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# EMPATHY AND TEAMWORK: REFLECTIONS ON THE LEGACY OF CLAUDIO CIBORRA THROUGH THE PHENOMENOLOGY OF EDITH STEIN

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## Abstract

*Claudio Ciborra argued that the position of information and communications technology (ICT) in organisations requires a shift from the present focus on the “scientific paradigm” to an “alternative centre of gravity: human existence in everyday life”. The paper proposes to make a contribution by examining the role of “empathy” in relationships among people working in industrial teams. Relevance is addressed by means of empirical evidence that emerged during interviews carried out in the longitudinal case-study of a supply chain transformation initiative in American Power Conversion (APC) Ireland. Rigour is applied by building on the legacy of Ciborra viewed through the lens of the phenomenology of Edith Stein which was developed during her doctoral studies as a student of Edmund Husserl. Furthermore it is proposed that Stein’s philosophy of “empathy” can provide a theoretical framework for the understanding of organizations, teamwork and information systems. The concept can also provide impetus for future work in the area of human computer interaction (HCI) that is increasingly being employed in automated business transactions. In addition, it is suggested that Husserl’s proposition that “an objective external world can only be experienced inter-subjectively” has the potential to contribute some new insights to the present impasse within the positivist-interpretivist debate.*

*Keywords: empathy, phenomenology, Edith Stein, Claudio Ciborra*

# 1 INTRODUCTION

Claudio Ciborra in “The Labyrinths of Information: Challenging the Wisdom of Systems” argues that the position of information and communications technology (ICT) in organisations requires a shift from the present focus on the “scientific paradigm” to an “alternative centre of gravity: human existence in everyday life”. Furthermore he described this re-alignment in terms of a Copernican revolution in the way organisations introduce and use ICT (Ciborra 2002). Recently, views within the information systems literature express the need for researchers to have a firm philosophical basis for their work. For example, Weber (2003) contends that there is a requirement to improve theory-building skills and in doing so researchers must “reflect deeply on and understand the ontological and epistemological assumptions” and be true to their philosophical position. Following these arguments, we contend that there is a need for reflection on the philosophical foundations of human factors in IS research and to provide an impetus for future work. This paper proposes to make a “relevant” contribution by addressing the role of empathy in relationships among people working in an industrial environment. This is supported using empirical evidence that emerged during interviews carried out in the longitudinal case-study of a supply chain transformation initiative in American Power Conversion (APC) Ireland. Rigour is applied by building on the legacy of Ciborra viewed through the lens of the phenomenology of Edith Stein which was developed during her doctoral thesis as a student of Edmund Husserl. The paper is organised as follows. Firstly an overview is presented of the works of Husserl, Stein and Ciborra and how they are linked through the concept of empathy. Following this, the case study is described and the research approach is outlined. In the next section, the empirical findings are presented on the role of empathy in teamwork that emerged from a research interview. Implications for the legacy of Claudio Ciborra and IS research in general are then discussed and future work is proposed in the concluding section.

## 2 BACKGROUND

This section will trace the philosophical antecedent of empathy to lectures given by Edmund Husserl, the father of phenomenology. It will then describe how Edith Stein developed the concept during her Doctoral research and in her later life. Finally it will link empathy to the recent work of Claudio Ciborra and discuss common influences due to his application of the phenomenological method in the tradition of Martin Heidegger.

### 2.1 The Phenomenology of Edmund Husserl

Edmund Husserl was the founding father of Phenomenology, regarded as one of the most important philosophical movements of the twentieth century (Grossmann, 2005). The system has had an immense influence in Europe in areas spanning psychology, law, values, aesthetics and religion (Inwood, 2005). He considered that philosophy should be carried out as a rigorous science using the structured methodology of reason and his vision was that the phenomenological approach (of bracketing the natural world and a reduction to pure consciousness) could overcome and synthesise the radical disagreements of contemporary philosophy. Husserl’s original work was in the area of mathematics and his most influential teacher was the philosopher Franz Brentano. His work underwent a transition from his earlier studies on the “phenomenology of mathematical and logical concepts” to the “transcendental idealism” developed in his later major work “Ideas: General Introduction to Pure Phenomenology” (Elveton, 1970). Lauer (1965) argues that with the passage of time a precise definition of “phenomenology” became more difficult but proposed that the term could be

traced back to a “distinction made by Kant between *phenomenon* or appearance of reality in consciousness, and the *noumenon*, or being of reality itself”. However, he points out that Husserl rejected what he perceived as the “dualism” of Kant. Lauer continues to explain the phenomenology of Husserl as both a method and a philosophy. Method in so far as it provides the steps that must be followed “to arrive at the pure phenomenon, wherein is revealed the very essence not only of appearances but also of that which appears”. In the realm of philosophy “it claims to give necessary, essential knowledge of that which is”. Thus phenomenology advocates a “return to things because a “thing” is the direct object of consciousness in its purified form”. This approach was in opposition to “illusions, verbalisms or mental constructions” implied by many contemporary movements. In connection with the philosophy of the mind, Horner and Westacott (2000) explain that phenomenology “tries to describe precisely what happens when someone is conscious of something” and that the approach typically begins by “describing the way things actually appear to us, rather than discussing the role of brain processes in causing consciousness, or whether mind is identical to the brain”.

## 2.2 Edith Stein: On the Problem of Empathy

Edith Stein’s doctoral thesis “On the Problem of Empathy” was completed under Edmund Husserl in the University of Freiburg in 1916 and awarded “summa cum laude” (Stein, 1989b). Stein was Husserl’s protégé but being a woman of Jewish origin was unable to obtain a University position because of the ideological intolerance of that time. Her doctoral thesis was written during the atheistic phase of her life but it is interesting that she analysed empathy in the context of the complete psycho-physical-spiritual person (Stein, 1989a). Here is her own account of how her research on empathy (German *Einfuehlung*) resulted from a lecture given by the “Master himself” (Teresia de Spiritu Sancto, 1952).

Husserl in his course on Nature and Spirit<sup>1</sup> had maintained that an objective external world can only be experienced inter-subjectively (i.e. by a plurality of individual knowing subjects) who are in a position to exchange information with each other; which means that such an experience presupposes other individuals. Husserl, following Theodor Lipps, named this experience “empathy”, but did not explain what it consisted of. Here was a gap which was worthwhile filling; I wanted to discover what empathy meant.

Her later life was dramatic both as feminist and as a Carmelite where she continued to correspond with leading Phenomenologists and to publish in the Journal of Phenomenology until her death in the gas chamber of Auschwitz in 1942. Martin Heidegger invited Stein to contribute to a special edition of the *Jahrbuch für Philosophie und phänomenologische Forschung* to mark Husserl’s seventieth birthday for which she contributed her famous paper “An attempt to contrast Husserl’s Phenomenology and the Philosophy of St. Thomas Aquinas”. Her work became more and more focused on the human person, not as an isolated ontological individual, but relating to other people in a community. In her discussion of the essence of the acts of empathy, she treats empathy in terms of the constitution of the psycho-physical individual. Here she concludes that “streams of consciousness are qualitatively distinguished by virtue of experiential content”. Individuality according to Stein has two senses, selfness and qualitative variation that are steps in the discovery of the psycho-physical

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<sup>1</sup> Some commentators point out that the German word “Geist”, as used by these philosophers, is not accurately translated as “Spirit” which has a mainly religious semantic in the English language. W. Stein states that the German understanding of Geist is somewhere between the term Mind and Soul and its philosophical study deals with the creative human spirit. For example Scheler included such concepts as beauty in his examination of the spiritual.

unity of the “individual I”. She also argues that there is an important link between empathy and knowledge (Stein, 1989a p 64).

Were I imprisoned within the boundaries of my individuality, I could not go beyond “the world as it appears to me”.

Thus empathy as the basis of intersubjective experience becomes the condition of possible knowledge of the existing outer world, as Husserl and also Royce present it.

In a later work on knowledge, she defines knowledge as the mental grasping of “something that has not been grasped before” and proposed that “all knowledge is the act of a person” (Stein, 1993). This theme will be taken up again in the discussion on implications of her work for the positivist-interpretivist debate in section 6.2.

Max Scheler was another important influence on Stein and she was indebted to his insistence on “bracketing”, the exercise of which challenged her to suspend every form of a priori prejudice and contributed to her empathising with other cultures and beliefs. Both of these philosophers were somewhat disappointed by the Master’s tendency towards Idealism in his later work and continued to identify themselves with the Realism of the early Husserl. In recognition of her contribution to the field, the phenomenological society elected her as an honorary member which ensured that she received a regular copy of the *Jahrbuch*, realizing that her vow of poverty in the Carmelite convent of Cologne would not allow her to maintain the annual subscription. Another reason for her esteem among this academic community was that in addition to her own original work, during her time as a post-doctoral fellow working with Husserl, she acted as editor and secretary sorting out the copious and often extremely dishevelled notes that continued to pour from the Master. We have now provided an overview of Stein’s work on empathy developed within the original impulse of Phenomenology. Now will briefly link empathy to the work of Claudio Ciborra and follow this with a further discussion in section 6.

### 2.3 Empathy in the work of Claudio Ciborra

The works of Claudio Ciborra do not contain many references to empathy but the context in which it appears; his proposal for antidotes to “Krisis” is surely significant. On this topic he specifically acknowledges the influence of Husserl’s 1934 lectures on the “Crisis of European Sciences and Transcendental Phenomenology” and the resulting analysis that the “crisis comes about due to the separation between people and science”. Here we will let him speak on the subject empathy (Ciborra, 2002 p 25).

We can envisage an alternative approach to overcome the crisis generated by an overdose of methodologies. Let us go back to the basics and encounter the world as it presents itself in our everyday experience. We rely on evidence, intuition and empathy.

The phenomenologist Martin Heidegger was another major influence on Ciborra who harnessed his ideas on technology to analyse such concepts as information infrastructure. However it must be said that Heidegger’s phenomenology moved significantly away from many of the positions of Husserl. It is reasonable to deduce that Ciborra’s development of the idea of bricolage was influenced by the suggestion of Heidegger in his work “Being and Time” that “our knowledge and basic way of encountering the world are obtained through the use of, and not the scientific description of, objects”(Ciborra, 2000 p 90).

Having presented a philosophical basis for the concept of empathy and linking it to the work of Ciborra, the paper will now take a considerable shift in focus to address the themes of the conference: relevance and rigour. Relevance is attended to in section 3 by presenting the background of a longitudinal case study situated in “human existence in everyday life”; and in section 5 by demonstrating the importance attributed to empathy for successful teamwork that

emerged during the initial interviews. Section 4 outlines the research approach that was adopted to ensure academic rigour.

### **3 CASE DESCRIPTION**

The case study is based in APC, Ireland a subsidiary of the American Power Conversion (APC) Corporation. APC designs, manufactures and markets back-up products and services that protect hardware and data from power disturbances. The explosive growth of the Internet has resulted in the company broadening its product offerings from uninterruptible power supplies (UPS) to the high-end InfraStruXure<sup>TM</sup> architecture in order to meet the critical availability requirements of internet service providers (ISP) and data-centres. This modular design integrates power, cooling, rack, management and services, which allows customers to select standardised modular components using a web-based configuration tool. The Corporation reported sales of \$2 billion in 2005, globally employs approximately seven thousand people and is a Fortune 1000 company. APC aims to set itself apart from the competition in three areas: financial strength, innovative product offerings and efficient manufacturing (APC, 2006). However, recent financial reports have stressed that the company needs to implement significant improvements in manufacturing and the supply chain (Results APCC 2005; Results APCC 2006). According to these published reports, the company must work to develop a “lean, customer-centric, ambidextrous organisation” in order to reach “optimal efficiencies in our processes”. APC has two locations in the West of Ireland that serve the European, Middle East and Africa (EMEA) region. The company announced a streamlining of its operations in Ireland in June 2006. The Manufacturing Operations site, based in Castlebar, employs approximately 100 people and a number of functions including sales, information technology, business support and research and development (R&D) are situated in Galway with a workforce of approximately 300. The widening of focus from the manufacturing of discrete products, such as UPS, to the delivery of customised InfraStruXure<sup>TM</sup> solutions provides both challenges and opportunities for the Operations function. Responding to the supply chain challenge, a Lean Transformation project was set-up in the Castlebar campus in February 2006 with a cross-functional team of twelve members drawn from Management, Engineering, Manufacturing, Materials Planning, Quality, and Logistics functions. The Lean project team set an objective to quickly deliver the message that Ireland is responding to, and leading, the corporate initiative and to provide a platform for the Irish subsidiary to obtain a reputation as an innovative location. Initial corporate feedback indicated that this project is “ahead of the curve” in terms of the other regions. A major requirement from corporate executives was that any innovations resulting from the initiative could be replicated in other regions. The Corporation entered a major period of transition in the second-half of 2006 with the announcement of its acquisition by Schneider Electric. The primary management information system employed by APC is Lotus Notes, a collaborative software system that manages its knowledge flows. It provides a tightly controlled environment for asynchronous group work; where collaborators can have different or independent work patterns. This section has provided a brief overview of the context of the case study and the following section will outline the research approach in order to present evidence that the relevance of the study is supported by an attention to rigour.

### **4 RESEARCH APPROACH**

Benbasat & Zmud (1999) analysis of the lack of relevance in IS research was, to put it mildly, a criticism of the discipline. Consequently the initial approach to the case study was closely related to the proposal in their paper that “IS researchers should look to practice to identify research topics and look to the IS literature only after a commitment has been made to a

specific topic”. The research, on which this paper is based, was begun in early 2006 and involved undertaking a longitudinal study of innovation management in APC Ireland Operations division. The initial research aim was to consider the human and technological factors involved in the management and diffusion of innovations. A number of strategies were followed to ensure rigour. Firstly, the work followed Yin’s (1994) description of a case study as an “empirical enquiry that investigates a contemporary phenomenon within its real-life context” and where a “*how* or *why* question is being asked about a contemporary set of events over which the investigator has little or no control”. Secondly the similar data collection methods recommended in both positivist (Yin, 1994) and interpretivist (Gillham, 2000) traditions were followed. As a result, the initial data gathering conducted from June to September 2006 involved collecting evidence in the following ways:

- a case study log book
- documents (e.g. minutes of research meetings, industry publications, APC publications)
- records (e.g. storyboards, Lean team contact details, suggestions spreadsheet )
- interviews (e.g. initial exploratory open unstructured interviews with lean team members to obtain an understanding of the project)
- direct observation (e.g. Lean notices and storyboards in Castlebar campus)
- participant observations (e.g. attendance at employee induction program, regularly spending time in the Castlebar or Galway sites of approximately one day per week)
- artefacts images (e.g. photograph’s of the “cell information board”)

The research design was initially formulated to take an inductive approach. The rationale was that first of all there was a need to spend time in the organization, observing and listening, in order to get a feel for the situation. This also would leave the door open to take a deductive approach later in the study when there was enough knowledge of the case to test an established theoretical framework. For example Saunders (2003) argues that such a multi-method approach is often extremely advantageous. Table 1 shows the profile and number of one hour open interviews carried out during this period with the Lean Transformation team. It should be noted that the population in table 1 is a subset of the total number of interviews undertaken across the APC Ireland organisation in 2006. This involved over twenty people and included approximately forty interviews carried out during twenty-five days onsite.

*Table 1. Data Collection: profile of interviewees*

<b>Location :Castlebar facility</b>	<b>Lean Team</b>
Position and number of interviewees	Plant/Senior Manager (2) Engineers (2) Team Leaders (3) Technicians (3) Planners (2)
Total number of open interviews	12

This paper is based on one of these open interviews which resulted in the theme of “empathy” and its role in teamwork emerging from the discourse. In order to not to disconcert interviewees at the early stage of the research, it was decided not to use a recording system. However permission was obtained to take notes. In order to confirm that the researcher had correctly understood the social world in which the research was carried out and that the data were correctly reported, a technique known as “respondent validation” or “member validation” was employed. This involved returning a typed version of the notes to the interviewee for comments and agreement, with the aim of ensuring that they were an accurate representation of the meeting (Kelly & Murnane, 2005 p 99). The resulting agreed transcript is included in the separately aligned paragraphs in the following section. This part of the paper has presented the context and methodology of the study and we will now proceed with an analysis of the interview and a discussion of the relationship between empathy and teamwork that emerged during the conversation.

## 5 FINDINGS AND ANALYSIS

In this section we present our analysis of the emergence of “empathy” during one of the open interviews conducted during the research. The Manufacturing Engineering Department in APC, Ireland “own” the process i.e. they define, design and implement the way in which the product is built. Responsibilities include writing the work instructions, installation of lines, fixtures and machines, planning capacity and headcount, ergonomics and health and safety (H&S). AutoCAD software is used in the course of the process design and layout. An important information system maintained by the department is the engineering change order (ECO) process through which all product changes originating from Design or Field Support engineering are controlled and implemented. The department believes that its ability to quickly react and implement product re-configurations is a significant added value to the business. The Lean project was seen as an enjoyable learning experience.

Lean provides a different perspective and more structured way of doing work. Value stream mapping is a major benefit and the structured way of drawing a value stream on a flip-chart is very beneficial.

Lean thinking was seen to introduce more flexibility within the organisation. The cross-functional teamwork and cooperative decision making was especially beneficial to Manufacturing Engineering who traditionally made their own decisions and then present them to the Production department as a fait accompli which leaves their work open to retrospective criticism. This is of particular relevance to this department which is normally at the vanguard of proposing and implementing changes to the work environment.

The old method on one person taking all the responsibility has been changed to a new way where the functional expertise is supplemented with other people’s input.

The resulting empowerment and collective responsibility has a significant attitude to the perception of success and failure.

If the group tries something and it does not work then it becomes a part of the learning process with the positive attitude that next time we will “fail better”. In contrast to this situation, a focus on the limitations of an individual promotes a blame culture.

It was almost paradoxical that individual concerns were addressed better in the course of collective decision-making since problems were much more likely to “come out in the wash”. Furthermore, all functions were found to be more receptive to change due to the communal input to the decisions. One item that was raised during the discussion was whether such shared decision making resulted in diluted responsibility and reduced accountability. The response was that specialists such as engineers must take ultimate responsibility but that:

Sometimes a professional must compromise (especially on relatively inconsequential points) to create win situations for others and so that those who propose a solution feel that they are empowered. This very often requires “humility” in order that others in the team consider they are contributing and doing the right thing. A healthy working environment is created if people believe that they are making a difference. Consequently, barriers to change are removed when they are involved in the process and are party to the initiation of the change.

On subject of the lack of Production Operators on the Lean team; some team members had initially seen this as a problem and now the Operators were being included in the decision process. However due to the intensity and commitment required by the Lean Training course, provided by external consultants, it was felt that there was a need for a Lean “Lite” to ensure that everyone in the organisation was aware of the methodology.

A key innovation was when Operators were given the opportunity to make presentations to their peers as it brought them into the whole process.



The concept of “empathy” emerged in the discussion in the following way:

Empathy is seeing someone in the situation they are in, especially in cases where they are striving to achieve a goal and are hindered by circumstance over which they have no control. Then it is important to have colleagues that are supportive and available to sort out a problem. Very often it is the conscientious person that will try and try again to make things right without raising the issue. The root cause may be a bad process and this can result in de-motivation of the person involved. The culture must change from a situation where a person has to say “**I** have a problem” to “**We** have a problem” and where the response of the team is “How can **we** help you”.

The reality of working in a fast changing supply chain environment demands that people have the human quality and attitude of being able to cope with imperfect or messy processes and deliver for the team. However, the “strive for perfection” proposed by Lean thinking means that such processes which hitherto might just be accepted are now highlighted as an opportunity for improvement (kaizen).

On the subject of decision-making in an “empathetic” environment:

Decisions made within this environment should be made with the attitude of imagining that you were making the decision in your own company. If I had to choose members of a project team, one of the main characteristics that I would look for when picking a person would be “empathy”.

This section has provided empirical evidence from transcripts of an interview of the importance of empathy in the dynamics of an industrial environment and its proposed positive relationship with teamwork.

## 6 DISCUSSION

Richmond (2005) defines empathy as a “state of mind in which someone shares the feelings or outlook of another” and that this is sometimes prompted by imaginatively “stepping into someone’s shoes”. The term is different from “sympathy” and the concept is presently utilised in discussions on “moral psychology, the imagination and the simulation/theory debate”. Now we will reflect on the legacy of Claudio Ciborra in light of the two main themes of this paper: providing a rigorous philosophical basis for empathy and presenting the relevance of empathy for teamwork in the “everyday life” of people working in an manufacturing environment.

### 6.1 The legacy of Claudio Ciborra

In this subsection we will examine the work of Ciborra against the background of the phenomenology of Edith Stein that emerged from the early Husserl. This will be done by discussing a number of themes from Ciborra’s publications.

- Go to the origins of Phenomenology

According to Resca (2006) “the adoption of phenomenological philosophy represents a significant point of transition in Ciborra’s work” and Ciborra (2002 p 170) states this clearly in his chapter on *Kairos* (and *Affectio*).

We can find shelter by going to the origins of phenomenology, the philosophical line of thought that in the last century celebrated the notion of situatedness.

Stein’s work, begun in Göttingen under the Husserl of the “Logical Investigations” and continued in Freiburg was developed within the first impulses of phenomenology. Ciborra was greatly influenced by Heidegger who together with Stein was an assistant of Husserl in Freiburg. Stein’s assessment of Heidegger’s work was quite negative (Posselt, 2005) but a discussion of this topic would be outside the scope of this paper.

However, future exploration of this debate could be useful for the understanding and evaluation of Ciborra's work.

- Empathy as an antidote to "Krisis"

In section 2, we presented "empathy" as one of the antidotes proposed by Ciborra to deal with what he terms the "Krisis" in the information systems discipline. Following the line of this argument, the emergence of empathy from an ongoing study of a supply chain team suggests that the concept should be considered a significant factor in developing positive working relationships and teamwork. Furthermore, the importance of "people techniques" are being emphasized within information systems development (ISD) where techniques such as Joint Application Development (JAD) are being promoted (Avison & Fitzgerald, 2002).

- Reconciling the Objective and Subjective

A significant theme in Ciborra's work was his aim to reconcile an "objective and subjective epistemology" (Resca, 2006). In this regard, Husserl's contention of the importance of the "intersubjective" which became the impetus for Stein's doctorate appears to be relevant. Husserl's proposition that "an objective external world can only be experienced intersubjectively" is discussed further in section 6.2 which deals with the positivist-interpretivist debate.

- Achieving Competitiveness

Significantly for the case study being presented in this work, Fernandes (2005) proposes that a "Eureka" moment for Ciborra was when he discovered that "dismantling of product lines or teams was not the solution to achieve competitiveness". In a time of transition for the national economy and for the multi-national corporation presented in this study; this is understandably an issue of major concern. It is significant that promoters of Lean thinking insist that it is not the latest quick-fix program but requires a five-year commitment for an organisation to effect the desired transformation (Womack & Jones, 2003). Such a relatively long term investment can provide significant stability in these turbulent times for manufacturing facilities.

- An IS Copernican Revolution

Ciborra argued that the position of ICT in organisations requires a shift from the present focus on the "scientific paradigm" to an "alternative centre of gravity: human existence in everyday life". Furthermore he described this re-alignment in terms of a Copernican revolution in the way organisations introduce and use ICT (Ciborra 2002). He writes passionately about:

How to get closer to practice, then, and the real life of systems in use in a fresher way?

He proposes a new emphasis on activities such as improvisation and bricolage as part of his concern for "human existence as a neglected factor in the implementation of complex systems and organisations". In the final lines of his "Invitation" (Ciborra, 2002 p 9), he continues the grand theme of a Copernican revolution by stating :

I want to contribute to a transition of the field towards an Age of the Baroque in the development and management of technology in organisation and society.

While this paper has more modest objectives, we argue that our approach of engaging with the issues and challenges in a contemporary longitudinal case study follows Ciborra's legacy by initially experiencing the human situation and subsequently applying IS methodologies. Furthermore, we contend that the evidence presented in the interview supports the insights and practical guidelines of Kelly (2004), who placed particular emphasis on "the fostering of trust and personal reciprocities" in the management of groupware innovation.

## 6.2 The positivist–interpretivist debate

The positivist–interpretivist debate has had a significant influence on the development of the MIS field. For example, it took until 1999 for the community to agree that qualitative approaches were finally gaining acceptance (Avison et al., 1999). A major reason for the philosophical standoff has been the Positivist contention that “reality is objectively given and can be described by measurable properties” in contrast to the Interpretivist assumption that access to reality “is only through social construction such as language, consciousness and shared meanings” (Avison & Fitzgerald, 2002 pp. 242-243). Here we will present a number of Stein’s ideas from her PhD thesis that, we suggest, could provide points of reference for discussing some of the perceived differences between the camps. Firstly, she contends that “mechanical causation as an explanation of physical phenomena is not appropriate for explaining spiritual<sup>2</sup> phenomena” (Stein, 1989b p xxiii).

The world in which we live is not only a world of physical bodies but also of experiencing subjects external to us of whose experiences we know.

However she distances herself from psychology’s tendency to subjectivism where

the explained phenomenon becomes a “subjective creation” without “objective meaning”. We cannot accept this interpretation.

Further on she proposes that empathy “proves to have yet another side as an aid to comprehending ourselves”. This deals with the problem identified by Scheler that inner perception “contains within it the possibility of deception”.

Empathy now offers itself to us as a corrective for such deceptions along with further corroboratory or contradictory perceptual acts. It is possible for another to “judge me more accurately” than I judge myself and give me more clarity about myself.

Hence, we propose that the concept of empathy can provide some movement from the extreme positivist stance that disregards concepts such as consciousness while offering safeguards from the subjectivism of extreme interpretivism.

## 6.3 Suggestion for Future work and Limitations of the Study

It is proposed that the role of empathy in development of the human computer interface (HCI) requires further study. This is of particular importance given the enormous growth in the use of self-service technology (SST) in information systems where business transactions are being carried out by persons interacting with automated systems. In relation to this, there is the issue of unethical use of empathy in computer programs that involve user interaction: this is of particular importance where vulnerable populations such as children and people with special needs are involved. (Pettersson 2002). It is also suggested that the work of Levinas, who was also a pupil of Husserl, with his ethical emphasis on the “face of the human other” should be explored due to its resonance with Stein’s phenomenology. The limitations of this paper is recognized due the present early phase of the longitudinal study and because the evidence is based on only one interview.

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<sup>2</sup> Refer to footnote 1 in section 2.2 for a discussion on the meaning of “spiritual (Geist)” in this context.

## 7 CONCLUSIONS

This paper has presented one specific observation and finding that emerged from an ongoing study of a supply chain project in a subsidiary of the APC Corporation located in the West of Ireland. The report has aimed to meet the focus on rigour and relevance outlined in the conference theme. Rigour was pursued by building on the philosophy of Edith Stein which developed from the suggestion of her *Doktorvater* Edmund Husserl and by presenting her research on “empathy” in the light of recent influential publications by Claudio Ciborra. The work claims relevance by proposing to make a contribution in the following areas:

- Presenting a philosophical basis for “empathy” which was put forward as an important attribute for the understanding of IS by Claudio Ciborra.
- Providing empirical evidence of the importance of empathy in the understanding of teamwork based on a real-life industrial situation.
- Proposing “empathy” as a significant theoretical framework for the understanding of organisations, teamwork and information systems.

The paper also introduces the work of Edith Stein to the IS research community as a major contribution to the original impulse of phenomenology, a discipline which is having noteworthy influence on debates within the field. Future work is proposed to explore the relationship between empathy and teamwork and to investigate the implications raised by empathy for automated self-service IS transactions. Furthermore, it is also hoped that this paper can be offered as a response to the call from Klein and Myers (1999) for “further reflection and debate on the important subject of grounding interpretive research methodology” and its philosophical rationale. Finally, it was suggested that Husserl’s characterization of the “intersubjective experience of an objective world” developed by Stein in her work, can contribute some new insights to the present impasse within the positivist-interpretivist debate.

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