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Using Pragmatic Grounded Theory in the evaluation of public policies

The article presents the methodology of pragmatic grounded theory as a research strategy for the evaluation of public policies, basing on a reconsideration of the links between the pragmatism of Charles S. Peirce, grounded theory and the methodology of evaluation. The main characteristics of the approach are illustrated with an example of an empirical study of the evaluation of investment subsidies for small and medium enterprises in Poland. We summarise and discuss the usefulness of Pragmatic Grounded Theory for public policy studies and its limitations, as well as the links to other methodological approaches in the social sciences.

Keywords: evaluation, grounded theory, public policy, pragmatism, abduction

1. Introduction

The dominant approaches in evaluation studies, although already well established, still do not provide a satisfactory and well-structured methodology for investigating the mechanisms of public interventions. The main weakness is found in the process of verifying hypotheses about causal relations. One might ask why one should worry about logical problems and inference methods in empirical researches? The answer is simple: if we want to control the process of our inquiry, ask proper questions, reach robust and useful explanations, understand the results and their limitations – we need to know what tools we are using. In the article we explain the perspective of the pragmatic approach in the methodology of grounded theory for the evaluation of public policies. We attempt to present its elements in a comprehensive and useful way and analyse them based on a reconsideration of the links between the pragmatism of Charles S. Peirce, grounded theory and evaluation of public policies. The theoretical deliberations will be supported by an example of empirical study using the pragmatic approach. The research concerns the evaluation

of public direct subsidies for small and medium enterprises¹.

The article concerns the methodological aspects of research in the field of public policy. To be clear, it does not attempt to analyse the mechanisms of governance or public policy, although the pragmatic tradition (mainly as represented by William James and John Dewey) found very interesting outcomes in a form of democratic experimentalism (Dorf & Sabel, 1998) or pragmatic democracy (Ansell, 2011), which are focused on problem-solving governance based on a learning approach, reflexivity and deliberation working in a recursive circle. However, these approaches are more about ‘doing’ or ‘constructing’ policies than ‘evaluating them’ which is our main concern.

At the beginning it is also worth clarifying the terminological problems with ‘pragmatism’, which today is a label for a diverse set of ideas and approaches – many of which do not have much in common with the philosophy of Peirce. This stems from the fact that the later-pragmatists, when referring to the works of Peirce, very often changed some of his original ideas². We refer to Peirce

¹ The intervention being investigated was Measure 2.3. of Sectoral Operational Programme “Improvement of the Competitiveness of Enterprises”, implemented in Poland within the period 2004-2006.

² James and Dewey significantly reformulated the ideas of Peirce and gave a more practical and utilitarian meaning to pragmatism. This often results in some misunderstandings,

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(not to the later pragmatisms, neopragmatism of American pragmatism) and especially to the part of his broad heritage that concerns the logic of inquiry (e.g. we do not cover his semiotics, theory of categories and signs).

The article proceeds as follows. First, we explain the importance and usefulness of a systematic presentation of pragmatism for application in evaluation research. Second, we present the aims and background of the research that will be used as an example of the pragmatic grounded theory (PGT) approach in the evaluation of public policies. Third, we focus on the theoretical background of the approach: the evaluation of public policies, pragmatism and grounded theory. Later on we present the theory and practice of pragmatic research, describing the main features of PGT step by step and illustrating them with examples from the research. Finally, we summarise and discuss the usefulness of PGT for public policy studies and its limitations, as well as the links to other methodological approaches in the social sciences.

2. Why pragmatism?

The importance and usefulness of the pragmatic perspective is nowadays sometimes stressed by scientists (not only in social sciences), but it is still usually underestimated. The pragmatic scheme of Peirce's methodology (eg. Peirce, 1878, 1901a; 1901b; 1903a; 1903b; cf. Burks, 1943; Murphree, 1959; Buczyńska-Garewicz, 1965; 1999) can be found in a variety of contemporary approaches in social sciences, like grounded theory (GT), evaluation methodology and analytical sociology, that we will refer to, and also educational researches or even content analysis and action research³. It is also commonly used in such fields as cybernetics, programming, artificial intelligence or learning processes. Many of those approaches do not refer

as the two visions of pragmatism differ significantly. Among others they incorporated the pragmatic conception of the truth and from those reasons Peirce himself in his later works began to use term of '*pragmaticism*' for his conception and called the false understanding of his ideas by James as '*pragmatoid*'

³ However, action research refers mostly to the later pragmatism of Dewey or Rorty (cf. Reason, 2003; Gustavsen, 2003).

to pragmatism *explicite* (the link for GT was found after two decades), but all fit into the positivistic empirical paradigm. Its roots reach back to Kant's critique of pure reason, but among the most prominent contributors, apart from Charles Peirce, we can mention Karl Popper. Peirce was focused on the logic of discovery, while the main interest of Popper was the logic of proof. Both approaches are complementary: the first one explains how the knowledge and hypothesis are constructed, the second suggests how to verify it (cf. Hanuszewicz, 2006).

Although pragmatism was established in philosophy more than a century ago, it still seems that it has not been fully utilized. In the literature we can find some, but very few, attempts at the systematization and integration of different approaches or perspectives under the more general pragmatic framework. We can mention here the *Pragmatic Methodology* of Morgan (2007) as well as the more precise orientation of *Mixed Method Research* that refers to Peirce's ideas (Burke & Onwuegbuzie 2004), and the *Pragmatic Sociology* of Henrik Kreutz – a systematic methodology of sociology based on Peirce's pragmatism (Kreutz, 1988).

Morgan proposes *Pragmatic Methodology* "as a new guiding paradigm in social sciences research methods", integrating quantitative and qualitative methods (2007, p. 48). He points the reflexivity of pragmatism, which puts more attention on the social character of the process of creating knowledge. "The great strength of this pragmatic approach to social science research methodology is its emphasis on the connection between epistemological concerns about the nature of the knowledge that we produce and technical concerns about the methods that we use to generate that knowledge. This moves beyond technical questions about mixing or combining methods and puts us in a position to argue for a properly integrated methodology for the social sciences." (ibid., p. 73). He also notices that the difference between induction and deduction is purely an academic discussion: "Yet any experienced researcher knows that the actual process of moving between theory and data never operates in only one direction." (ibid., p. 70).

Table 1. Pragmatic methodology in Morgan's conception

	Qualitative approach	Quantitative approach	Pragmatic approach
Connection of theory and data	Induction	Deduction	Abduction
Relationship to research process	Subjectivity	Objectivity	Intersubjectivity
Inference from data	Context	Generality	Transferability

Source: Morgan 2007, p. 71

Morgan's pragmatic methodology is based on the ideas borrowed from Peirce: abduction, intersubjectivity and transferability (Table 1). The last one imposes the necessity of investigating which factors are local, context-bound and dependent on specific circumstances, and which can be generalized for new settings and conditions. He develops the ideas of a *Mixed Method Research* approach, where the opposition between *qualitative* and *quantitative* methods is negated. For instance, Burke & Onwuegbuzie (2004) announce that the time for mixed methods has come and stresses that epistemology (including the logic of justification) does not dictate the shape of methodology (including data collection and analysis), so a combination of qualitative and quantitative methods can be successfully used for all scientific perspectives and research topics when relying on the pragmatic maxim.

However, the most advanced attempt at incorporating pragmatic ideas into sociology was offered few decades earlier by Henrik Kreutz in the form of *Pragmatische Soziologie* (e.g. 1972, 1988, 2001). Not many sociologists have managed to analyze the philosophy of Peirce so detail and tried to apply the consequences so broadly like Kreutz, although his works received little interest outside Germany and Austria. At the beginning of his scientific career Kreutz noticed that "the influence of theory upon empiric data makes necessary a reform of social research, beginning with a kind of 'meta-methodology'" (1972, p. 199). He developed Pragmatic Sociology as a general, multi-aspect theoretical and empirical approach focused on human behavior as an essential element of society and the research process. The study of human behavior has to be done on the way of investigating the relation between dispositions (preferences, internal tendencies and inclinations for specific behavior) and situations (external condi-

tions for action and factors that influence on the objective spectrum of possible behaviors, as well as actor's subjective perceptions of them). To reach this goal, a researcher has to follow a pragmatic methodology based on abductive inference and the pragmatic maxim.

The increasing knowledge about abduction and pragmatism, together with the process of discovering them in many different fields of science and practical knowledge, favor a deeper reflection about their place in sociology. If sociology aspires to explain reality, it needs a certain methodology of investigation, explanation and development of theory. Peirce's scheme of *Logic as the Method of Methods* is a very promising one. Most of the features of the approach that we will describe may sound familiar to experienced researchers, as it is congruent with the actual praxis of robust research. However, much of the *know-how* of the research process won't be found in handbooks. It is our belief that a systematic presentation of application of PGT in evaluation research may be very useful (cf. Levin-Rozalis 2000, 2004). Firstly, it provides the categories within which the actual praxis of research may be described. Secondly, procedures of PGT are often in opposition to the standard model of sociological research to which young researchers are exposed to, e.g. an incorrect understanding of logical reasoning, the false quantitative – qualitative dichotomy, the role of data, theory-building process, role and status of the theory, as well as the procedure of the research (cf. Onwuegbuzie & Leech, 2005; Morgan 2007). "By adopting Peirce's methods we can build a logical methodological framework for the process of evaluation. Such a methodology can then provide criteria similar to those used for research, but without losing the unique approach provided by the discipline of evaluation" (Levin-Rozalis 2000, p. 424).

3. An empirical example: the evaluation of the public direct subsidies for private companies

As the empirical example of implementation of pragmatic approach in grounded theory for the evaluation of public policies we will use research conducted by Krupnik (2008, 2012a, 2012b). It focused on the investment subsidies for private companies implemented in Poland in 2004 – 2008. During this period firms received circa 2 billion EUR intended for new investments, enhancing competitiveness and development of regional and national economy. However, previous quasi-experimental researches provided reasons for scepticism in relation to the effectiveness and efficiency of the mechanism of direct subsidies (Venetoklis, 2000; Mosselman & Prince, 2004). The main research question then focused on an evaluation of the intervention: what was the real influence of investment subsidies on the national economy?

In order to answer such a question, the standard evaluation studies provide two of the most popular approaches: impact analysis and theory-based evaluation (TBE). Impact analysis focuses on measuring the net (i.e. actual) effect of the intervention (with the use of quasi-experimental studies). However, it is strongly limited in the explanation of the mechanism behind the intervention.

Studies conducted within the second approach focus on the mechanisms of change but they are unable to measure the net effect of intervention. TBE stresses the importance of the study of the main stakeholders opinions regarding the functioning of the intervention: their vision of the cause and effect relationships that make up the program foundation (Chen, 1990; Rogers, Hacsí, Petrosino & Huebner, 2000; Donaldson 2007:). It presents an interesting and useful approach to build robust hypotheses (program theories), but it does not provide a well-structured way for their verification. The approach is open for qualitative, quantitative, quasi-experimental or mixed-designs researches, depending on the nature of hypothesis, nevertheless the methodology of investigation is still underdeveloped. As both approaches have their limitations, a comprehensive evaluation draws from both traditions.

In the article we propose a different look at TBE and evaluation studies of public policy. The presented perspective will help to systematize the process of developing and verifying hypotheses, providing at the same time flexibility and methodological rigor. It is based on inspirations from PGT.

4. Pragmatic Grounded Theory in the evaluation of public policies: theory and practice

The next few paragraphs will focus on particular elements of pragmatic research, according to the research stages. After presenting the tradition and origins of PGT we will successively go through research stages, presenting in each section, first, the theoretical assumptions, and then, the practical example from the research of the evaluation of public policies. We will begin with reflections about “when and how to start” the research; further on we present how to inquire, considering among others the role of logical reasoning; then we will show how to proceed in the further stages of the research process; and finally write about when to stop and what is the status of answers that we obtained.

4.1. Traditions and origins

Grounded theory was offered by Glaser and Strauss in 1967 as a new empirical approach in sociology that could be an alternative to the grand theories and hypothetic-deductive approaches which dominated social science that time. GT intended to be a constant comparative method (comparison of data with data, data with categories, categories with categories) functioning in the context of discovery, where purely inductive reasoning will lead to bottom-up theory building. Owing to GT, qualitative research expanded beyond the simple exploration or idiographic descriptions of the reality. They joined quantitative methods in a positivistic attempt to understand and explain the social world in the way of empirically based process of the theory development.

Today GT is considered by many to be one of the most developed and successful empirical

methods (e.g. Reichertz, 2007, p. 214). It is a full, holistic approach that allows us to follow the thought from the ontological and epistemological foundations, through the methodological solutions and data collection, until the inference process and the final explanatory hypothesis composing our grounded theory. At the same time, GT is flexible and leaves considerable room for discussion and alternative paths. What is most important – the whole process is conscious and apparent. The strength of the method consists, however, not on particular techniques, rules or solutions, but on the appropriate and aware use of data, knowledge, literature, experience and intuition.

The foundations of different approaches in GT can be primarily found in four academic traditions. The first is symbolic interactionism, phenomenology and the Chicago School (incl. G. H. Mead, H. Blumer). The second is positivism, whose influence may be found in the ideas of pure data, unbiased observation and explanation. Both symbolic interactionism and positivism affected the initial development of GT in its early years. The third tradition is postmodern thought, particularly recognizable in the constructivist approach. And fourth, the pragmatic approach seems to be one of the most important inspirations in GT nowadays. It refers primarily to the philosophy of Peirce – the founder of pragmatism and fallibilism, but as well to the later versions of pragmatism by William James and John Dewey.

4.2. How to start?

Theory

In many cases, the most difficult stage of research is the very beginning. How to start and what are the first steps to be taken? In pragmatic research we should firstly consider the background which consists of three fundamental processes:

- a) process of the constantly changing social reality
- b) process of the science
- c) process of the research inquiry

The first point concerns the subject of social research. Social reality is in a constant transformation, although the scope and pace of these changes is differentiated. One of the results of this process and peculiarities of social sciences is the

fact that what was true yesterday, does not have to remain true tomorrow. Therefore, the second point, the development of science, is a never-ending process aiming to describe and explain reality within the limits of current possibilities. As Popper (2002, p. 277-280) put it, the science is not a set of premises, but an endless series of problem situations, temporary solutions, eliminations of errors and new problem situations. The final goal of science is truth, but understood rather as a regulative idea: it exists, but in practice it is either unreliable or unavailable. The third dimension of processuality refers to particular research processes – short-term projects aiming to create proposals, hypotheses and theories that describe or explain a given fragment of reality.

Charles S. Peirce in his pragmatic philosophy focused on the reflexive process of empirically based development of new knowledge in the context of discovery. The context of discovery refers to a situation, fact or phenomena that has no explanation at all, the existing explanation is not sufficient for the researcher or the researcher attempts to investigate it with an open mind within an unbiased conceptual framework. This is the starting point that it shares with grounded theory and evaluation. In the scheme by Kreutz & Bacher (1991) the beginning of pragmatic research process is the initial diagnosis of the empirical situation B that we are interested in, based on the available research methodology, the existing knowledge and experience (including biases and hidden assumptions). The goal is to seek possible theoretical frameworks and formulate hypotheses explaining situation B in the form of component „if A then B”. This initial stage of the research finishes with the formulation of possible components „if” matching the empirically observed components „then”.

At the beginning of the study it is important to set a broad research perspective, avoiding easy answers and beaten paths, being sceptical about previous answers. An „open mind”, however, does not mean an „empty head”(an attitude which was promoted by some GT researchers). A “clear” observation that avoids presumptions and pre-categorization is impossible and such aspirations are artificial. On the contrary, the greater the knowledge of the researcher is, the easier it will be to sketch the preliminary theoretical framework and specify

the initial research hypotheses. The researcher has to seek for a solution, ask next questions and see the reality from many perspectives. Theoretical knowledge, preconceptions, intuition and experience serve as a *heuristic tools* (Kelle, 1995, p. 34) for the development of the hypothesis, concepts and theory that are verified and modified on the basis of empirical data. Peirce even stressed the importance of experience, intuition and a specific guessing instinct which is a “natural” ability of the human mind to discover and recognize the real rules organizing the world (Paavola, 2006: 32-43).

Practice

How does it influence the research process? The evaluation of public subsidies started from the observation that subsidies are perceived by public opinion as one of the best ways of spending public money even if the results of many quasi-experimental studies question its effectiveness. It led to the reflection about the real effects of direct subsidies and the mechanisms behind its perception by the main actors. The first step led, however, to a broader perspective, considering not only the research topic, but also methodology and theory. The main research question, concerning the real influence of investment subsidies on the national economy, was then transferred into three dimensions of the research:

- public policy: What is the public value of the policy under study?
- social sciences theory: Which theoretical framework is the most useful in explaining the phenomenon under study?
- methodology: Can PGT enrich public policy studies?

Even though the research had many dimensions, involved lot of theories and data, all the undertakings were aimed at answering the question of whether the intervention should be implemented or how could it be improved. In order to enhance the discovery-friendly context, the agile scheme of research, as described below, was applied. Thus, the new questions and hypothesis were stated during the research process.

4.3. How to inquire? The role of abduction

Theory

Another central issue in PGT is abduction – a method of inference that for a certain set of facts creates the most probable explanation. Many researchers recognised that GT is an excellent exemplification of the abductive process (e.g. Richardson & Kramer 2006; Bryant & Char-maz 2007; Reichertz 2007), even though in early versions it claimed to be purely inductive. Richardson & Kramer write (2006) that subordination of GT only to induction has been one of the biggest misunderstandings in its history. In the mid 1990’s, Coffey and Atkinson “discovered” that “abductive reasoning lies in the heart of grounded theorizing” (ibid., p. 500). In the early version of GT, presented in work of Glaser and Strauss, the notion of *abduction* did not appear, however its fundamental elements can be recognized between the lines. Glaser and Strauss simply did not concentrate on the logical character of inference. Instead, they put considerable interest in the general idea of developing theory from the data and in the differences from the traditional research processes. “GT was to a very small extent abductive from the start and become more and more abductive in its larger stage; at least in the work of Strauss. Thus the Glaser-Strauss controversy can be characterized, at least in part, as one between induction and abduction” (Reichertz, 2007, p. 215).

All three types of reasoning have their purpose and limitations. „Deduction is the process of verifying the theory, the induction is the process of verifying hypotheses, and the abduction is a method for their discovery” (Levin-Rozalis, 2000, p. 422). The problem of deductive reasoning, especially in social sciences, lies in the fact that “it allows for theoretical ‘nonsense-strategies’ by connecting known facts with arbitrarily derived speculations, which may be wrong or correct” (Kreutz, 2001, p. 7). In social reality it is usually impossible to specify all the conditions in which the deductive statement is truth (strong implication) and we have to assume a lack of influence of other unknown (a *ceteris paribus* rule) or known (*idealisation*) factors on the investigated relation. Such knowledge cannot be considered as secure

and reliable. From the pragmatic perspective, all the grand and abstract social theories should be considered as ideologies or stories that do not have much to do with reality. Whereas the problem of induction, according to Peirce, consists at first in a fact, that it is useless in attempts at innovation and discovering anything new. Induction operates in a range of phenomenon whose characteristics are known – we generalize the truth for a certain class of cases from a set of those cases. It is based on probability, and in order to estimate it, we have to know the investigated features and initial conditions. Induction does not help us with formulating rules, it can only verify the probability of hypothesis (Levin-Rozalis, 2000).

These limitations induced Peirce to consider abduction as a third method of reasoning in science. Abduction was discovered anew by Pierce, since it had already been mentioned by Aristotle in his logical scripts under the Greek name *{apagōgē}*, but later – due to incorrect translation and misunderstanding – it was forgotten for many centuries. Abduction is a process of reasoning that for a certain set of facts creates the most probable explanation – hypothesis, so for a known *C* we are looking for its reason *A*. Its schema can be presented as following (Peirce, 1901a):

Observation:

we observe a surprising fact *C*

Premise (hypothetical):

if *A* were true, *C* would be a natural consequence

Abductive conclusion:

we can assume that *A* is true

We are looking for the cause – a rule, hypothesis, that is a most plausible way of explaining our observations. Abduction is an inference to the best explanation. In fact it is a reversion of deduction, where *C* is a consequence of a known *A* and results from specified hypothesis and postulates. Abductive reasoning, contrary to induction and deduction, is a creative act. In its basic level it is partly “guessing” or “revelation” – from one known element (the result) we have to specify two unknowns (rule and cause). This kind of inference leads to plausible knowledge, Peirce regards abduction as the main method of generating new knowledge: “All the ideas of science come to it by the way of Abduction. Abduction consists in studying facts and devising

a theory to explain them. Its only justification is that if we are ever to understand things at all, it must be in that way” (Peirce, 1903b, p. 205). Such simple guessing is limited and directed by the pragmatic maxim, which requires the conclusion to be empirically verifiable and in consequence leads to further enquiry. Therefore abduction is a necessary element of pragmatism, and pragmatism is based on abduction⁴.

Practice

How does it all look in practice? The results of initial research concerning public subsidies showed that they are not provided to the best, most innovative projects, as it was supposed to be the case, referring to the official aims of the program. The first and simplest question was then what factors account for the receipt of direct financing. The most plausible explanation was that these are primarily the characteristics of companies related to its competitiveness in the field of subsidies, i.e. having most resources and experience in terms of applying for and receiving public funds (or cooperation with companies having the relevant experience). Thus, the subsidies supported the companies who were in better position even without public funds. This effect is well known in social sciences as the Matthew effect – also known as the principle of cumulative advantage (Rigney, 2010).

It was another inspiring observation to notice that the costs of intervention were not thoroughly analyzed in official documents and, moreover, decision makers and clerks seem not to pay too much attention to them. The costs of intervention include institutional costs (e.g. circulation of money between institutions, evaluation and selection of applications, monitoring of grants) and costs on behalf of companies (e.g. preparation of the application, rigidity resulting from the use of public funds).

There was a connection between ignoring costs of intervention and the criteria used to decide on the value of subsidies. As it was noticed during interviews, policy makers, clerks and beneficiaries

⁴ Rearrangement of Peirce’s understanding of abduction was presented by Eco (1983) and Danemark (cf. Bertilson 2004: 385-386), who specify a more precise description of the creative reasoning process, however, they do not change the plausible nature of it.

used other criteria than those stated in official documents (standard evaluation criteria). In order to estimate the value of intervention, they paid attention to the following characteristics:

- attractiveness for the media;
- ease of spending money – speed of cash flow was important because there was considerable media pressure on meeting deadlines for spending all of the funds;
- funding source – the money was very often perceived as coming only from an external source; therefore, the efficiency of spending was perceived as less important;
- fairness – subsidies were perceived as a form of compensation to the SMEs for the fact that other (large enterprises, state-owned and foreign) had been supported in other interventions.

The hypothesis was stated that the minimal attention paid to the costs and diverse evaluation criteria stemmed from treating the subsidies not as a public investment but as a redistribution of resources from richer countries to Poland. Treating public subsidies as investments would mean pursuing implementation in order to achieve economic goals (higher competitiveness of SMEs) and comparing the effects with alternative ways of spending funds. Treating it as a redistribution meant transferring resources from one group to another. The tension between the logics of investment and redistribution is well documented in public policy literature (Scharpf, 1997; Venetoklis, 2000). While the intervention was treated as a redistributive action it was less important to finance the most innovative projects. Thus, the Matthew effect described above could occur.

Observations and hypothetical explanations are summarized in table 2. The way they influenced

the research process is described in the next part of the article.

4.2. How to proceed? The research process

Theory

Abduction is like guessing, therefore it requires a mechanism that will verify the procedure. This mechanism was called by Peirce *the pragmatic maxim*. The pragmatic maxim says, in short, that the thought is meaningful when, and only when, it is followed by practical consequences and directives for an action. The meaning of the adverb *pragmatic* does not imply practicality, utilitarianism or usefulness in solving problems. *Pragmatic* refers to an action (from Greek *pragma*). The empirical component is the essence of a thought: the truth and meaning are defined by practical consequences. For Peirce the statement “this diamond is hard” means only that “it will not be scratched by many other substances”. In practice, the pragmatic maxim can be understood as a verifiability criterion (Misak, 2006, p. 10-12). The scientific inquiry must be considered as a process that leads to practical action, or at least to some precisely specified practical consequence, that can be a matter of justification. There is no scientific knowledge which does not refer to real world experience to a considerably precise extent, or – in other words – such knowledge cannot belong to the realm of science, according to Peirce.

Kreutz & Bacher (1991) suggest that after formulating the potential explanations of the situation B (in form of “if A – then B” hypotheses) we should attempt to verify them empirically. In other words, each potential explanation automatically becomes a next research question that has to be operationalised and verified. In order to do it we

Table 2. Observations and hypothetical explanations

Observation	Hypothetical explanation
Subsidies are not provided to the most innovative projects	Matthew effect (the principle of cumulative advantage)
1. the costs of intervention are not thoroughly analyzed in official documents and decision makers and clerks do not pay attention to them	Treating the intervention rather as a redistributive action than investment
2. diverse criteria for evaluation of intervention	

Source: Krupnik (2012b, p. 470) with changes

have to deduct empirical prognoses from the model that can be a subject of verification. Thereafter, with this additional empirical knowledge, we should seek alternative solutions for an observer situation and formulate them in the form of a hypothesis and again proceed towards empirical verification. In this way the procedure proceeds over and over again. The general criteria for the selection of the initial hypothesis for verification is: ability to explain, verifiability and economy (simple hypothesis are more economical) (Krujiff, 2005, p. 447-450).

Peirce's pragmatic maxim demands we use abstract premises only together with specific methods and techniques of action, that will allow us in a precise way to recreate the initial conditions and procedures that lead to specific consequences. It means that it has to be possible – while reconstructing the identical conditions and acting in the same way – to come to the same results. Such *communicativeness* and reproducibility of knowledge was for the founder of pragmatism a cornerstone for its truth. "Peirce aspired in his philosophy to precision [...] he felt repulsion to inexplicable issues" (Tatarkiewicz, 2002, p. 196). Meaningful is the title of Peirce's early and at the same time most well-known article: "How to make our ideas clear?" (1878). A hypothesis inferred in an abductive way needs to have an appropriate justification based on methods and actions. Pragmatism rejects theories that do not refer to the empirical in an sufficiently precise way. As it was already mentioned, the final solution of pragmatism is then a combination of deductive, inductive and abductive inference, something which will help to eliminate the risks of logical errors from reasoning and seek an explanation of

the investigated phenomena. The general scheme of research can be presented as following (Figure 1):

Such a scheme imposes a constant dialectical relation between theory and the empirical field. Each hypothesis becomes the next research problem and a subject of verification. (1. Empirical) The first step of research is an observation – a surprising fact, unexpected occurrence or interesting situation whose reasons we want to discover. It commences a process of investigation about the possible influences and relations that aim at the reconstruction of facts and processes. (2. Abduction) Based on this we create an initial hypothesis (abductive ones) – our initial "theory". (3. Deduction) Subsequently, we deduce the logical consequences of the hypothesis. Each of the consequences specifies a certain state of a matter that is a conditional prediction. (4. Empirical) In the next stage we submit them to empiric verification using inductive reasoning. As it was mentioned, Peirce denies induction the right to create new knowledge, so the hypothesis is considered from the perspective of probability or "belief" in its truth. Then, we modify the initial hypothesis or create new one. In this way the process continues and repeats itself. Each conclusion from such a round becomes the next hypothesis which is intended to undergo verification.

A graphical scheme of theoretical process in GT based on pragmatism that was offered by J. Strübing (2007) as in Figure 2.

The development of PGT is a continuous process in which the researcher moves from data to hypothesis and returns again to the empirical field utilizing inductive, deductive and abductive inference. Each stage provides some more information about the reality that enriches or modifies the growing theory. In this sense, sociological theories need to be empirically grounded. The goal of pragmatic investigation is always an explanation, not only a description of the reality.

The hypothesis, that is an effect of our inquiry, must be the most probable one and have an appropriate justification. It leads *de facto* to a combination of abduction, deduction and induction into a one process of reasoning that seeks not only for a prediction, like induction, but for an explanation. This element makes abduction such

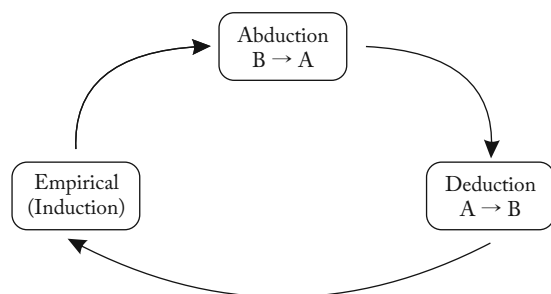


Figure 1. Scheme of pragmatic research process

Source: own conclusions

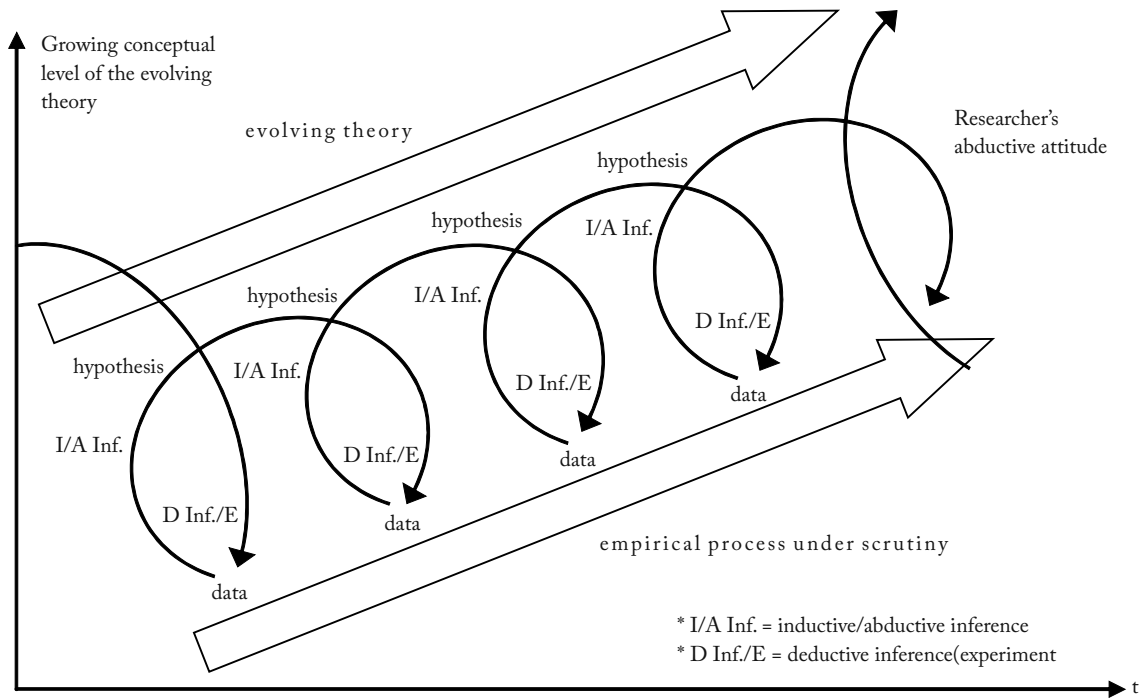


Figure 2. The Logic of inquiry in PGT (by J. Strübing)

Source: Strübing 2007, p. 595

an attractive and promising logical foundation for empirical science.

Practice

Let us return to our research. While the initial choice of specific data sources and research methods stemmed from the aims of the research and chosen approaches, the research process was modified in order to verify the hypotheses. The methods of verification of the hypotheses introduced earlier and the results are presented in table 3. The existence of Matthew effect was confirmed by further interviews with policy makers, clerks and beneficiaries. Moreover, the analysis of the evaluations of similar interventions proved its existence. The data also showed that there is a growing number of enterprises which have based their business models on receiving subsidies.

While the primary results of the research showed the important role of the media, the content analysis of media articles was conducted. Articles in main Polish newspapers concerning investment subsidies were analysed (Table 4). The

intervention was presented as redistributive – the journalists were focusing on the pace of money flow and obstacles to the process. Interestingly, intervention was naturalized – funds were very often presented via an analogy to water. Moreover, political scientists specializing in European policy confirmed the redistributive character of policy behind the analyzed subsidies.

4.3. When to stop? The regulative idea of truth

Theory

The final hypothesis, claiming to be the truth, is not considered in the classical way, so as corresponding with the reality, trend of affairs and relations between them. Peirce defines the truth differently here.⁵ “A true proposition is

⁵ According to R. Almeder (1985) there are at least 13 interpretations of truth in Peirce’s works, but 3 are acceptable, from which the correspondent conception of truth (but as an ideal frontier of cognition) seems to be the most important.

Table 3. Observations, hypothetical explanations, methods of verification and results

Observation	Hypothetical explanation	Methods of verification	Results
Subsidies are not provided to the most innovative projects	Matthew effect (the principle of cumulative advantage)	<ul style="list-style-type: none"> • more detailed questions on the subject asked to beneficiaries, policy makers and clerks • literature review investigating the existence of effect in similar interventions 	<ul style="list-style-type: none"> • interviewers confirmed the existence of the effect; one of them even used the reference to the quote from Matthew gospel in order to illustrate it • the existence of the effect was observed in similar interventions
<ol style="list-style-type: none"> 1. the costs of intervention are not thoroughly analyzed in official documents and decision makers and clerks do not pay attention to them 2. diverse criteria for evaluation of intervention 	Treating the intervention rather as a redistributive action than investment	<ul style="list-style-type: none"> • content analysis of media articles • interviews with experts in European policy 	<ul style="list-style-type: none"> • media articles presented intervention as a redistributive actions (cash flow presented as a water) • experts confirmed the redistributive character of the policy behind the subsidies

Source: own conclusion

Table 4. Examples of comparing EU grants to a water stream used in newspaper articles

Activity	Words used	Example
transfer of funds	flow	“EUR 55 m has flowed to Poland”, „Gazeta Wyborcza”, 27 July 2004, A Company in the European Union
problems with the transfer of funds	frozen	“On 10 March we informed that (...) support as part of Measure 4.4 under the Innovative Economy Operational Programme was frozen”- “Puls Biznesu” 25 March 2008, Companies, go after EU money!
introduction of funds to business/economy	injection, rain	“How we will use them and how will this cash injection change Poland, depends only on us, and in particular on our entrepreneurs and officials.”-“Puls Biznesu”, 29 September 2008, Autumn rain of EU money
demand for funds	as a fish needs water	“Businesses need capital as a fish needs water” “Puls Biznesu”, 19 May 2004, Consultants are waiting for companies in the regions.
absorption of funds	absorption	“It is difficult to imagine an amount which Polish entrepreneurs would not be able to absorb in the form of investment grants” – “Puls Biznesu”, 8 December 2004, the EU does not support investments only.

Source: Krupnik (2012a, p. 47)

a proposition belief in which would never lead to disappointment [discrepancy between implied consequences and experienced reality – SK, KT] so long as the proposition is not understood otherwise than it was intended” (Peirce, 1901b: 397). The result is a conception which is resistant to doubt and falsification (in a given time and place). It has to produce communicative, intersubjective and reproducible knowledge based on empirical

experience, certain methods and actions (ibid). It means that it has to be capable of being operationalised into certain actions and applied empirically (in this sense it has to be “useful”, but not utilitarian).

“So long as the new order is helpful in the completion of a task it is allowed to remain in force; if the value is limited, distinctions must be made; if it shows itself to be useless, it is abandoned.

In this sense, abductively discovered orders are neither (preferred) constructions nor (valid) reconstructions, but usable (re-) constructions” (Reichertz, 2007, p. 222). All such knowledge is temporary, uncertain and modifiable. “Theory is applied because it is considered to be useful” (Richardson & Kramer, 2006: 510). What today is considered as truth, tomorrow may have to be modified or even rejected. This is the endless process of science. Science is then an attempt to describe and explain the reality within the bounds of our capabilities. Regularities and objective reality exist, but cognition is burdened with an error that leads to a constant wandering and going astray. We simply cannot experience the world fully and objectively. Such an approach, emphasizing the finality of knowledge and the endlessness of the research process, is a connection of the *metaphysical realism* and *fallibilism*. Truth (in a classical meaning) is the goal in science but only as a *regulative idea*, as an ideal frontier of cognition. Truth is achievable, but unrecognizable (such an approach is called *weak fallibilism*). We can only come to some intersubjective, temporary valid truth. Science, on the other hand, has a cumulative character. Prior knowledge and theories, even if not valid any more (due to new facts or transformation of the investigated mechanism), state important premises for further researches.

Abductive reasoning requires the inclusion of all the elements and operations that compose the final shape of the theory or conception. Such a *Process of Inquiry*, following the abduction-deduction-induction path, is then the core of *Logic as the Method of Methods*, as Peirce formulates it (Kruijff 2005, p. 451). The process is coordinated by the pragmatic maxim. In this place the relation of abduction and pragmatism is clearly noticeable. The first one itself is simply “blind” like guessing. The latter emphasizes such a form of thought that results in some practical actions (together with all the conditions and consequences), because only they can be a subject of justification. This is the only possible way to grasp and control many conditions and factors that are usually hidden under a curtain of *ceteris paribus*. It also allows one to verify initial assumptions, conscious or not, preconceptions and ideologies, that impose certain meanings and interpretations and state the antecedents for the first cycle of investigation, and so allows to remove

“wishful thinking” from science. The inquiry has to be clear, communicative and capable of being repeated and verified. Only then, when it meets the requirements of pragmatic maxim, can it be considered as scientific knowledge.

Practice

Coming back to our research, the evaluation of investment subsidies brought various findings. Apart from the described conclusions (the redistributive character of intervention and the existence of the Matthew effect) there were also others showing that the subsidies should be treated as an inefficient and ineffective way of spending public resources. The dysfunctional factors leading to this effect may be observed throughout the many stages of the intervention:

1. The aims of intervention were too vague and partly contradictory (e.g. increasing employment vs. enhancing the competitiveness of the economy);
2. The intervention is based on an invalid assumption that a lack of financial resources is the major problem of Polish enterprises;
3. Subsidies are provided to enterprises which would very often conduct the investment project even without public support; Thus, the net effect is small.
4. The positive broader influence of subsidies is also questionable: if one company receives subsidies and its competitor does not, the other company will be worse off.
5. Even if there are some positive effects they are most likely to be too small in comparison with the costs they involve.

The described factors contributed to the mechanism decreasing the public effectiveness of the intervention. While there was no new data to falsify hypotheses, the aims of the research were held to be accomplished. Still, new research questions were identified (e.g. Can we identify the same mechanism in similar interventions?)

Having concluded that the intervention was ineffective, the next question was why was it implemented? Once again, there were many factors leading to the effect. First of all, the intervention serves the individual interests of all parties engaged (policy makers, clerks, beneficiaries, but also journalists). Moreover, stakeholders who are worse

off because of the intervention (tax-payers, SMEs not receiving subsidies) if they are not interested, organized or informed enough to protest. Moreover, almost all of them do not even know that they have reasons to complain. At the same time, most policy makers, clerks and journalists have the feeling that the intervention is good for the economy – it serves the public interest. This opinion stems from the criteria they use to judge the value of public subsidies. To sum up, almost everyone was satisfied with ineffective intervention

The research brought also an additional conclusion about how the scientists can be helpful

to the society simply by asking questions nobody else asks. It is important to mention the practical implications of the study, as it was one of many arguments that persuaded some policy makers in Poland to remodel their intervention (e.g. this was the case in the Małopolska voivodeship). More funds were channelled into indirect forms of support (e.g. repayable loans).

5. Conclusions

In the article we attempted to present the main features of pragmatic grounded theory as a research

Table 5. The essential elements and characteristics of pragmatic grounded theory

Characteristics of PGT	Short description
Context of discovery	Researcher has to go beyond the simple answers and leave the beaten track. The research begins with a surprise or a doubt.
Abduction	It is a third – next to induction and deduction – method of inference, but the only one able to generate new knowledge. Abduction is an inquiry that for a certain set of observed facts creates the most probable explanation – a hypothesis that looks for the cause and a rule.
Pragmatic maxim	Abduction itself is “blind guessing”. The pragmatic maxim controls the process of inquiry by requiring from the hypothesis to be verifiable. An idea needs to result in practical consequences, that define its meaning and can be a matter of justification.
Empirical attitude	The empirical component is the essence of thought. In this sense, there is no science without research.
Processuality	a) of the changing social reality b) of the science (endless attempts of explaining the reality) c) of the research inquiry
Reflexivity	Attempt to grasp and control all conditions and factors influencing investigated process. The <i>ceteris paribus</i> rules and idealisations are inevitable but shouldn't be an easy escape from difficult questions. It is also an attempt to verify the initial presumptions, conscious or not, that impose some initial meanings and interpretations.
The role of researcher's intuition, knowledge and experience	The researcher should have an “open”, but not “empty” mind (in GT language). He should set a wide perspective and utilize all available sources of hypothesis, including knowledge, experience and intuition (that is a feature of good researchers). They can advise where to look for, but do not automatically state a part of science.
Flexible approach	Ideology and skills cannot limit the methodological repertoire. None of the research tools is ideal and our cognitive abilities are limited. The applied methodological scheme could be one of the potential sources of error. PGT prefers mixed methods approach that avoids the false dichotomy between the quantitative and qualitative approaches.
Metaphysical realism	Science is an attempt to describe and explain reality within the limits of our capabilities. We can't experience the world fully objectively.
The regulative idea of truth (<i>weak fallibilism</i>)	A goal of science is the truth. The truth is achievable, but unstable or unrecognisable. Regularities and objective reality exist, but it is uncertain if we can reach the truth, because our cognition is burdened with error and the reality can change.
Falsificationism	Science is an endless process of problematic situations, temporary solutions and their modifications. Each hypothesis turns into the next research question. It is validated (temporarily) when there are no further ways of falsifying.

Source: own conclusions

strategy for the evaluation of public policies. This approach was illustrated with a fieldwork example of an evaluation research of investment subsidies in the Polish context. The essential elements and characteristics of PGT were summarized table 5.

If social sciences aspire to explain reality (e.g. public policies), they need a certain methodology of investigation, explanation and the development of a theory. The scheme proposed by Charles S. Peirce is a very promising one. Peirce was interested in gaining control, as far as it is possible, over the cognitive and research processes. Kola-kowski (1966, pp. 167-173) summarized Peircean pragmatism in a few short words as the method of asking proper questions and looking for the right answers. Currently, a very promising field of methodological development is analytical sociology (Hedstrom & Bearman, 2009). Its goal is a “deep understanding” of social mechanisms, the explanation of them in causal terms and the production of practical knowledge. Although analytical sociology does not refer to Peirce or PGT, it seems that, like other similar approaches, they all express and develop the same pragmatic idea of research that Peirce described more than a century ago.

So how should one do pragmatic research? From the more practical point of view, the PGT approach requires the researcher reflexively look at the research process as a recursive circle. Such research is rather a sequence of single studies (understood traditionally as: design – collect data – analyze). First, strong emphasis has to be put on the selection of optimal sources, methods and techniques in order to answer research questions in the most accurate way (mixed-mode research). According to Peirce, it is necessary to begin in the context of discovery and reach beyond the simple answers and the beaten track. Additionally, the process of hypotheses generation has to be clearly articulated and distinguished. For a certain set of observed facts we look for the most plausible explanation, utilizing all available sources of hypothesis, including knowledge, experience and intuition. The (abductive) hypotheses need to be empirically verified. In order to do so they have to be formulated in an operational manner, according to a pragmatic maxim which finds the meaning of an idea in its practical consequences. After the first phase of the study (defining the objectives

of the study, preliminary formulation of research questions and broad theoretical framework), a few processes have to be conducted simultaneously and repeatedly: the data gathering process, data analysis, development of a conceptual framework, elaboration of research questions. The research process is based on the continuous creation of hypothesis, deriving the deductive consequences and verifying them in empirical tests. If necessary, new research phases can be added as a result of re-conceptualization or in order to verify generated hypotheses. It could last forever, because our cognition is burdened with an error and the reality is constantly changing. However, some substitute for truth is given by a temporary solution resistant to doubt and falsification in the given time and place. It can be called a scientific theory, as it is always based on empirical data, but it can never be a final stage of the research process.

We may also ask what arguments speak for the utilization of PGT in public policy studies, especially when compared to standard methods. We believe that PGT is an attractive proposal for those who conduct, teach and order public policy evaluation. Even though the implications of the presented approach may be in accordance with the expertise of many analysts who have rich experience in public policy analysis, PGT differs greatly from the standard way of teaching public policy studies (at least in Poland). The pragmatic approach and an awareness of abductive logic deals with some important problems, including the role, place and manner of the development of a theory, the role of all types of logical reasoning, the role of intuition in research inquiry, the possibility to minimize pre-conceptualizations and the moment of theoretical saturation, when we can consider our results as final. Pragmatism leaves considerable space for such important and specific elements in social sciences as intuition, inter-disciplinarity and scepticism about the results. The fieldwork example has also shown some very important practical consequences of using the PGT scheme. The results went beyond the traditional conclusions of evaluation research. They provided a detailed description of the factors leading to the ineffectiveness of the subsidies. As a result, it was able to provide sounder and bolder recommendations (including the most important one, that the program should not be implemented).

For example, while quasi-experimental studies showed that the net effect of the intervention was close to zero, they were not able to fully explain why it is like this, and – in consequence – provide insufficient arguments for convincing policy-makers to stop the program.

It is noteworthy that PGT, as well as GT, is not appropriate to all research projects. It is based on the ontological and epistemological assumptions which were discussed above and which do not have to be accepted by each researcher. Moreover, it is best suited to the complex research problems in which the new hypotheses are to be formulated. It is also worth mentioning the fact that ordering a pragmatic study, which cannot be fully designed in detail at the beginning and especially by public administration, can be problematic, even if it could provide the most useful conclusions and recommendations (however, this may be dealt with, particularly when ordering studies within broader partnerships with research institutions).

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