boss' syndrome in all environments. The hierarchical structure, if you like, is a kind of plateau, more of a flatter, natural environment where generally people can interact together. And when I started here, you would not talk to your boss unless your boss spoke to you. You just didn't. If you were asked the question and you answered it wrong, it was absolutely career limiting, much more intimidating, much more the fear factor, and stressful for the wrong reasons, it

[3] Information Technical Development Centre

was just stressful for fear whereas now it's faster, it's much more interactive. It's stressful but it's a stress that could be adrenaline. You know, it's a buzz. It's a much more business-orientated place."
English Manager 7
(Vauxhall Luton)

Vauxhall went through an enormous change. The managerial style and way of conducting business became less 'archaic', as some people said. The facilities were upgraded and lean manufacturing introduced. This included a huge reduction in employment of almost 20,000 people. Many of those who stayed, started working in Vauxhall dozens of years ago as apprentices.

"I started here when I was 16 years old. It is what we called an apprenticeship. In the old days, it's the way you learned your trade so, for example, if someone wanted to learn how to make watches, they would be an apprentice to a watchmaker ... And we used to be big - in the year that I started, I think we had 125 people who started in this factory as apprentices."
English Manager 6
(Vauxhall Luton, Opel Polska)

For staff like this English manager, Vauxhall is in their blood, and they belong to the most devoted team. They climbed the organisational ladder from the lowest point and have a lot of experience in car manufacture.

4.2.2 Green field - Opel Polska plant
After the expansion of General Motors into Europe in the 1920s, the company experienced rapid development and success on the European market. General Motors' activity was nevertheless limited to Western Europe and America. Increased competition in the car industry as well as the saturation of these markets in the 1990s had forced many investors to search for new opportunities in other countries with potential for future

success. General Motors decided to build four new plants in order to keep up with the emerging markets of Eastern and Central Europe. Poland was among the potentially cheap producers, with low labour costs and a convenient location in Central Europe, enabling a reduction in the transportation costs of cars sent to Western Europe (Opel Polska exports cars to Germany and England, amongst other countries). The Polish market, with its quickly developing economy, was itself a very important target for Opel cars.

Gliwice is a small town in the South of Poland, situated in the region where local employment used to be largely dependent on coal mining. It was strongly affected by the mining crisis of the 1990s when the region was left with no alternative industry capable of 'absorbing' the ex-miners. As a result of this, the local unemployment rate dropped below the national rate of 26.5% in 1997 (GUS, 1998). Poland, and especially the Silesia region, where Gliwice is located, had appeared as an ideal place for the General Motors' plant.

> "So the concept was that they would put four new plants up at once. One went to South America in Rosario in Argentina. Another one went to Shanghai in China. Another one went to Thailand and we came to Poland. And each of those markets are new markets and areas of growth and development."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

All the four plants were set up simultaneously and based on the same template and principles of lean manufacturing. The first plant was built in Argentina and the second one was Poland, which became the best plant in Europe. The third was the plant in Thailand but unfortunately it did not succeed due to a big Asian crisis during the time the plant was due to be

set up. This project was thus put on hold for about a year. The fourth plant was in Shanghai.

4.3 Travel of ideas

The concept of quality in car manufacture is a very complex notion consisting of many elements contributing to its final shape. This section describes the travel of ideas shaping the notion of quality in car manufacture as they arrived firstly in England, and then in Poland.

4.3.1 The concept of the GM family

The history of General Motors reaches back to 1897, when the oldest unit of the company was established in the USA. Throughout the years, the company acquired and incorporated many other car manufacturers and developed into a leading vehicle producer in the USA. The 1920s was the time of General Motors' expansion in Europe, including countries such as Germany and England. In 1973, the Arab oil embargo and ensuing gasoline price increase lead to a rapid and unexpected rise in sales of small Japanese built cars in the US. This resulted in the beginning of a long-term co-operation between General Motors and Japanese car manufacturers (Datamonitor, 2003).

General Motors Europe, which determines the shape of the plants, is centrally managed from Zurich where the European 'heart' of the company is located. The Opel headquarters – ITDC - a 'brain' responsible for engineering and technical decisions, is in Russelsheim, Germany, where the central quality department is located. Thus, all quality managers from all plants in Europe report to the quality director in Russelsheim. There are also other units in Europe responsible for particular decisions, for example, the insurance centre in London and the banking centre in Brussels (where Opel Polska reports). On top of this complex General Mototrs Europe structure is General Motors in Chicago, USA, where their governing body resides. The UK has got three production sites: two in Luton (Vauxhall Luton and IBC) and one at Ellesmere Port. The Ellesmere

Port plant builds the Astra, IBC Luton builds the Frontera and Vauxhall Luton builds its mid-range family car, the Vauxhall Vectra.

This thesis focuses on two European plants, namely the English plant in Luton, Vauxhall Motors, and the Opel Polska plant in Gliwice, Poland. The Vauxhall Luton plant has approximately 3,400 employees in total, 3,000 people in production and around 400 additional staff. Opel Polska employs about 2,000 people in total.

The English and German plants have been the most influential in terms of creating the current shape of Opel Polska. Although no direct data were received from Germany, this influence will be mentioned where appropriate.

There is strong cooperation between the European plants, which is encouraged by a teamwork ethos ever present in General Motors, and mutual visits to different plants are encouraged, which are especially intensive in the early stages of plant development. Knowledge exchange is supported by the company's insistence on creating a 'GM Family', a slogan often present during official events and speeches by top management. But the principle of a network of plants cooperating closely together, reinforcing each other strengths and potential does not always work perfectly in practise, according to the opinion of some employees.

> "I get the impression that not all of our Opel companies operate as one team. Sometimes I think that ITDC takes greater care of the plants in Russelsheim or Eisenach than it does of us [Opel Polska]."
> *Polish Manager 1*
> *(Opel Polska)*

This lack of consistency in central decision-making regarding European plants will be illustrated later in the tragic story of the Vauxhall closure, announced on the 12th of December 2000.

4.3.2 Centralisation

The centralisation of General Motors determines the matrix company structure of European functional directors in a project centre, either in Russelsheim or Zurich. In order to ensure good cooperation between plants according to the central guidelines from the project centre, staff have been appointed as co-ordinators, who ensure that common systems for Human Resources, manufacturing, quality and materials are applied in all the plants across the project. The writer was fortunate enough to meet one of these co-ordinators during an initial visit to Opel Polska. He is an English manager responsible for implementing paint shop strategies in 11 Opel plants. He spends one week a year in each plant, including Poland, and has weekly meetings with central engineers in Russelsheim. This is how he describes his job:

> "I am responsible for 11 plants. Russelsheim, Bochum, Eisenach in Germany, Luton, Ellesmere Port and IBC in the UK, Zaragossa in Spain, Azambuja in Portugal, Saab and Trollhattan in Sweden, Antwerp in Belgium, and Poland. I think that's all... What I do then, is twice a year, I sit down with the account managers of paint suppliers. So they're the main guys in Europe with purchasing and ITDC. We send the results to them every month anyway but every six months we sit down and then we say, 'Right, these are the targets that we've sent that you agreed to. In some cases we're doing OK but we are still not there. What is your action plan to get there?' or, 'we are going the wrong way. What's going on? What are your focus items and what are you doing to address them?' And we've had some pretty good success with that. It has improved paint quality quite substantially."
>
> *English Manager 3*
>
> *(GME, Vauxhall Luton & Ellesmere Port, Opel Polska)*

His work is a good example of the jobs related to General Motors' central functions. Due to the responsibilities and strategies assigned to the functional departments of the European GM headquarters, there is often friction when the local interests of plants come into play. Here is how another English manager depicted it:

> "So, sometimes it can cause some tensions because plants don't always want to do what the functional department wants to do. So the quality and reliability group have legal specialists that know what the requirements are for the vehicles. And that information usually comes through on things like parts drawings or whatever. So we know from those exactly what we have to do."
> *English Manager 4*
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

The central control seems to be described differently by different people. Most of the people in Opel Polska consider it to be relatively loose, and emphasised that although the creation of many quality procedures is centralised from Germany, the input of local Polish staff in shaping procedures is very significant; indeed many documents were created in Poland exclusively by the Polish staff. The opinion on this matter in England was very different. The Luton plant, in the opinion of its employees, is too strictly controlled by the German centre, which limits its potential.

4.3.3 Medium for the travel of ideas - the ISPs

> "International Service Personnel: these are people like myself, who belong to other parts of General Motors, who are on temporary loan to Opel Polska. So, for example Petra and myself come from Vauxhall. I don't actually, but my home plant is Vauxhall Luton. Petra's home plant is Eisenach. And Vauxhall Luton and Eisenach

have lent us to Opel Polska for three or four years to help Opel Polska set up because they were a new company or whatever."
English Manager 4
(Nissan UK, Vauxhall Luton, Opel Polska)

ISP is an institution developed by General Motors to enable knowledge transfer to new plants on an international level. Those at the top of the organisational mountain are often ISPs who call themselves 'the founding fathers' of the company. For the local staff they are usually 'just expensive foreigners'. This is how they were initially perceived in Poland (Dobosz, 1999).

The first stage of the creation of a new plant consists of choosing the right team of ISPs who would go to the new location in order to set up the recruitment process and 'build the foundations' for the plant. So it was with Opel Polska. A group of approximately 25 people chosen, in which there were people from Great Britain, the USA, Canada, Mexico, Germany, Finland, Hungary and Holland, although predominately from Britain.

"[This was] strange, because it's not normal but that was the case with that project. It was just a particular case. Probably because not many Germans want to go to Poland, not many Americans would like to go to Poland ... Germans have these historical reasons for this. I think Americans felt it was too much hardship to come over to Poland. And I think for English people it was quite an adventure."
English Manager 8
(Toyota UK, Vauxhall Luton, Opel Polska)

All the people in this group were experts in their fields with considerable lean manufacturing experience. Some of the interviewees worked for General Motors for as long as 38 years, as in the case of one English manager who decided to go to Poland almost as the result of a joke.

"When I was 50 years old, I happened to be in Russelsheim for a meeting, because the Opel headquarters are in Russelsheim, so we used to go there. It wasn't unusual to go there, let's put it that way. And all GM people used to stay in a particular hotel, which was quite near to the plant. And I was at breakfast one morning with some people that I knew from, I don't know, one plant or another. And there was a guy at the table, who started talking about things in general and he told me that he was going to be works manager of a plant that GM was going to build in Poland ... At that time I was a paint shop manager and I've been in paint shops for most of my life. He said, 'I am looking for a paint shop manager in Poland'. I said, 'OK, I will do it', as a joke and the joke turned out to be reality because he then made an official approach and said, 'You know, this guy is really interested and do we want this guy?' And over a period of time it turned out - yes. And so although I was in a job that I enjoyed, I'd got a nice, steady home life, I could do the job very easily, things were quite comfortable for me, I did decide to leave everything, my family and friends for three years and go to work on this project, which meant that I worked in Germany for about ten months helping in the design and layout of equipment."

English Manager 6

(Vauxhall Luton, Opel Polska)

There were only two English managers with such long experience in General Motors who went to Poland. The rest in the group were ex-employees of Japanese car companies (mainly Toyota and Nissan), the majority of which had also worked in Japan. They served as a medium for bringing the Japanese influence to Poland. Thus, even though there were no Japanese people in Gliwice, the Japanese philosophy had a huge impact on the Polish plant. Interestingly, Opel Polska maintained its

'Japanese spirit' as taught by its ISPs, despite the fact that all the standards regarding plant layout and structural issues were handled by the ITDC engineers from Germany.

Being an ISP might seem to the local staff a very privileged role full of rewards. Polish people very often emphasise the cost related to providing for ISPs, which seems to be one of the biggest causes of jealousy. But being an ISP in a foreign country has disadvantages that many Poles are not aware of.

> "You have to understand that we really are living in a little cocoon here. We can't speak the language. We can't read the newspapers. We can't watch TV. We are completely unaware of what goes on. We are just living in this little GM world here, and fortunately for us, Gliwice is developing."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

Another accusation against ISPs is that they are often too hard on local people, who have families and other commitments and thus cannot work as much as foreigners. ISPs are perceived as people who come to Poland only in order to make a quick career and a lot of money. This contributes to high expectations regarding their professional knowledge, which sometimes are not met.

> "Some of them [ISPs] came here and were highly able, some less so. Those who had done very well for themselves in their own plants wouldn't want to go to some far-away eastern location. And so we received some people of more moderate ability."
> *Polish Manager 2*
> *(Opel Polska)*

Some of the most hard-working and strict ISPs were considered by the Poles as being 'possessed' or 'haunted' (*nawiedzony*), which has pejorative connotations in Polish and implies someone with unrealistic vision and expectations. This 'workaholic' attitude does not seem so strange when one looks at the broader picture of the ISP situation, which is somewhat cut off from Polish reality. The inability to engage in typical pastime activities, like socialising or watching TV, leaves foreigners with very little choice regarding how they spend their time in Poland. The 'little cocoon' they live in affects the style of their work and the impression they give to their Polish subordinates. These opinions, nevertheless, belong to extremes. There were many other instances where ISPs were praised for their professionalism and numerous skills, which they passed down to Polish staff. Some of them formed a close bond with the people they worked with, and friendships are still maintained years after leaving Poland (e.g. the HR department in Opel Polska).

The ISPs can be perceived as a medium enabling effective knowledge transfer. Despite being very expensive, it is essential and remains a very important institution in the GM world.

> "An ISP is very expensive. You have to bring them from their country, you have to move them, and you have to bring their families. You have to find housing locally. Local housing is costing something like 3,000 US dollars a month to run the house. You have to insure them. You have to give them flights back home. There's a huge amount of money needed to maintain them locally, but you need that in the beginning. We could not have done it without them."
>
> *English Manager 1*
>
> *(Nissan UK, GME, Opel Polska)*

4.3.4 The meaning of quality in the GM world

According to the GM manual, quality is a very relative thing that depends upon an individual's point of view. Thus, in General Motors, the customer decides whether a particular product or service is of high quality or not (GM manual, p.20). Therefore, the quality training starts off with an emphasis on customer focus.

There is no single definition of quality among General Motors employees in either Poland or England; neither is there a clear definition of it in the training materials. There is consistency, however, in the way in which quality is divided into subcategories:

1) Quality of the final product
2) Quality of the system
3) Quality of workmanship

Quality of the final product could be described as almost equivalent to customer expectations[4]. It is the product as seen in the eyes of the customer. Her/his decision as to whether or not to buy a GM product means for Opel people having a job or not. So, customer satisfaction is the key word, therefore the company tries to build cars that meet its customers' needs, that enthuses them, so they will become a loyal customer and return in the future. It is an investment in GM's future; thus, customer satisfaction lies at the core of any [General Motors] definition of good quality. All complex actions and systems have customer satisfaction as their main aim.

Quality from the customer's perspective consists of technical characteristics (functionality, reliability, durability) of a final product, which are *measurable*, and a perception or judgement - something *not measurable*.

[4] The customer requirements are often compromised due to tooling or financial restrictions. The decision about the adjustment of the final product to customer expectations lies in the hands of the quality department and is based on their *judgement*.

Customer satisfaction is not only met by the quality of the car developed *internally* in General Motors; it also has to be satisfied by the service the customer receives after purchasing a car. This part of meeting customer expectation is taken outside the plant and could be defined as *external* quality. This includes the bigger package of after sales service. Here the customer has to be satisfied by a dealer, who is supposed to offer the package that the customer expects (good, professional and efficient service, clean car, financial help etc.).

Knowing customer expectations, the car producer is able to design the final product in such a way that these expectations will at least be met, if not surpassed. The final product is precisely designed according to clearly defined specifications and constantly measured against very strict standards, benchmarks and criteria imposed on each plant externally – by General Motors - or internally. Therefore, the internal side of quality is very much a statistical process of measuring conformance to specification.

The quality of the system could be defined as the mechanisms that enable employees to deliver a product of high quality. The idea of creating a system that 'automatically' leads to good quality is called *built-in quality*, and is a definition of quality that GM teaches its employees. For each of the four elements of the system input (people, machine, material, method) there must be a system of quality assurance, which gives 'built-in' quality to the product. All four elements have to work efficiently together in order to ensure overall quality (GM manual, p.20)[5].

> "Our philosophy is of built-in quality, and the fact that we seek to identify and rectify product defects[6] as we generate them. So we don't wait until the end of the process. That in itself is a principle

[5] Built-in quality: methods of building quality into the process preventing and detecting defects, and means of preventing the defects from occurring in the future. Objective: ensuring that the customer will not receive the faulty product (GM manual, p.20).
[6] Defect – a deviation from the assumed standard (GM manual, p.22).

that is used I guess in most manufacturing organisations, but it's very firmly adhered to in Opel Polska and it's based on the Toyota system of quality ... And it's absolutely the Toyota principle. It means that you should never accept from somebody something that you know that is wrong without highlighting it. So you are constantly checking up on other people. You should not create something that you know is wrong but if you do, for some reason, you should not then pass it on without highlighting it. So this concept of built-in quality operates and you could be talking about assembling the body, the body shell of the vehicle or you could be talking about processing a transaction in finance. It doesn't really matter whether it is a visible thing or a process."

English Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

The key person in implementing built-in quality principles is the customer, internal as well as external. The customer chain, according to GM manual, includes: suppliers, designers, production staff, sales and marketing, dealers and final customers. Thus, the customer is a recipient of information, a service or a product supplied by General Motors. Everybody in the plant is a customer and a supplier to someone at the same time. The motto of built-in quality is to take care of your customer, whoever it might be, by not accepting, producing or shipping the defect.

According to the company's philosophy, any problems or faults occurring in the production process are results of failures in the system. 'Problems are not about blaming people' (GM manual, p.50). There are two kinds of defects: those that might happen and those that have already occurred. In case of the potential for defect, one should prevent it from happening, which minimises waste. If the defect has already occurred, one should trace its source and resolve the problem by using standard techniques, for example, the Practical Problem Solving Technique.

There are four main strategies in the prevention and discovery of defects:

1) Automation – the machine begins the process of preventing the defect by sending an alarm signal to an operator.
2) Resistance to fault - a range of simple and inexpensive solutions preventing faults, for example, a peg blocking parts when assembled incorrectly.
3) Andon - enables the employee to call for help when a fault in the car is discovered and pull the faulty vehicle from the system without stopping the [production] line or interrupting standardised work.
4) People.

There are many techniques that support the overall quality of the system. Many of these ideas and principles are derived from Japanese business philosophy and are often referred to by their original names.

> "We seldom use Polish words, in the same way the UK don't. Kaizen is Kaizen. Andon is Andon. That works, in my opinion, really well because it's a new concept for most of the people, so why pretend it is something that is already in Poland. Andon is Andon. And we tell people honestly in the presentation 'this word has no meaning in English. It means 'alarm' in Japanese'. So, automatically you have this image; this is a new technique."
> *English Manager 2*
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

Another technique brought to General Motors from Japan in its original name is *gemba*. It is a Japanese term meaning to 'go and actually look at what you are talking about', which could be translated as a strong shop floor focus.

The system of built-in quality in General Motors' plants utilises many techniques of enhancing positive attitudes among employees. Some of them are the *promotion and performance related remuneration* systems. Other ways to stimulate and build positive attitudes among the employees include a *teamwork* ethos and *empowerment* through *Kaizen*.

> "Kaizen is a Japanese word; it means continuous improvement, literally. And Kaizen, in terms of the Japanese philosophy, is typically small, continuous steps of improvement - never stopping and never saying that 'you're okay, it's finished'. It's never finished."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

The Kaizen principle is implemented by means of training and physical facilities called Kaizen stations. At the side of each production unit, there are stations where the employees can write down their ideas on a special form on how to improve their work. It can cover everything, including different tool settings at the assembly stations. There is a budget controlled by the group leader and the shift manager. So, if the team member has an idea to improve the quality of his/her work or group, s/he writes a request, which is forwarded and checked by the Kaizen leader. The process of implementing new ideas and Kaizen is regulated by special procedures. Every idea is assessed by a controlling department, the Kaizen group, and checked by engineers and safety department. After the approval of these groups, the idea can be implemented and the employee who invented it receives a financial reward. The work of the Kaizen group is apparently exciting and creative, almost like an artistic endeavour. But in fact, the reality is different, and their work proves to be as hard and tedious as everybody else's.

> "We stabilise some levels, check if the current solutions are appropriate and then we think about what can be improved.

Everybody, from the people on the shop floor to the team leaders, is very much involved in this process. Even things that are colliding with their regular responsibilities and mean more work for them are treated as a challenge related to increasing productivity. So people who leave the assembly process later work on improving it and help those who work on the production line."

Polish Manager 5

(Opel Polska)

Standardisation is considered to be the basis of good quality, efficiency and continuous improvement. The principles of standardised work apply to all functions within General Motors, from the assembly line and its inspection process to the work of office-based staff, and are supported by such objects as SOS card [7] or Job Elements Sheet [8].

"The standard operation is the way to do it - completely correct. I want people to come in and build the car in the same way every day – that's what we're teaching people to do. You would say, 'But that's like a machine!' I would say, 'Yes, because we are making a dynamic product, it has to be safe. If we don't, it kills people ... The standard operation is the best-known method today. If we find a better method tomorrow, we'll change it and that becomes the standard. So, there's constant evolution of the process, to get the best way, which is then documented."

English Manager 1

(Nissan UK, GME, Opel Polska)

Some might consider it boring, uninteresting and deprived of 'local charm', but it serves a very important function in the GM world apart from a

[7] Standard Operation Sheet – it contains a detailed description of this particular job and the order of the actions.

[8] It shows the operation the employee has to do in detail, including job standards, where the tools are supposed to be etc.

reduction of cost, namely it enables a constant exchange of international staff without the need for them to adjust to local conditions, which are simply 'dissolved' inside the factory. Any person trained in General Motors can effectively travel between plants and start their work immediately as everything is almost the same in all plants.

Standardised work can be changed only through Kaizen. The procedures of standardised work are very detailed. Any departure from the standardised way will be very noticeable and will make the actual work more difficult. Every team member is trained in all standard operations in the team and these jobs rotate. This breaks the monotony of manufacturing work and protects the team from stopping their work due to the absence of any team member.

Each car produced in an Opel/Vauxhall plant is provided with a history card. All the important jobs on the car are described, and the people performing them have to stamp it (each worker has his/her own stamp), which says: 'I did this properly'. Here, quality comes as a certificate. The history card has to be stamped at every stage of the production process as well as at the Standard Inspection Process Stations at the end of each shop where the people responsible for the inspection audits check the car for its conformance to specification. There are two kinds of audit:

1) Internal – performed by specially trained General Motors inspectors.
2) External - done by non-Opel or Vauxhall people at several locations, locally and abroad, mainly in Germany.

General Motors use a technique called *visual management* as a tool supporting standardisation. It is considered absolutely crucial for the smooth running of the plants. All offices in both plants are full of boards with various charts, tables and graphs. The boards are used during meetings to discuss the results achieved in particular departments, their

deviation from norms, the actual and the desired state and so on. Visual management also includes all signage and marks on the floors and walls to indicate the working and repair areas and paths.

The last area of quality is *quality of workmanship*, often described as the most important part of quality. The quality of people and their workmanship is considered by managers to be the absolute base factor that determines the overall quality of results achieved in the plant. The system is designed in a way that ensures execution of the car production process automatically, leading to high quality.

All elements ensuring the quality of the workmanship and the system are implemented in order to lead to a high-quality final product. The complex set of objects, rules, procedures and training is supposed to create a system in which quality is something procedurally built-in, which inevitably leads to high-quality levels in the final product and the service offered to the customers.

4.3.5 Summary of part 4.3

The idea of quality, as understood in Western car manufacture, travelled within General Motors to different countries along with other concepts. The notion of quality is inherent in its transfer within larger concepts of the GM family. The company philosophy and culture, despite being scattered among many plants in different countries, is carefully governed and maintained by the European headquarters, as well as by groups of top (core) managers who serve as a medium for transferring and implementing the ideas of car manufacture according to the GM way. The centralisation of the decision-making process and the standardisation of operations within each plant makes the transfer of ideas a procedure that is repeated by ISPs in every new location.

Quality is a concept defined by General Motors as something that can be procedurally built-in to the production process. The system is designed in

a manner that prevents defects from occurring and shifts the responsibility for faults from individual onto the system. The emphasis is placed upon customers, both internal and external, and on the prevention of potential defects.

The notion of quality, as defined by General Motors, has its origins in Japan, and has travelled to Europe with Japanese car manufacturers such as Toyota and Nissan. There are three main components of quality as understood by GM:

- the quality of the system;
- the quality of the final product as defined by the customer; and
- the quality of workmanship.

These three elements function interdependently and create a whole system of built-in quality, which is understood to be an overall approach, engaging every member of the organisation into creating high-quality products and satisfied customers, both internally and externally.

4.4 Ideas in residence

Travelling ideas that arrive in new location meet ideas in residence, which may have existed there for years or even centuries. When General Motors arrived in Gliwice and in Luton, it had to face many ideas related to the meaning of quality that had occupied local car manufacturing for a very long time. This section presents these ideas in residence and describes them in two groups: ideas that diffused and led to creative translations (section 4.4.1) and ideas that resisted translation (section 4.4.2).

4.4.1 Diffusing ideas

4.4.1.1 The Polish car manufacturing industry in the past

> "Effectively, a lot of people's perception in the world was, 'Poland - that's a small country. Poland is a small country. This is only going to be a small car factory. It will be very difficult for them [foreigners]

as an ex-communist country. They won't do very well.' And these are all prejudices and biases that people have."

English Manager 2

(Nissan UK, Vauxhall Luton, Opel Polska)

Many areas of traditional business in Poland are different from those in Western Europe. These, and other factors, have contributed to reluctance by foreign investors in considering Poland as an ideal country where new and modern car factories could be built.

Past recruitment processes in Poland were far less formalised and structured than they are today. The decision of an employer to recruit someone was very often based on the relationship of an applicant to someone from the company. There was no structured recruitment process with clear selection criteria in many companies. Hence, the employment structure did not always reflect a match between the requirements of the job and the employees' skills or qualifications. This factor strongly affected the quality of work in car manufacture as well as other elements that are described later.

Polish pre-1990's industry was dominated by state-owned enterprises, as in all command-based economies. The official unemployment rate was fairy low; therefore the job market was not as competitive as it is nowadays. There were no carefully formed, well-defined objects associated with the quality of work, such as quality-related inspection procedures or remuneration systems incorporating an element of 'pay by quality' results. The motivation to achieve high-quality products was not a result of a pre-planned company strategy, but a matter of personal ambition and motivation by some employees in what one can describe as *Stakhanovism*[9]. Unfortunately, it was not a reliable factor in determining

[9] Aleksey Stakhanov, a coal miner in the Soviet Union, whose team increased its daily output sevenfold by organising a more efficient division of the labour system. The Soviet government encouraged the Stakhanov movement in 1935 by offering higher pay and

high-quality cars. Thus, many people joked that having a car that did not break down was a matter of luck.

> "I have worked in the coal-mining industry for a dozen or so years and one could say that while there was quality in that mine, there was a lack of a proper approach to quality issues. On the positive side, there were individual craftsmen. Usually they were, well old and young, people who took their work very seriously and treated it with dignity. They often got it from their homes, their fathers and mothers. They were invaluable, people who could turn their hand to anything; it came from instinct. They were like diamonds in mire, and a lot of the time they'd drown in it. They probably didn't even realise that the quality of their work was outstanding because it wasn't recognised or formalised."
> *Polish Manager 3*
> *(Opel Polska)*

The same situation where quality was a matter of personal morality and ambition could be found in car manufacture, as remembered by one of my interviewees:

> "I worked in a plant under the previous system and of course we did take care about quality, but let's face it - it wasn't done so comprehensively as it's done here. Besides, it was a different system and as a matter of course, everything we produced was sold, so one didn't care much about its quality. It was more a matter of one's professional ambition. If someone were ambitious, he/she would do it better, if less, he/she would produce trash."
> *Polish Manager 1*
> *(Opel Polska)*

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other privileges. In many cases the emphasis on speed resulted in poor quality and after World War II, the movement gradually lapsed (The Columbia Encyclopaedia, 1995).

The idea of quality has been formalised in Poland on a rather low level, hence the absence of tools to measure high/poor quality work. These were introduced along with many other management concepts after 1990, enabling a full institutionalisation of the idea of quality in Poland.

> "So the notion of quality, high or low, has been in our country for years. Yet it has to be said that I've learnt the formalisation of quality and a systematic approach here in the plant."
> *Polish Manager 3*
> *(Opel Polska)*

Quality in Polish car manufacture was not a big issue due to the mismatch between demand and supply in the car market. The car-manufacturing sector was stimulated by surplus demand over supply with no competition. The quality of vehicles was a secondary issue as the production was directed to meet overwhelming customer demand. Just getting the product, which was usually difficult enough in itself, satisfied the customer.

> "As you can remember, a few years ago, maybe ten years ago, a car used to be a luxury. The cars were *conquered*[10]. You didn't buy a car; you *conquered* a car. Like most of the other things, a jacket, pair of trousers, were conquered. Back then, quality played a secondary role for the producer. For the producer, the *quantity* was important, to push this car out through the gate."
> *Polish Manager 4*
> *(Opel Polska)*

The lack of demand for quality and for structured ways of achieving it led to a somewhat nonchalant attitude towards work in some people. It was well described in a popular Polish joke current throughout the 1960s and

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10 The Polish origin of the word 'conquered', which is used for such events as capturing a country or a castle against great odds, has been translated literally here, in place of the word 'attained' for example, which does not convey the effort involved.

1970s: *'Czy sie stoi czy sie lezy dwa tysiace sie nalezy'* (Well awake or fast asleep, there's no blame – the pay's the same). This joke is often quoted now as a striking contrast to today's situation, and is a good example of how things have changed.

The first challenge to this situation came in 1989[11], with the beginning of the economic transformation of Poland. The rapid growth in foreign investment triggered some big changes in the Polish industry due to an increased level of competition, which previously did not exist. Quality became a necessity for those who wanted to stay on the market.

> "When the external situation changed, in the beginning of the 1990s, and it turned out that cars don't sell like hot cakes anymore, with clients ready to take anything you threw at them at any old price, clients started to notice the quality of products more. They started to monitor the technological processes, to check the match with the documentation. They began to discover and pay attention to various fundamental issues, which we now regard as self-evident. And slowly, slowly, quality standards rose."
> *Polish Manager 5*
> *(Opel Polska)*

Opening the Polish trade boundaries in 1989 resulted in new business practices being brought in from the West. The old, ineffective ways of manufacturing were slowly replaced by modern ways of production and work in the car industry. People would travel abroad and observe the ways in which quality was brought about in the West. These first visits to the foreign companies had a big impact on quality as people learnt different, more systematic ways of organising and planning their work. Polish employees who had a chance to work abroad compared their companies

[11] 1989 was the year of the first free government election in Poland after WW II and it symbolised the collapse of the Soviet domination. After this date, a transformation from the command to the market economy began.

to those visited in other countries. This juxtaposition resulted in attempts to copy some of the methods observed in Western companies.

> "The last few years of the crisis, economic, but also a crisis arising from the opening of new windows onto the outside world, were a time in which ideas were assimilated; not just ideas, but entire new perspectives on one's conception of work. Yardsticks were provided by which it became possible to compare one's own efforts and their outcomes with those of the West. And they came to some strange conclusions: that, despite the existence of high quality on an individual basis, overall outcomes were problematic. There were just two possibilities. Either the actual outcomes were hijacked and massaged when reported; or there were no such outcomes, the effects disappearing in a process of one step forward, two steps backward, two steps forwards and one-and-a-half steps back - that sort of thing. So what impact did it have on the coalmine? Well! Those who had got a small taste of Western ideas implanted the ideas in a rudimentary fashion. For example, they said, 'We'll do away with waste, reduce costs here, and here, and let's see what happens'. And that was done on an all-or-nothing basis: bear down totally and see what occurs. So we bear down here, and something gives way, so we ease up there ... and by this uneasy balancing act, outcomes were sought, but on a trial and error basis. There was as yet no systematic approach."
>
> *Polish Manager 3*
>
> *(Opel Polska)*

The first ideas of quality as an organised practice brought by individuals as described above were transferred to Poland within the know-how brought by international investors, along with their capital and management systems. The structured ways of car manufacture, tested and improved over many years, were brought to Poland as a complete system. They

changed the Polish economy and working practices throughout the industry. Hitherto, insatiable car demand was suddenly not only met but exceeded. Quality became a way of distinguishing a product.

> "At present, production volume is large enough: output's no problem. The secret lies in sales. You can start a price war. You can cut costs. But there's a limit, because everyone else is doing the same, and so you have to offer the customer something more, and that something is quality."
> *Polish Manager 4*
> *(Opel Polska)*

4.4.1.2 Customer expectations

After 1990, the nature of the Polish car industry changed from one of mass production driven by insatiable customer demand, to a competitive arena in which the customer came into the picture in a new role – as ruler of the future shape of the market. So far, customer expectations could have been ignored. Now their complexity came to light.

In order to understand the complexity of Polish customer expectations, we have to look at the function a car had in Poland compared to the West. In the West, cars are commodities, which represent social status in a straightforward way: simple material prosperity. In Poland, their function is more complex and, in present times at least, rather more far-reaching. In Poland, a car represents something that has been brought into the world and which changes the way in which the world sees you. The outward expression of prosperity is there, and so a partial similarity of function between the West and Poland exists. In Poland, cars have a much higher value for their owners, as the car is a very important status symbol.

> "In England and in Germany, people are used to having new cars. They didn't used to be but generally people are used to having new cars. When you go to Poland, having a new car, you know, I have

three new cars a year, three or four; it doesn't mean anything to me - it just means another set of keys. When you go to Poland, having a new car is how it used to be in England 40 years ago; it's a really big event. And so they mean much more, they have got much greater expectations of the car then I have. As long as I can get in it and it starts and it drives, I couldn't care less. But for someone in Poland to get a new car ... and I'm speaking in general terms now, that is a much, much bigger issue than it is for someone in Germany or in England."

English Manager 6

(Vauxhall Luton, Opel Polska)

In this respect, Polish customer expectations are a *lot higher than in the West.* The car fulfils more functions and represents its owner in many ways. Thus, it has to be perfect regardless of its brand, price or size.

The Polish car market was very limited in the past by the nature of the centrally driven economy. After the opening up of boundaries and the arrival of the market economy, Polish customers could experience competition and the freedom of choosing from a wide range of various products, including cars. These were things present in the West for many years; thus, Western customers are much more specialised and product-orientated than their Polish counterparts. Paradoxically, even though s/he expects less from the car, her/his expectations are a *lot higher than in Poland.* This contradiction was present in the opinions of the English and German managers. Some of them were insisting that Poles are more demanding as customers and some would argue the opposite.

To summarise: Polish customer expectations are more complex than in the West due to the different functions a car has in Poland. Even though expectations in Poland are more complex and cover more features of the car, they are less specialised and regard the technical quality of the car

less. For Western customers, the most important feature of the car is its functionality and quality. They expect more with regards to these features and might ignore other aspects present in Polish expectations, like cosmetic, visual features. The expectations could thus be divided into two groups:

1) Functionality – the technical quality of all facilities related to the basic function of the car: transportation (higher in the West).
2) Additional functions – for example, cosmetic features of the interior trim, stereos, colour range, overall image and so on, related to the status and representative functions of the car (higher in Poland).

The car industry's past had a strong impact on Polish customers too. It made them very different from their Western partners in one more aspect: in their trust in national products.

> "You see, the Pole-as-customer is diametrically different to the Pole-as-producer. When a Pole hears that something is Polish-made, he thinks, 'Well, they fudged something there. Something wasn't right, it didn't succeed on the Western market, it stayed in Poland, and so it can't be any good.' And that's our data about the market reaction to our product. Our Agila model is rated worse in Poland despite the fact that it comes with a 12-year warranty ... it has the best-quality ratings of all models ... and that it's a very good car. I have a good notion that even if someone runs this car for eight to ten years, he won't see any rust or corrosion. The paint in particular is of a very high quality. I came across a very interesting case, which you might want to write up in your dissertation. A friend of mine went to a dealer and met a customer who told him 'You know, I've had a spot of luck with my Agila: as it happens, it's been assembled using Western components. It was made in Germany. And I have these friends who are very unhappy with their Agilas because they're Polish-made.' And the joke is that the Agila has never been manufactured in Germany: it's always been made just

here. This customer was convinced that the quality was high because it was German-made; in Germany, or the UK, something like that. And that conviction illustrates our current Polish paradox: that we truly don't value the Polish goods that we produce. And on the other hand, the Agila model has very good ratings in the UK: people like the car and it exports in large numbers. I don't know whether they realise that because it has a Vauxhall badge it doesn't mean it's made in Luton. Perhaps they think that it's assembled in England and that it's English quality. Something of that kind. At any rate, the Agila is a 100% Polish-manufactured car."

Polish Manager 1

(Opel Polska)

The Polish underestimation of their products seems to be a national feature present in its history long before the command economy. It was well described in an old Polish saying: '*Cudze chwalicie, swojego nie znacie*' (You praise other people's property without knowing your own).

Customer expectations vary not only between Poland and the West, but also between all the countries in Europe and elsewhere. They form country specific groups and are often extremely different from each other.

"There are differences. The extreme difference is from Japan, what Japanese customers are expecting from the car because they have a completely different relationship to their cars. Just to give you an instance, I know that people in Japan don't drive their car once it's raining. They just leave the car in the garage because it could get wet. Other people are taking off their shoes before they are entering the car. This is absolutely extreme."

German Manager 1

(ITDC, Opel Polska)

Even though General Motors is aware of these differences, its product is not country specific. They can only build one product and it has to be identical regardless of where it was assembled. There is not the slightest possibility of adjusting a car's specification to the expectations of a local market, as all specifications are centrally designed and imposed onto the plants. General Motors produces cars for the global market and for a global customer.

4.4.2 Ideas which resisted translation

4.4.2.1 Change in Vauxhall

The attitude towards change among the workforce in English and Polish plants is the most significant difference between typical brown and green field sites.

> "In the green field, we just told people, 'This is what you do. This is what you check. This is where we check it. If you find the problem this is whom you tell.' Now, if you are trying to do that in a brown field site, where people have had long experience with another system, you will struggle because they will say, 'Well, we don't need to do that. Why do we do that?' So, you change the mindset. And that's the most difficult challenge anybody has to have, to take a brown field workforce, a brown field culture, and try to change it. That is very difficult and very frustrating. I spent two and a half years trying to do it and let me tell you, all the hard work of this green field was nothing compared to the frustration of trying to change an old, traditional group of people."
>
> *English Manager 1*
>
> *(Nissan UK, GME, Opel Polska)*

The openness to change and willingness to learn were the crucial characteristics of people selected for Opel Polska, and so it is not surprising their approach was open to change. They accepted the

'lessons' and new ways of car manufacture brought in by the ISPs with enthusiasm and optimism. It was something new and something better than the old ways that existed in Poland in the past.

The situation in England was the complete opposite. The English car industry was quite successful whilst producing vehicles using traditional methods. There was no clear or direct threat to the car manufacturing industry and so people did not see the need to implement any changes. Their old ways proved to be effective and changing them could not be justified in any satisfactory way.

> "If people have done something for 30 years in the same way and may have been successful economically, they've made a lot of volume, and all of a sudden, you come along and say, 'I'm sorry, but this is not going to allow you to survive in the future'. They look at you and say, 'You are crazy. We've always done it like this. It's been OK'."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

The new practices brought to Opel Polska had potential for replacing old, ineffective ways and enhancing good values embedded in Poland, like the ambition and drive to place the country in Western Europe and succeed as a car producer. The national and personal pride people related to the plant's success would not reach the same level in England. The car manufacturing situation in England was stable, and the unemployment rate was much lower than in Poland. Work at General Motors had a different value for people. In Poland, people were often grateful for just having a job; in England, it was a means of getting a better lifestyle, which provided greater satisfaction and value than the job itself.

"I think over here [in Luton] it is more difficult to get change because you have to convince people that there's a need for change. And because the organisation's been here for 75 years, people believe it will always be here and there isn't the same sense of urgency within the organisation. And trying get people moving in the same direction to create change is quite difficult because you have people who are from all different kind of age groups, backgrounds and experience and they're all very different in the way they think. We haven't been able to give a common way of thinking, which we were able to do because we had a completely new workforce in Poland."

English Manager 8

(Toyota UK, Vauxhall Luton, Opel Polska)

Another important reason for the reluctant approach to change in Vauxhall is the autocratic managerial style that has dominated the plant in the past. All actions were imposed by 'somebody somewhere, rather like a religion, with a master plan which steers the course of the plant' (English Manager 8). People were not empowered to have an impact on the organisational life and change anything. They did not believe they could make any difference. This is something the plant still suffers from.

The awareness of the need to change the culture and peoples' attitudes was quite strong among the managers in Vauxhall. In order to improve this, various training programmes were designed and implemented using the cascade approach, for example, beginning from the top. There have also been some major changes to the organisational structure. An early retirement scheme was introduced in order to create positions for new people. Many hourly paid staff who were recognised as having great potential were promoted to replace old managers who had retired. They were ambitious, well-educated and hard working people who 'injected this new blood' that the company had been lacking. They allowed progress,

which had been stopped by some traditional people, and filled in the large, weak link of Vauxhall Motors.

Unfortunately, many of these efforts were welcomed in a very negative way or rejected completely, for example, the introduction of Andon training:

> "Antwerp is a GM operation that's building in a process that we are trying to get to. We sent our team to go and look at their operation and give us feedback on what they saw. They came back with a presentation of what's good and what's bad about Antwerp and then what's good and what's bad about our plant. When I sat through that presentation this week, it really concerned me that people had taken the opportunity of picking up all the legacy of the history of problems that we've had in this plant and used like ten years worth of historical problems ... We invited people from outside our organisation to sit in and people used it as an opportunity to exploit their own personal complaints ... They have missed the business issue and the platform, which we gave them to be honest and open and they exploited it to try to sell a message of how unfairly they have been treated in the past, and they have missed the message. I felt very uncomfortable because they damaged our plant's reputation for their own personal gain or motivation."
>
> *English Manager 7*
>
> *(Vauxhall Luton)*

4.4.2.2 Vauxhall closure

The consequences of the reluctance to implement a different philosophy, production technology and quality control in the Vauxhall Luton plant were dramatic and came very unexpectedly. On 12th December 2000, the plant was operating in the usual way and nothing denoted the tragic turn that this day would take. On this day, those who happened to be listening to the radio heard the news announced by General Motors: The Vauxhall

plant in Luton will be closed on 21st March 2001. The decision was made by GM's headquarters in Chicago and came as a shock to everybody, including Vauxhall managers. The fact that people found out about it from the news on the national radio and TV only added to the bitterness. Production was stopped immediately. The plant became surrounded by journalists and the Vauxhall headquarter was invaded by outraged employees, but none of the protests and strikes of the local people could change the inevitable. The decision was final.

What was behind this decision? Was Vauxhall the right plant to close? The views on this were varied. Some believed that the decision was right and it did not surprise them at all. They considered the plant as obsolete and inefficient. But even those who agreed with the decision were absolutely infuriated by the way the company treated them in this crucial moment. They felt degraded and betrayed by the company they once considered as caring. They considered this decision as 'universal' global cruelty made by people in Chicago, without any consideration for the situation and the future of workers in the Vauxhall plant. Here, one could see a clear separation between Vauxhall's identity – a company that people identified themselves with - and the General Motors world. Some perceived this separation of interests as a reason behind the plant's closure.

> "Well, the top guy now for the whole of GM worldwide is now the finance guy. So it's not a manufacturing guy and we are a manufacturing company. So if you are a finance guy and somebody comes to you and says, 'We can improve this but we can't do it now because we are going to loose money for four years, but then we'll start to make money. Are you interested in that?' He is looking at the bottom line right now. 'Oh my Goodness! Right. Let's cut this, cut this, cut this'. But we are not investing for the future. It's all very short term, bottom-line ... I mean, I get to see all the other plants and I know what is going on in Europe. I mean it was obvious to me

12 months ago that a plant would close but they didn't close the plant that they should have done because politics got involved, and they closed one of the most productive plants because it was cheaper ... Vauxhall in the UK makes a profit consistently. Opel in Germany is losing millions, is depressed and that is a secret. If you look at how people buy their cars, in Germany they tend to buy German cars, so Opel, BMW, Mercedes etc. If you look in the UK because they tax so highly, cars are very expensive. A lot more people go for the cheapest option that they can. And that is not generally the British car or British manufactured car ... so right, we are going to close the plant. Where would you close the plant? In a country where they mainly buy your product, or one in a country where it doesn't really seem that they are loyal to your product and you probably won't loose much market share by closing that plant? It's not the right plant to close because it's not losing millions, but strategically it's still going to save the corporation money and will it lose you sales? Probably not. Right. OK. So you've got that. You also have another factory; in this particular case it's the plant next door - IBC. They will probably take over half of the workforce ... so then you got another factor to influence, which plant do you close because if you close one in Germany you are going to have negative pressure, you are going to lose the sales and you have no workforce or nothing for the workforce. You close the one in England where you are not going to lose sales. You are going to save money and most of the workforce is going to be sorted out."

English Manager 3

(GME, Vauxhall Luton & Ellesmere Port, Opel Polska)

According to the promise, some employees were transferred to IBC. The rest received a redundancy package and help in finding a new employer.

The last months of Vauxhall's life were extremely difficult for everybody. The managers struggled to keep motivation levels and had to cope with the anger people would put on them. They recall working for 19 hours a day and being at the end of their tether. They put all their efforts into listening to people, absorbing the anger and supporting them as much as they could. This effort was repaid as the plant eventually came back to production and functioned normally until the end of March 2001. It should be noted that in the last months of its existence, the Vauxhall plant achieved the best-quality results in its history. Everybody agreed that this was the result of peoples' pride; they wanted to prove General Motors' decision wrong and show their abilities. The change, which began in Vauxhall before this event, suddenly quickened with surprising effect. Paradoxically what happened stimulated people to accept and implement changes they initially rejected - this was their decline.

On 21st March 2001, after 97 years, when vehicle number 7,415,045 rolled off the assembly line, Vauxhall closed its doors. People left the company they once thought they would work at for the rest of their lives.

The events in Luton were echoed in Opel Polska. People realised that each car plant can reach its end and if it happened to the Luton plant, they realised it could happen to them as well. It came as a shock to Poland and made people reflect on their own future in the company. Being aware of how things have changed since they began working there, they noticed that the first signs of what they had always criticised the old brown field sites for had already started occurring in their own plant.

There was a lot of sympathy expressed in Poland regarding Vauxhall's closure. The fact that the decision was announced on 12th December had a strong symbolic value as everybody in Poland associated this date with 13th December 1982 when martial law was announced. The symbolisms of the dates and being a part of the same 'family' contributed to the sympathy

Polish staff felt towards their English colleagues. On the English side, one interesting phenomenon emerged: sudden hostility towards the Germans, which was never previously expressed or had not existed before. Now the Germans emerged as those who were 'the world's best at protecting their own backs' (English Manager 9).

Opel Polska was suddenly confronted with the reality of global car manufacture. The drop in enthusiasm and involvement of their workforce was one of the results of this reality, which they have had to face since the plant reached stability. Another wake up call came after 200 people were made redundant in Opel Polska, when 'Astra Classic' production came to an end and the plant didn't receive another model as a replacement. What is the plant's future? Will it remain a success story and maybe become a home plant for other GM 'children', or will it share the fate of Vauxhall? Only time will tell...

4.4.3 Summary of part 4.4

When the travelling ideas of quality and car manufacture arrived in England and Poland with General Motors' plants, they came across various notions of car manufacture that had been residing in these locations for a number of years.

The car manufacturing industry in Poland has been dramatically different to the one in Western Europe. It has been driven by the principles of a centrally planned economy, and many of its rules were contradictory to those in the West. Quality was a non-institutionalised issue, and there was no possibility of developing this concept. Overwhelming demand had stimulated a car market operating according to the central plan economy; hence, quality was neglected and has only emerged when stimulated by the ambition of individuals. The car industry in Poland, struggling to meet the production levels able to meet customer demand, has suffered from poor quality.

The English car manufacturing industry was the opposite of its Eastern European cousin. Being a successful producer of cars exported to many other countries, it has prospered for many years. The Vauxhall Luton plant was almost 100 years old, and when General Motors acquired it, it became known as the best employer in this area of England.

The ideas residing in these two locations illustrate a striking contrast. The ideas in Poland had never successfully fulfilled the function of car manufacture, thus the need for new ideas, which offered alternatives, was quite strong. The ideas in residence in England were the opposite, as they successfully operated in this location for almost a century and the need for change in this location did not appear as necessary. As a result, the ideas in Gliwice, when met by travelling ideas, led to diffusion and acceptance whereas the ideas residing in Vauxhall Luton resisted; this, and other factors, led to the closure of the plant.

4.5 Friction energy

When travelling ideas meet ideas in residence, friction energy is produced. This very energy makes creative translations possible. This part will describe the process of implementing the idea of quality in Opel Polska, and what happened when travelling ideas and their institutions met local ideas in Gliwice.

4.5.1 The Promised Land – the recruitment process in Opel Polska

When an appointed group of ISPs arrived in Poland, their goal was to build a plant that would operate differently to the way in which the traditional Polish companies operated. They wanted to build a factory according to the highest Western standards and were determined to employ the best people they could find.

> "If you don't get the right quality people, you won't be able to build the right quality cars."
> *English Manager 8*

(Toyota UK, Vauxhall Luton, Opel Polska)

The quality transfer began with the search for 'quality people' and their morality became an important dimension in this search. In the first stage, only three people were employed. They would become the 'right hand' of the foreign managers in the actual recruitment process and in setting up the plant. They were also there to support the cultural transition, to make sure that things were set up and ready to receive newly appointed staff.

> "That [recruitment] system was something that's been developed in the UK. It was actually developed by the company that had done a project with Toyota. A couple of the people who were working in Poland, the manufacturing director and myself have also worked at Toyota. So we knew this process was very good and delivered good quality results. So when we went over to the project, and one of the things we brought with us was this company who we used as our recruitment consultant and who designed the recruitment process with us, slightly changed it from the UK but essentially it was a UK process ... And the process was changed slightly to take into account the requirements in Poland and what we were likely to get."
>
> *English Manager 8*
>
> *(Toyota UK, Vauxhall Luton, Opel Polska)*

The assessment process was defined in documentation as follows: 'The process itself is a series of filters that allows the candidate to be evaluated in a variety of situations'. Having the recruitment tool in hand, a desired profile of the candidate was specified. Most importantly, it would be a young person 'untainted with bad habits'. This would enable General Mototrs to train these people according to their norms, allowing for their efficient work and development. They did not have to be already trained in the job they were applying for. Instead, they had to be obedient, willing to

change and learn new ideas. This is a person who is amenable to being moulded. They had to be able to work well in a team and carry out repetitive tasks for a long time strictly according to the instructions. They were supposed to learn everything in the plant so their ability to absorb information and implement them as taught was crucial. We might say that experience-wise, they could have been almost like 'tabula rasa'. What made them the right candidates were their personal characteristics.

> "And this kind of development is a huge responsibility for the company management. Some would call it brainwashing, but taken in good faith, it's simply a form of training in various work practices. And you can tell just by looking at people. Some have got so involved and have changed so much that even they're nearest and dearest don't recognise them. They don't recognise what's happened to them in a good way; but also, it may be, in a way which is problematic for their environment."
> *Polish Manager 3*
> *(Opel Polska)*

Opel's job advertisements resulted in an impressive response: almost 46,000 candidates applied for jobs in the plant. Having 1,800 jobs available, the employers had a sizeable group to choose from.

The first stage of the selection process was a written test, which was passed by half of the candidates. The test was followed by target selection interviews, where a candidate was asked to describe an event from the past, which would allow the interviewer to gain a picture of the candidate's approach to work and how s/he would act in certain situations s/he might face in Opel Polska.

These questions were based on the assumption that if someone acted in a particular way in the past, there would be a strong likelihood that they

would act in the same/similar way in the future. This interview provided GM with a sample of proactive and quality-oriented people who, as the Polish Manager 8 put it, 'were supposed to be aware that quality is absolutely fundamental in any kind of mass-production.'

> "There is something you can train people in and some things that are built-in to a person. And those I certainly tried to select were people with the right built-in qualities - those you can train how to paint cars."
> *English Manager 6*
> *(Vauxhall Luton, Opel Polska)*

Parallel to these interviews was an assessment centre, where the candidates had to perform strictly described but fairly simple and repetitive actions. There were clearly described objects they had to produce. This was supposed to reflect the nature of their future work in Opel Polska and picture their quality focus.

After a positive completion of all recruitment stages so far, the candidate would have a final interview with one of his/her potential managers or group leaders. The final interviews were carried out with the help of translators as none of the foreign managers could speak Polish.

> "When I was in Germany, I started to try to learn some Polish. But you know that a little Polish is absolutely useless. You cannot converse with a little Polish. So we used to have full-time translators, whom we could trust in what they were saying and that their translation was good. And in the end they used to take part in the interviews as well. So anyone who could speak English or said on the [application] form they could speak English, we were trying to conduct the interview in English for two reasons; first of all it made it easier for me, and secondly it was a test on how good or

bad their English was. And we started off saying: all staff people must be able to speak English. And we did that to begin with but that wasn't fair and it wasn't good enough. It meant that we were only selecting people based on one criterion, not on their total skill. So we went away from that and that's why we had to start using translators."

English Manager 6

(Vauxhall Luton, Opel Polska)

From 46,000 applicants, 1,800 were selected and employed. The average age of this group was 28. The majority of them had very little or no experience in car manufacturing. They came from different working environments. There was a group who worked in the coal-mining industry; some worked in the machine industry. They usually had technical training; some of them finished Polytechnic or University. Many people were continuing to study. The high educational level of Polish employees is very often emphasised not only by Poles, who are proud of it, but also by ISPs who are very astonished and nicely surprised. They often describe the Poles as being the best workforce Opel has in Europe. The astonishment seems to be partially as a result of prejudices held in the West about Poles as simple and uneducated people. This contrast was interesting for me to observe in the opinion of one English manager who said:

"I have to be honest, right now I'm really happy to work with Polish people because Polish people are great workers. They're really keen to do their job and the people are really intelligent and they learn fast. I think that's another value, because first thing of all, I have to be honest, they have problems being from a poor country. So every time that they spend a Zloty or two, they know the value of it. So they have the chance to have a good job, and that's another quality; because when they buy something they want something good. So what they try to do is good because they know

somebody's going to buy it. Okay? And they expect good quality themselves, so it's easier to work with Polish people. I have to be honest, right now, for me, I have worked in different plants, and in different countries, and Polish people are the best workers I ever saw."

English Manager 10

(GM Canada, Opel Polska)

However, despite the good opinion expressed above, I met the same person one year later in IBC in England and he told me that he motivates his English workers by saying: 'If a dumb Polish guy can make it, you can make it as well!' He was the only person I met who used these negative stereotypes after a few years' experience working in Poland. The rest of the English managers always emphasised how unfair these prejudices are and often added that 'the weather isn't that cold either'. Most of them took their family and some of their English employees to visit Poland to meet the local people themselves.

Many Poles employed in Opel Polska owned private enterprises and risked a lot by changing their jobs. They exchanged their financial stability for tempting development opportunities. Personal development and ambition seem to characterise the average profile of the Opel Polska employee. They are keen to learn and improve the quality of their work and life.

"I must say that managing this sort of team is, on the one hand, a great treat since these are people who really do have lots of ideas, they're very creative, and they're self-starters. There's no hard done-by attitude of the kind you sometimes see where the only thing that's talked about is remuneration. Here, they take their satisfaction from the quality of their work and the innovations they might introduce to it, as much as from their pay. And there's some

> internal competitiveness as well, healthy competitiveness I'd say. But, on the other hand, managing this sort of team is a great challenge because you simply can't cover up uncertainty or inability with some sort of facade of self-confidence, because these people will see through it very easily. Simply stated, they're very demanding subordinates."
> *Polish Manager 5*
> *(Opel Polska)*

Everybody who passed the selection process is aware of the fierce competition they had to win. This is a source of huge pride for many people. They didn't get this job 'through someone' (*po znajomosci)* but were selected as an outstanding individual suitable for work in the first West European car manufacturer in Poland. They know they work with valuable people of a similar profile.

> "We could take people out of very traditional areas of business and bring them here and completely destroy the culture. So you have to carefully select the management people to come and run this ... We've got young, forward thinking people. Management people speak other languages and speak to us in English. Some of them speak fluent English, German, and Polish of course, and they are able to communicate very well with the rest of the GM world."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

4.5.2 Language

Each General Motors plant has its official working language. In the case of Germany or England (as well as America), it is of course German or English. The rest of the European plants adopt either one of them depending on the dominating language in the group of ISPs; for example, in Zaragossa, Spain, it is German even though not many Spanish people

are fluent in it. In Poland, English became the official language. But one of the English managers considers this strange.

> "Instead of the 15 people from the UK trying to learn Polish, 15 people decided, take 100 Polish people each and try to teach them English."
> *English Manager 9*
> *(Vauxhall Luton, Opel Polska)*

Even though the group of ISPs knew about their future work in Poland almost a year in advance, and spent some time in Germany preparing for this, only one person tried to learn the language. The rest used 'Polish is a very difficult language' as an excuse. And so English became the plant's working language. All Polish managers could communicate in English with the ISP group. For those who couldn't speak English, language courses were organised. People were encouraged to learn the language not only for the sake of their current job, but also for their future careers. The adoption of a foreign language as a working language in Poland created not only an opportunity for Polish staff, but also some friction. Some of the Polish employees felt as if they had no choice if they wanted to communicate with their bosses.

> "I'll give you an example from the production environment. When you are building cars on an hour-to-hour basis you have a ... let's take me as a shop manager. You have me; I was the shop manager. You will have a translator with me and you'll have a group leader. You have to try to explain through non-technical personnel something to a technical person about a technical problem. The message often gets confused. The group leader doesn't want to say he doesn't understand because he is in a high-pressure situation and would often sometimes say something that you think he's understood. When he walks away, he may then go talk to the

translator again and say: 'What did he really mean in that situation?' Now, when you get situations like that it takes time to communicate, you've lost the time window and secondly you do not really communicate the message."

English Manager 2

(Nissan UK, Vauxhall Luton, Opel Polska)

Polish people were often in fear of admitting they didn't understand something in English, as it was 'obvious' they should understand it, especially on the management level. Shame, fear and the lack of language confidence often led to them being slightly pushed aside.

"And I think to a certain extent we have stifled the creativity and influence of the local workforce because, well, one reason is that most of the discussions about policy or procedures, you know, have been done in English. And of course, if English is your first language, it's much easier to communicate the point. I think to a certain extent we have carried it out this way not because we convinced people this is the right way to do it, but because they are certainly unable to express their opposition or concerns with it."

English Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

The majority of the Polish employees managed to learn enough English to communicate with the ISPs. But there are individuals who weren't able to learn it or objected to learning it.

"Something that didn't work out for me, where I took a knock, is where I'd always wanted to learn the language properly but, due to the pressure of events, I had to recognise that my English was only average. But that was just too bad: those who need to understand me will just have to learn it; after a 12-hour shift I just don't have

any more energy for study! [*Laughs*] So I accepted my setback. But that's something that didn't work out for me."

Polish Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

The effort to improve the quality of communication in the plant came from one side only – the Polish staff. Even though many ISPs, after a few years of living in Poland, were able to understand Polish quite well, they never used it in their contacts with the Polish staff. It was often the subject of jokes where people 'warned' me: 'Be careful, because they understand Polish'! The only attempt of an ISP officially speaking Polish I witnessed was during the 'State of the Nation' meeting, an annual ritual of announcing Opel Polska's results. The ISPs seem to refrain from using Polish in the plant but gladly use it when back in England. During my visits to Vauxhall, they always greeted me in Polish and sometimes would drop Polish terms into the conversation.

The initial domination of the English language in Opel Polska was planned to be decreased after the management positions were taken over by the Poles. Many documents, procedures and protocols, which were written in English, were gradually translated into Polish. The meetings were more often led in Polish too. A transition of Opel Polska from English to Polish was very often disturbed by problems with translations, which were often of a very poor quality and could not communicate the original message.

The gradual adoption of the natives' local language as the working language is a very important symbol of change that Opel Polska is going through. As ISPs always emphasised, this is a Polish plant and they are just 'some crazy foreigners'. The working language of the plant, which was initially English, is slowly changing to Polish. Eventually, there will come a time when Opel Polska will become the Polish plant language-wise and ISPs will be replaced by local staff. This process should significantly

improve the quality of communication in the plant, because people will be able to converse in their own language with each other. As described by one of the managers, the symbolic end of this transition will come when one day a production meeting will be run using the Polish language instead of English.

4.5.3 Building the plant and the start of production

> "This was one of the first things we had to get across to everybody; that we were not going to build some back-street garage place. We were going to build the best plant that GM has got in Europe."
> *English Manager 6*
> *(Vauxhall Luton, Opel Polska)*

The period between building the plant and the start of production possesses some of the most nostalgic myths told by the people who participated in it. It was a time of extremely hard work but as many say also the most beautiful time of their careers. They were all creating something new, building a huge plant from scratch with their own hands! The spirit of ownership that many people feel nowadays about Opel Polska is absolutely unique. They feel almost like proud parents who watched their child growing. Only in this case the child was initially a field of mud and now it's a car manufacturing plant producing 120 cars a day.

The activity of Opel Polska in Gliwice started in 1998 in a small office, where the recruitment processes and other documents were prepared. In the meantime, the actual process of building the infrastructure of the plant began.

> "Well, the design centre, which designed the plant, the actual, the main buildings and supply, is based in Germany. But even there it's not quite as simple as that, because of the way the project was managed - contracts were awarded to companies who were responsible for building the whole of that particular unit and they

were given certain objectives to achieve, for example, building the body shop, the paint shop and general assembly shop. So, for example, the equipment would have to be able to build 30,000 units an hour and would have to do it within certain quality standards. Essentially, those companies were then responsible for installing the machines, checking the machinery, making sure everything worked. So at the end they could just hand over the key to the building and say: there you go. And it's termed a turnkey supplier because the idea is you can just go and turn the key and it works. Doesn't always happen like that but that was the idea. Those companies were also bringing their own quality ideas into the operation as well and these were very experienced companies."

English Manager 8

(Toyota UK, Vauxhall Luton, Opel Polska)

The Opel Polska people initially worked in the Gliwice office and were later moved onto the building site where they would be based in a couple of Portakabins. They had to organise literally everything, so when the plant would be built they could start the training and production immediately. Apart from this, they had to supervise the building work as well. Everybody was prepared to work hard and indeed they did so, often until late at night. They were eagerly listening to their foreign supervisors, catching their ideas and trying to apply them as best they could. They were creating something unique, something so much different from the old, traditional Polish factories. This plant was going to be new, modern and the best in Poland. In only 22 months they transformed a green field on the outskirts of Gliwice into a modern car manufacturing plant. It was faster than anybody believed it could be done. Not only was the pace of the progress impressive, but also the fact that all quality and quantity production targets were met.

"Everybody so desperately wanted to achieve what were very difficult targets in terms of volume achievement and quality levels, that I can remember this finally culminated one day when we'd just had very bad daily audit results ... And there were times during the pre-launch period when things got so bad, with frustration, that we lost our sense of respect and we treated each other poorly and violated what we knew about how you should treat people. But there were good things. There were so many really. We probably could have been better but we tried to make so many milestones. I can think of some very important milestones, like when we built the first online production Astra. There was a big ceremony and we drove the car out and there was a huge cheer and everybody was there and that was a very proud moment. You should get someone to show you the photographs of that. That was great. And when we built the first Agila; the first Agila came off the production line and everybody was there, cheering and clapping and that was great. So there were moments like that."

English Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

This passage is a good example of how people felt about those early days. There are bad memories of hard and stressful times and strenuous work, but they are eclipsed by the sense of achievement, ownership and pride from launching the plant. The Polish crew who were building their first cars were very often 'overdoing' their job, which was a problem in some areas of production.

"Basically, we kept building cars and we could never pass them to sales. Do you understand what was wrong with it? Build a car, and when it's passed on to sales it means it's no longer Opel Polska. So it's a very important process after the quality control to find it accepted to go to the customer. And it's quite a responsible job ...

So what we found was that people were nervous about making a decision because they didn't want to make a mistake. Secondly, people didn't realise, that if you continually send the car for repair, repair, repair, you actually cause more damage. We were actually reworking the car so much, that damage was happening to the car, which wasn't good for quality. The most important thing about repair is, that repair should only be done if it makes the quality of the car better. So, a simple example, the best example is, we would have a tiny piece of dirt in the paintwork and someone would say, 'That's unacceptable to send to the customer'. We would then grind it down to bare metal; we'd put primer on, put the base coats on. Cosmetically, it would look great but actually the corrosion protection was worse in that. Now, from the customer's viewpoint, corrosion is much more important than slight, tiny pieces of dirt. So, we had to educate people that this is a mistake. It took us about two months to do that."

English Manager 2

(Nissan UK, Vauxhall Luton, Opel Polska)

Getting a job in an area of high unemployment in Poland also brings with it a fear of losing that job. Being able to work for a prestigious company with valuable people enhanced staff ambitions to succeed. The insecurities that came from not having to build cars in the past resulted in people overdoing their job or not accepting their responsibilities.

After the launch of the first Astra model, which is considered the first and most important milestone in the history of the plant, there was the launch of a second model – the Agila. So far, the Agila has been a success story. It was launched on time and according to one of the English managers: 'It is the best quality launch of an Opel product ever, both in terms of our internal measures and external measures' (English Manager 2). Each model started a new era for the plant. The Astra meant, 'We made it'. The

Agila means 'development' and 'keeping it up'. But for the Polish staff, it also means patriotism.

> "I'm basically certain, that here in this plant, all these people working here realise that one has to produce goods to the highest standard, the highest quality. And that's for several reasons. One very relevant factor, quite apart from the awareness that goods which aren't of high quality wouldn't sell, seems to be that here we have a factor which is fundamentally Polish, and that's a factor which I would characterise as aspiration. I mean, and particularly among those Poles who remember the previous system, Poland was always considered as a place whose products were trashy. In this respect, it's a matter of pride for me that anything that carries a Polish brand, or something similar, should be something of the highest quality. And it seems to me that a lot of people here, and especially the younger ones who want to create something good, share this view and this perception ... Young people have this about them; they're ambitious. In contrast to older people who come to work to earn money, younger people are engaged, somehow, and want to be told, well, yes, it's you who are building this car. You can tell that from the way they keep taking photographs of themselves with the cars, they're identifying themselves with it."
>
> *Polish Manager 1*
>
> *(Opel Polska)*

The arrival of General Motors to Poland, among other Western companies on the Polish market after 1989, started a new era; the era of departure from Eastern Europe (bluntly, freedom from Moscow) and a renewal of one's membership of the West. When Opel Polska reached its 'maturity' and became an equal partner for other European plants, it symbolised the arrival of Poland to the Western world: 'We made it'.

4.5.4 Staff development

'Once the right people are on board, they must be trained!' (GM manual)

According to General Motors materials, there are three types of training offered to all team members.

1) Basic fundamentals
   - Visions and Values
   - Lean Production
   - Team Concept
2) Skills fundamentals
   - Problem Solving
   - PDCA Cycle (Plan, Do, Check, Action)
   - Systems
   - QNPS (Quality Network Production System)[12]
3) On-the-job Training
   - Technical Skills

> "I think, I'll use the word indoctrination level, the training level of all of the employees of Opel Polska, was very strong ... Every employee that starts at Opel Polska has a week, the first thing they do is they attend a week of induction programme. And that program teaches them all of our visions and values that the company is based upon, one of which is [built-in] quality."
>
> *English Manager 4*
>
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

Training of basic fundamentals is usually supported by visits to other Opel plants and personal coaching. For the first people employed in Opel Polska, this training was organised with special care.

[12] QNPS was used at the beginning of the 1990s and was later replaced by the term GMGMS (General Motors Global Manufacturing System), meaning General Motors' global philosophy based on special procedures.

"So with the first ten people that we had... [*Looking for something on his desk*] I have got a photograph with the first ten people that started work with Opel Polska. I've brought them here [Luton], to this plant to train them about, and show them, the paint shop. And then we went to the plant in Ellesmere Port. And on the weekend we went to London [*Showing me the picture of him and other people*]. So that was I with the first ten people that started in Opel Polska. You might recognise that's Big Ben in the background, yeah? So one of them got lost in London. Anyway, that was the good thing about it; a good memory."

English Manager 6

(Vauxhall Luton, Opel Polska)

A large part of the initial training is on-site training, which takes place in the *home plant*. The home plant is a fully developed General Motors' subsidiary where newly appointed staff who are from green field sites can learn the principles of lean car manufacture. The choice of the home plant for a newly built factory is usually based on the model of the car that is produced; thus, new plants which are going to produce the Vectra will take as their home plant the old plant producing the Vectra as well. In the case of Opel Polska, the plant in Eisenach in Germany became their home plant. They continuously compare each other and learn what is called 'best practice exercises' from the Germans. This includes solutions for organising systems of quality assurance (which are also taken from Toyota and Nissan in the UK), quality standards for a particular model of the car, management procedures, management problem solving and organisational structure, for example, how many workers should be in a team. These methods were developed, analysed and tested originally by the Japanese and then applied and further improved by the Americans and the Europeans. Many General Motors plants use these methods, but Eisenach was the first plant built from the beginning according to Japanese methods. Opel Polska applied the concepts derived from the

same philosophy but improved and pushed them even further. The process of continuous improvement had been put into practice when building the plant and in bringing expertise from Eisenach. Thus, many people say that now Opel Polska has become the model for Eisenach and many other General Motors plants. Apart from the visits of the employees to the home plant and other European plants, there was an intensive knowledge exchange between the four plants created simultaneously with Opel Polska; they are Argentina, China and Thailand. These contacts ceased in 1998 when Opel Polska officially joined General Motors Europe.

The initial visits to other plants enabled the Polish staff to learn the concept of quality as a system and also enhanced their drive to succeed in the GM arena.

> "...and everywhere I came to the same conclusion, that there aren't any extraordinary people who have advantages distinguishing them from people in Poland. They're the same rough diamonds, only it's a matter of cutting and presenting them as polished jewels: a question of having people who know how to shape them, and teach the same to others, in an appropriately systematic way."
> *Polish Manager 3*
> *(Opel Polska)*

Some people who had the opportunity to visit Western countries wondered why they were doing better and Poland was doing worse. They found the answers during these visits and training in Opel plants. Polish industry was lacking in methods and systems. General Motors training came to be a tool people could use in their attempts to meet the West, to prove that Poland could succeed in car manufacture. This ambition was amplified by the plans of the ISPs to make Opel Polska even better than their Western partners.

The high level of indoctrination and the intensive training applied in Opel Polska were the most important factors (not forgetting the selection process where 2,000 staff were chosen from 46,000 candidates) contributing to the success of the plant.

> "So, an example from the training phase: the basic training about quality, what it is, what it gives, its measurable benefits, and ways of assessing and reporting it. It's safe to say that all the reporting requirements were met with utter distaste, that, yet again, to the limits of endurance, one was required to take everything apart in fine detail because that's the rule, that's the standard, and there's no avoiding it. Having said that, this attitude eventually got into people's blood."
> *Polish Manager 3*
> *(Opel Polska)*

4.5.5 Furnishing new culture in Opel Polska

The training described in the previous section dealt with the issue of teaching people the principles of lean manufacturing and in particular technical skills. The following section will examine the process of creating and developing organisational culture and the philosophy of Opel Polska. This complex process of furnishing a new culture within the Polish plant started before it was even built. The group responsible for setting up the plant met for the first time in Germany, and this is where the ideas regarding the shape of the plant were exchanged. As mentioned before, the philosophy was based on Japanese principles of management in lean manufacturing.

> "So, we'd already made that cultural shift in our heads to do it like the Japanese. As I explained to you the other day, we decided to take things from Japan based on what would fit in with the local community of the North East of England. And the similar type of thing, here, how it would fit in with a local, Polish culture. But that's

not, to say, well, the culture would necessarily accept this. Because we have to say, we might break the culture of the local area. And we do things differently, because we have to do it, to avoid a clash of standards. We have to bring the best ideas and working practices to the business and if that doesn't quite fit in to the Polish culture, then we have to furnish a new culture. Somebody said to me the other day, 'If you don't start the change in the country, we will.' So, I think, if you go into this a little bit deeper, if you talk to the local people, some of the business practices we do; we talked about the very fact that everybody in this plant calls me 'John', not 'Sir' or 'Mr Burton'[13]. We have opened up the communication and that's part of it, to create this atmosphere of communication on all levels.

English Manager 1

(Nissan UK, GME, Opel Polska)

Having had a team of managers trained in Japan, the basis for creating a culture was established. These were the vision and values they would respect in the plant. Let's have a look at them in more detail. The *vision* of the plant is:

> "Opel Polska will earn the enthusiasm of its customers by providing cars which exceed customer expectations in quality and cost competitiveness. The company will achieve this through its people by developing a safe environment which supports lean manufacturing principles and responsible empowerment."
> (Opel Polska Vision & Values, p.1)

Comparing this vision with the norms that existed in car manufacture in Poland in the past, one can notice some elements that would be a novelty.

[13] In Poland, people usually call each other 'Lord' or 'Lady' and talk in the third person, unless they are friends or have known each other for a long time. To offer a communication with the exception from this rule is a big challenge to Polish culture.

As described before, the surplus of demand over supply in the Polish car manufacturing industry in the past excluded customers and their expectations from the picture. Thus, exceeding customer expectations was a new value that had to be thoroughly applied. Safety was commonly known in Poland under the term BHP[14]. It was widely referred to, and frequently but not always applied in many industries before, but Opel Polska put such an emphasis on this aspect that many people described it as 'going nuts about safety'.

Lean manufacturing was also a new concept. There was a stark contrast between lean manufacturing principles and the uneconomical use of materials in the Polish car industry in the past, and the management team was aware of it. It is possible that their evaluation of the situation might have been more pessimistic than it was in reality, but in order to incorporate the values mentioned in the vision of the company, they adopted the following strategy:

> "In the very beginning, attention was drawn particularly to matters of safety; it was emphasised everywhere. 'Safety First' was drilled into everyone. Every sign, every label, said 'Safety First', everything was arranged so as to achieve the highest safety standards. That was when we were putting up the plant, and we were particularly concerned with it. And that notion of safety was emphasised, and screwed down so hard, that nowadays people volunteer reports as a matter of course, on incidents that you'd have to be excessively sensitive about to see as a safety issue if you were working elsewhere ... Really, it's going too far in the opposite direction, but that's intentional, the idea being to temper people's sensitivities so that when the constant pressure of all those reminders is eased, people don't revert to zero but remain set in the safety attitude. And it's stayed that way to this day."

[14] BHP – *Bezpieczenstwo i Higiena Pracy.* (Work Safety and Hygiene).

Polish Manager 3
(Opel Polska)

The process of quality transfer was not an entirely one-way process of imposing ideas onto the local environment. It was often described as mutual learning and sometimes a trial-and-error experience. Room for negotiation varied in different areas of the organisation and production process. It was well pictured by the English manager who described it as a 'formality continuum':

1) 20% of the things that came to Opel Polska were *non-negotiable*. They concerned the specification, quality requirements and legal considerations of the final product and came mainly from the Quality and Reliability HQ in ITDC in Germany. They are, for example: conformity of production (e.g. vehicle emissions levels), legal markings on some components (headlamps, glass), homologation (Vehicle Identification Number – VIN plates), weight of the vehicle and its fuel consumption. These strict, legal requirements have to be met otherwise it is illegal for Opel Polska to sell the vehicle as this type of vehicle. This information comes in the form of written documents, parts drawings and written instructions, which are translated and adopted in the plant through the quality department. This data is considered strictly confidential and any discussion of the examples of this part of quality transfer is very difficult and inevitably vague.

2) 80% of things were to a greater or lesser degree *negotiable* and they consisted of procedures and documentation of various elements of the system, and other employee and manager ideas. Some of the procedures and documentation from GMGMS[15] had to be adjusted to the local environment. It was done with the

[15] General Motors' Global Manufacturing System

cooperation of the Polish staff on all levels of the company. On the production level, it was for example Job Element Sheets written by group and team leaders. They started off with technical information supplied by the designers from Suzuki and General Motors. Then the local engineering group wrote the technical process and the technical quality standards. And from those two pieces of information, the group and team leaders wrote their own job instructions.

Another procedure created through the cooperation of Polish and foreign staff was the system of work wear. Some models and procedures were taken directly from Eisenach. Even the supplier of the clothes was the same. In this case, the creation of a system was fairly easy and could have been taken from Germany without many corrections. But convincing the Polish staff of the idea of identical work uniforms was another issue and initially created some tension.

"The first thing was the introduction of compulsory uniform overalls, particularly among office staff. Assembly workers quite liked the idea of uniforms, all similar and no need to take them home to launder; naturally, there were a few problems, fussing about what the shirt should look like and so on, but it was okay really. It was obvious enough: even in the old days, on a typical Polish shop floor one had always got one's standard issue of flannel shirts every six months. But it was really dramatic in the case of the office workers, and to this day, as I recall the incident, I feel sorry for the boss who had to handle the situation! Richard was the only man at the meeting: everyone else was female. I don't know, we have around a hundred or so women now, and at the time there must have been 60. The whole lot of them staked him out. I was sitting next to him and watched his blood pressure rising as he listened to a thousand different reasons why they shouldn't have to wear uniforms! But, to

his credit, he managed to cope. Having said that, it wasn't easy in some departments, and it took almost a year to get everyone into uniform. So I do feel it's been a triumph to get everyone to wear at least the uniform shirt."

Polish Manager 6

(Opel Polska)

A direct transfer of some models from other plants was supported, possibly thanks to the institution of a home plant. It enabled the Polish employees to learn the processes they had to implement in Poland. Often they would have to create their own procedures and documentation according to the local environment and their goals. This way of creating procedures was especially popular in the manufacturing area where each part of the production process had to be adjusted to the technical environment of Opel Polska and Polish law and culture. The procedures were revised and rewritten by individual managers and engineers until they reached a state allowing for the effective and efficient performance of the particular process.

The implementation of built-in quality in Opel Polska was not only based on the development of a system of effective procedures. Quality includes some non-technical skills related to perception and judgement. These are elements that are difficult to describe and are learnt by experience. The initial problems experienced by the Poles with regard to the judgement of quality were two-fold, and derived from their excessive avoidance of responsibility and their customer expectations. As mentioned before, the Polish customer has far more complex expectations than his Western counterpart. In addition, the status of Opel in Poland is relatively high; hence the Poles expect the Opel vehicle to be absolutely perfect. These expectations were additionally heightened by the intensive quality training the employees were subjected to. One of the most common mistakes among the Polish employees in the beginning was over-processing.

People would judge the quality of the product according to very high requirements, often above the acceptable standard. Achieving higher standard would involve higher cost and the repair of, for example, minor paint defects, entailed added repair cost and resulted in lower quality. This problem of setting unrealistic standards and overdoing work was gradually overcome with the help and constant control of the ISPs. They applied a hands-on style of management and closely cooperated with the Polish teams on the smallest problems they experienced. The support of the managers and constant feedback helped people learn how to make their own judgements of the quality. They gained enough experience to take the responsibility for their decisions; decisions they were initially very afraid to make. The quality of standardised work improved, and so did the Standardised Inspection Process.

> "Now people are very flexible when asked to accept an extra check or to accept an extra temporary containment or something that stops the defect coming, even on traditional work, because they realise the importance of actually stopping that defect getting into the car in the first place ... People do things that are more work for them; it's more difficult for them but they understand the importance of doing it."
> *English Manager 2*
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

Standardised work was an element of the built-in quality system, which was at times problematic to implement and therefore even more emphasised throughout the training. According to the GM manual, standardisation is applied to three main areas of organisational activity: the organisation of the workplace, standardised work and visual management. The most problematic element to apply in Poland turned out to be the first one – the organisation of the workplace according to a

standardised procedure[16]. This very systematic approach to working in all areas of an organisation was new to the Polish staff, who often admired some of their managers for their ability to plan and execute their work, being attentive to the smallest detail.

> "I'm particularly impressed by their [the ISP's] systematic approach to their job. That they really can think, react, divide and connect, analyse and partition, allocate work, collect results and come to conclusions, all in a deliberate and measured way. Sure, it reflects an enormously well developed training background; at the same time, those people really must believe in what they're doing, otherwise they couldn't possibly keep it up on a day-by-day basis. That's what we lacked in the old days."
> *Polish Manager 3*
> *(Opel Polska)*

The missing elements in the Polish workforce were planning, a systematic approach to work and self-discipline. Teaching people how to become systematic, plan their work and check every element of it was a factor throughout the training and involved continuous instruction from the supervisors. Many people remember it as something that was imposed with such force that the Polish often considered it an exaggeration and almost pedantic fixation. Others treated it as a form of punishment. This new, systematic and bureaucratic approach to work was adopted by the Polish workforce, and after it passed the test of time and proved to be an effective method that bought good results, was accepted by the Poles and is now considered to be the 'right way', as opposed to the old, chaotic ways of work. Mastering the process of planning ones' work and executing it according to certain procedures contributed to the rise in confidence of the Poles, and lowered their insecurities regarding taking the responsibility for their decisions.

[16] This procedure consists of five steps: selection, sorting, clearing, system and self-discipline.

Some institutions brought to Opel Polska by General Motors were more difficult to implement and the import of procedures and systems related to them had to be supported by an intensive indoctrination of the local staff. Polish attitudes to many aspects of organisational life were derived from industry in its traditional sense, dominated by large state-owned companies. The approach towards sickness and absenteeism was one of them. Traditionally in Poland, sick leave, called 'L4' (the symbol on the prescription from a doctor) was used not only for its legitimate reasons but also as an excuse to avoid work. The actual L4 was commonly bought from doctors or obtained through friends. Absenteeism, although quite high, was never a matter for disciplinary action. General Motors put a very strong emphasis on the promotion of presence at work and supported it with various motivational instruments. They created a custom of rewarding an employee for model attendance at work with a small gift. In the year 2000, it was an umbrella. Even though the actual value of the reward is very low, it has a very strong motivational impact related to an official recognition of the employee by his/her supervisor. In a traditional Polish industry, the subordinate–supervisor relationship was quite authoritative and personal recognition was very important as a possible means of increasing a person's position or pay.

People in Opel Polska were discouraged from taking sick leave for trivial reasons. Every person who had one or two sick absences in 12 months had to see his/her line supervisor and explain the reason(s) for it. After four (sometimes after three) L4's, corrective action was taken, for example, a letter or a rebuke. People were also encouraged[17], as described by HR personnel, to explain the reasons for their sick leave every time they took it. This aspect especially outraged the local

[17] Polish Manager 5 used the word 'encouraged', however, the practices described in the interview indicated that people were rather required to explain reasons for their sick leave.

employees, as according to Polish law, the reason for sick leave is confidential information one shares only with his/her GP.

> "For many people, it was just inconceivable that it was possible to collect sick absence records, what their illness was, and when they're due back; also that they're supposed to contact the sick person's boss, and that the sick employee had an obligation to report the illness within a fixed period. But they accepted it, and I get the feeling that the most important thing was that people realised the importance of being at work. If they don't turn up, we won't produce any cars, so nobody will buy them, so we may as well shut up shop and take a vacation. And they understand that. It seems to me that the most important thing is that they realised the importance of their role, how crucial it is in all of this."
> *Polish Manager 6*
> *(Opel Polska)*

As seen in this example, even though revealing the nature of illness causing sick leave, which is a strictly confidential matter between the employee and his/her GP, was against Polish law, General Motors supported certain practices in order to achieve company goals and to reinforce the culture according to GM values. The breaking of the local culture often happened under the coat of a request, or 'gentle persuasion', which was supposed to be for a person's own benefit (as in the case of learning English) but usually left them without a choice and became a compulsion.

There were also other problematic issues, which had different meanings in Poland than in England or Germany or were approached differently in these cultures.

"There was a problem with the canteen and the food. The foreigners couldn't understand why there could be no meat on Fridays. And we had to explain to them that Poland is a Catholic country, and we would rather not eat meat on Fridays. Of course there are exceptions, and some people do eat meat, but we can't have two menus, one with meat and the other without because then we would probably run out of the vegetarian one ... And it was obvious for us that there would be no meat on Fridays because in Poland we would rather not eat meat on Fridays. But for them it was a complete novelty and we had to convince them; eventually they got it."

Polish Manager 6

(Opel Polska)

The transfer of the objects, techniques and methods related to the Western idea of quality as something built-into the system was executed by the foreign (mainly English and German) managers who served as a medium for the ideas transferred in the form of physical objects. The process of translating these ideas took the form of copying some of them directly (from ITDC in Germany) or using them as a basis for recreating a particular process. This happened by way of mutual negotiation over meanings embedded in the objects and actions of both parties and resulted in the creation of an effective system of car manufacture, with the quality built-in it on Polish ground. The success of this idea translation was due to the *negotiation* between both parties *before* the creation of the ultimate norms and the *usefulness* of the values brought in by the ISPs for Polish employees. New values embedded in Western ideas proved to be *meaningful,* and rightfully replaced some of the old values in Polish car manufacture of the past.

"Opel Polska is almost a bit evangelical. Do you know what I mean when I say that? It's almost like a religion. You know, our

management team tends to be a fairly outgoing, passionate group of people that strongly believe in what they are trying to do. We have a lot of team and leadership-type activities, like something that will actually happen next weekend or the week after; it's something we call 'State of the Nation', which is where twice a year the plant manager addresses everybody in a plant, tells us how we are doing and our major measurables ... And it's tooling mechanisms like this that drive the culture of Opel Polska, which is really very strong. It's even stronger than, I feel, than in my old company - Nissan UK, which I would have said was another very strongly knitted together company."

English Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

4.5.6 Summary of part 4.5

The General Motors managers who arrived in Gliwice in order to set up the new Opel plant had their own picture of the residing ideas in Poland and the Polish car manufacturing industry. This picture was magnified by the difference between command and market economies, and the negative perception of Poland as a location that was not suitable for a new plant. These expectations resulted in a very strict selection process targeted entirely at young, inexperienced people who were willing to learn and accept the new ideas brought by General Motors, as the way in which cars were going to be produced. The selection of employees that fitted this profile was also enabled by a very high number of applicants and the high unemployment rate in the Silesia region.

The meeting of travelling ideas, such as the perception of Poland by the English managers and Western ideas of car manufacture, with the residing ideas brought to the plant by the new Polish employees, resulted in a large amount of friction energy. On one hand, there was very intensive training targeted at teaching the Polish staff the General Motors' way of producing cars according to the system of built-in quality, and on the other, there was

the eagerness of the Poles to learn from their foreign supervisors. The training involved acquiring some explicit knowledge, such as standardised work and the English language, which would enable the employees to carry out their daily duties, and the implicit knowledge necessary to make judgements related to quality. The managers themselves who adopted a hands-on management style in the plant carefully supervised the workforce. The implementation of these new ideas was carried out on various levels of the organisation and included many rituals, which created and maintained the GM family ethos in Opel Polska and created a strong organisational culture.

The meeting of travelling ideas brought to the Vauxhall Luton plant with ideas in residence resulted in less friction energy being produced. The intensity of the training was much lower than in Gliwice. Perhaps the management team overestimated the willingness of the plant employees to learn the new ways of car manufacture according to the system of built-in quality. As the plant had been successful for almost a decade, the perceived need for change was very low among the workforce; the new ideas did not provide a good alternative to those in operation. These two factors, namely a higher expectation of the management from Vauxhall employees and a perceived lack of urgency for change among the workforce, led to very little friction energy and low intensity training. The new concepts brought by General Motors to Luton had never been creatively translated and led to the system based on the old notion of quality, as had previously existed in the plant.

4.6 Creative translations

The meeting of travelling ideas with ideas in residence makes creative translations possible through the production of friction energy. This section describes the results of travelling concepts encountering those in residence, and presents the ideas that were successfully and creatively translated.

4.6.1 Translations of quality in the Vauxhall Luton and Opel Polska plants

The institutionalisation of the concept of quality in the Vauxhall Luton and Opel Polska plants, despite being implemented by the same team of General Motors managers trained in Japan, led to a development of two distinct and contrasting systems. Regardless of the same lean manufacturing philosophy, underlying the production system were systems in which high quality end products were achieved by contrary means between the two plants.

In the past, quality was built into the system used in the West, while it was a motivational factor in the individual under the command economy. In Poland, quality was a matter of personal initiative and choice. However, after the changes of the new ideas of quality were brought to Poland from the West, quality became an inevitable part of the system, built into working procedures. Now in Poland in Gliwice, the emphasis is on getting quality right as part of the process, whereas in England, the quality is confirmed at the end of it. These two systems represent a striking contrast, where in Opel Polska quality work has become irrespective of people's initiative or motivation. In Vauxhall Luton, on the other hand, quality work is not an inevitable result of the system. In Poland, the internal customer ensures quality of the product at each stage of the process, while in England this job is done entirely in the audit area.

This difference is a result of the different institutionalisation protocols used to introduce the concept of built-in quality within the two locations, which failed in England and led to a development of a system that in fact is a contradiction of built-in quality. It depends upon the containment of defects, which are already present, and the negation of potential defects, which might happen in the future. Thus, the actions in Vauxhall are predominantly restricted to rectification rather than prevention.

The objects related to the concept of quality in these plants also vary. The so-called 'enabler of quality' or 'Andon' facility is the main difference. Opel

Polska was built with Andon facilities from the beginning, whereas Vauxhall was trying to introduce the system along with its facilities when the plant was already fully developed and in operation. Therefore, the situation of a worker who discovers a defect is totally different in Vauxhall than it is in Opel Polska. Not having the facility to send a faulty vehicle to an Andon station, the defect in Vauxhall is passed to the end of the process where it should be picked up by inspectors. It is a very dangerous system as it means defects are constantly built in, and in case of serious faults, it can result in putting the whole of production on hold. The Andon facilities were to be installed in Vauxhall by the end of 2001, but due to the plant's closure, this project was abandoned.

> "...and I think that message of built-in quality and our focus on product quality is very, very strong at Opel Polska, and it's very common because everybody has been through this induction period ... It's strong because it's the only way people have ever known, and it's supported by systems and procedures as physical as our Andon system."
> *English Manager 4*
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

Quality of workmanship is one aspect that distinguishes these two plants. Whereas people in Poland are praised for the quality of their workmanship, and do religiously what they are supposed to do, Vauxhall often failed to get its employees to perform standardised work or job rotations. The lack of cohesion within the workforce handicapped the previously institutionalised built-in quality at the Vauxhall Luton plant. On top of the cultural differences between people coming from different backgrounds, there was a lack of team spirit so strongly implemented in Opel Polska. In Vauxhall, people were split into groups according to their departments and often refused to cooperate together. This created a lot of antagonism inside the plant as the different shops often blamed each

other for faults found during audits, or tried to push problems out of their shop and pass it onto other groups. This is clearly contradictory in terms of actions related to the principle of built-in quality. The company goal dispersed into often contradictory departmental goals, which had been recognised as a major problem of the plant. Intensive training and the program of cultural change brought some results and improved the teamwork at the Vauxhall plant, but never reached a level satisfactory to its managers.

According to the General Motors philosophy, built-in quality is about people having the right attitude. The training emphasises the importance of the role of each team member and their influence on quality. This seemed to be welcomed by people in Opel Polska as well as by their managers, who often emphasised how glad they were that people understood their importance to the organisation. In Opel Polska, the employees considered General Motors to be a caring company. The company's 'care' is incorporated into its values, such as safety. The perception of Vauxhall as a caring company was also present in England for dozens of years, but it was shattered in December 2000 and turned into the opposite attitude after the company announced its closure. Nevertheless, many of the employees admitted that they always thought of Vauxhall as the company that cared for its employees.

The techniques related to creating positive attitudes among the workforce, such as teamwork ethos and empowerment through Kaizen, were very well received in Opel Polska. Common canteens, open plan offices and social events all stimulated a team-working spirit. The socialising events such as 'State of the Nation' or 'Family weekend' are some of the most important events in the plant calendar. They create the culture of a 'GM family', and create the opportunity for employees to involve their families in their working lives. Here, the company not only maintains the organisational culture, but also increases the quality of the working life of

its employees. These events were absent in the Vauxhall Luton plant, and the only social facility provided for them by the employer was the Vauxhall sports centre.

Remuneration systems and performance related pay were a novelty in Gliwice, and after an initial period of friction during its implementation, it led to very good effects.

> "I think that perhaps in the past in Poland the level of individual responsibility was very low. People didn't see a relationship between their performance and the company's performance. And very importantly, they didn't see the link between the success of the company or the business and their own, individual success. And one of the things we tried to do was to link those two things, through, for example, remuneration, linking the success of the business against certain targets to remuneration for employees as a group but also for each individual."
> *English Manager 8*
> *(Toyota UK, Vauxhall Luton, Opel Polska)*

Combined with the principle of Kaizen, the performance related pay achieved what seemed to be impossible in Poland for centuries: it created a culture of involvement and initiative channelled in a highly organised manner. Poles, known for their chaotic attitude to work and poor organisation, learnt to perform in a self-disciplined and systematic way. This trait was often rejected in the past as too boring and deprived individuals of flair; hence it was perceived as being good 'only for Germans'. Surprisingly, the Brits were able to instil this skill into the Poles who were not prepared to learn it from their Western neighbours. The key to success in this transformation of attitude lies perhaps in a clever combination of discipline and organisation, with room for inventiveness – Kaizen. Poles, like most other nations, like to be creative and feel they can

express their ideas. Kaizen, a new idea that travelled to Poland from very far away, empowered the Poles to shape their work and give it a 'personal touch' in a creative but organised manner. Combined with the financial incentive, Kaizen provided the most successful technique to subjugate the Polish work ethic of 'fantasy' and lack of self-discipline. General Motors, on the other hand, benefited from an involved workforce and increased levels of quality, stemming from continuous improvement.

Although both the objects and techniques in the system of ensuring good quality workmanship were almost the same in both plants (with the exception of Andon), the actions related to them were different. In Poland, the concepts related to built-in quality have been fully institutionalised and are never questioned by the workforce. In England, however, they were rejected and never fully institutionalised; instead, they led to a contrasting system based on fault rectification. The institutionalisation of the concept of built-in quality, despite its failure in England, was creatively translated and adopted in Poland with the help of the same management team that attempted to achieve this result at Vauxhall's Luton plant.

4.6.2 The blossoming of Opel Polska

It took only three years for Opel Polska to become a fully developed mature car plant. The English managers call it 'the best plant GM have got', a benchmark for Europe, and the Poles say:

> "We laugh here, at the fact that it is a constant round of stunning successes. It is a bit ironic but if you look at it, this is how it is."
> *Polish Manager 7*
> *(Opel Polska)*

The changes that Opel Polska has gone through since 1998 are enormous - from a green field to the leading General Motors' car manufacturer in Europe. The workforce employed in Opel Polska was relatively young and

inexperienced, with unrealistic expectations for their future work in car manufacture with General Motors.

> "These people may have excessive expectations of the company. Their parents' generation looked on the General Motors or Opel brand as an impossible dream, a magical token of life elsewhere; and now this dream has been realised here, and people still have these excessive expectations of what this firm, in all its imagined opulence, can do for them."
> *Polish Manager 7*
> *(Opel Polska)*

The dream of Japanese automation seen on TV was replaced by the reality of hard manual machine-paced production. People learned that the work of producing cars is harder and more complex than they expected. They became disillusioned about the miracle success of large organisations like General Motors and found out what really lies behind that big name.

> "During my visit to the Japanese factory, I noticed one thing; that robots and machines alone don't produce this car. It's unfeasible - even if they had the maintenance department on I don't know what level because the paint shop is such a specific department. I would describe it thus; it's the paint shop that puts the soul into a car. I mean the soul of this car is its look and the way it's protected from corrosion. I say that the press shop makes the body of this car, we put the soul and the heart, which is the motor, and the general assembly department puts in the installations. But to put the soul in you have to be an artist. The people working here might not be doing it very fast, but they need to have manual skills. I've noticed there that the work of the painter on the line is not easy. It's not a job with clean hands like I have here. It's work he does wearing a

mask, something is constantly dripping on him or spraying him. It's not a job where you could put anybody and he could simply paint the car. He needs to work for one year on the production line to become a good painter and he will still be making mistakes. And I've noticed that these people are a kind of artist, in that they can apply this sign nicely. If you took this airbrush and applied it with something else, you would make this car macabre! You would have to wipe it off, correct it and it would look horrible. So what is taken for granted in this car, is that it is nicely painted, all isolations are nicely applied, the parts assembled, it's all quite complicated and uses mainly manual skills."

Polish Manager 1

(Opel Polska)

From initially being inexperienced, young people became well-trained, skilled professionals. During the initial few years of the Opel Polska operation, there was no first line management, only first line supervision by 'ex-pat' managers, which created a deliberate gap in the management structure. The creation of this gap enabled the best people from the local teams to be promoted to fill in these positions. Those who were promoted were high calibre people with excellent communication skills who replaced many ISPs who had left Opel Polska. This change in the structure lowers costs for the plant, and those ISPs who have stayed have taken up roles as coaches to their Polish colleagues.

"It no longer needs to be an ISP company. Now it needs to be a Polish company. And I can already see that this change has already started to happen; even when I look at things like the socialisation of the management team. It used to be very much about the ISP group - even jokes amongst the ISPs were about the early days. Now, during social parties or social events or whatever there are more Polish people as opposed to no Polish people. So

the stories are different, the jokes are different and, how can I say it? It's a trivial example in a way but I can give you a more important example. The daily production meeting is a very important meeting ... Now that meeting used to be all ISPs and it used to be very humorous, ISPs taking the mickey out of each other and this sort of thing. I mean it's a very serious meeting as well but it was run by ISPs for ISPs. Now the vast majority of people in that meeting are locals. I mean it's still done in English but one day that meeting will be in Polish. The day that meeting is in Polish will be, how can I say it, a big kind of cultural milestone for the company. Because it will finally ratify Opel Polska as being a Polish company run by Polish people. And actually, all that you will eventually have, maybe it will take another five years, but eventually, there will only be two or three positions like plant director, maybe manufacturing director and finance director. Eventually, those will be the only, how can I say, non-local positions. Just like they are in IBC. Just like they are in Vauxhall. They will always be ISPs in Opel Polska because there are ISPs everywhere, you know, specific skills gaps or to identify them, other people are brought in. So what I want for Opel Polska now is that as fast as possible it becomes a company run by the local people and that the ISPs take a side role, which is guidance and coaching, rather than directing and managing."

English Manager 4

(Nissan UK, Vauxhall Luton, Opel Polska)

The development of local employees is enormous. From car manufacturing novices, they became equal partners to their managers from Germany and England. They became as skilful as professionals but also changed their approach and mentality.

The structure of Opel Polska has become very stable. It appears that there will be no dramatic changes in the future. The infrastructure and

manufacturing processes have reached their final shape, which will have to be maintained and possibly improved in the future, but with its major features, including the organisational structure remaining the same. The most talented and ambitious people have been promoted and there seems to be no room in the organisation for further changes. The profile of Opel Polska reached the level of the company's initial expectations. This creates a new challenge: to maintain the motivation levels and enthusiasm of the employees who have no chance of further promotion.

> "So one might say that many people are doomed to the job they are currently doing. And because of this, the initial enthusiasm that most of these people have had died out ... There are no such ambitious, interesting tasks here anymore as there once was. This is an average production toil and the people are tired because it's hard to have any other hobbies when you're working in top gear ... And we are reaching the stage that I saw in Luton;. the stage which one could describe as 'you do your job and go home'. It wasn't here for a long time, and it's beginning to appear only now."
> *Polish Manager 1*
> *(Opel Polska)*

The managers are aware that they may lose many employees due to the lack of prospects for their future development. People describe the atmosphere in Opel Polska as challenging, and this has become a reason many people have left the company to look for quieter and less stressful jobs. Headhunters search for Opel Polska employees, so despite high unemployment, they have greater chances of changing their jobs than other locals in the area. Management is aware of these issues and intends to keep motivation levels high by creating new challenges, such as new targets, or the introduction and mastering of new processes. But some consider this insufficient and criticise management for underestimating the issues that might lead to people leaving the plant.

"There is a climate beginning to form that these people, who gained a lot of knowledge and experience, got these standards and are now ready to fly away like the birds from the nest. And we have to create conditions now so that they will love this nest as much as they loved it before they could fly."

Polish Manager 3

(Opel Polska)

4.6.3 Summary of part 4.6

The meeting of ideas-in-transit brought to Gliwice by General Motors with ideas already present led to the creative translation of the concept of built-in quality. The residing ideas of the Polish car manufacturing industry in the past, and the negative connotations of a centrally-governed economy, juxtaposed with the willingness to learn, national ambition and inventiveness of the Polish staff, led to a huge change amongst Polish employees. High intensity training, and the energy brought to the plant by both local and foreign parties, enabled a creative translation of the notion of quality. As a result, the plant created a system where the travelling idea of built-in quality has been fully institutionalised.

This process failed at the Vauxhall Luton plant, where the notion of quality as something built into the process had been abandoned and a system with opposite effects created instead. The institutionalisation chain of the notion of quality at Vauxhall Luton stems from the idea of quality as related to audit and repair of occurring defects. It is a contradictory concept to the notion of built-in quality but despite the awareness of its meaning among the Vauxhall staff, the notion of quality assured by audit and repair rather than prevention was chosen and adopted in the plant.

4.7 Further translation waves

The activity of Opel Polska had a strong impact, not only on its employees, but also on its environment, which includes the town of Gliwice and other

parties closely cooperating with the plant, like its suppliers. This impact, which can be defined as further translation waves, is briefly outlined in the following section.

> "When I came here four years ago [in 1996], I could name every restaurant in Gliwice. I know the history in the chronological order because there was really nothing. And this Tesco's that has just opened here; to have supermarkets whereas at the beginning there was just '*Chleb prosze*'[18]."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

For all ISPs who came to Poland in the second half of the 1990s, simple every day activities like buying food were challenges, due to a lack of Polish language skills. The introduction of supermarkets came as a relief for those who didn't learn the language. Gliwice also developed socially. There are many new restaurants and newly opened pubs. The city's old town has been renovated as well as many of its other buildings. To say that this was entirely due to the influence of Opel Polska would be conceit and exaggeration, but the plant has always strongly participated in the local development, which was appreciated by the Mayor of Gliwice who awarded the director of Opel Polska for the plant's contribution to Gliwice's development.

Opel Polska is not a typical Polish factory. The introduction of Western concepts and ideas related to the system of car manufacture, with quality built-in, resulted in the creation of a highly distinctive plant that achieves outstanding results not only in Poland, but also on the European level. There is a stark contrast between the ways in which Opel Polska operates in comparison with other local companies.

[18] *Chleb prosze* (Pol.) – Bread please.

"We all work here in a mode where everybody is directed to the high quality of his or her work. Then you go somewhere and you meet some 'Miss' at the post office counter who is eating while telling you to wait. It still happens sometimes. And it's especially offensive because it's such a stark contrast. You spend five days a week here in a world like this, sometimes you also come at weekends, but there are less and less museums of old times. It is disappearing, and companies like Opel contributed to this, to the creation of such a high quality in every respect."

Polish Manager 7

(Opel Polska)

Opel Polska has its suppliers scattered across almost all of Europe, but many come from the local area, for example, sheet metal supplier 'WAP' in Tychy (40km away). The politics of Opel Polska, with its external suppliers, is very aggressive and there is zero tolerance for those who do not conform to the high General Motors quality requirements. This often leads to long negotiations and explanations, but is absolutely necessary in order to protect the plant's quality. If a problem emerges due to a GM supplier, the weight of it is often transferred to ITDC where a solution is sought. In other cases, external suppliers of both Opel Polska and its primary supplier(s), have to take part in the identification of the root cause.

In order to prevent faults coming from suppliers, Opel Polska tries to force them to follow certain procedures developed in the plant. There are certain reports, tables and analyses the supplier has to complete. Opel Polska also does the inspection of the process of data gathering at the supplier base, which is described as a Preventative Maintenance Task and belongs to the Opel Polska toolset of ensuring high quality on the part of its suppliers.

"This is nothing else but something like subjugating a herd of mustangs that only look for a way to sneak out. If I see that it goes to this corner I need to strengthen this corner and open this path so it will go somewhere else ... it is a kind of subjugation. For them, it is not something they've learnt from inside, which is in their company and they just want to do it here. It is something that we force them to learn in their companies."

Polish Manager 3

(Opel Polska)

By training the suppliers in a similar way to how Opel Polska employees were trained, the impact of the plant went into a wider environment. They imposed the objects from General Motors' system upon its environment and, in doing so, forwarded the chain of the idea of quality developed in the plant. By persistent repetition of the quality objects and executing actions related to them, Opel Polska influenced parts of its environment, which were ready to accept these ways of achieving quality. The institutionalisation of the idea of quality spread to these subsequent parties and Opel Polska was one of the sources constantly stimulating this process.

4.7.1 Summary of part 4.7

Successful translation of the concept of built-in quality in Opel Polska had an impact not only on the staff employed in the plant, but also upon its external customers. According to the philosophy of built-in quality, every customer, external and internal, is important and responsible for ensuring the high quality of the final product and customer satisfaction. Hence the customer-supplier chain becomes the focus of the system. This philosophy exercised by Opel Polska had an impact on local suppliers who, foreign to this notion of quality, became an important part of the quality chain. If they are willing to remain a part of it, they need to learn these new ideas from Opel Polska and implement them in their work philosophy. In this way, the

creative translation that took place between England and Poland resulted in further translation waves affecting the local environment of Gliwice.

4.8 Japanese and German influences in Opel Polska

This section will examine the processes involved in the translation of the idea of quality in Poland, according to the model of 'Travel of Ideas' by Czarniawska and Joerges (1996). The Western idea of quality went through a long and complex evolution until it reached the state in which it arrived in Poland. There were two predominant influences that affected the development of the idea of quality in Opel Polska in Poland: the Japanese and the German influence.

The Japanese influence is clearly visible in the philosophy brought by English managers. All of them, except English Manager 6, were ex-Japanese managers trained at Toyota or Nissan with work experience from Japan.

> "These plants [in the UK], which in themselves were started up only 15 years ago, and many of these people [English ISPs] went through that start up experience. And we talked about the Japanese, who were effectively ISPs from there. They've been through the start up experience as the local employees, have learnt what the Japanese have taught them, which was interesting because then we were bringing it to Poland and teaching the local Polish workforce, what we 10 or 20 years ago had been taught by the Japanese. So in a way it's been a very strong filter."
> *English Manager 4*
> *(Nissan UK, Vauxhall Luton, Opel Polska)*

English managers applied Japanese philosophy in the process of creating the culture of Opel Polska, by bringing in ideas, rules and objects derived form it, like the emphasis on informal structure, good communication across hierarchal levels, remuneration systems, equality of employees and

objects related to this principle, like calling everyone by his/her name, common canteens for managers and shop floor employees, a hands-on managerial style, and encouraging innovation and creativity by instruments such as Kaizen. The Japanese influence is also present in the close cooperation between Opel Polska and Suzuki with the production of the Agila car, built by licence from the Japanese.

This influence on quality management and its integration within business strategy and human resource development could be summarised as a 'soft quality', a concept that was brought to Poland from Japan via England. This philosophy with a people focus and mutual respect ethos was well adopted in Poland and is often mentioned as an Opel Polska characteristic, making the plant unique and better than other companies in the area of Gliwice or other Polish car manufacturers from the past.

The experience of learning Japanese management methods by European managers who went to Japan were described by them as being an 'enlightening experience', or 'the way we should be doing things' (English Manager 1). Having had experience of the traditional British car industry, they went through the same process the Poles went through later when visiting the West, and tried to bring their methods to Poland. But English people had the organisational platform to bring their ideas from Japan, which Polish individuals did not have prior to 1990.

The idea of lean car manufacture and built-in quality travelled from Japan to the UK, Germany and other Western countries.

> "When I went to Japan, I didn't find anything different about it, the process of building a car ... What I did find though was the huge differences in the way they manage their people. How they were organised, how they brought teams together, how they got empowerment into the people on the shop floor. That was the

> biggest culture shock I went through ... I firmly believe that if you treat people with respect, if you train them properly and you clearly tell them what you're trying to achieve, they will do it. And where this business has gone wrong in the past is where management has not stepped out to clearly set objectives, clearly explained what is expected, and management not knowing what's going on in their plant ... We need to listen to them and take to account their opinion, which traditionally in a lot of the older industries, you know, they're just workers, we don't need to talk to them, which is crazy."
> *English Manager 1*
> *(Nissan UK, GME, Opel Polska)*

This philosophy and its ideas were brought to Poland in the form of objects and the English managers served as a medium for transfer, teaching people the actions associated with them and applying these ideas as they understood them. Hence, the Poles often say that the English came to Poland with a 'vision', which the Polish staff tried to implement as best they could.

The objects brought by the English representing the Japanese influence were in the form of manuals, scripts, procedures and technology, such as Andon or Kaizen stations. Their adaptation led to the effective institutionalisation of the concept of built-in quality in Poland. The chain of the institutionalisation process of the idea of built-in quality is shown in Figure 3.

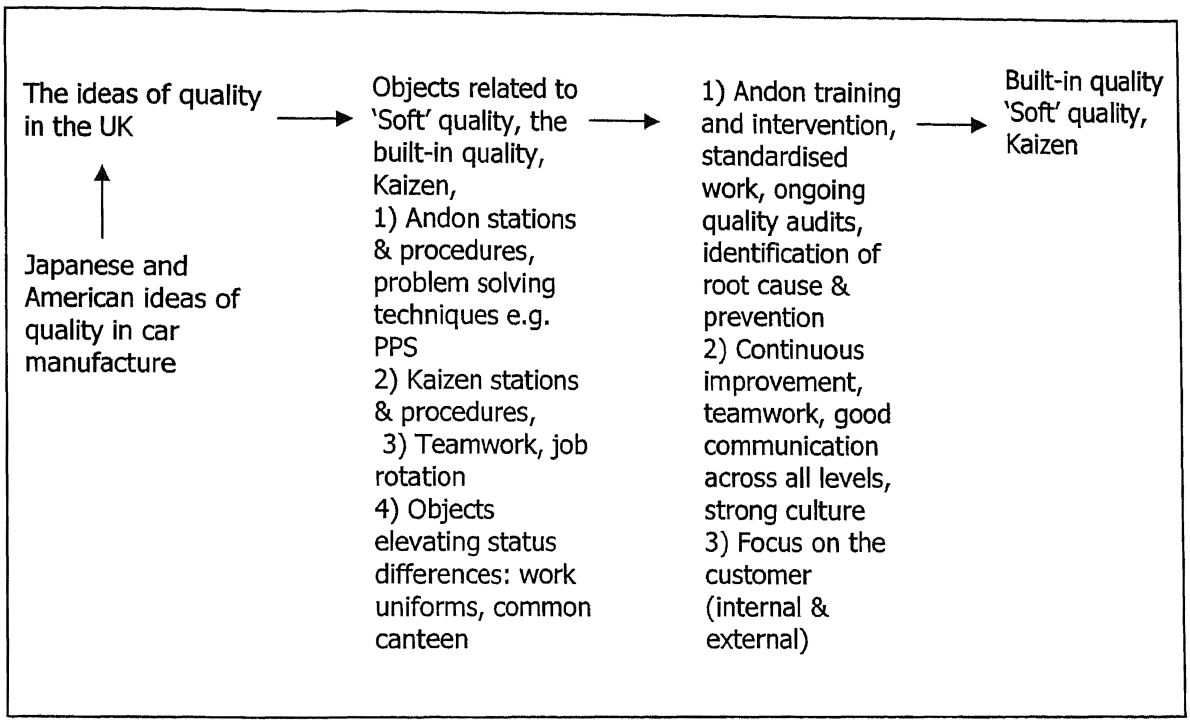

Figure 3 Quality translation chain – Japanese influence.

The German influence could be described as a 'hard' influence as opposed to the 'soft' Japanese influence. It was introduced by the German engineers, who had a strong impact on the technical aspects of the plant. The divide between the Japanese and the German influence is clear in Opel Polska's organisational structure, where the Germans occupied managerial positions in quality departments and engineering related positions, while the English occupied HR and manufacturing management posts.

All quality standards, technical requirements and car specifications were developed by ITDC – International Technical Development Centre, in Russelsheim in Germany, which also allocates the car models for each plant. Agila specifications were developed by cooperation between ITDC and Suzuki, as it was produced on a Japanese licence.

German engineers present in a plant supervise the conformance to specifications and in case of any deviations or problems, consult the

engineers in ITDC who will advise on an appropriate solution. The German plant in Eisenach also serves Opel Polska as a home plant, where people from the Polish plant are trained in the application of lean manufacturing principles in practice. The German influence is pictured in Figure 4, which shows the translation chain of the idea of quality between Germany and Poland.

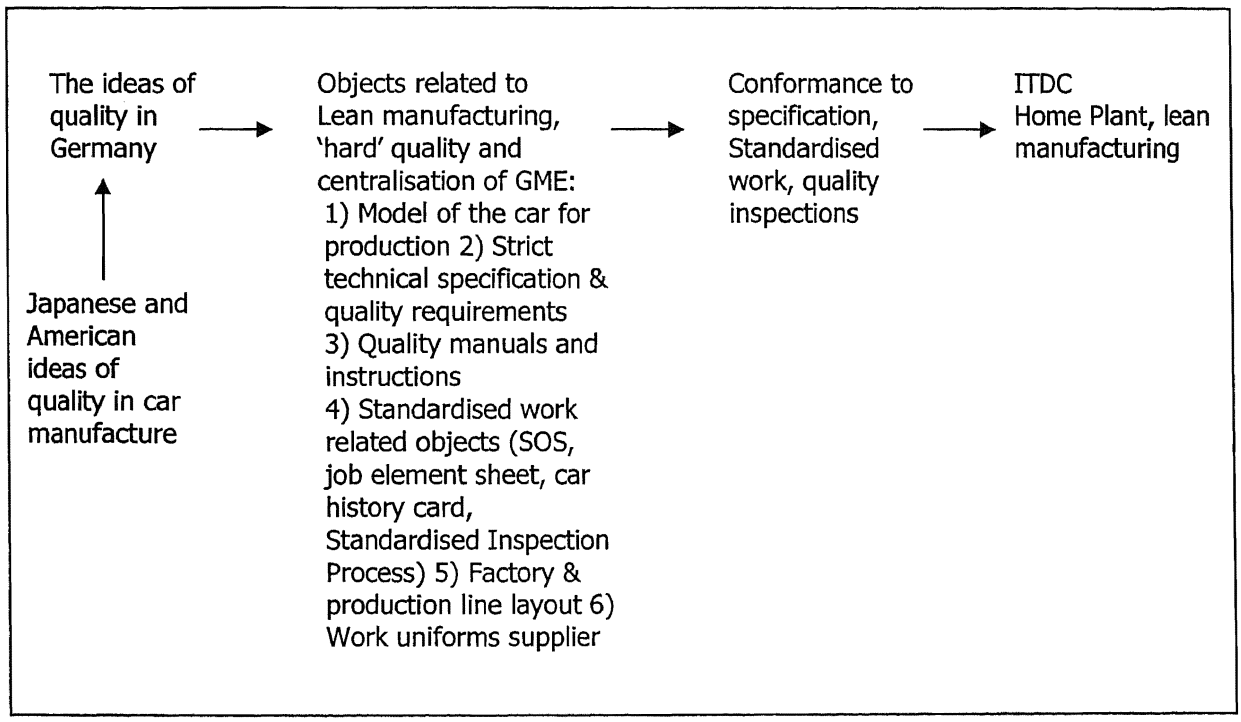

Figure 4 Quality translation chain – German influence.

There is a clear distinction between these two influences in Opel Polska. Whereas the Japanese influence had an impact on the *quality of the system* and 'soft' aspects of quality, the Germans influenced the *quality of the final product* and its 'hard' elements, such as technical specification. Even though these two effects seem to be very different and their places in the organisation were not interchangeable, they worked well together and gave a unique blend of approaches in Opel Polska, which resulted in a mixed approach to quality.

4.9 Chapter summary

The idea of quality that has travelled to the Opel Polska plant has gone through a translation process between Poland and Western Europe. Travelling ideas brought to Gliwice by General Motors were mainly related to the corporate philosophy and the Japanese concept of built-in quality. The concept of the GM Family created a basis for incorporating a strong organisational culture where loyalty and pride in the company were very important values. The concept of the GM Family serves an important function in the GM world, as General Motors is involved in frequent knowledge transfer between its international plants. In order to make this transfer more effective, the emphasis is placed on the global organisation of General Motors rather than on individual plants. The company's culture is equipped with mechanisms and techniques for maintaining this global organisational ethos. These techniques involve organisational rituals, such as the 'State of the Nation' ceremony and specific methods, such as the standardisation of the layout and operations in every General Motors plant, the institution of the home plant, the centralisation of decision-making and the institution of International Service Personnel who serve as a medium for travelling ideas.

The travelling concept of quality in General Motors is based on the Japanese philosophy of lean manufacturing and the notion of the quality as something built into the system. The concept of quality consists of three main interdependent elements:

1) The quality of the final product – it comes in the form of *customer expectations*. The expectations are grouped in technical, measurable specifications and non-measurable factors related to a customer's judgement or perception. This part reflects the 'hard' aspects of quality that are strongly influenced by the Germans.
2) The quality of the system – based on the notion of built-in quality where the emphasis is placed on taking care of *the customer, external and internal*, and ensuring s/he receives a product or service of the highest quality. This rule applies to every operation

performed within the plant, and between its suppliers and dealers. By focusing on the customer, the emphasis is placed on the detection of potential defects and rectification of those that have already occurred (by tracing the root cause). There are several techniques that support defect *prevention*: automation, resistance to fault, Andon and people. The first three are related to 'hard' aspects of quality whereas the latter one reflects the 'soft' part of the quality system. The translation chain of the built-in quality originated in Japan and has been creatively translated to Poland despite its failure in England.

3) The quality of workmanship – the 'soft' part of quality, it is ensured by the introduction of methods such as gemba, empowerment through Kaizen, performance related pay, promotion and teamwork. The Japanese influenced this part of the quality chain.

All three elements are based on the notion of the customer being the main focus of all operations; therefore, quality is also part of a wider service offered to clients in post-sales service by external parties. This aspect is called external quality and comes in the form of a wider package of *post-transaction experiences*. In order to ensure the high quality delivered by external parties, General Motors puts a strong emphasis on its relationship with the suppliers and dealers, and by imposing high-quality standards upon these relationships the translation of the concept of quality reaches further into the plant's environment.

When the travelling concepts related to the notion of quality arrived in two new locations, Luton and Gliwice, they met the ideas in residence, which determined the process of the translation of the travelling ideas. The ideas in residence in Luton, England, were shaped by 75 years of successful operation at Vauxhall Luton, and of English car manufacture in general. As the residing ideas proved to be prosperous in the past, new ideas that

arrived in this location with General Motors appeared to be valueless alternatives, which led to the failure of their institutionalisation in the UK.

The centralised decision-making style of General Motors was also perceived as the loss of autonomy, despite previous acceptance of a very autocratic management style from the English managers. The plant suffered from a passive workforce who did not believe in their influence upon the plant. The Vauxhall employees' perception of their work was tremendously different from that of the Opel Polska staff. In Poland people were grateful for having a job, not to mention at such a famous company as General Motors but in England where unemployment was not an issue, people perceived their job as a means for improving their quality of life. The quality of their work was less important to them, and consequently, employee involvement was lower too.

The ideas that resided in Poland when General Motors arrived in Gliwice were the opposite of those in England. The idea of quality in Polish car manufacture, even though it existed in the past, was never fully institutionalised. There were no clear, formally defined objects and institutions associated with this. No training manuals or procedures showing how to bring quality, no remuneration systems incorporating an element of payment by quality results or no well-defined ways of monitoring and inspecting quality had been developed. The formal requirement for achieving quality was suppressed by overwhelming customer demand and attempts to boost volume; therefore, quality became a matter of personal ambition and morality.

The customer expectations in Poland and England also differed. While status issues matter to some degree, the customer in England was mostly concerned with the characteristics of the car related to mobility, hence functional, technical aspects were most important. In Poland, the car was perceived much more as a representation of the personal status aside

from a means of commuting, thus the Polish customer took into consideration a wider range of vehicle characteristics and additional functions were more important. The Polish customer was more concerned with a wide range of car specifications, but they were mainly related to quality as a judgement. The English customer, although concerned with a smaller range of characteristics, was more demanding with regards to those s/he perceived important – hard, technical and measurable specifications.

The meeting of ideas in residence with travelling concepts brought to both locations by General Motors produced the friction energy necessary for creative translations to take place. The meeting of these ideas in Poland resulted in large amounts of friction energy, and it first occurred at the recruitment process. The emphasis during employee selection was placed on the quality of the people who would create the basis of Opel Polska. Thus, quality came in the form of personal initiative, ambition, drive for development, change and learning. The English language became another factor in determining a candidate's match to the GM world. Further on, intensive training was designed in order to supply the candidates with the knowledge necessary to carry out their duties. Technical training was combined with on-site learning supported by the use of the allocation of a home plant. The process of furnishing a new culture in Opel Polska implemented values such as safety, lean manufacturing, teamwork, self-discipline, a systematic approach to work and personal responsibility.

The training adopted at the Vauxhall Luton plant was less intensive and was targeted at amending current ways and notions of car manufacture, rather than changing them fundamentally. The success rate of the training, and the programme of implementing change in Vauxhall were very low and did not lead to creative translations. The concept of built-in quality was resisted in the plant and a system based on fault rectification, audit and repair developed instead. This system is a continuation of the old

approach to quality that resided in the plant before General Motors' arrival and it represents a contradiction in the built-in quality philosophy.

The ideas in residence in Poland led to diffusion and a creative translation of the concepts as they travelled. The ideas residing in England resisted translation and resulted in institutions derived from the concepts in residence. The process of translation in Opel Polska proved to be creative and led to the full institutionalisation of the concept of built-in quality as defined by General Motors. The centralisation of decision-making was accepted by the staff and perceived by them as relatively loose and enabled them sufficient degrees of freedom. Standardisation and other organisational rituals were hardly ever questioned and were welcomed as a refreshing novelty. Many of these ideas were new in Poland and were received by the local staff as a factor in making them members of the GM world. This willingness to belong to this organisation was further enhanced by the strong sense of ownership the Poles gained from their participation in building the plant, and also in their national ambition to succeed within the global car manufacturing arena. This success symbolises the Polish transformation from a centrally planned, to a market economy – from the membership of the Eastern block to the membership of Western Europe.

The translations of the above concepts at the Vauxhall Luton plant were tremendously different. The centralisation of decision-making, which arrived in the English plant along with General Motors, was perceived as the loss of the plant's autonomy. It was regretted as something limiting the plant's potential and freedom. Standardisation of work was refused on several occasions and the rituals maintained the GM Family ethos was absent. The plant maintained strong identity as the Vauxhall plant, essentially the English plant, which had been there for almost a decade, and the need to become a member of the GM Family was non-existent.

4.10 Issues calling for investigation

The picture of the quality chain translated between England and Poland revealed some similarities as well as differences in the institutionalisation of the concept of quality in these two locations. The Repertory Grid study was conducted as a means of identifying and understanding the similarities and differences in the construction of some of the events and processes described in the ethnography. The Repertory Grid interviews enabled an in-depth investigation of how the participants construed these changes. As the basic unit of analysis in the Repertory Grid is the construct, it lends itself to a study of contrasts. Therefore, we are able to investigate what different constructs are used by the UK and Polish managers or whether they use the same constructs but focus on different ends. That will then provide a basis for the investigation of the following issues.

Similarities in the construction and implementation of quality at the Vauxhall Luton plant and Opel Polska:

1) Is there a homogenous picture in the construction of quality among the employees in these two plants? The Repertory Grid Technique provides a useful tool for eliciting tacit knowledge. The interviewees are able to identify in explicit terms the concept of quality that might otherwise have remained a vague notion. This will be especially useful in identifying the 'soft' aspects of quality.
2) Is the combination of two approaches to quality, for example, 'soft' and 'hard' elements of quality, equally adopted in Gliwice and Luton?
3) Are there any elements in the construction of quality revealed in the Repertory Grid study that did not emerge in the ethnography? The Repertory Grid technique is especially useful for exploring issues that might not have come out previously, as it provides the respondents' repertoire of constructs related to the notion of quality,

which might have been used only partially during the ethnographic interviews.

Differences in the construction and implementation of quality between the Vauxhall Luton plant and Opel Polska:

4) As the quality control systems developed at the Vauxhall Luton plant and Opel Polska represent two contradictory approaches, the construction of quality in these two plants should reflect this difference. According to the motto of built-in quality present in Opel Polska, quality should be construed as related to defect prevention and a focus on the actual system and the customer within the system. The construction of quality in the English plant should reflect the opposite approach and emphasise audit and repair of the faults, which have already occurred at the end of the process, rather than tracing the root cause, and the focus remains on the final product rather than the whole system.
5) Due to the focus being on the final product at Vauxhall, the faults are contained at the final audit and are deliberately passed on to this stage. This approach creates a situation where the judgement of the seriousness of the fault becomes crucial for the functioning of the whole process. Hence, the risk of stopping the production line in the UK is higher than in Poland. Operating in high-risk situations where defects are constantly being produced shifts the construction of quality onto assessment of defects and their potential for stopping the production process. Therefore, we need to investigate how the creation of a high-risk quality control system and the focus on the final product influences the construction of quality at the Vauxhall plant. Is quality a matter of judgement on the seriousness of the defect? Does it create a system that is not well controlled, and if so, will the lack of control over the system be something that concerns English managers? On the Polish side, where the focus

remains on the actual system and the faults are scrutinised for their root cause, the construction of quality should reflect this aspect in constructs related to tracing the sources of defects rather than their seriousness.

6) Are the elements related to self-discipline, organisation, planning and a systematic approach to work still missing in the Polish construction of quality, or did intensive training bring these issues into the perception of quality among the Poles?

The study of values that will follow after the Repertory Grid interview will reveal and examine the values and assumptions underlying those similarities and differences.

Chapter 5. The Repertory Grid study

The narrative presented in the previous chapter consisted of the ethnographic account of the process in which the idea of quality travelled from the UK to Poland within General Motors. Furthermore, Chapter 4 identified the meaning of quality as understood by UK and Polish managers in the General Motors plants in Luton, UK, and in Gliwice, Poland. This chapter will further investigate the key issues that have emerged in the ethnographic account and explore the similarities and differences in the way quality is construed by General Motors managers at the Vauxhall Luton and Opel Polska plants. This will be achieved by the analysis of the general constructs obtained in the Repertory Grid interviews that this chapter presents.

The Repertory Grid interview was adopted as a tool aiding the elicitation of the explicit definition of quality as construed by UK and Polish managers in General Motors. The technique also revealed some similarities and differences in the construction of quality in these two groups of respondents, shedding more light on the issues described in Chapter 4.

The ethnographic interviews and their transcripts were used as a source of appropriate elements for the Repgrid Interview. Eight critical incidents (Flanagan, 1954) related to quality in car manufacture, as identified through the ethnographic interviews, were selected and used as elements in the Grid sheet. Since the elements were supplied by the interviewees themselves, they had the advantage of being easily understood by the respondents. During the Repgrid interview, between 8 to 12 constructs were elicited per individual, resulting in a total of 211 constructs. The respondents comprised two groups of managers. The first group was the group of 16 British managers that participated in the process of quality translation to Poland within General Motors. The second group was that of

12 Polish managers who were involved in the same process in Opel Polska. It is important to note that the collection of data for this research took place in rather turbulent times for the Vauxhall Luton plant. One month into the fieldwork, the Vauxhall Luton closure was announced (December 2000), which put data collection on hold for the next three months. When it was resumed at the beginning of 2001, several English managers had left the English plant. Due to this fact, the Repertory Grid interviews conducted with the British managers took place at the Vauxhall plants in Luton and Ellesmere Port, where some of them were transferred, at the Rolls-Royce plant in Derby (where English Manager 5 moved) and at Opel Polska in Poland, as some of them were still present there at that time. Despite the wish of the author to follow the British respondents to any location in order to complete the Repgrid interviews, two of them remained unavailable.

This chapter presents 211 constructs related to quality in car manufacture as supplied by 28 respondents. The constructs were grouped into categories identified by a boot-strapping procedure (Jankowicz, 2003; Holsti, 1968) with the reliability result of 78.9%. This resulted in eight main categories with 12 subcategories presented in Table 1. Next, the constructs were content analysed following Honey's (1979) technique in order to identify similarities and differences in the British and Polish managers' construction of quality. The constructs were put in order according to the matching score between their ratings, and those of the supplied overall construct 'good versus poor quality', which gave the picture of the respondents' construction of quality presented next.

CATEGORY AND DEFINITION	f All	Rank All	f UK	f PL	% UK	% PL
1) People versus machine. Direct effect of people's work, their mistakes or responsibilities or use of information (soft issues) as opposed to problems related to machine, product and parts or a whole system (hard issues).	54	1	31	23	26.72	24.21
2) Quality of the system and the final product.						
2a) Process, production related problems versus other issues.	5	11	2	3	1.72	3.16
2b) Problems in the final product versus other issues.	11	9	5	6	4.31	6.32
2c) Situations related to both (2a and 2b) sub-categories simultaneously. Product versus process issues.	2	13	0	2	0.00	2.11
3.)The concept of built-in quality.						
3a) Preventing a defect from occurring, making sure it will not be shipped and reoccur and focusing on the actual process and potential mistakes in the future. It is opposed to reacting and repairing (usually reoccurring) defects, which have already occurred, with the focus on the end of the process. There is a lot of potential here for the defect to continue in the future. Preventive versus reactive.	29	2	21	8	18.10	8.42
3b) The process is well controlled and workforce is motivated, which results in spotting all defect or deviations from standard quickly and containing them. The opposite is a poor control over the process with poorly motivated workforce, where deviations from standards and defects are accepted. Good control versus poor control.	11	9	8	3	6.90	3.16
4) Quality as a judgement.						
4a) Quality standards are clear and measurable, thus we can predict the consequences or the cause of the defect versus unknown, unclear standards difficult to measure where the cause of the defect is often unknown and the consequences hard to predict. Can measure quality versus cannot measure quality.	20	4	13	7	11.21	7.37
4b) The task is overprocessed, overdone, which can result in poor quality. Overdoing versus other cause.	3	12	1	2	0.86	2.11
5) The nature of the problem.						
5a. Situations, defects, which are or are not under company's control. Internal versus external.	21	3	11	10	9.48	10.53
5b) The perception of importance of the situation or the fault. Important versus less important.	16	5	6	10	5.17	10.53
6) Safety All constructs related to safety versus non-safety and other issues including human error. Safety versus non-safety.	15	6	6	9	5.17	9.47
7) Cost/ financial issues All issues related to cost/finance (everything where the cost/ finance has been mentioned) versus other issues. Financial issue versus other cause.	13	7	8	5	6.90	5.26
8) Miscellaneous	11	9	4	7	3.45	7.37
Total	211		116	95	100.0	100.0

Table 1 Number of constructs allocated to each category by UK and Polish Managers

5.1 Content analysis

The following part presents results of the content analysis of 211 general constructs related to quality in car manufacture, supplied by the UK and Polish managers in General Motors. The material is structured in order of category frequency. Each category is discussed separately with regards to its relative importance and significance for the British and Polish sub-sample. The example constructs under each category are presented in order to supply the reader with a clear picture of the issues discussed. Lastly, these comments will be related to the key questions that emerged at the end of the ethnographic chapter.

5.1.2 Similarities between British and Polish managers

This section presents eleven subcategories of constructs illustrating the similarities in the construction of quality between the British and Polish managers. Constructs are listed in the order of their total frequency as presented in column two of Table 1.

- *People versus Machine*
  (27% UK, 24% Polish sample constructs)

The most important and frequently mentioned category for all British and Polish respondents was category number 1, 'people versus machine'. It describes two opposites:

1) Direct effect of people's work, their mistakes, responsibilities and use of information, which could be summarised as soft issues, in contrast with
2) problems related to machine, product and its parts, and a whole system, which was often summarised as hard issues.

The dimension described by this category was of most concern for both British and Polish managers as they allocated 54 constructs here (27% in the case of UK respondents, and 24% in the case of Polish respondents).

Example constructs:

Product issue versus people issue (the highest matching score 75%)

Human error versus machine error

Hard issue versus soft issue

On the soft side, there are issues related to personnel, HR responsibilities and culture. The fault here was due to mistakes in training, communication or breaking the standards of behaviour.

Hard issues, on the other hand, are strictly related to machine and system faults. Here, the faults were due to mistakes or defects in mechanical equipment and the design of the system. These problems were also perceived as more difficult to solve, as the cause might be difficult to identify.

The category of people - machine constructs is important in the light of theory underpinning this research. According to the British Quality Association (BQA), there are three main approaches to managing quality: soft, hard, and mixed, which is a combination of the first two. The soft approach is related to leadership and employee involvement and its factors are fairly intangible and difficult to measure. Hard quality emphasises production aspects, measurement and control of work and production outcomes, quality standards and statistical procedures.

The combined approach is a mixture of the scientific approach with an emphasis on teamwork and creating a sense of unity among members. This was the approach that emerged in the ethnographic part of this research, although its confirmation by the Repertory Grid results is important. It states definitely the approach to quality management adopted by General Motors and allows us to distinguish between the soft and hard aspects and the way they are construed by the organisational actors. The popularity of the people - machine category among respondents indicates that the quality of the workmanship and the system is of most concern to the majority of them and predominates their perception. This confirms the findings that emerged in the ethnography. This category fully matches the

ethnographic findings and introduces the concept of a mixed approach to quality.

- *Internal versus External*
  (9% UK, 10% Polish sample constructs)

Category 5a, 'internal versus external' was mentioned with approximately equal frequency by both groups of managers. This category describes situations, defects and issues which are either under a company's control or beyond it. This dimension pictures the importance of the relationships with the external customers.

Example constructs:

Internal quality versus external quality

General Motors will bear a cost versus external company will bear a cost (the highest matching score 81.25%)

Internal problem versus external problem

The presence of the constructs related to the internal and external issues in the construction of quality could possibly reflect the focus on the internal and external customer adopted by General Motors. This aspect is critical in mixed approach to quality, combining soft and hard elements, and the customer-supplier relationship is considered crucial to the quality chain (Oakland, 1989). Even though the focus on internal and external customers is an important element of the mixed approach, it was not mentioned in the ethnographic interviews and emerged only in the Repertory Grid data. Therefore, our understanding of the notion of quality in General Motors, as it was described in the ethnographic part, has been expanded.

- *Can measure versus Cannot measure quality*
  (11% UK, 7% Polish sample constructs)

The third most important category for the UK managers (11% of the UK sample constructs) was related to quality standards and was called 'can

measure versus cannot measure quality' (category 4a). The Polish managers considered it slightly less important and allocated 7% of their sample constructs here.

In this category, the quality standards were described as:

- clear and measurable so we could predict the cause and consequences of the defect;
- unknown, unclear or difficult to measure standards which would result in the cause and consequences of the defect to be difficult to identify or to predict.

Example constructs:

You can measure the quality level versus you cannot measure the quality level

Perceived quality problem versus actual quality problem (the highest matching score 75%)

There's a General Motors standard for it versus there's no GM standard for it

Constructs in this category describe the 'hard' part of quality influenced by the German ITDC Centre in Russelsheim (strictly described as standards and measurements) and the 'soft' aspect of quality, which is often based on personal judgement and opinion, where standards are often subjective, not precise and non-measurable. This category is also linked to 'people versus machine' in its soft versus hard aspect.

This category has emerged in the ethnographic part as a characteristic of the quality of the final product (see page 63). It confirms the ethnographic finding that the ability to measure quality is closely linked to the notion of soft and hard quality where standards and explicit norms are difficult to apply to the soft aspects of quality.

- *Important versus Less important*
  (5% UK, 10% Polish sample constructs)

'Important versus less important' - category 5b - was almost equally mentioned by the Polish managers (10% of all the Polish sample constructs) as 'internal versus external'. The UK managers spoke of it less frequently and allocated 5% of their sample constructs here (the sixth place in the UK ranking). This category consists of descriptions of the levels of seriousness of the situation/fault and urgency needed for its containment. If the defects or situations were serious or major with possibly big consequences, they would require immediate reaction, otherwise the functioning of the company would be in danger.

Example constructs:

Important, it might need correction versus not important, it doesn't need correction (the highest matching score 81.25%)

Serious defect, big impact on quality versus minor defect, less impact

Serious consequences versus little consequences

Danger to the functioning of the company or the process versus no danger to the functioning of the company or the process

As described in the ethnography, low perception of the relative importance of faults in Britain can be linked to the system of quality assurance based on the final audit. As it was argued, this system shifts the responsibility for fault detection to the audit area. Therefore, a pressure on an individual worker to trace the root cause of defects is reduced in comparison to the system of the built-in quality, where the responsibility for fault detection is placed upon all employees.

- *Safety*
  (5% UK, 9.5% Polish sample constructs)

'Safety' (category 6) was the fourth most frequent group of constructs for the Polish managers (9.5% of the Polish constructs). For the UK

managers, 'safety' was in sixth place. This category consists of all constructs related to 'safety issues versus other issues including human errors'.

Example constructs:

Safety versus non-safety

Direct effect on customer's and employee's safety versus no direct effect on safety (the highest matching score 75%)

The relatively high ranking of safety among the Poles matched the findings from the ethnography. The Polish Opel plant put very strong emphasis on safety issues and a culture reinforcing safety awareness had been strongly imposed on Opel Polska. Safety quickly became this plant's 'trade mark' and, it will be recalled from the ethnography, is sometimes perceived as a 'fixation' by people from other General Motors factories.

- *Cost and financial issues*
  (6.9% UK, 5% Polish sample constructs)

'Cost and financial issues' (category 7) were equally frequent among the UK managers (6.9% of the UK sample constructs) as among the Polish managers (5% of the Polish constructs). Here, all issues were related to finance as opposed to other causes.

Example constructs:

Financial versus workmanship

Not related to cost versus cost related

Low cost versus costly (finance and image wise) (the highest matching score 87.50%)

Cost and financial issues did not emerge in the ethnographic findings. The only time finance was mentioned was during the accounts of change in the attitude towards wages amongst the Polish workforce, but this aspect was not reflected in detail in the Repertory Grid. The absence of cost in the perception of quality might stem from various factors. Training during the

first years in Opel Polska was dominated by quality issues. This was also the case at the Vauxhall Luton plant before and during the time this research was conducted. In 2002, during the collection of Grid data, General Motors had announced in 'State of the Nation', attended by the author in Gliwice in Poland, that the quality results in Opel Polska were the best in Europe and the overall goals of quality and volume have been met. The goal for the year 2003 for Opel Polska was to be cost reduction. The same goal was also set for Vauxhall Motors in 2002 and it is possible that cost became the strategic issue for all General Motors European plants in that year. Hence, cost started to emerge as an important quality issue in 2002 and it is probable that in the following years, its role as related to quality will increase significantly. This, however, is beyond the time-scale of this research and remains an issue for further investigation in future research.

- *Good versus Poor control*
  (6.9% UK, 3% Polish sample constructs)

The next interesting issue emerged in category 3b, 'control'. Here, the predominant construct was 'good versus poor control' and it contained descriptions of the levels of control over the process. At one end was a well-controlled process with a motivated workforce where defects and deviations from standard were quickly spotted and contained. The opposite of this is poor control over the process with a poorly motivated workforce where deviations from standards and defects are accepted.

Example constructs:

Result of poor control versus overcontrolled (the highest matching score 56.25%)

The fault hasn't been recognised versus the fault has been recognised

This category was relatively important to the UK managers (6.9% of the UK sample constructs) and to the Poles (3% of the Polish constructs). This

category is close to 'reactive versus preventive', with good control implying prevention, and poor control leading to defects and reaction/repair.

These results may reflect the ethnographic findings and concern of many British managers about poor control over the process and the focus on the repair of faults in the UK.

The next three categories are the sub-categories of the issues related to the quality of the system and final product (subcategories 2a, 2b and 2c). They were derived from the ethnographic findings and in the service of triangulation in order to confirm the differences in the approach to quality control between the Luton and Gliwice plants.

- *Problems in the final product versus Other issues*
  (4% UK, 6% Polish sample constructs)

Category 2b 'problems in the final product versus other issues' was more frequently mentioned by the Polish managers that the UK ones (6% of the Polish and 4% of the UK sample constructs). This category describes problems/defects related only to the final product. It is thus a part of the quality related to reactive/repair and inspection/audit aspect and it was described in ethnography in more detail.
Example constructs:
Direct effect on the product versus no direct effect on the product
Quality of the product versus other issues
Concerned with quality versus not concerned with quality (the highest matching score 68.75%)

- *Process and production related problems versus Other cause*
  (1.7% UK, 3% Polish sample constructs)

The following category (2a) is somehow the opposite end of the previous one. 'Process and production related problems versus other cause' was one of the smallest categories, nevertheless important for the overall

analysis. It describes an aspect of quality, which is related only to the process of production.

Example construct:

Directly related to the process of production versus not related directly (the highest matching score 75%)

- *Product versus Process issues*
  (0% UK, 2% Polish sample constructs)

The next category from this group was 2c, 'product versus process issues'. Product versus process issues category was 100% dominated by the constructs supplied by the Polish managers.

Example construct:

No direct effect on the quality of production versus direct effect on the quality of the product and production (the highest matching score 43.75%)

This category could be described as a subcategory of issues related to the system. Here are all problems related to the process of production and its outcome versus the final product. The subcategory of product versus process is interesting as it consists of the juxtaposition of categories 2a (process, production versus other cause) and 2b (final product versus other cause). As in the previous two categories, the distinction between the actual process of the production and the final product might have been vague, but it came out very clearly in this category. Unfortunately, this category is too small to draw too many conclusions but it might indicate another result of a focus on the actual process and the built-in quality in Poland.

The three categories described above were derived from the ethnography in order to confirm the differences between the approaches to quality control based on the audit of the final product and quality built-into the system. However, no significant differences emerged in the constructs associated with product or process issues. This may indicate that the perception of both systems is the same among GM managers in the UK

and Poland, despite differences in the actual systems being implemented in these two countries. Moreover, it shows that the concept of the build-in quality has been successfully passed on to all levels in Opel Polska, whereas in Vauxhall Luton it is present only on the managerial level.

- *Overdoing/overprocessing versus Other cause*
  (0.8% UK, 2% Polish sample constructs)

The last and least important category for the Poles (2% of the Polish sample constructs) and the second least important for the UK respondents (0.86% of the UK constructs) was a small group of constructs related to 'overdoing/overprocessing versus other cause' (category 4b). This category remained a part of the analysis despite its low number of overall constructs (3) as it was derived from the ethnography and consisted of an important part of implementing judgements of quality.

Example construct:

Underchecking quality, lack of attention to detail versus overchecking quality, over attention to detail (the highest matching score 62.50%)

The issue of overprocessing emerged in the ethnography as a problem experienced in Opel Polska during the initial months of the plant's life. Therefore, the category 'overdoing/overprocessing versus other cause' was kept in the Repertory Grid study despite its small sample size. However, no significant differences emerged in this analysis. This may be due to the fact that the problem of overprocessing was a temporary issue at the start up phase of the Polish plant.

- The analysis of general constructs supplied by the British and Polish General Motors managers revealed a picture of great similarity in the perception of quality between these two groups. Out of 12 sub-categories, 11 of them represented categories statistically similar for the UK and the Polish sample (with difference in frequency of construct below 5% between two groups). This

indicates a similarity in cultural perspectives on quality between the respondents from the Vauxhall Luton and Opel Polska plants and demonstrates a homogenous perception of quality among managers in these two locations.

- Both groups of managers perceive quality as a combination of 'soft' and 'hard' elements which might indicate the adoption of the mixed approach to quality by General Motors.

5.1.3 Difference between British and Polish managers

There is only one category of constructs representing appreciable differences between the UK and Polish respondents. Category 3a, 'preventive versus reactive' is the only group of constructs where the difference between the two groups of managers was above 5%.

- *Preventive versus Reactive*
  (18% UK, 8% Polish sample constructs)

Category 3a was the second most frequent for the UK managers (18% of all the UK sample constructs). It was defined as *preventive* - preventing a defect from occurring, making sure it will not be shipped and reoccur, focusing on the actual process and potential mistakes in the future; as opposed to *reactive* - reacting and repairing (usually reoccurring) defects, which have already happened, with the focus on the end of the process. There is a lot of potential here for the defect to continue in the future.

Example constructs:

Reactive versus preventive

It has happened/reactive versus you can do something about it

It requires correction, change versus you can prevent it (the highest matching score 68.75%)

There's a quality issue there versus there's a potential for quality issue

This category reflects an approach to faults according to their potential and timing as it was described in the ethnography. There are two kinds of

defect: those that might happen and those that have already occurred. Prevention of the former and picking up and stopping the latter from shipping to the next person in the system are the main principles of built-in quality.

It was predicted in the ethnography that the dimension of 'preventive versus reactive' would be of the biggest importance to the Polish managers, as the ethos of built-in quality in Poland is very strong, but in the grid data, 'preventive versus reactive' was less important to the Polish managers (4%, ranked as fifth most important). It can also be regarded as an indication that, for the Polish mangers, other factors are more important in the understanding of quality; categories 5b and 6, for example.

- Prevention of faults versus reaction and repair is the only issue of quality which showed a significant difference in the way in which it was mentioned by the UK and Polish managers.

5.1.4 Matching scores

The previous section described the content of the constructs supplied by 28 respondents from England and Poland during the Repertory Grid interviews. In this section, several categories have been chosen for further analysis which will look at the relationship between elicited constructs from the particular category, and the overall construct the interviewees were supplied with according to Honey's (1979) technique. This procedure was adopted in order to gain deeper understanding into the picture of quality as construed by the respondents. Hence, they were supplied with the overall construct of good versus poor quality, which was designed to summarise the respondents' views on the topic of quality. This enabled us to calculate the matching scores between each construct supplied by an individual and the supplied construct. This figure reflects the extent to which the ratings on the particular construct match the ratings on the good versus poor quality construct with 100% indicating a perfect match or identical constructs. The lower the matching score, the further the construct from

the quality topic. In this section, we will look at the relationship between constructs from three categories and the supplied construct of good versus poor quality (see Table 2).

CATEGORY	% Overall Matching Score	% Matching Score, UK	% Matching Score, PL
2a) Process, production related versus other cause	73.96	68.75	79.17
2b) Problems in the final product versus other issues	68.65	67.50	69.8
3a) Preventive versus reactive	69.72	66.52	72.92

Table 2 The matching scores for three categories and supplied construct.

The three categories are 'process and production related problems versus other cause', 'problems in the final product versus other issues' and 'preventive versus reactive'. These are the three categories directly related to the findings from the ethnography describing the crucial difference between the systems of quality control adopted at the Vauxhall Luton and Opel Polska plants. Defect prevention and a focus on the actual system are at the heart of built-in quality as opposed to repair and emphasis on the final product, and so they emerged as two opposite pictures in the constructs supplied by the General Motors employees. Honey's technique offers an opportunity to investigate this issue and reveal a more precise perception of the two systems in the UK and Poland.

Category 3a, 'preventive versus reactive' was frequently mentioned by the British managers, which might indicate that it was relatively more important to them than to the Polish respondents. Nevertheless, the analysis of the matching scores for British and Polish managers showed a difference in the perception of prevention versus reaction as a quality issue. The average matching score for the British managers in this category was 66.52%, whereas for the Polish managers it was 72.92%. This indicates that the concern with this issue, as an issue, is very high among the British managers, but the perception of it as an important quality matter is stronger in Poland, which might be the result of intensive training and

different implementation of practices related to the notion of built-in quality. As discovered in the ethnographic findings, the idea of quality as something built into the process and focusing on prevention was not as fully institutionalised in England as it was in Poland. Despite the fact that the concept is of Japanese origin and wasn't fully implemented at the Vauxhall plant, these data are compatible with the view that its transfer to Poland from England was successful and the elements of the philosophy, which were rejected in England, (such as a focus on prevention) were smoothly adopted in Poland.

The final product and its audit is the focal point in the quality assurance system in the UK, therefore, the most closely related to this issue, category 2b, 'problems in the final product versus other issues', was expected to be more frequent among the UK managers. However, this category proved to be almost equally popular among the UK and Polish managers. The Polish average matching score of 69.8% was almost equal to that of 67.5% by the British managers (see Table 2).

Process and production related problems, according to the ethnographic findings, were the most important issues in Poland. In the Repertory Grid, the category 'process and production related problems versus other cause' proved to be more popular among the Polish managers as well as having a higher matching score in this group. Polish managers' average matching score was 79.17% as opposed to 68.75% of the British (see Table 2). This finding is important as it confirms the ethnographic result of the perception of the production process in Poland as the main motto of the built-in quality.

5.4 Chapter summary

The analysis of the constructs of quality supplied by the British and Polish managers working for General Motors revealed that there were no major differences in the construction of quality between the British and Polish

General Motors managers. The picture of the notion of quality that emerged in this study of general constructs can be described as consisting of two main issues:

1) Constructs reflecting the quality control system in General Motors as combining 'soft' and 'hard' issues. This notion emerged in constructs from the following categories:
    a. People versus machine (category 1) – here the juxtaposition of 'soft' and 'hard' issues is the most explicit.
    b. Can measure versus cannot measure quality (category 4a) – related to the 'hard', measurable aspects of quality as opposed to 'soft', not-measurable issues where quality comes in the form of judgement and tacit knowledge.
    c. Internal versus external quality issue (category 5a) – illustrating the importance of the customer-supplier chain in the mixed approach to quality management.
2) The second group of constructs related to fault prevention and early containment describes the core of the built-in philosophy. Here, the constructs form the following categories:
    a. Preventive versus reactive (category 3a) – demonstrating the contradictory nature of the systems employed at the Vauxhall Luton and Opel Polska plants.
    b. Product versus process issue (category 2c) – as above, it emphasises the contrasting focal points of the two systems.
    c. Good control versus poor control (category 3b) – revealing poor control as a consequence of a system based on fault containment.

The Repertory Grid study also revealed predominant similarities in the construction and implementation of quality at the Vauxhall Luton and Opel Polska plants. There is a clearly homogenous picture of quality in both plants: a combination of 'soft' and 'hard' aspects of quality which can be

argued to be representing the mixed approach to quality management. The popularity of the 'people versus machine' category and other categories related to the mixed approach is especially important as this notion did not emerge that clearly in the ethnographic findings.

The Repertory Grid Technique proved to be a useful tool for eliciting tacit knowledge and explicitly identifying concepts that might have otherwise remained vague, such as the notion of the 'soft' quality. And so the 'soft' side of quality was defined as something related to people (their responsibilities, mistakes, use of information and effect of their work), as difficult to measure, and in consequence, the issue where the establishment of quality standards might be difficult to understand.

As expected, the quality control systems developed at the Vauxhall Luton plant and Opel Polska plants represent two contradictory approaches that were reflected in this Repertory Grid study. Two opposite notions of quality emerged:

1) Quality based on the notion of the built-in quality emphasising the customer-supplier relationship and defect prevention. This concept was significantly more frequent in the UK sample, however, it was considered more important among the Polish whose matching score was slightly higher.
2) Quality founded upon audit and repair of the faults in the final product.

The second above-mentioned system and notion of quality, adopted at the Luton plant, creates a high-risk environment where the control over the process is poor and the risk of stopping the line is high. This was reflected in constructs related to quality in the form of a judgement, such as 'important versus less important' (category 5b), dealing with the estimation of the seriousness of the fault or the situation. These aspects of quality were 5% more frequently mentioned by the British managers than by the

Poles, leading to the conclusion that the ability to judge the seriousness of the fault/situation plays a crucial role in the British system.

Furthermore, as expected, the issue of 'control' emerged (category 3b) in the Repertory Grid, however, without any statistically significant difference between the British and Polish samples. The concern with the issue of control was only slightly lower among the UK respondents, indicating either the belief in disability to impact upon the plant or the low awareness of the importance of control over the system overall. The latter issue might stem from the fact that the Luton plant had been successfully operating in the low-controlled system for many years, hence the control might be perceived as a relatively irrelevant quality issue. While this interpretation might be a little speculative and require further analysis in the study of values, it is compatible with the data discussed so far and it suggests possible ways of interpretation of the processes described in this thesis.

The Repertory Grid study was conducted as a means of identifying and understanding the similarities and differences in the construction of some of the events and processes described in the ethnography. However, only one statistically significant difference emerged in the study of general constructs. It was illustrated in category 3a, 'preventive versus reactive'.

There is one interesting issue present in the construction of quality revealed in the Repertory Grid study that did not clearly emerge in the ethnographic study. It is the notion expressed in category 5a, 'internal versus external', illustrating the relationships with suppliers. This issue has emerged equally in terms of category frequency in both plants. However, the constructs supplied in this category did not reveal any significant Japanese influences. On the contrary, it identified external issues as beyond a company's control, which is contradictory to the Japanese philosophy of quality assurance. According to the Japanese approach, close relationships with the suppliers indicate great influence upon the

quality of parts delivered to the company as well as the post-sales services. The Repertory Grid technique was especially useful in the identification of this issue as it represented the element of the quality philosophy that was not successfully translated to either the UK or Poland.

Chapter 6. The study of values

This chapter contains the study of 20 values obtained during the Repertory Grid interviews, followed by Laddering (Hinkle, 1965) and the Resistance to Change Technique (Fransella, 1977). This set of constructivist techniques enabled an in depth exploration of the values embedded in each culture, which might otherwise not have emerged in the ethnographic study alone. This chapter will expand our understanding of organisational cultures of the Vauxhall Luton and Opel Polska plants, and the processes of the disembedding and reembedding of the idea of quality in these two locations.

6.1 The values of the British and Polish managers

Over the course of 28 interviews (16 British and 12 Polish) with the General Motors employees using the constructivist techniques, a list consisting of 20 values has been elicited. Table 3 presents them in the order of their overall frequency and the following part describes its content. The figures in brackets indicate the number of times the particular value was rated as the most important value in the sample.

Nr.	Value	UK managers	Polish mana-gers	Total
1	progress/change/improvement/development	8 (4)	7 (4)	15 (8)
2	human being/relationships	5 (3)	4	9 (3)
3	happiness/inner peace	6 (2)	2	8 (2)
4	order	3	4	7
5	achievement/self-fulfilment	3	4 (2)	7 (2)
6	control/influence	5 (1)	1	6 (1)
7	satisfaction/contentment	5 (1)	0	5 (1)
8	feeling valued/needed	2 (1)	3 (2)	5 (3)
9	respect	1	4 (1)	5 (1)
10	living life to the full/freedom	3 (2)	2 (1)	5 (3)
11	pride	4 (4)	0	4 (4)
12	good world (life)/peace	2	2	4
13	purpose/direction	3 (3)	0	3 (3)
14	security	2 (1)	1	3 (1)
15	optimism	1	1 (1)	2 (1)
16	perfectionism	2 (1)	0	2 (1)
17	independence	1	0	1
18	sharing	1	0	1
19	meaning	1	0	1
20	patriotism	0	1	1

Table 3 The values of the British and Polish managers.

- *Progress/change/improvement/personal development:*

The most frequent value among the British and Polish managers. The value table indicates these values as being the most important in the whole sample. Four British and four Polish managers rated it as the most important value in their Resistance to Change sheet.

- *Human being/relationships:*

The second most frequent value was related to the social nature of people and it was defined as being a human being. Three respondents rated this as being the most important value.

- *Happiness/inner peace*:

Ranked third, and was graded as the first value by two people. This aspect was slightly more frequently mentioned by the British.

- *Order/achievement/self-fulfilment:*

The next two values were equally frequent in both groups.

- *Control/influence*

The most important value for just one respondent, who was English. This value is particularly interesting as it was mentioned mainly by the British respondents and only one Pole.

- *Satisfaction/contentment*

The British exclusively mentioned this value, which is of interest.

- *Feeling valued/needed*

Occurred similarly frequently in the Polish and British responses and was rated as the most important value by three of them.

- *Respect*

Appeared mainly in the value systems of Poles, and in only one British manager.

- *Living life to the full/freedom*

Next in overall ranking and occurred almost equally frequent in the responses from both groups. Three people rated it as the first value in their RTC sheet.

- *Pride*

Mentioned only by the Poles and seems to be a very similar value to that of respect.

- *Good world (life)/peace*

Equally frequent in both groups.

- *Purpose/direction*

Mentioned only by the British and could be linked to issues of control.

- *Security* and *optimism*

The next two values were mentioned by a small number of both Polish and British interviewees.

- *Perfectionism, independence, sharing* and *meaning*

Appeared only in the British responses. Perfectionism was mentioned twice whereas independence, sharing and meaning were only mentioned once each.

- *Patriotism*

This was the last value in the ranking, which came from one of the Polish managers.

6.2 Similarities and differences between the values of the British and Polish managers

This section describes the differences and similarities in the values of British and Polish managers presented previously. So far they have been presented according to the frequency with which the respondents mentioned them in the Repertory Grid interviews (Table 3). However, the relative frequency of the value in the whole sample does not indicate its importance for the respondents. Therefore, in this section we will focus on the similarities and differences between the values that were considered most important in the Resistance to Change part of the interviews (presented as numbers in brackets in Table 3).

6.2.1 Similarities

Progress was the most frequent value in the whole sample as well as the most important. Four British and four Polish respondents rated it as their

first value. People in both groups agreed that personal as well as professional development and improvement were their main motivators.

Feeling valued and needed was also similarly important in both samples. One UK and two Polish managers agreed it to be their most important value.

Living life to the full was rated as the first value by two British and one Polish manager.

Order and good world/peace were the next two values where there was similarity in their relative frequency in the whole sample. However, none of the interviewees rated them as their first value, hence their importance is not as high as in the previous two.

6.2.2 Differences UK-PL

The values which were significantly important only to the UK managers were pride, rated as the first value by four managers, having a purpose/sense of direction in life mentioned by three, relationships (often described as an inevitable part of all human beings) was important to three managers, and happiness to two of them. Other values rated as most important were satisfaction, control, security and perfectionism, each mentioned by one interviewee.

The important values, which appeared only in the Polish sample, were those of achievement, mentioned by two Polish managers, and respect and optimism, each mentioned by one respondent.

6.3 Summary of Chapter 6

The most important and frequent value that emerged in this study is *progress*. It reflects the importance that personal development, progress and change holds among Opel Polska and Vauxhall Luton managers. The indication that this value might be important for Polish managers emerged in the ethnography section (Chapter 4), where the interviewees admitted that they were ready to sacrifice the security of their old jobs for the sake of personal development, which they sought in Opel Polska. The presence of this value among the British managers is quite significant. The emerging picture of Vauxhall managers is rather contrasting to that of their employees. As the managers are driven by development, the rest of Vauxhall Luton employees perceived change as rather unnecessary. The construct of change/progress versus stability/stagnation represents the crucial issue for the General Motors plants in the UK and Poland. In Poland, progress/change seems to represent the preferred pole of the construct among many employees on all levels of the organisation. However, in the UK, the preferred pole is the opposite for most employees, except those at managerial level. According to the ethnographic findings, this divide in Vauxhall was the major problem leading to the plant's decline. As this study was conducted only among the employees of managerial positions, we cannot confirm the importance of stability for the rest of Vauxhall employees. However, the confirmation of the findings from Chapter 4 for the current sample is significant. It indicates that although the culture of General Motors that is directed towards development and progress is coherent among the managers, it was not successfully passed onto lower levels in the UK.

Feeling valued and needed was recognised as important in both plants. In Poland, a sense of achievement emerged as an additional value that is important to people.

The British managers were also concerned with the social aspect of their lives. Good relationships with people at work as well as in their private life

formed a vital part of the culture at the Vauxhall plant. Happiness was another value related to their quality of life. These values were perceived as unimportant at Opel Polska, which reflects the ethnographic finding about the relative importance of the quality of private life in the UK in comparison with Poland. The Polish, however, as much as the British managers, wanted to live their life to the full and in freedom. Here is perhaps where the hunger for life and personal happiness found its expression in the Polish sample.

The Vauxhall managers also valued control, security and a sense of direction in their lives. Combined with the importance of progress and change, it may be interpreted as the need for development, but not at all costs. Perhaps the readiness of Poles to accept change easily stems from the need for achievement rather than security and control.

British managers also admitted that pride was important to them, whereas on the Polish side, respect emerged as important but only for one person.

The study of values reveals a picture of the General Motors culture, a culture driven by progress, development and change. This aspect is further strengthened at Opel Polska by the need for achievement, whereas at Vauxhall Luton the importance of security and control were important and could have hindered the process of change. This picture is especially important as it confirms the coherence of the main value of progress/change among the General Motors managers, despite the negative construction of change at Vauxhall Luton, where the rest of the employees might prefer the opposite pole of this construct – stability.

Chapter 7. Discussion

The collapse of the Soviet bloc in 1989 and the opening up of the boundaries in Eastern Europe created an opportunity to revive knowledge transfer between Western and Eastern Europe, which had been restricted since the end of the Second World War. The flow of Western management ideas in the market economy to Poland has been growing ever since, and will possibly rise even more after 2004, when Poland and its several Eastern neighbours become the members of the European Union. The literature review indicated that the transfer of ideas so far had often been incomplete and rarely led to the creative translation of ideas and the creation of new working practices and norms. According to Zaleska (1998), the process of cultural change and the learning of Polish managers in foreign companies was inhibited due to the relations of dominance embedded in the processes and structures of multinationals. Her research revealed that the centralised and asymmetrical power structure and workplace relations within multinationals restored and sustained values such as servility, mistrust of authority, authoritarianism, paternalism and passivity - values characteristic of Soviet management. The learning and development of Polish managers often lacked opportunities for the development of key management skills in a market economy, for example, entrepreneurial, leadership and strategic expertise (Kozminski, 1993; Zaleska, 1998). The roles of Polish managers were subordinate and executive as the creative decision-making took place in multinational central headquarters. However, according to many authors (see Kostera, 1995; Kozminski, 1995; Zaleska, 1998), some aspects of Polish culture also contributed to a new dependency structure that emerged. As they argued, the behaviour of Eastern European managers involved such elements as unrealistic expectations and feelings of inferiority and was therefore partly to blame for the imperialistic behaviour

of Western managers and the impediment of knowledge transfer between these parties.

Zaleska (1998) concluded that Polish managers were caught between the forces of past and present in trying to find new legitimacy for themselves as managers in Western organisations. However, this process proved to be more complex than predicted as they were exposed to a mixture of similar rules coming from two agents previously perceived as contradictory in their values and operations: the Soviet system and Western multinationals. The multinationals, which entered the Polish market after 1989, were operating in an uncertain and complex environment. This aspect led them to reproduce old practices and attitudes that were considered undesirable in market economies. The relationships and knowledge transfer between Polish and Western managers were uni-directional as opposed to bi-directional, involving negotiation and consensus. The Poles learned how to accept dependency and some Polish traditions and values, such as importance of hierarchy and respect for individual authority, were compatible with the centralised management style of Western multinationals, which strengthened the dominant position of foreign managers.

Roney (2000), who conducted research into the introduction of TQM in newly privatised Polish companies, has argued that management philosophies such as TQM are imprinted with values and assumptions which, if they are to be successfully transferred, need to be shared by both parties involved in the process. According to her study, Polish culture has been strongly influenced by 50 years of communism, which resulted in the creation of a complicated cultural web that resisted later attempts to change Poland and its working practices. Roney's research presents an interesting study of the values involved in the TQM and the values that might hinder its implementation, in this case the values existing in the Polish company under scrutiny. However, the material presented in her

study clearly shows that the agents of change were demonstrating a distinct lack of values central to TQM, such as innovation and trust (e.g. Imai, 1986). In her research, Roney did not analyse the functions fulfilled by new practices and whether they really provided a better alternative to those traditionally used in the factory. She presented several examples of TQM practices, which were self-explanatory in their failure. One of them was the punishment of initiatives related to improvement (a contradiction of Kaizen), or the introduction of technological elements incompatible with old equipment, which led to increased parts rejection and additional work for employees.

It has been argued in this thesis that if the introduction of new practices and management philosophies is to be successful, it needs to involve prior negotiation and agreement of both sides regarding the ways in which these philosophies are to be implemented. The study of values, however important, is not enough for the critical evaluation of the outcome of any knowledge translation.

Therefore, it is of high importance to identify the factors contributing to the successful or unsuccessful transfer of ideas if Poland is to become an economic partner to Western European countries. What these factors are, and how they contribute to the transfer of ideas between cultures, shall be discussed next.

7.1 People as a medium for the travel of ideas

The empirical part of this thesis identified the expatriate managers - the ISPs - as being one of the mediums necessary for the travel of ideas. Their role involved transferring and maintaining ideas that were required for the successful implementation of built-in quality in new plants. The ideas they brought consisted of concepts related to manufacturing processes, people management and General Motors' corporate philosophy. Hence, it is important to note that the concept of built-in quality, as it was brought to Poland, was accompanied by other new

concepts, such as the Japanese philosophy of people management and the GM Family concept.

According to Kozminski (1995), there are two kinds of expatriate manager coming to Eastern Europe: 'mercenaries' and 'crusaders'. The former are expatriates who bring with them Western ideas of management in a simplified and standardised form that does not take into account local culture and context. They tend to operate on the basis of having knowledge of a specific 'one best way' of management. The latter type of expatriate, the 'crusaders', take an approach targeted at the sensitive promotion of cultural change by engaging in three main activities:

- Offering new types of products and services to create new types of organisations
- Culture-clash management
- Providing and implementing new tools and new management techniques (Kozminski, 1995; 98-99)

The effects these two groups have on the practices developed in the new culture as well as the local environment represent two opposite ends of the spectrum. Whereas the 'mercenaries' have a negative effect on the local culture and practices, the 'crusaders' can contribute to the creative translation of ideas and have positive effects on the local culture. It is arguable that only those expatriates who act as 'crusaders' could make globalisation become a true transformationalist process as defined by Giddens (1996, 1999).

The material of this thesis demonstrated that the group of ISPs bringing ideas to new locations within General Motors were acting from a 'crusaders' perspective. Nevertheless, different outcomes of their 'crusades' in Poland and the UK bring our attention to another factor that determines the result of knowledge transfer; the local environment, particularly local people, their culture and values.

7.2 Values

When two groups of people start working together, they inevitably bring their culture and values into this interaction. The meeting of two cultures and the relationship between their values determines the way in which people will approach their collaboration, and what follows the outcome of this process. The consideration of values and cultures involved in international cooperation is especially important if it is to lead to a successful translation of ideas.

Value differences have been traditionally pictured as representations of certain points of cultural dimension (Hofstede, 1991; Trompenaars & Hampden-Turner, 1997). The very fact that these dimensions represent opposing tendencies places the researcher adopting this perspective in a somewhat helpless dichotomy. Having identified a certain value within a particular culture or management philosophy, for example TQM, one is left with the definition of this value as identified by the dimension that the value is supposed to be representing. According to this approach, we assume that the opposing nature of cultural dimensions makes it possible for one culture to accept only one end of the spectrum a particular value represents. This approach to the study of values encourages a rather rigid perspective, and most worryingly, creates a definition of values for us. Therefore, in this thesis the author would like to argue for the usefulness of the constructivist perspective as introduced by George Kelly (1955), and his philosophy of constructive alternativism. This approach to studying persons' construction of reality and their values provides richer and more meaningful data to those collected by using traditional, rigid definitions of cultural dimensions.

In order to understand the constructivist perspective, let us first look at Kelly's definition of constructive alternativism.

> "We assume that all of our present interpretations of the universe are subject to revision or replacement. There are always some alternative constructions available to choose among in dealing with the world."
> (Kelly, 1955, Vol. 1: 11)

Kelly distinguished between the notion of a concept and a construct, and he chose the latter to gain a better understanding of a person's construing since the construct, unlike the concept, includes a contrast – the opposite pole.

> "The understanding of this contrast can often give us a clue to a persons' behaviour more than the preferred pole for in our quest to understand a person's behaviour, we must look not only at what someone does but also at what they are *not* doing by behaving in this way."
> (Fransella, 1995: 57-58)

This method of analysing cultures and values provides a very rich insight into how people construe a certain phenomenon at the core level. In this thesis, the adoption of the constructivist perspective and the combination of methods derived from ethnography and PCP enabled the explanation of issues that might otherwise have been understood superficially or ignored altogether.

The study of values revealed a fascinating picture of the way in which change and progress were understood in Opel Polska and Vauxhall Luton. The construction of change in Opel Polska was homogenous for all levels of the organisation and involved the perception of change as a positive, preferred pole. The opposite pole of this construct is that of stagnation, which has negative connotations. For Vauxhall Luton, the situation was not only different but also more complex. Firstly, the construction of

change was not identical for all members of the organisation. Whereas management construed change similarly to the Polish employees, that is the opposite of change was stagnation, the remaining employees perceived change as something negative, unnecessary and undesirable. The explanation of this difference lies in a different opposing pole for this construct, which for the workers implies stability rather than stagnation while at the same time representing the preferred pole (see Figure 5).

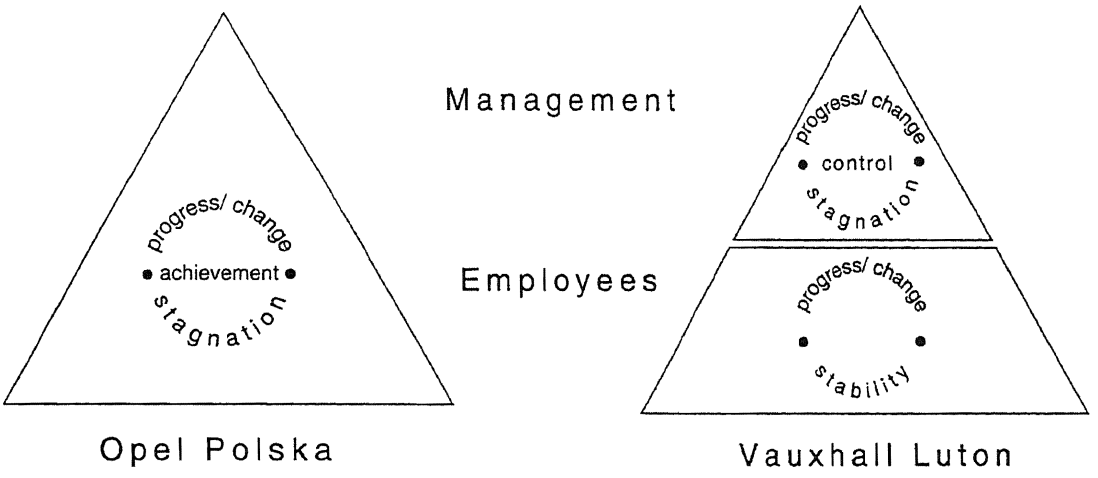

Figure 5 Core construction of change at different organisational levels in the Vauxhall Luton and Opel Polska plants.

In addition to a values discrepancy between various levels of hierarchy in Vauxhall Luton, there are further differences in values influencing the perception of change in these two locations. While the UK managers declared the need for control, security and a sense of direction, their Polish counterparts were ready to sacrifice those things for the sake of achievement. This dissimilarity in values might affect the readiness of these two groups to accept change and recognise the need for progress.

The previous example shows how the elaboration of both ends of a core construct can be crucial to our deep understanding of the cultures under

scrutiny, and of the people operating in them. The Repertory Grid and Laddering techniques proved to be indispensable companions of the ethnographic journey into these cultures undertaken by the author.

7.2.1 Reframing resistance to change

While a deep understanding of the cultural norms and values is important for gaining a meaningful picture of the phenomenon under scrutiny, the insight into the ways in which these values and value-clashes are managed is equally important.

Transfer of knowledge involves the introduction of new, unknown objects, transforming the appearance and meaning of those that were familiar and used until now. Old practices become transformed or replaced by new alternatives. As a reaction to the unknown, the 'resistance to change' phenomenon (RTC) might occur. It is arguable whether the RTC phenomenon is a useful process (Jankowicz 1996a). Furthermore, Fransella (1995) suggested that the term 'resistance' should be replaced with the more positive term 'persistence'. According to personal construct theory, the person resisting change does so only in the eyes of those expecting this change to happen. Hence, we should perceive this phenomenon as a matter of choosing not to change rather than that of resistance. Coming from this perspective we might want to consider what kind of status quo people are actually trying to maintain by choosing not to change (Fransella, 1995: 83).

In this study, the adoption of the RTC notion as a useful practice, and analysing this phenomenon from a PCP perspective, enabled the recognition of the successful values conversion that took place in Opel Polska. This process, described in more detail in part 7.4.1 ('Empowerment through Kaizen and Polish creativity – a case of values transformation'), showed us how the persistence of the Polish people to adopt certain practices of organisation, planning and self-discipline, despite being destructive and unreasonable for outsiders, was a rational

choice for them in protecting their sense of freedom and the need for creative expression.

The example of the introduction of Kaizen, along with organisation and self-discipline in Opel Polska, shows that core constructs and values, although being very difficult and resistant to change, can be changed if an alternative for their elaboration is provided. Therefore, the new idea must be considered in terms of its usefulness in replacing an existing idea in accordance with the recipients' criteria. In the case of Opel Polska, the alternatives of organisation, planning and self-discipline were introduced as the only ways to express ones creativity and achievement. The whole process was one in which the negotiation over meaning resulted in the elaboration of constructs used by both parties.

Personal construct psychology provides a particularly good framework for the explanation of possible paradoxes in the value systems of a particular culture. An approach to values guided by definitions of cultural dimensions might put a researcher in the perplexing situation of identifying the coexistence of seemingly contradictory values in a particular culture. Roney (2000) has identified strong tendencies to individualism as well as collectivism in her study of Polish enterprise. The presence of these two values is, however, less surprising from the perspective of the personal construct psychology where the opposite pole of a value is defined by the individual, rather than by rigid theoretical dimensions. Hence, it is possible that in the culture that Roney studied, the opposite of individualism is conformism and for collectivism it is isolation. (These examples are purely hypothetical and created for the purposes of this theoretical explanation.) According to White (1989), seemingly contrasting kinds of behaviour are present in all people and are determined by the situation the person finds him/herself in, rather than personality characteristics. Therefore, it is important not to put our behaviours or personality traits into rigid

categories, but to consider them in accordance with the broader context in which they are manifested.

7.2.2 Negotiation over meaning

When two groups of people coming from different cultures attempt to introduce a new idea in a certain location, they need to learn what meaning is embodied in this idea in the cultures and locations they come from. The idea of donor is familiar with the objects and actions embedded in this idea in its original location and the recipient knows the set of objects and actions that has been developed in his/her location. Additionally, they come from different cultures underlined by different values and norms. Therefore, it is crucial for them to first become involved in the process of learning each other's values and the practices associated with the idea being translated. This happens by way of mutual negotiation over meanings embedded in the objects and actions associated with a particular idea. Without this negotiation, the translation of the idea takes a form of copying the institutionalisation chain into the new location. Therefore, the process does not adapt to the local conditions, which might lead to the rejection of the new idea and an overall failure of translation.

The success of the translation in Opel Polska was due to the negotiation between Polish staff and the ISPs *before* the creation of new practices and the implementation of ultimate norms and values in Gliwice. The usefulness of the values brought to Poland was first discussed and agreed on by the Polish employees and then implemented in the plant. New values embedded in Western ideas proved to be meaningful, and rightfully replaced some of the old values in Polish car manufacture from the past. This resulted in the creation of an effective system of car manufacture, with the quality built-in it on Polish ground.

Heintz (2002) argued that 'negotiation' over values between both parties involved in a knowledge transfer is crucial to the successful outcome of this process. By adopting a more critical stance towards their own beliefs,

managers could replace the actions targeted at the engineering of employees' values with that of negotiation. In this way, the notion of 'resistance to change' is replaced with notion of 'negotiation of meaning' (Jankowicz, 1996a).

The examples from Opel Polska showed us how difficult and tiring this negotiation can be. The case of the HR Director negotiating with dozens of angry women over the introduction of work uniforms is an example where the new idea was eventually accepted and adopted, although at the cost of nerves for the HR Director. However, other ideas, such as menu content in the canteen, had to be adjusted to the norms of the local and national environment where this issue was strongly determined by the Catholic religion.

7.3 Further factors affecting ideas translation

The study of the introduction of built-in quality philosophy in Opel Polska and Vauxhall Luton leads to several conclusions regarding the factors determining the outcome of the transfer of ideas.

7.3.1 Culture-clash management

Firstly, the understanding of local values and their meaning for organisational 'actors' needs to be established. According to (Roney, 1997: 4), if a clash occurs between local values and managerial values, we need to address it by promoting selected values that are consistent with management approach, or by adjusting this approach to the local context. While this approach to the management of conflicting values is important, we must note that the empirical data of this thesis show that the promotion of new values that are inconsistent with the old, local norms and practices can be successful if introduced skilfully. As mentioned previously, organisational members can accept the promotion of a new idea if the idea proves to be a *better alternative*, according to existing social norms of what is 'better'- that's the view suggested by Czarniawska model. The point is not to change everything, for that is impossible, but to

find a fit between new ideas and existing norms and institutions in the existing 'matrix'. For Polish people it quickly became apparent that in order to achieve success as a plant and prove themselves to be an equal business partner to Western car manufacturers, they would need to adopt new practices of working. Otherwise they would perpetuate Polish manufacturing practices where quality was a random outcome of car production.

7.3.2 Creation of organisational rituals

The creation of organisational cultural rituals is necessary if the underlying values we want to perpetuate in an organisation are to be brought to life. The organisational symbols and rituals give meaning to the values and ideas that would otherwise remain abstract or uncommon for the employees. Moreover, they improve communication within organisations and enhance desirable achievements and behaviours.

Certain kinds of rituals are especially important when the organisation is in the process of changing its culture and values. They serve as a tool used to renew the social structure and improve its effectiveness by repairing the existing system as opposed to changing it completely (Konecki, 1992). The empirical material showed striking differences in the presence of organisational rituals in the Polish and UK General Motors plants. It could be argued that the negligence of appropriate rituals in Vauxhall Luton for introducing organisational change was one of the determinants in this process' future failure.

7.3.3 The function of the idea

The choice of adoption of a new idea by organisational actors does not depend upon the match between the attributes of this idea and the characteristics of their organisational situation. The problems with vehicle quality and the high amount of repairs in the final product in Vauxhall Luton did not create a 'demand' for an idea, such as a built-in quality system that would solve this problem.

> "The perceived attributes of an idea, the perceived characteristics of a problem and the match between them are all created, negotiated or imposed during the collective translation process ... With some exaggeration, one can claim that most ideas can be proven to fit most problems, assuming good will, creativity, and a tendency to consensus"
> (Czarniawska and Joerges 1995; 195).

For knowledge transfer to be successful, it should be aimed at copying the role and function that the idea plays in the original culture into the new culture, rather than copying the elements of the idea chain between two locations.

In Opel Polska, a combination of two approaches was adopted. The transfer of objects, techniques and methods related to the Western idea of quality as something built into the system took the form of copying some of them directly, (from ITDC in Germany) or using them as a basis for recreating a particular process. It is worth recalling from the data that techniques and objects copied directly constituted predominantly 'hard' elements of quality and people management, whereas the 'soft' elements in their original form were used as a basis for creating new processes or techniques.

7.3.4 Training and socialisation into new culture

The introduction of a new idea needs to be carefully executed. This should include thorough training aimed not only at technical skills designed to reduce the anxiety related to the use of new technology, but also training aimed at shaping the employee's personality where the organisational qualities and values can be learned and tested. Any new idea that a person is willing to add to their repertoire of constructs, in order to be fully accepted, needs to undergo initial tests. Hence, in personal construct psychology, we speak of people as if they were scientists testing their

ideas in a laboratory. The difference is that the laboratory is our life, be it personal of professional. Therefore, the organisation must provide its members with a testing ground for new ideas and values. More importantly, if the cultural change is to be successful, these experiments need to prove new ideas useful and old ideas redundant. The example of various ideas introduced in Opel Polska can help us understand the importance of this stage. The problem of absenteeism and widespread use of bribery to obtain doctors' certificates is a problem in Poland that Opel Polska attempted to rectify. The management put a very strong emphasis on the promotion of presence at work and supported it with various motivational instruments, for example, promotional gifts such as umbrellas for the workers with model attendance. Although the actual value of the reward was very low, it had a very strong motivational impact related to an official recognition of the employee by his/her supervisor. Additionally, the reasons for repeated sick absence required an explanation to the line supervisors, creating additional pressure on the employee. These mechanisms were consequently implemented in all departments and proved to be very beneficial for solving the problem of absenteeism in Opel Polska.

An interesting contrast to this case is described by Roney (1997, 2000) where similarly, rewards were introduced into a Polish factory in order to reduce work absenteeism. However, the whole process, rather than promoting new values perpetuated old ones. From the group of employees with model attendance, only a few randomly selected ones were presented with the reward due to an insufficient amount of gifts – in this case TV sets the company had budgeted for. This shows how actions inconsistent with ideas - promotion of work attendance followed by lack of rewards for all model employees - can lead to the development of wrong practices, in this case the perpetuation of absenteeism and an enhancement of distrust in the company and its management.

Therefore, actions that introduce and enhance new values need to be *consistent* with the actual ideas behind them. This is a necessary factor for the completion of successful journey of testing new ideas that organisational members are undertaking. A lack of intensive training and emphasis on the creation of new practices and attitudes can be seen as one of the elements contributing to the Vauxhall Luton plant experiencing problems when trying to implement the system of built-in quality.

7.4 Power and mechanisms of control

Mechanisms of control in Opel Polska and Vauxhall Luton were very different despite the attempts of management to implement identical systems derived from Japanese management philosophy. More interestingly, these two locations seem to have had very similar management traditions. Poland and the centrally governed economy had a tradition of authoritarian management and strict control over the workforce. The inability of the worker to take part in decision-making contributed to a low involvement, task-oriented culture, rather than being result-oriented. Vauxhall Luton plant, despite operating in the market economy, had an almost identical management history. Authoritarian styles of leadership, distrust in management on the side of employees and learned passivity are some of the past characteristics of this plant.

Both groups of people in these locations went through a change of systems. Poland was freed from Soviet domination and entered the market economy, and the Vauxhall plant was taken over by General Motors and new philosophies of management were introduced. However, adaptation to these new conditions resulted in the development of two different cultures. Opel Polska people adopted and developed a system derived form Japanese philosophy where control mechanisms are embedded in the culture, whereas the Vauxhall plant struggled with issues of control, and attempts to implement the control mechanisms embodied in the culture misfired.

Mechanisms of control in the Japanese companies, and what follows in Opel Polska, are embodied in a philosophy of management. This implicit theory of the organisation represents the values of all people involved in the organisation: the owners, employees and customers. It identifies a set of beliefs about what kind of solutions work well in an industry or a particular organisation. Those who understand and believe in this philosophy of ends and means can deduce from the general statement an almost limitless number of specific rules and solutions to suit changing conditions. Moreover, these specific rules should be consistent among the individuals. In this way, the theory provides both control over the ways people respond to problems and coordination between them. This theory, rather implicit than explicit, is communicated through a common culture shared by key managers and, to various extents, all employees (Ouchi, 1981).

It is possible to identify sets of symbols, ceremonies, and myths communicating the underlying values and beliefs of Opel Polska to its employees. The ethos of continuous improvement (progress) and trust in the organisation (no blame culture) are brought to life by organisational institutions and rituals such as the institution of Kaizen (stations and department), performance related pay, quality built into the system, which includes open communication channels (protecting employees from blame) and the 'State of Nation' ritual among others. The senses of ownership, pride and employee involvement are additionally maintained by the 'Family day' ritual and teamwork. This set of organisational symbols communicates values and ideas that would otherwise be abstract and uncommon for the organisational actors.

The culture at the Vauxhall Luton plant does not provide such a control tool for management. On the contrary, it represents a source of friction and creates problems in the plant as a result of conflicting values that underlie the subcultures of management and employees. Most cultural

rituals present in Opel Polska are absent at the Vauxhall plant and some elements of the underlying philosophy have been openly questioned or rejected by Vauxhall employees. Standardised work and job rotations are among these, which were problematic to adopt. The institution of Andon has never been successfully implemented and accepted as necessity. The institution of Kaizen has never emerged in the course of the research as present in the plant either.

Poor control over the Vauxhall Luton labour process was an issue of concern for the management as it emerged in the empirical material of this thesis. Additionally, through a lack of control over the manufacturing system and the everyday performance of their employees, they expressed a sense of the loss of autonomy due to the way in which decision-making was centralised in General Motors. The management in the UK feels slightly powerless in the face of the corporate system of control executed by General Motors' headquarters. This aspect was especially explicit in disappointments regarding the allocation of production models to the European plants and in centralising the problem solving of technical issues, not allowing for the utilisation of local expertise. This process slightly resembles the central planning production of the Soviet block. The Polish ISP, who felt that allocation of production models was political in its nature rather than economical, also expressed his resentment regarding this issue.

> "The plant in England [Vauxhall Ellesmere Port] will always get the model to produce and will be there forever because it is in the UK. And the plant in Gliwice will always be at the other side of the world and sometimes it will get the model but sometimes it won't."
> *Polish Manager 9*
> *(Opel Polska, Vauxhall Ellesmere Port)*

The similarity in these opinions is interesting. It reflects the perception of General Motors' central domination and decision-making as limiting the plant's potential. However, this perception is significantly stronger in the UK, whereas in Poland the central control of General Motors, with the exception of model allocation, is perceived as relatively loose.

The perception of the centrality of decision-making in the GM world is reflected in the way local employees construe their management. The relationship between management and the workforce at Vauxhall Luton, although it had begun to change, still resembled those of the centrally planned economy – a great deal of distrust, powerlessness and resentment existed in the plant.

> "So as a general workforce I would say, this isn't statistically accurate but to give an example. I would have said 80% of our workforce are either with us or prepared to go with us. 10% are ahead of us or want us to catch up with them. 10% are just fundamentally against us. They always will be. A few years ago I sensed there was more against us in this middle group or the group was kind of split. They would go with us if we'd encouraged them but there were 50% of them that just weren't interested. They just didn't want to be part of it. I think we've got the atmosphere that's getting better. It's not brilliant because we've got a lot of people that have been here for a lot of time and this has been very traditional British industry business. The manager says what's to be done and the guy on the shop floor does it. He doesn't ask why and he doesn't offer an idea. He just has to do it. It takes quite some time to turn that upside down."
>
> *English Manager 7*
>
> *(Vauxhall Luton)*

However, Opel Polska and its relationship between management and the workforce contradicts the model from the centrally planned economy tradition. The employees expressed a great deal of freedom and respect for their management.

The approach to power introduced by Foucault and adopted in this thesis is especially useful in the explanation of these phenomena. The employees in both plants seem to be aware of their ability to influence the processes within the organisation. Both groups attempted to do so by using coercive power. There were demands of higher pay in Opel Polska due to hard work demands placed on employees and Vauxhall Luton has a record of refusals to perform specific job tasks. The negotiations in both plants seemingly brought consensus to these problems. The Polish employees were introduced to the idea of Kaizen as a way of increasing the efficiency of the plant and correspondingly their pay. The English employees were convinced to treat the idea of job rotation and standardised work as ultimately beneficial to the efficiency of the plant and ultimately its financial situation. However, the perception of these operations as having potential benefits to people was never fully understood or used by the shopfloor staff in the UK. Polish staff, on the other hand, used the knowledge brought by General Motors to their advantage and made it their source of power. They learned new skills and treated this knowledge as their future transferable potential.

> "There is a climate beginning to form that these people, who gained a lot of knowledge and experience, got these standards and are now ready to fly away like the birds from the nest. And we have to create conditions now so that they will love this nest as much as they loved it before they could fly."
> *Polish Manager 3*
> *(Opel Polska)*

People in Opel Polska approached the relationship between Western and Polish managers as a situation of opportunity rather than of threat. Power was used as a resource rather than as a negative force. At Vauxhall Luton, the opposite situation occurred. The employees perceived the new knowledge and the people who brought it as a negative influence that destroyed their current working environment and disrupted their working practices. They tried to prevent it and objected to learning it. The result was that the institutionalisation of this brought-in knowledge was unsuccessful, and the employees did not use it as an opportunity to develop professionally.

These two situations are great examples of Foucault's understanding of power as a process that has various possible outcomes.

> "We must cease once and for all to describe the effects of power in negative terms: it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals'. In fact, power produces: it produces reality; it produces domains of objects and rituals of truth."
> (Foucault, 1977 in Townley, 1998: 193)

According to Foucault, we should focus on the processes and practices that result in some objects being accepted or rejected. The examples of two different processes that took place in Opel Polska and Vauxhall Luton are very important for this reason. They show us how the same set of practices can become a norm and a source of power in one location, or how it can be rejected as a negative practice in a different location.

There is no doubt that the Japanese system is more efficient in controlling the workforce. The problems of control at Vauxhall Luton expressed in the empirical part of this thesis support this view. However, one might want to ask to what degree are the workers in control of their own 'destiny' in these two kinds of organisations? The power in Opel Polska is imposed

onto employees in an implicit rather than explicit way, unlike in bureaucracy. This keeps the employees unaware of the controlling mechanism, so the risk of them objecting it is very low. As we have seen in the example of the UK plant, due to the explicit form of control mechanisms, the rejection of practices is relatively easier. In the UK, the worker accepts or rejects a set of practices as a result of reasoning, whereas in Poland this process takes the form of a deeper adoption or rejection of the whole philosophy.

> "Gliwice is not a good example for describing the approach to quality. There were 2,000 people chosen from 20,000 applicants. And they were brainwashed right from the beginning. In this plant, if someone does not believe it, they will go crazy. The approach implemented in Gliwice is like in Chinese communism, and there is no discussion. Do not accept, do not shift defects. There are no situations where someone hid something. People were introduced to it right from the beginning and I believe in it too. If I didn't believe in it I would go crazy in the environment where this is the rule."
> *Polish Manager 9*
> *(Opel Polska, Vauxhall Ellesmere Port)*

The cases of people changing their behaviour so much that their families could not recognise them is a good manifestation of the need to adopt the whole philosophy in order to remain 'sane' in this work environment.

> "Some have got so involved and have changed so much that even they're nearest and dearest don't recognise them. They don't recognise what's happened to them in a good way; but also, it may be, in a way which is problematic for their environment."
> *Polish Manager 3*
> *(Opel Polska)*

Considering the traditions of the centrally planned economy and some of the common practices that existed in this system, such as bribery and corruption, lack of cost control and planning and so on, we can appreciate how tremendous and deep this change in the Polish employees has been. It also shows us how the waves of translation reach to a wider environment – making the process of globalisation something contributing to a new local cultural identity. Our discussion on globalisation will take place later in this chapter.

7.4.1 Empowerment through Kaizen and Polish creativity – a case of values transformation

The Japanese philosophy of people management includes empowerment of people through Kaizen. The philosophy of Kaizen, also known under the name of continuous improvement, is based on values such as progress and innovation. However, for an idea of innovation to become a reality i.e. an institution, scientific tests of the applicability of the idea need to be carried out. Kaizen incorporates innovative spirit and careful organisation and measurement of work, principles based on values of progress and organisation.

The successful marriage of these two values has always been problematic in Poland, if not impossible, as Poles posses several characteristics in their 'national character' that might seriously impede attempts to introduce a systematic organised approach to work. The statement of one of the Polish managers reflects on the practices of organisation and discipline in the German Opel plant and is a good reflection of the possible interpretation of these aspects by the average Pole.

> "They all work homogenously so that their progress has added value. And this is what I liked there. The approach to their duties involves reliability but without exaggeration in dilligence. If anyone ever tells me that Germans are hard-working, I will ridicule them. They are merely systematic to the verge of idiocy, to the averagely

imaginative Pole. You might say they are sad drones at work. All they do at work is work, nothing else!"

Polish Manager 3
(Opel Polska)

Poles like to see themselves as people with a free spirit and a great sense of style. The aforementioned '*fantazja*' - 'imaginativeness' - popularly referred to as '*Ulanska fantazja*', (translated as 'Cavalryman's swagger') is a trait valued greatly by Poles, which provides an outlet for the creativity of an individual. This trait is in direct contrast with being systematic and well organised - the traits traditionally considered as redundant, boring and typical of Poland's western neighbour. Eva Hoffman beautifully captured this aspect of Polish culture.

"The best compliment that a school exercise can receive is that it has *polot* – a word that combines the meanings of dash, inspiration, and flying. *Polot* is what everyone wants to have in personality as well. Being correct and dull is a horrid misfortune."
(Hoffman, 1998: 71)

However, although *polot* and *fantazja* can be beneficial in the process of continuous improvement, where creativity and innovation are important, other characteristics, such as the Polish tendency to be disorganised and their chaotic approach to work, might prove devastating. It is important to note that *polot* and *fantazja* are the constructs that imply not only creativity and free spirit, but also independence and being almost unsubjugated. These values are in direct contrast to organisation and planning which might require not only self-discipline, but also obedience. The origins of the lack of organisation and planning can be partially explained in the following passage.

"Life has been irrational enough for them [post WWII generation of Poles] to believe in the power of the gamble – in games of luck and

risk – more than in orderly progress. Anyway, there is no such thing as orderly progress in the Socialist People's Republic. It's clear enough to everybody that you don't get anywhere by trying. Working hard in your 'chosen profession', when the profession is most often chosen for you, where there's no reward and no possibility of improving your conditions, and when anything may happen tomorrow, is for fools and schlemiels. The System – compounded by the Poles' perennial scepticism about all systems – produces a nation of ironists and gamblers".
(Hoffman, 1998: 15)

Orderly progress was something that Poles not only lacked and did not attempt to implement but also, paradoxically, ascribed to the economic success of other Western countries. Perhaps the best way to explain this seeming contradiction is by giving voice to Barbara Czarniawska.

"The unabated record of successful resistance to much stronger enemies makes Poles proud of themselves, whereas the historical fact of not being able to survive autonomously for any longer period of time makes them painfully aware of continuing failure. The constant close contact with other cultures, historically imposed, results in ambiguous attitudes: for example, an admiration of Prussian efficiency clashes with the fact that for many years, sabotage and not efficient work was a patriotic virtue ... The resulting image is that of a nation capable of the most heroic collective efforts in times of emergency, and incapable of living prosperously in quieter times, due to extreme individualism and a fatal tendency to anarchy. Looking at other countries, Poles tend to attribute their successes to what is lacking in the 'Polish character': order, efficiency, method. Therefore, the system is a myth."
(Czarniawska, 1986: 15)

The system myth was also something that Polish managers believed in, especially after their visits to the German Opel plant.

> "...and everywhere I came to the same conclusion, that there aren't any extraordinary people who have advantages distinguishing them from people in Poland. They're the same rough diamonds, only it's a matter of cutting and presenting them as polished jewels: a question of having people who know how to shape them, and teach the same to others, in an appropriately systematic way."
> *Polish Manager 3*
> *(Opel Polska)*

However, shaping the rough diamonds that have great amounts of *fantazja* and *polot* into diamonds which are continuously improving their work in a systematic, planned and measured way could seem impossible, particularly when one considers the constructs in use with their opposite ends and underlying values. Using the pyramid of constructs and their underlying core constructs and values, it is possible to describe the relationship between the values of organisation and creativity in the traditional Polish construct system in the following way. The construct that is at the bottom of the pyramid i.e. *fantazja* versus dullness/correctness is commonly and explicitly present in Polish culture and literature. By moving up the construct hierarchy ladder, we can reach further meanings that this construct is underlined with. And so one can see that under the word *fantazja* there are further meanings, such as creativity and freedom, whereas dullness/correctness implies organisation and obedience. By laddering further up, we can eventually reach the core level and see the core construct of chaos versus order (see Figure 6).

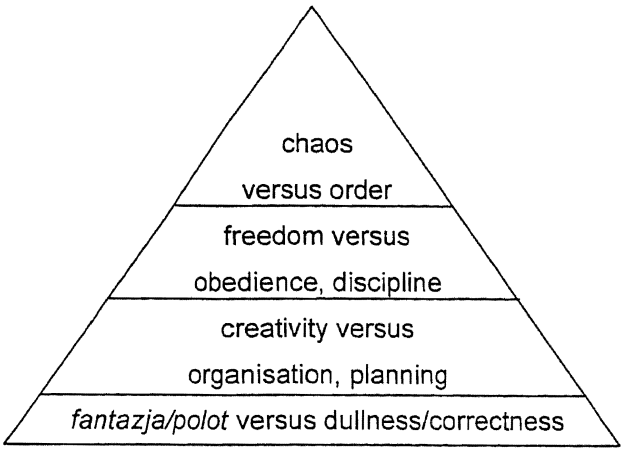

Figure 6 Pyramid of values related to creativity in Poland.

As we can see, the elements of creativity and organisation are at opposing ends of this construct. However, in the philosophy of Kaizen, these two elements need to coexist, for they are both necessary for the implementation of new ideas in the system of the built-in quality.

The incorporation of both elements of this construct requires not only expansion of the current construct system, for example, splitting the construct into two, but also leading the people through the experience cycle - proving the new constructs to be a successful and fruitful alternative to the old ones. Only then can change at the level of core constructs and values take place.

Opel Polska is a place where the change in the value system of its employees was successfully conducted. The philosophy of Kaizen proved to be an effective vent for the Polish *polot* and *fantazja,* allowing people to be creative. Nevertheless, in order for their ideas to be brought to life and institutionalised, they had to work in an organised and planned manner. Only those ideas that are systematically designed and tested can be implemented. Implementation leads to financial reward for the idea creator. General Motors linked creativity with order, and introduced this combination as a rewarding practice without any alternative. This encouraged people to implement new practices, and also provided the

only way to achieve good results and rewards. The system myth became a reality.

7.4.2 The choice of people

The selection of employees in Opel Polska is often claimed as the reason for the plant's success. Careful selection is an important part of the Japanese philosophy of people management. This process is then followed by intensive developmental training, not only in technical skills, but also attitude and behaviour corresponding to the organisational norms and values (Konecki, 1992).

The recruitment process in Opel Polska was aimed at people willing to learn and adopt new ideas. Only this profile of person could successfully undergo introductory training and implement the ideas brought by General Motors. Age played an important role in the selection of people and the majority of those who were chosen were in their twenties, resulting in an average age of 28 for Opel Polska employees.

The meaning of the age of employees can be considered from various perspectives. Middle age is often seen as pejorative, a denial of the worth of a person's experience (Sennett, 1998 in Alvesson, 2002) and is associated with risk-aversiveness, inflexibility and lack of energy. The meaning of middle age is often biased and prejudiced. This was the case with the Opel Polska recruitment process. Foreign management feared that people with long working experience in the companies from the old system would bring old, bad habits that would be difficult to change due to their age. The expertise they could possibly bring to the organisation was considered redundant. Therefore, the selection targeted young people who would be amenable to being moulded. As Sennett (1998 in Alvesson, 2002) pointed out, frequent motive behind the preference towards young employees is the perception of them as more malleable and submissive. Older employees tend to be more loyal with their organisations than with their managers and they could be more inclined to speak up against what

they see as bad decision-making. Young employees, on the other hand, due to less organisational locality, may instead quit. It is arguable then that one of the motives behind the selected profile of people in Opel Polska was the objective of increased organisational control.

While considering the benefits of the selection process for the Opel Polska organisation and its managers, it is important to look at the broader picture of the long-term goals General Motors had.

For knowledge transfer to be successful, the institutionalisation of an idea into its new location is crucial, as it has to reflect the original function that the idea fulfils. The adaptation of the institutionalisation process to local conditions requires cooperation on the part of the giver and receiver of the idea. Additionally, the receiver needs to be familiar with the local cultural environment sufficiently enough to develop new versions of original practices from this idea as s/he knows best, having been institutionalised in the original location. This operation requires familiarity with the local culture and a deep understanding of the function the new idea needs to fulfil. The creation of these new practices took place during negotiations at Opel Polska, where both sides involved in the processes learned a great deal about each other and found new, creative ways of implementing new ideas. The case of work uniforms, sick absences and common canteens are good examples. Considering the complex nature of this process, General Motors needed to find people whose ability to translate new ideas into the local context was high, and who would be able to perform these functions relatively soon due to the tight deadlines General Motors set up for the Opel Polska start of production. Therefore, it is not surprising that the people chosen to build foundations for the Polish plant were able to learn *very quickly*. Reflecting on the young age of Opel Polska employees, we can also argue that their potential contribution to the further translation of the idea of built-in quality and related concepts in the local environment, be it via General Motors or any other future employer, was possibly

maximised. This is due to the lifespan of the working life they have ahead of them, but also due to the level of commitment and understanding of the whole philosophy of Japanese manufacturing and people management they were able to reach. If one of the goals of General Motors was to contribute to the development of the local environment, which the plant director claimed it was, the choice of people for Opel Polska enhanced the achievement of this goal.

The controversial aspect that accompanied the recruitment process in Gliwice is that of selection ratio; from 46,000 applicants 1,800 were selected and employed. Clearly, this provided the ISPs with an opportunity they did not have in the UK and possibly no other European Opel plants either. High unemployment in the Silesia region enabled the selection of the employees fitting the designed profile and also provided a mechanism for stimulating peoples' motivation and willingness to adopt new ideas. According to Styhre (1998), societies where certain groups run the risk of being excluded or marginalised demonstrate higher acceptance of management ideas. Styhre related interest in Kaizen to a tough labour market where jobs are not taken for granted. The benefits of the company are reflected in the benefits of the employees and their chances of remaining employed. This creates the tendency to use expertise better. In his study, he introduced the economical set backs in Sweden as an explanatory factor of the interest in Kaizen and management ideas.

> "Before, we believed we were the centre of the world, but we have discovered that there are things that are better in other places."
> (Mr. Blue in Styhre, 1998: 202).

One might wonder whether this would be the future case of the Vauxhall plant in the UK where the sense of urgency to change was never present. The data collected at the Vauxhall plant in Ellesmere Port suggest the opposite attitude. Whereas the predominant reflection on the Vauxhall

Luton plant's closure was that of injustice among its employees; for the last UK GM plant, it meant reassurance of the future existence regardless of the situation in their plant. These attitudes confirm the reported lack of urgency that the Luton plant suffered from, but also indicates a surprising unwillingness to accept the changing nature of the world-wide vehicle business. Speaking in Personal Construct Theory language (Kelly, 1955), we can say that the UK Vauxhall employees demonstrated hostile behaviour, meaning 'the attempt to extort validational evidence in favour of a type of social prediction that has already been recognised as a failure, order to deny an imminent threat' (Kelly in Fransella et al, 2003: 12).

Polish people's sense of urgency to implement new practices is similar to that pictured by Styhre, the difference being that Poland is not defending its position on the European market, but rather creating it. The national ambition to prove themselves as an equal partner to Western European countries enhances their willingness to accept new ideas.

7.5 The institutionalisation of the idea of quality in Poland

Years of existence behind the iron curtain restricted Polish people from learning and exchanging their ideas with Western Europe. Instead, the process of acquiring their knowledge from the West proceeded indirectly by means of the media, a route strongly influenced by the government's political propaganda and censorship, via tales of other people and their own occasional trips outside of the Soviet bloc. Hence, their knowledge of some Western concepts was restricted, as they did not have the opportunity to take an active part in their creation or institutionalisation. They were usually the recipients of the Western ideas and so their learning was a one-way process in which they received the images of the final effects and products of capitalism without the chance to participate in their creation. The perception of these products was often associated with luxury and well being, as the images represented a striking difference to reality and life under the Soviet regime. Hence, the aspiration to catch up with the West was a natural consequence. This drive to make up for the

lost years of stagnation often resulted in a willingness to accept some Western concepts uncritically. However, in the same way that people in the East were open and prepared to absorb Western investments, they were often not ready to change their fundamental values. As Polish history is filled with fights for freedom and independence, any pressure to abandon one's beliefs, even in the name of economic growth, risks strong opposition and rejection. Therefore, the insistence of Polish people on protecting the work attitudes and beliefs developed in the previous system often resulted in the frustration of investors as well as putting local people under pressure. The international global companies entering the Eastern market had to negotiate the ways in which they were going to operate if they wanted to be successful.

The negotiation process and development of new, creative working practices and norms enabled the transfer of Western concepts, such as built-in quality. Having discussed these factors, which enabled creative translation of this idea in the previous section, the following part will focus on a detailed analysis of the institutionalisation of built-in quality in Poland.

7.5.1 The meaning of quality

The ethnographic part of the thesis described the complexity of the meaning of quality in the GM world. The travelling idea of quality that was to be transferred to all General Motors plants is based on the Japanese notion of quality as something that can be procedurally built into the system. Central to this philosophy is the notion of customer focus. All operations, outside and inside the plant, involving suppliers, dealers, and General Motors employees, directly create a customer-supplier chain where each member of the chain is responsible for ensuring a high quality product/service that s/he delivers to his/her customers. Therefore, the motto of built-in quality is 'to take care of your customer, whoever it might be, by not accepting, producing or shipping the defect'. Built-in quality is related to defect prevention and a focus on the actual system and the customer, internal or external, within the system.

The philosophy of the Japanese approach to quality engages every member of the organisation into creating high quality products and satisfied customers, both internally and externally. The overall system consists of three elements that work interdependently, leading to an efficient system of quality assurance, giving quality 'built into' the product. The elements are:

- The quality of the system
- The quality of the final product as defined by the customer
- The quality of workmanship

The ethnographic interviews showed that the meaning of quality for General Motor's employees was varied and complex and the elicitation of a single definition of this term was problematic. The three aforementioned elements of quality assurance represent one of the ways in which people were able to systematically define quality. Another way was that of the skills and type of knowledge that quality implementation and understanding requires. Here, quality appeared as consisting of 'hard' and 'soft' elements. 'Hard' components of quality were the measurable, technical specifications expressed in the form of quality standards, norms and procedures. These aspects played an especially important role in the determination of the technical characteristics of the final product. 'Hard' quality in Opel Polska as well as at Vauxhall Luton has a strong German influence as the product specifications and technical design are created in ITDC in Germany and are then distributed to the European plants. In this way, General Motors' central decision-making and control are exercised. The transfer of 'hard' quality from Germany mostly took the form of a direct copying of the objects related to this idea.

'Soft' quality represents the Japanese influence in General Motors and consists of knowledge that is difficult to capture in rigid rules, procedures

or standards. It requires the ability to make a judgement in a variety of situations and should result in the achievement of the best possible quality, as defined by the organisational philosophy and goals. The ability of a person to make an appropriate judgement and act upon it is shaped by on-the-job experience, supported by the hands-on approach of managers. The transfer of 'soft' quality to Poland within General Motors was a much more complicated process than that of the 'hard' quality transfer. The translation and implementation of 'soft' quality involved a lot of negotiation and adaptation of the concepts to the new local environment and new people who were going to use it. Additionally, the length of translation was further extended by the time necessary for the workforce to complete the practical training and acquire a minimum level of expertise. Once this stage was accomplished, the workers had sufficient knowledge, experience and *confidence* for them to accept the *responsibility* for their personal judgements and decisions.

The presence of the German and Japanese influences, and the translation of 'hard' and 'soft' quality to Poland, indicated a mixed approach to quality management, as adopted by General Motors. This aspect emerged later in the Repertory Grid interviews and revealed the homogenous perception of quality in the GM world as consisting of a combination of 'hard' and 'soft' elements.

The Repertory Grid further enriched our understanding of the meaning of quality in General Motors by eliciting an explicit definition of this idea from the respondents. And so, quality in car manufacture emerged as a notion where the 'hard' and 'soft' aspects coexist, captured in the constructs of 'people versus machine' and 'measurable versus immeasurable' issues. Furthermore, an important element of the mixed approach to quality emerged, that of the customer-supplier chain, under the construct 'internal versus external issue'.

Next, the group of constructs explicitly identifying the essence of built-in quality was elicited. It defined built-in quality as a notion related to prevention, focused on the system and having good control over it. The contrasting notion to this was that of quality as focused on the final product, defect repair and displaying poor control over the system. These two definitions enabled an explicit description of two contradictory systems of quality assurance. It also confirmed that the system adopted by Opel Polska and Vauxhall Luton indeed represented two distinct approaches to, and notions of, quality.

The notion of 'hard' and 'soft' quality and the ways in which they are translated across cultural borders can be better understood by using Polanyi's (1966 in Nonaka, 1995) categories of knowledge - tacit and explicit knowledge. According to his classification, tacit knowledge is strongly embedded in social interactions and experience, which makes it hard to communicate and transfer. Explicit knowledge represents the contrast where knowledge is highly codified and easily transferable. The complex process of knowledge transfer within General Motors is a good example of the ways by which tacit and explicit knowledge need to be transferred and the reasons for them. As discussed earlier, the practices related to 'hard' quality have been transferred almost directly in the form of manuals, procedures and standards. These objects were highly codified and easy to transfer. Additionally, their application did not require any adjustments to the local context and cultural values, as the content of this knowledge was 'culture neutral'. 'Soft' quality translation represented the ideas that were tacit in their nature, strongly embedded in the practical experience and, in addition, were related to people management. This latter aspect requires a great deal of cultural sensitivity and openness to negotiation. The combination of these two characteristics – a high level of tacitness and cultural sensitivity - made this knowledge more complicated and time consuming to translate.

These two types of knowledge need to coexist and circulate in every organisation for knowledge to be created. According to Nonaka (1995), there are four modes in which knowledge is converted and created. These modes take place between tacit and explicit knowledge and are as follows:

- Socialisation – the conversion of tacit knowledge into tacit by interaction between individuals. This notion is linked to the creation of organisational culture.
- Combination – explicit knowledge is converted into explicit by exchanging and combining knowledge by individuals.
- Externalisation – explicit is converted into tacit, the notion similar to the traditional idea of learning.
- Internalisation – the conversion of tacit into explicit knowledge by the recognition of contradictions through metaphor and their resolution through analogy.

According to Nonaka, these four processes compose the spiral of organisational knowledge creation, where tacit and explicit knowledge come into play and reach all organisational levels. However, our notion of externalisation is, in Nonaka's opinion, underdeveloped. He suggested the use of metaphor and analogy as helpful instruments for facilitating this type of knowledge conversion. Not denying the importance of the use of metaphors and analogies in organisational learning, the author would like to step aside from Nonaka's classification of knowledge and look at the processes of knowledge conversion from a new perspective – the perspective of Personal Construct Theory (Kelly, 1955).

The personal construct system of an individual consists of constructs at various levels of cognitive awareness. At the lowest level of cognitive awareness, there are the preverbal constructs. They represent the constructs that might be used by an individual despite not having a verbal or word symbol attached to it. They can be brought to life either in a person's behaviour or by verbalisation. Making the preverbal construct

more explicit with the help of the Repertory Grid Technique enables an individual to verbalise the construct that might have otherwise remained at a low level of awareness and not fully understood (Jankowicz, 2001).

The results of this study illustrate how the Repertory Grid Technique can assist the elicitation of explicit descriptions of ideas that are otherwise difficult to define. The ethnographic data provided a broad description of what the meaning of quality in General Motors was. However, the Repertory Grid results led to the creation of a clear and cohesive definition of this notion in fully explicit terms.

After the level of preverbal constructs, there are the subordinate and then superordinate constructs. The subordinate constructs are relatively easy to elicit and the Repertory Grid interview can assist us in our attempt to make sense of respondents' construing of the world. Various examples of this kind of construct related to quality, such as the 'people versus machine' construct, can be found in the Repertory Grid results of this thesis.

The last level of the construct system is filled by superodrinate constructs that are of fundamental importance: *core constructs*. An awareness of them is essential for understanding the world of another human being – or of ourselves (Hinkle, 1965: 34 in Neimeyer et al, 2000). Their elicitation can be difficult – however, there is a tool that can aid the accessing of people's superordinate constructs. The Laddering technique, introduced by Hinkle (1965) represents a convenient means of exploring core features of person's meaning system and has been successfully applied in this study as a tool for identifying the second and third levels of organisational culture in General Motors. The Laddering technique is particularly helpful to ethnographers for identifying constructs that are tacit and more difficult to articulate verbally than the subordinate constructs.

The construct system of every individual is in a process of constant change as we engage in experiments that test our predictions of reality. The validation or invalidation of our predictions influences the shape of our construct system. Each construct has a limited number of situations that it can be applied to, called its range of convenience. One of the ways in which we change our perception of reality is by extending the range of convenience of our constructs, for example, making them apply to more events. Moreover, a change in the construct system can occur when new constructs are created and added to our repertoire. These processes occur by completing the experience cycle and the creativity cycle. The experience cycle enables the person to put their new constructs/predictions to the test and confirm or disconfirm their predictions. If a prediction is confirmed, the construct would be added to the personal repertoire of constructs applied to the particular event. The creativity cycle takes the individual through stages of loose and tight construing and enables the formulation of new constructs, which can then be used and tested in the experience cycle. It can be argued that for the optimal functioning of an individual, the successful completion of these cycles is necessary. As we are faced with changing situations and reality, we constantly modify our construct system in a way that will enable us to form successful predictions about the events that surround us.

Using our knowledge of the complex nature of our construct system and the way in which it changes, we can apply these concepts to the process, by which ideas are translated across cultural boundaries. It can be argued that the creative translation of built-in quality to Poland was due to careful completion of creativity and experience cycles by Polish people, under the careful guidance of English managers. The initial stage of negotiation over values and norms where the Polish and English people developed new practices that were to be adopted in the plant was an important experience for both sides, where new constructs were created and some old ones extended in their range of convenience. A good example of this is the

emergence of the notion of organisation and self-discipline that has been applied to some new events Polish people faced within Opel Polska. The English managers, on the other hand, went through the stage where their predictions about the Polish workforce were invalidated and this led to a formation of new constructs about them. It can be argued that this experience had a crucial effect upon the later cooperation between parties, the future career of Polish employees and the position of Opel Polska in the GM world.

Using the notion of validation in the experience cycle, we can see how important the presence of the ISPs and their help during the initial training of the workforce when new constructs were tested was. Had these new constructs been invalidated, the implementation of built-in quality would have failed, as it did at Vauxhall Luton.

Let us now come back to Nonaka's approach to knowledge as consisting of tacit and explicit knowledge and the four modes of its conversion. According to Nonaka, new knowledge is created during the internalisation mode, where tacit knowledge is converted into explicit knowledge and the process of learning takes place. This mode is deeply related to action. However, for learning to take place, the other three modes are necessary to activate the spiral of organisational knowledge creation.

The author would like to offer an alternative way of looking at this process and rather than using types of tacit and explicit knowledge, would like to approach it by analysing the change that occurs in a person's construct system.

The four modes of Nonaka's knowledge creation can be defined in terms of Personal Construct Theory (PCT). As mentioned before, there are two important ways by which a change in someone's construct system occurs: the creativity and the experience cycles. It should be noted that

socialisation occurs when a person is completing their experimentation cycle and validating the predictions made. This process can take place on a level that is difficult to verbalise and can involve constructs from various levels of cognitive awareness. Combination can be understood as broadening the range of convenience of one's constructs. Externalisation is achieved through verbalisation and the formulation of word symbols that can be attached to our constructs by means such as the Repertory Grid interview. Internalisation is the process of forming new constructs through completion of the creativity cycle and the validation of new predictions.

It is possible to describe Nonaka's spiral of organisational knowledge creation in terms of PCT, as proved previously. However, the author wishes to abandon Nonaka's theory at this juncture and look at the process of knowledge creation from Kelly's perspective.

As described earlier, the construct system that we use in order to make sense out of (our) reality has various different levels. The more superordinate the construct, the more its meaning is central to our construction of events and ourselves. Therefore, the facilitation of change at this level of construing is the most difficult to achieve. However, for any reconstruction to occur, the successful completion of the experience cycle is necessary. As a result, new constructs will be added and/or the range of convenience of the existing constructs will be extended.

The notion of reconstruction and its mechanisms are especially useful when analysing the factors behind the success or failure of cross cultural knowledge translation. An analysis of built-in quality translation within General Motors from this perspective can help shed light on the reasons behind contrasting results of this process in Poland and the UK.

The process of knowledge translation to Poland involved the formulation of new constructs that have been later validated in the process of training

and on-the-job experience. This led to a reconstruction of the old repertoire of constructs used in the understanding of quality. Moreover, this reconstruction reached all levels of the construct system and led to a change in core-constructs and values, as shown in the example of the adoption of Kaizen in Opel Polska. The reconstruction at Vauxhall Luton was significantly different. It did not lead to the formulation of new constructs, but to attempts to validate old ones. The hostility towards the introduction of new practices, such as standardised work and Andon, exemplifies behaviour validating the old construction of quality and invalidating the usefulness of new ideas brought in by General Motors.

The change, whether it leads to new constructs being used or further validation of existing ones, involves constructs that vary in their level of verbalisation. Hence, tacit and explicit constructs are incorporated in all processes, leading to shifts in the construct system. Due to the nature of tacit constructs, the facilitation of their change can be difficult. A higher level of construing involved further complicates this. The transfer of 'soft' quality is a good illustration of the most complex form of knowledge translation. It involved the reconstruction on all levels of cognitive awareness of the Polish people and, additionally, the nature of 'soft' quality being often tacit made it more difficult to symbolise explicitly.

The translation of 'hard' quality was relatively uncomplicated as it proceeded mainly at the level of subordinate constructs having clear word symbols attached to them. Additionally, the translation did not require a shift in the core construing of Polish people.

To summarise, it can be argued that for creative knowledge translation and the creation of new practices, the formation of new constructs is necessary, followed by successful validation. In this way, new ideas prove to provide a useful alternative for an individual allowing him/her to deal with a particular event in a more successful manner. The reconstruction is

more difficult to achieve the higher the level of construing involved. However, the same rules determine the change at this level, and the case of values conversion in Opel Polska illustrates the change at the core level of construing.

If the idea in translation does not provide a useful alternative, it can lead to the hostile reaction and an invalidation of the new idea. The example of the construction of 'change' as opposed to 'stability' at Vauxhall Luton shows how the new idea of built-in quality was threatening the existing construing of its English employees. Despite attempts to introduce these new ideas as useful, they were rejected, and the old notion of quality already existing in the plant was further validated.

7.5.2 Arrival of quality in Poland: A final model

The concept of quality in car manufacture, which is the subject of this thesis, travelled globally for a number of decades before it arrived in Poland in the 1990s. The initial translation of this concept, which took place between America, Japan and Western Europe, was briefly described in part 2.4.2 of the literature review. This study focuses on the last stage of this process between Western Europe and Poland (see Figure 7). However, in order to illustrate the complex process of quality translation, we need to look at the way in which this concept travelled to Western Europe, which was in itself a fascinating process.

The 1980s in Germany was a time when attempts to develop a new production model were undertaken. This model would become an alternative to the traditional mass production model, as well as providing a challenge to the Japanese system of car manufacture. However, by the end of the 1980s, the German car producers abandoned this plan and adopted a strategy directed towards an adoption of Japanese car manufacturing methods of on German ground. Their new approach was not just to copy but also to learn from the Japanese practices and philosophy of car manufacture. As a consequence, several German plants

adopted Japanese car manufacturing principles, Opel being one of them. General Motors set up the Opel plant in Eisenach in Germany as a model plant based on the Japanese principles of lean manufacturing. It was to become a home plant for other European GM plants supporting the transfer of Japanese manufacturing philosophies within General Motors Europe (Jurgens, 1998).

However, as mentioned before, the German manufacturers did not implement all Japanese practices by copying them directly, rather, they translated chosen concepts and practices to German conditions. Therefore, they did not adopt several elements, such as the delegation of responsibility for quality to the shop floor level, thus rejecting the main principle of built-in quality. Hence, the focus on the system and the tracing of root causes of defects remained absent in the German model. Instead, an investment in highly skilled workers and high technology preventing defects through automation and control systems, were adopted as a means of adapting to with the increasingly complex nature of quality requirements (Jurgens, 1998). Therefore, the translation of Japanese concepts of car production to Germany was limited to the idea of lean manufacturing and 'hard' quality.

The Japanese concepts of car production were also partially translated to the United Kingdom. Due to different market conditions, some British car producers did not emphasise lean manufacturing practices or the 'just-in-time' system, as their focus remained on product diversity. The control of the workforce and empowerment were adopted in the UK through incentive and piecework systems driving labour effort. The Japanese, on the other hand, achieved this objective through Kaizen and standardised work, which later contributed to their tighter central management control (Tolliday, 1998). The attempts to translate the Japanese car manufacturing concepts to the UK took place within Nissan and Toyota, and the General Motors plants tried to implement the Toyota production

system principles. This thesis focused on the latter organisation, that is, the Vauxhall Luton plant, and the process of translation of quality to Poland 'via' this plant. As described in the empirical part of this study, the transfer of the Japanese philosophy of car manufacture, including the notion of built-in quality, to Vauxhall Luton was unsuccessful. The medium for the travel of ideas – a group of managers largely trained in Japan and Toyota, did not manage to translate these concepts to the UK. The plant in Luton and its ideas in residence resisted the translation of new concepts and the local staff rejected them as undesirable alternatives to the existing ideas of quality assurance, emphasising the final product and its audit. The ideas and values related to the built-in quality and empowerment through Kaizen remained present at Vauxhall Luton only at the managerial level, represented by the medium for travelling ideas. The values and work attitudes of the employees clashed with the values of the managers and the Japanese philosophy of quality in car manufacture. The lack of effective culture and value clash management in the plant contributed to later resistance against the implementation of the new production model.

The translation of quality to Poland from Western Europe that followed the previously described processes is exceptionally interesting. The successful translation was possible thanks to the presence of a medium for this transfer – the expatriate managers from England and Germany. They were mostly trained in Japan, in Toyota and Nissan, and knew the system of built-in quality from their own experiences. They were a group of people with a deep knowledge of the soft and hard aspects of quality management. They recognised the importance of tacit as well as explicit knowledge in the development of quality assurance system, which was demonstrated in their hands-on approach to training during the initial period of the plant's functioning.

The group of expatriate managers consisted of two national groups that influenced two areas of the quality system in Opel Polska. The group of

British managers brought in and developed the 'soft' part of quality in the plant. This influence (pictured in Figure 3, page 136) had its roots in the Japanese concepts of quality and people management, which are at the core of the notion of built-in quality. Henceforth, the objects brought by the British to Poland represented the idea that all organisational members should be responsible for the quality of their work, and that defects should be prevented rather than repeatedly repaired. The objects, which were brought in order to put these ideas into practice, were:

1) Andon stations and procedures
2) Kaizen stations and procedures
3) Teamwork, job rotation
4) Objects elevating status differences such as work uniforms, common canteen and car parking, addressing everybody by their first name
5) Objects creating non-blame culture - problem-solving techniques enabling the tracing of root causes of the defect.

The implementation of these objects into actions was achieved through intensive training, closely supervised by the team of expatriate managers. This led to the development of the following practices:

1) Identification of the root causes of defects and fault prevention
2) Standardised work, continuous improvement, teamwork
3) Focus on the customer (internal and external).

This chain of the institutionalisation of the idea of quality led to the successful translation of this concept, where the institutions developed in Opel Polska corresponded with the original function of built-in quality, that is, and the high quality of the final product. This result was achieved by providing people with the tools for ensuring high quality of their individual work. It should be noted that these objects that enabled an individual to achieve high quality results were missing in Polish car manufacture in the past. Therefore, the Poles welcomed such tools as standardisation,

Andon, Kaizen and problem-solving techniques. These methods enabled people to systematically manage, measure and improve their work, something that was difficult to achieve without these instruments.

Corresponding to the notion of the built-in and 'soft' quality, there was an influence upon the Polish plant that led to the development of the 'hard' side of the quality system into the plant. This area was strongly influenced by the German managers who served as a link between Opel Polska and ITDC Centre in Germany. The processes that took place between these two locations were concerned with the 'hard', measurable aspects of car production (see Figure 4, page 137). Henceforth, the German team brought to Opel Polska objects such as:

1) Lean manufacturing principles
2) Car model for production, its technical specifications and quality standards
3) Quality manuals and instructions
4) Objects related to standardised work e.g. standard operation sheets and car history cards
5) Factory and production line layout
6) Suppliers of work uniforms and catering.

The implementation of these objects in practice resulted in the following actions:

1) Conformance to specifications
2) Quality audits
3) Standardised work.

This chain of institutionalisation of the idea of 'hard' quality in Poland resulted in the establishment of a lean-manufacturing plant with the potential to become a future home plant for other General Motors factories.

The Japanese and German ideas of quality management had an impact on different areas of the quality system in Opel Polska. The Japanese ideas influenced and stimulated the development of quality of the whole system, whereas the Germans determined the quality of the final product. Despite affecting different aspects of the quality assurance system in Poland, these two effects worked as a complimentary forces leading to the unique blend of approaches developed in Opel Polska.

Despite the many advantages of objects and actions related to built-in quality and lean manufacturing, the implementation of these practices was sometimes problematic. The ideas brought to Gliwice by General Motors were supposed to fulfil certain functions that would lead to the institutionalisation of the concepts as in their original locations. Some of the ideas that formed the concept of quality, as understood in General Motors, were already in existence in Poland. For example, the attitude towards absenteeism was significantly different among the Poles and their foreign managers. Whereas in Poland high absenteeism is not only popular but often tolerated, for the ISP's it was an issue that needed to be addressed in a way that would correspond with the idea of employee responsibility and loyalty - important elements of the built-in quality philosophy. The responsibility for ones' actions and work was an idea that developed slowly in the Polish workforce. Previously, the system of a centrally planned economy took away the need to take individual responsibility to such a high level. Polish culture in the past supported the notion of job safety regardless of the quality outcomes.

Another idea that needed to be translated in a creative manner was that of equality among all organisational members. Traditional Polish companies had been relatively hierarchical and an authoritative style of management predominated within them. Therefore, the abolition of the obvious signs of rank and the introduction of objects such as work uniforms met with

objections from those groups, who wished to distinguish themselves by wearing clothes that would symbolise their different status.

Each idea, which was institutionalised differently in Poland than in the West, such as absenteeism or planning, had to be carefully translated in a way that would not conflict with the values embedded within this idea in Poland. Some ideas brought by General Motors offered invaluable alternatives to the practices in existence. A good example of this was the organisation and planning of one's work. Despite a strong tradition in Polish industry in the past towards the opposite – chaos, which implied personal freedom - the Poles in Opel Polska accepted these new concepts as they offered the fulfilment of the individual and national ambition to succeed. If this need was to be satisfied, the Poles had to change some elements of their core construct system and link the idea of organisation to pride and fulfilment. This was possible due to the alternative idea of organisation and planning offered in comparison with the traditional, chaotic approach to work.

This example illustrates the fact that new ideas brought to any new location need to offer a useful alternative to those ideas already in existence. Only ideas that can lead to the fulfilment of functions that are considered important and correspond with the appropriate value will be accepted.

The process that leads to the final acceptance and adoption of an idea needs to involve negotiation over meaning, which gives both parties the opportunity to understand each other and elaborate one's construct system. This aspect is especially important in cross-cultural management where some objects and ideas can convey different meanings and values in different cultures. The negotiation over meaning, which took place in Poland before the institutionalisation and development of certain practices, was crucial for the future success of the process of translation. This stage

enabled both parties to learn what their understanding of some concepts was, and together develop ways of fulfilling some functions that would be acceptable for the local culture and give the desired end result. This process often required some degree of reconstruction at the personal value level of the parties involved. As seen on the example of the practices of planning and organising, the adoption of them would not have been possible without a great deal of reconstruction on the Polish side.

The need to address the cultural assumptions when introducing new ideas is not only complicated but also time consuming. However, without negotiation and understanding on both sides, the creative translation and development of new practices could not be successful. Only those ideas that correspond with the preferred pole of values and core constructs could be accepted and institutionalised.

The complex nature of the creative translation of the Japanese philosophy of car manufacture, including concepts such as built-in quality and lean manufacturing, to Poland, is pictured in Figure 7. Therefore, Figure 7 incorporates Figures 3 and 4, and presents the final overall model of quality travel described in this thesis. The author decided to present the final graphic model without the details presented in Figures 3 and 4 in order to achieve clarity of presentation.

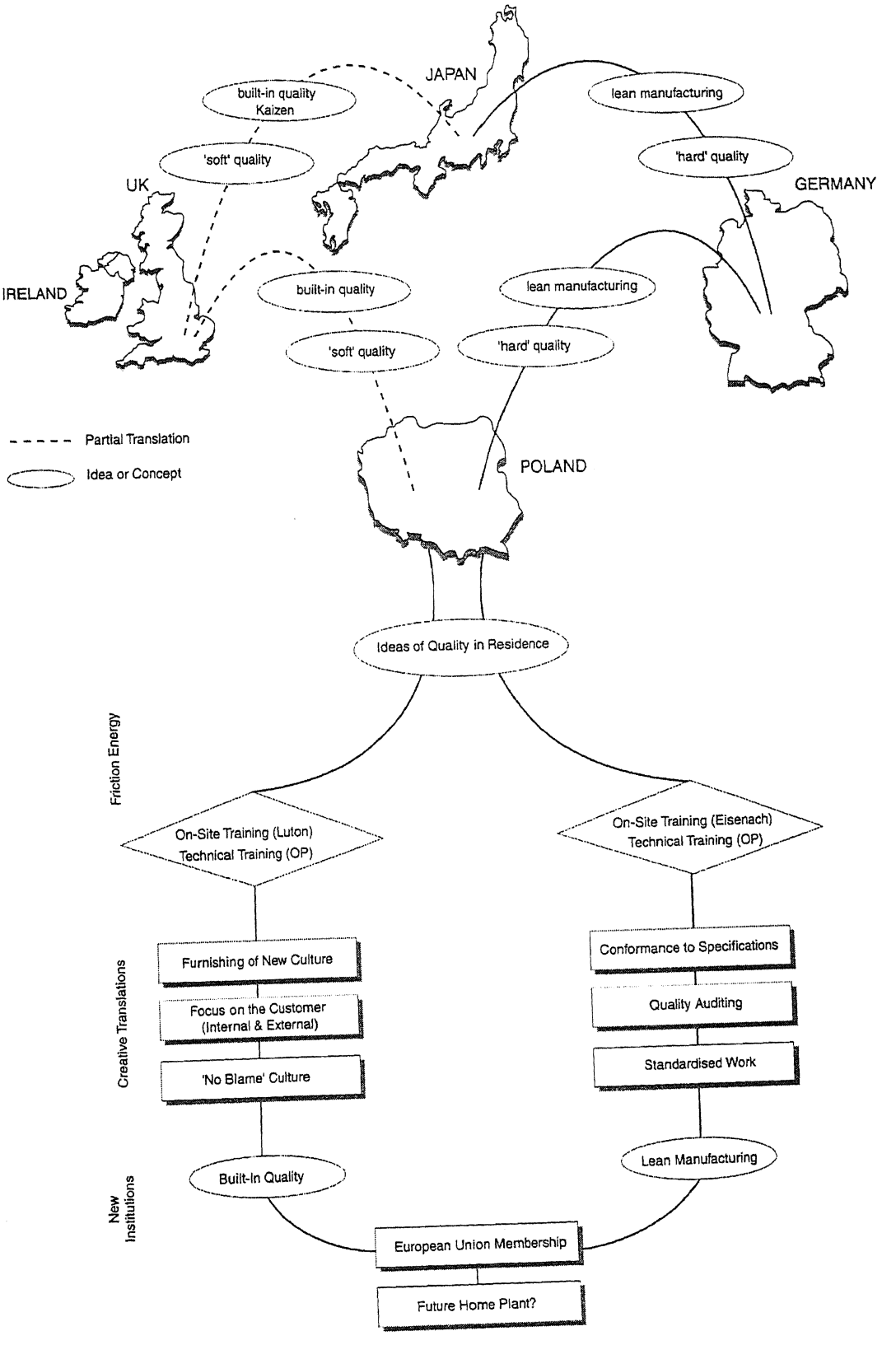

Figure 7 Institutionalisation chain of quality in car manufacture in General Motors Europe.

The institutionalisation of the concept of quality in Western and Eastern European General Motors plants led to the development of different systems of quality assurance and management. Whereas the German model incorporated some elements from the Japanese philosophy, such as lean manufacturing, and translated it along with 'hard' quality to Poland, the English GM plant represents a striking contrast to the Japanese model of car production and built-in quality. The notion of lean manufacturing did not emerge from the empirical data as important or indeed institutionalised at the Vauxhall plant, as it was in Opel in Eisenach.

It can be argued that the translation of the built-in quality concept to England was unsuccessful due to management negligence of the core values inherent in Vauxhalls' culture. Whereas the culture in Opel Polska represents a homogenous structure with the value of progress and development dominating it, the culture of Vauxhall Luton is split horizontally. The management values, of emphasizing progress and development have not been successfully passed down to the lower levels of the organisational structure, where the value of stability is predominant. The failure to create a culture that would support the practices related to built-in quality led to the creation of a quality assurance system that contradicts the Japanese philosophy of quality and people management. However, despite operating in ways that largely ignored the built-in quality concept, the Vauxhall plant proved to be a successful source of travelling ideas - the built-in and 'soft' quality concepts transmitted through the medium of the ISPs who went to Gliwice (see Figure 7).

7.5.3 Reverse translation – an area for future research

The translation of ideas is a process which partially modifies the social actors on both sides: that is, the donor and the receiver of the idea. It also modifies the idea in its original shape as perceived by the donor. This outcome can be explained by the process of reconstruction that any creative translation leads to. The reconstruction results in the creation of a new construct, or indeed a new belief. It changes the way in which we

construe particular events or phenomena, as well as ourselves. Therefore, translation can lead to a discovery of a new idea as well as the new organisational actor (Czarniawska and Joerges, 1995). This reconstruction can trigger reverse translation that will aim at translating the idea back to the original location, but this time the master will learn from his/her pupil.

Reverse translation, although nearly absent from the literature on knowledge transfer, was briefly discussed by Edwards and Ferner (2004), who distinguished between forward (FD) and reverse diffusion (RD). They offered this separation as a way to analyse the process in which knowledge is translated, not only from the country of its origin to the foreign subsidiary, but also in the reverse direction. Moreover, Edwards and Ferner identified two kinds of reverse diffusion: evolutionary and transformative. Evolutionary RD occurs when an optimal mix of practices is achieved within existing modus operandi. It does not affect the assumptions concerning the way in which the organisation operates, but seeks to improve its operations through the process of learning from this organisation's subsidiary plants. Transformative RD is directed towards a much more significant impact and it seeks to move the organisation towards a new modus operandi.

The phenomenon of reverse translation occurred in this study, but must be left as an important area for future research. The empirical research did not provide enough data enabling any analyses or interpretations of this process. However, the empirical hints are that attempts to translate the idea of quality, as understood and implemented in Opel Polska, begun to take place within General Motors in 2002. The process was inspired and initialised by the Opel Polska plant director of that time - English Manager 1. His experience, and clearly the reconstruction of the way in which he perceived the Polish plant and its employees, led to a nomination of the first Polish ISP who was then transferred to the Vauxhall plant in Ellesmere Port in the UK. Further attempts to stimulate reverse translation

took place between Opel Polska and Opel Eisenach, where more Polish experts were sent to in order to serve as a medium for the reverse translation of the idea of quality. However, from the accounts of these Polish employees (not included in this thesis), reverse translation proved to be extremely difficult and has so far brought unsatisfactory results. It is clear from the initial accounts that reverse translation, which began between Opel Polska and the Vauxhall Ellesmere Port plant, was planned as an evolutionary RD in Edwards and Ferner's terms. However, this thesis suggests that the implementation of transformative RD would be more suitable. This draws our attention to the importance of initial research prior to reverse translation in order for the appropriate type of RD to be planned and implemented.

According to Boyer et al (1998), reverse translation may be equally as important as the forward process. Toyota and other Japanese car manufacturers, by transferring knowledge in the reverse direction, abandoned their payment system that was potentially counter-productive (ibid. p. 377). As seen in this study, the scope for reverse translation in General Motors is not only huge, but also potentially highly beneficial to the organisation overall. Opel Polska reached a level of maturity and independence that would allow this plant to become institutionalised as a home plant. Additionally, the Polish workforce has gained a great deal of confidence in their skills and are fully aware of their potential value to the GM world. But is the rest of the GM world ready to learn from an Eastern European plant?

May 2004 will open further possibilities for reverse translation, as Poland will join the European Union. The research presented in this thesis has indicated that Polish managers have a potential to contribute to the globalisation process as defined by the transformationalists (Giddens, 1996, 1999). However, in order for this process to take place, there is need for more research into this phenomenon, particularly the factors

determining the outcome of evolutionary and transformative reverse translation.

7.6 A comment on the methodology used

Trying to identify people's values in the ethnographic setting can be a challenging task. When we attempt to get to the roots of organisational culture and identify people's shared assumptions and values, the ethnographic interview might not give us sufficient in-depth opportunity for this. The Repertory Grid Interview and Laddering technique may prove to be a helpful course of action here.

The ethnographic interview serves as a very good preparation for a Repgrid Interview from the interviewee's point of view. Unthreatening in its content, it builds an atmosphere of mutual interest, affinity and certain closeness without an intrusion into the interviewee's privacy. Many people would find the subject of personal values too intimate to discuss during the first interview, thus it is reasonable to wait with this discussion until the respondent is more familiar with us, and trusts us enough to share personal opinions in the conversation.

When studying organisational cultures, it is important to take the views of psychologists and sociologists into account. Every organisation is unique and, at the same time, it consists of a jigsaw of individuals. Schein (1996) suggested that psychologists could be more productive if they explored the field along with ethnographers, and became participant observers themselves.

According to Kelly's sociality corollary, a person has to understand another person's way of construing in order to interact with them, in some particular role, in a productive, meaningful manner. In fact, our social interaction is governed by the core role constructs (Horley, 1991). In other words, people can find their place in a group of people only if they can understand their construing and their basic assumptions. If, in addition to

this, we ponder Kelly's notion of constructive alternativism, we might see that the participation of a person in a particular group/organisation is a matter of personal choice. Societies consist of individuals and constitute the reflections of people's individual ways of construing. Social constructionists imply that societies make decisions and act on them (Balnaves and Caputi, 1993); however, it is the individual who has to use and apply the particular construct.

This research demonstrated that the role of ethnographer can complement that of the psychological observer and that the combination of ethnographic techniques and the research tools derived from PCP can aid the exploration of the values and shared assumptions embedded in the culture under scrutiny. Moreover, the Repertory Grid Technique played a crucial role in the identification of the contrasting pole of the core-constructs, which shed a new light on the behaviour of the people we were trying to understand. Additionally, the Repertory Grid interview proved to be a very useful tool, enabling the elicitation of tacit knowledge, such as 'soft' quality and its explicit definition.

7.7 Original contribution to knowledge

The thesis contributed to knowledge in the following areas:

1) Methodology – the research conducted and described in this thesis demonstrated the powerful potential of ethnographic research combined with the Repertory Grid Technique. The complimentary character of these two methods, along with other advantages this methodological approach offers, can serve as an invaluable tool for exploring organisational cultures and the values embedded in them. Moreover, the Repertory Grid Technique has been successfully used as a tool for eliciting tacit knowledge, particularly the notion of soft quality. This demonstrates the potential this technique has for knowledge management and organisational development practices.
2) Knowledge transfer – the thesis explored the process by which knowledge, tacit as well as explicit, can be translated across

cultural and linguistic borders. The complexity and intricacies of this process were explored, resulting in a complex model of cross-cultural knowledge transfer along with crucial factors contributing to the successful outcome of this process.

3) Reconstruction – the process of knowledge transfer described in this thesis was successful due to the change that took place at a deeper level of the organisational culture in Opel Polska. This thesis looked at the way in which a shift in a personal construct system occurs, leading to reconstruction, that is, change in the person's core constructs and values. This process of reconstruction plays a crucial role in the successful outcome of the cross-cultural knowledge transfer and should therefore be taken into account when facilitating organisational change and development processes.
4) Quality travel to Poland – this thesis explored the process by which the notion of quality as something built-into the system was successfully translated to Poland. This is an important contribution to knowledge, as the previous research on knowledge transfer between Western Europe and Poland indicated that many attempts to translate Western ideas related to management were unsuccessful and led to incomplete translations (e.g. Roney, 2000; Zaleska, 1998).

7.8 Summary and conclusions

This thesis has described the process of translation of the concepts of lean manufacturing and 'hard' quality from Germany with the simultaneous translation of built-in and 'soft' quality from the UK to Poland (Chapter 4 and part 7.5.2 of this chapter). The meaning of quality was analysed in order to reconstruct the chains of institutionalisation of quality in these locations (Chapters 4, 5 and part 7.5.1 of this chapter). Having arrived at the finding of contradictory notions of quality existing in the UK and Poland, the values embedded in each organisational culture were analysed in order to understand the factors behind the success and failure of creative translation of quality in these two locations (Chapter 6 and part 7.4.1 of this chapter). This enabled us to provide a more critical analysis of the overall process summarised in Figure 7, and the identification of factors determining creative translation of ideas across cultural boundaries, including culture-clash management, creative development of new working practices and norms, and mechanisms of managerial control in organisations (part 7.3).

These elements shed a new light upon the process of ideas translation to Eastern Europe. As seen through the case example of General Motors, creative translation of ideas is possible providing the process includes the elements outlined in part 7.3. As stated there, more complex forms of translation are required where the knowledge is tacit and the degree of reconstruction is substantial. However, even the most complex type of translation is possible if the new idea provides a useful alternative to the existing one, and if it becomes successfully validated by the organisational actors. This kind of creative translation, as shown by means of the example of built-in quality, can contribute not only to the increased efficiency and quality results of the company, but also to a new shape for the local identity of the individuals involved in this process. The latter element was exemplified by the change in the value system of the Opel Polska employees and the effect upon the local environment (chapter 4.7 'further translation waves').

Reverse translation has been identified as an area that needs more research in the future. It is an important extension of the model of 'Travels of Ideas' as the translation of ideas between Eastern and Western Europe can be expected to increasingly take place in future years.

Moreover, there is great scope and need for research combining the ethnographic methods with those derived from PCP in the exploration of organisational and local cultures if the research is to reveal the meaningful description of values and shared assumptions in the particular culture studied. It is important that the future research into the process of translation will focus on the actual process of values and practices creation in addition to the study of cultures of the parties involved in the process.

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