



## The Unfamiliar as Object of an Empirical Science

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### Abstract

The question of this paper follows an empirical study carried out from 2013 to 2015 in five EU countries. The paper looks for a method by which empirical statements can be comprehensibly generalized. The answer is given before a methodological-constructive background. Empirical statements about persons and events are an integral part of the concept. However these statements serve to form input hypotheses. In order to decide the hypotheses, the linguistic means must be provided. In Methodical Constructivism, the general occurs in language as the generality of a predicator. Predication is the place where the relationship between individual and universal can be developed. The concept is based on a process called "dialogical training of experience". With its help, characteristics can be assigned to persons methodically secured; the syntax and semantics of a science language can be provided as an interpreted formal language; and transitions from particular to general empirical assertions can be established.

**Keywords:** About epistemological foundations of the empirical social sciences; introducing the terms "the unfamiliar", "everyday experience", "scientific experience", "dialogue"; the concept of constructive elimination induction; the aim to come from particularistic self-presentation to universal understanding.

### 1. Introduction

In the years from 2013 to 2015 an EU study has been carried out in Germany, Finland, Romania, Slovenia and Sweden (Krope and Petersen 2015). The Center for Constructive Educational Science at the University of Kiel was involved in the project. The subject of the study titled "Domestic Violence Met by Educated Women" was domestic violence against women. One of the objectives was to formulate reliable recommendations on how domestic violence should be avoided, mitigated or stopped. As a prerequisite for intervention measures, a questionnaire survey had been carried out in the participating countries.

In the course of the study doubts about the questionnaire have been expressed. The questionnaire was developed by the Kiel group. The question was how it would be possible to make interpersonal comprehensible statements on acts in the EU countries outside Germany as well as outside the perception and the values of the research team.

The conversation between two persons, who had been beaten in domestic conflicts, gave rise to the criticism. One of the persons appealed to the Istanbul Convention. The Convention is entitled "The Council of Europe Convention on preventing and combating violence against women and domestic violence". The agreement is a treaty under international law, which entered into force on 1 August 2014 and creates binding legal norms. The other person referred to the past of their community, which is still alive in their family association. Those who ask questions about their tradition and formulate objections are not welcome. The familiar bonds, which belong to the protective stock, are defended. Blows in the domestic frame are regarded as an act of recognition. Through the beatings, the beaten person can return to the family.

The conversation was characterized by a reciprocal rejection of the opponent's remarks. If two persons have experienced beatings in the domestic sphere, and cannot share the experience of the others, then there are epistemologically relevant questions. Is an experience basically only for the person who has made this experience himself? Is there a methodically assured transition from particular empirical statements to general empirical statements in the empirical sciences? Under which conditions is an experience accessible for scientists outside the culture within which a person has made this experience? Can statements be reproduced outside a culture?

## 2. The Unfamiliar (Fremdes)

The methodological-constructive dialogue forms the basis for answering questions on argument theory, which are related to the logical connection of elementary statements. A dialogue in the dialogic logic is a dispute that follows explicitly defined rules around an initial statement (a hypothesis) that ends with a decision after finitely many steps. The initial statement is (formally) true if a (formal) profit strategy exists in its favor; otherwise it is wrong.

In the version of the Methodical Constructivism developed by Kuno Lorenz, on the basis of the dialogue, relationships between persons can be described as a relation between one's own (Eigenem) and the unfamiliar (Fremdem). In this approach, "unfamiliar" is a two-place predicator, which is attributed to two persons (or groups of persons) who follow different generic acts (Handlungsschemata), each with incompatible purposes.

In his essay "Das Eigene und das Fremde im Dialog" ("The Own and the Unfamiliar in Dialogue"), which was developed within the lecture "How do We Understand the Unfamiliar?" Lorenz, (2005) describes four typical patterns of an encounter between persons. The first pattern is the demarcation, which is based on demolition. "At least one side wants to have as little as possible contact with the other side after a first confrontation or after a long unsuccessful attempt to approach it" (Lorenz, 2005, 142). The second of the four patterns of an encounter between persons is the assimilation, in which the unfamiliar is included in the own. In the third place, Lorenz, mentions the accommodation. According to Lorenz, the own will be taken over from the unfamiliar point of view. Assimilation and accommodation are mirror images. As a fourth type of relationship between persons, Lorenz, determines the form of a dialogical confrontation, "in which the dealing with one's own self and with the unfamiliar is developed, and one is not content with distinguishing one's own from others. It is a question of looking for something new, an untrustworthy one of the 'reflection level' – as one says, referring to oneself, –, in particular of developing a new speech of one's own and the unfamiliar in regard to what in the first place has been called 'own' and 'unfamiliar'" (Lorenz 2005, 146). In the encounter with the unfamiliar, the dialogue is open to the unexpected, to the new.

Language construction is begun in the Methodical Constructivism with an act that ensures that it is understood. In the simplest case, this is a gesture with which something is shown. This very special act is referred to as "showing gesture" (Zeigehandlung). This "something", which is shown, is called "object" for the simplification of the speech. In the case of an advanced understanding of the language, the showing gesture can be accompanied by words selected from the everyday language such as "That is ...". The use of the expression is practiced by way of example and counter-example. In this process words are assigned to the objects. These words are called "predicators." The process is called "predication".

In the preceding description the conversation of two persons who had experienced domestic blows was sketched. Both have encountered something unfamiliar in this conversation. The one person, to the surprise of the other, describes domestic blows as violence. The second one calls domestic beats an act of recognition, on which, in turn, the first is alien. The question of whether the predicator "violence" or the predicator "recognition" is rightly attributed to an object (domestic beating) can be taken as the point of departure for a dispute that can be decided in a dialogue by rules: Namely with question and answer, with speech and reply, with claims and contests, with actions and reactions, with learning and teaching, with attack and defense. In the course of the discussion, one side makes a proposal that the other side can accept, reject, or replace by an alternative. Predication is the place where the relationship between one's own and the unfamiliar can be developed dialogically.

## 3. Everyday Experience

What does "experience" mean? In the continuation of the work of Kambartel (1976), Lorenzen, (1987, 43 – 44 and 269) and Mittelstraß (1980), an everyday and a social-scientific concept of experience is distinguished. The concept of everyday experience is introduced as follows with reference to the terms "act" (Handlung) and "happening" (Widerfahrnis).

In the chapter "Politische Anthropologie" of his textbook, Lorenzen (1987, 243 – 244) introduces the concept of the act in distinction, above all from the concept of the behavior as follows. Let someone follow a call like "Bring me this book!" This act signifies Lorenzen as "compliance with a call" or shorter as "act". For the use of the concept of the act it is irrelevant whether the request is made by the person acting himself or by another person. "Act" is an activity that is subject to a purpose. The acting person wants to raise, maintain or avoid a situation. But whether or not a doing is an act cannot be determined by pure observation, but only within the limits of an interpretation.

In his "Philosophische Anthropologie" Kamlah (1973) introduces eight rules for the use of the predicator "happening" (Widerfahrnis). (1) The grammatical terms "active" and "passive" can be used to distinguish between "act" and "happening". The waiter serves the guest – he acts. The guest is served by the waiter – it happens to him (es widerfährt ihm) to be served by the waiter. (2) A happening can be caused by people, for example, when someone loves someone, hates, hurts. If an acting person cannot be held responsible, it is said "something happens to us", such as a car accident, a disease or a lottery profit. (3) "Happening" is a two-place predicator. It is said, "Something is happening to

someone". If one does not know what is happening, then it is said "something happens", for example "it rains". (4) Something can happen to a single person or group of people. (5) "Even when we act, something always happens to us. There is a happening without act, but there is no pure act. [...] acts lead to success or failure or even unexpected consequences" (Kamlah 1973, 35). (6) Kamlah refers the term "happening" to human need. "Nothing happens to a stone, even not to a device" (Kamlah 1973, 36). (7) The term "happening" is not limited to events, but also refers to conditions and processes. (8) Examples of acts are counter-examples for happenings and vice versa.

With regard to the term "happening" introduced by Kamlah, it is said: "Everyday experience" is a skill that requires a happening. This skill consists in the ability to be safely familiar with something: a craftsman training that is happened to a person creates a system of goals and rules of acts for that person. A further result is the ability to master discriminations: the pupil of music, whom happened a good teaching in harmony, can make a conceptual distinction and say: "This is a minor third, that one is a great third." And if a lesson with a jazz musician happened to him as an accepted model, then he can make pragmatic distinctions between the binary and the ternary way of playing, without any explicit rules of acts or predicators being available to him. Finally, this ability is the knowledge of the particular: a person whom happens chemotherapy can cite those aspects which, from their point of view, belong to the painful concomitant circumstances and are not available to a reader who is exclusively informed about the general therapy.

The ability is subject to limitations in two ways. First, it is elementary, since it is based on finitely many examples and counter-examples. This limits the generalization of the experience that a person has made in everyday life. When to a young man happens the bitter ending of his first love, his generalizing conclusion ("So are all women") has not a convincing prognostic validity. Secondly, everyday experience does not say anything about causes. A saxophone player who, after years of practice, finally succeeds in the satisfactory intonation of an overtone, cannot be sure why a success happened to him; responsible may be the day's best form, the other instrument, the new mouthpiece or an interaction of the three conditions.

#### **4. Experience in the Social Sciences**

What is meant by "experience" in the social sciences? In the social sciences, situations are created in which an act is called for. In the process empirical methods are used, such as systematic observation, interview, questionnaire, test and experiment. Experiences are gained by the happenings which arise as a result of the required act.

Paul Lorenzen (1987, 43/44) describes what is meant by a "situation" in the philosophy of science: "A situation should be understood as a system of relevant facts [...]. The relevance of circumstances – whether it is a situation or not – is to be defined on the basis of assessment criteria, according to which certain circumstances are relevant when they are necessary for achieving certain purposes or for solving certain tasks".

With reference to the methodological and the theoretical level, it is said: "Experience" in the social scientific sense is the ability, based on methods and gained through happenings, to formulate statements about different acts in established situations and to argue about the relevance of the differences on the basis of determinations or norms that have been introduced to establish truth.

On the one hand, scientists in the field of the empirical sciences are able to produce rationally traceable evidence. In the Methodical Constructivism, the production of scientific knowledge proceeds from the constituent, constructive perceiving person (Gethmann 2010, 22). On the other hand, the happening is no event that would be worked out and understood like a physical experiment, a mathematical operation, or a logical calculus. Something happens to the empirical scientist that is not always rational. The empirical contains a remnant which is resistant to philosophy ("Mittelstraß" 2010, 10).

#### **5. Probably**

In an empirical science, that has the unfamiliar as its object probabilistic theory is put to the test with the question whether the concept of probability provides a theoretical basis for comprehensible conclusions from the known to the unknown. For this discussion the term "probable" is used in the sense of Kolmogoroff. The term "probable" is used in the social sciences to calculate the occurrence of future events.

In 1933, the Soviet mathematician Andrei Nikolajewitsch Kolmogoroff (1933, reprint 1973) presented the draft of an axiomatic probability theory. In the preface of his book, which is only about 70 pages long, the scientist describes the most important mathematical principles on which he was able to build his work. According to Sachs (1974, 29) Kolmogoroff combines the concept of probability with modern set theory, measure theory, and functional analysis. For the present question, the consequences are two. Firstly, the events on which predictions are to be made can be represented on the basis of the set theory. Secondly, the prerequisites are knowledge of the structure of the events in question in the sense that the initial and the final state of the events to be described must be calculable.

An example for the application of the probability theory is the solution of the two-cube problem. If you play with two six-sided dice, then there are 36 possible events, so all possible pairs of eye numbers. The representation in set theory (with "E" for "Event")

$$E = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (1, 6), (2, 1) \dots (6, 2), (6, 3), (6, 4), (6, 5), (6, 6)\}$$

Describes in the first bracket the possible event that both cubes display a 1; in the second bracket one cube shows a 1, the other a 2, and so on to the 36th bracket in which both cubes show a 6.

Now the dice players can ask for favorable events. A favorable event can be composed of several possible events. For example, if you need the eye sum 8 (your favorable event), you can count that the number of favorable events is 5. In the above-mentioned notation, namely, the sum is located in the bracket which is located at the fifth position from the right in the eye pair "6, 2". The abridged representation is to be completed in order to find the other four eye sums. Thus the dice player calculates the probability (P)

$$P(E) = \frac{\text{number of favorable events}}{\text{number of possible events}}$$

With

$$P(E) = \frac{\text{number of favorable events}}{\text{number of possible events}} = \frac{5}{36}.$$

Another case: The probability for sums of the eye to be equal to or greater than 2 when playing with two dice is 1, namely

$$P(E) = \frac{36}{36} = 1.$$

"1" means: there will always be eye sums with two dice equal to 2 or greater 2. Another example: The probability for eye numbers less than 2 is 0. With two six-sided cubes, which carry eye numbers from 1 to 6, no eye sums can be obtained which are smaller than 2. These probabilities were determined by theoretic considerations for which the theory of combinatorics was used. These are mathematical probabilities.

If the players actually roll the dice and compare the number of favorable events observed relative to the number of throws, they are given relative frequencies, which deviate significantly from the mathematical probability in each test. If, however, they perform more and more throwing, and the number of their throws approaches infinity, then the mathematical and empirical probability according to the probability theory agree: probabilities are determined as limiting values of relative frequencies in an infinite series of repeated experiments.

In the question of the application of the probability theory outside a constructed subject area such as the dice game, the conditions formulated by Kolmogoroff are relevant. First, the initial state must be known. The fact that the mathematical probabilities are known is usually justified by "perfect physical properties" of the materials used (for example, in dicing). To avoid a circular definition of "perfect property" Lorenzen introduces the term "repeatability" with reference to the sufficiently good technical conditions found in our culture in order to standardize the use in games such as the dice game by means of rules: "After the test, the device is again in the same state as before the experiment" (Lorenzen 1987, 218). Secondly, the final state of the events must be computable. In general there is the assumption that the sum of a large number of values follows asymptotically a stable distribution.

Rott and Lubbe conclude: "A non-arbitrary numerical probability specification in the sense of the random game presumes (apart from the statement of constant general conditions, namely, in the case of which both the occurrence and the non-occurrence of a questionable event are possible) the non-arbitrary division of the possibility space defined by the given conditions into equal possible courses" (Rott and Lubbe 1996, 606). That is, in disciplines that construct their subject matter according to a uniform process, it is possible to prove the conclusions from the known to the unknown on the basis of the probability theory. Probability theory, however, is unsuitable when the unfamiliar is the object of a theory of social science.

## 6. Constructive Eliminative Induction

John Stuart Mill (1882) has developed a theory for the induction of general statements from individual statements, of which a component is known as "Eliminative Induction". An overview of the problems associated with this theory is given (in an encyclopedic summary) by Haas (1984, 233), (in detail) by PIĘTKA and STACEWICZ (2015), and (with a focus on the logical problem) by Von Wright (1957). The concept, which is referred to as "Constructive Eliminative Induction" within the scope of the present discussion, consists of a three-part measure. The first part deals with the exclusion of

restricted hypotheses, the second deals with the description of the limited validity of non-excluded hypotheses. Part three contains the dialogical decision about empirical statements, which are disputed.

The starting point of the present concept is the methodological basic principle for the planning of empirical investigations with the following considerations. If a person or a group of persons to whom something happened is examined only once, then the conclusions drawn from such an investigation have almost no scientific value, since they do not allow any checks. To ensure a statement, at least one comparison is required. Different objects are to be examined for equality and inequality. The ability to discriminate is not, so to speak, empirically given, but designed qua construction in the social-scientific concept of experience. The observation of isolated objects is inconsequential for this purpose. The controller requirement justifies the relevance of the experimental design. In the concept of the Constructive Eliminative Induction the hypothesis validity is related to the validity of the empirical investigation. With the validity, a hypothesis is qualified as an initial statement for a dialogical decision.

Campbell and Stanley (1963) present 16 experimental designs, ranging from preliminary designs (including, for example, a single questionnaire survey without a comparison case) to real experimental designs (such as the control group arrangement with pre- and post-test and random selection) to quasi-experimental designs (such as time series experiments). For each of the designs the authors describe the consequences of an inadequate control for the validity of the investigation. The distinction is made between inner and outer validity.

Firstly, to inner validity, which is also referred to as "internal validity"? "An examination is internally valid if its result is clearly interpretable. Internal validity is decreasing with an increasing number of plausible alternative explanations for the result due to uncontrolled disturbance variables" (Bortz 1993, 8). Campbell and Stanley describe eight different types of disturbance variables that are relevant to the internal validity. These include, for example, changes in the persons selected for the investigation. These eight interfering variables can have effects that are mixed with or confused with the investigated effect. The interfering variables can be excluded as alternatives for explaining an examination result if they are controlled by the test design. Internal validity is the minimum prerequisite without which no empirical investigation can be interpreted.

Outer validity, which is also referred to as "external validity", is the second criterion to be considered when interpreting empirical data. "An investigation is externally valid if its outcome is generalizable beyond the particular conditions of the investigation situation and beyond the investigated persons. The external validity decreases with increasing unnaturalness of the examination conditions or with decreasing representativeness of the examined sample" (Bortz 1993, 8). In experiments, according to Campbell and Stanley, four disturbance variables (such as the effects of the experimental situation) can affect the external validity of examination results. Generalizations always contain extrapolations, which point beyond the past and beyond individual cases. These attempts to generalize are endangered by the four disturbance variables. External validity raises the question of the generalizability of the statements which go beyond the subject or group of persons, beyond the scope of the investigation and the investigation procedures.

With regard to the experimental design, the constructive elimination method presented in this paper provides indications for dealing with statements about future events and statements about events in unaccountably or indeterminately large populations.

If statements in a group of persons are accepted without contradiction and form the base of acts, there is no need to distinguish between those which are to be used later and those who are not to be used. A distinction is required if at the same time the statement "A" is also formulated with the statement "non-A". In order to be able to decide which of the statements can be used in such a situation, the meta-appreciators "true" and "false" are introduced (Lorenzen 1987, p. 41).

Statements are referred to as value-definite whenever a decision between "A is true" and "A is false" can be made and defended. If the logical particle "or" is introduced, then value-definite sentences can be said to be either true or false. A third is not foreseen in the concept of value-definite statements. Lorenzen (1987, 106 seqq.) introduces the operators of the ontic modal logic into situations where it is a question of abolishing the restriction of value-definite statements. Lorenzen (1987, 111 – 113) develops the foundations of an ontic modal logic from the speech on the necessity of promises of the future, in the light of the fact that recourse to certain knowledge of relative necessities can lead to further necessities. The following symbols are used: " $\Rightarrow$ " is the definition character, " $\neg$ " is the negation sign, " $\wedge$ " is the sign for the conjunction. With the help of "necessary" ( $\triangle$ ) "possible" ( $\nabla$ ) is defined by " $\nabla A \Leftrightarrow \triangle \neg A$ " and „contingent“ ( $\boxtimes$ ) by " $\boxtimes A \Leftrightarrow \nabla A \wedge \triangle A$ ". In words, "contingent true" is defined as "neither necessarily true nor impossible true". Sentences, in which – at least by analogy – the operators "necessary", "contingent" and "impossible" as well as their derivations occur, are called "descriptive sentences". These include empirical sentences.

The meta-appreciator "contingent" is used for empirical sentences, which are determined by an investigation that has at least an internal validity, when applying to the future and to the infinite. The assertion that the statement may necessarily be true or impossibly be true is not permissible as an opening position for a further investigation, i.e. as a hypothesis of a new study to be tested.

Part three of the conception developed as "Constructive Eliminative Induction" in the present context consists in deciding in a dialogical discussion about empirical statements when these are disputed. The presentation takes up the encounter, sketched in the preceding, of two persons who have experienced domestic blows. The first person is called "proponent". The proponent starts the consultation with a claim. The proponent can present a hypothesis as a contingent true statement. For this he may refer to the Istanbul Convention with a corresponding definition of violence and an internally valid empirical investigation based on it. The second person is called "opponent". The opponent begins the consultation by disputing the input statement of his dialogue partner. To this end, he can refer to his family tradition and the experience gained within his framework and point out that the opponent is not represented at all in the study presented by the proponent.

From the perspective of experimental planning, the debate about "true" and "false" aims at the fact that the proponent has submitted an externally non-valid study. The Methodological Constructivism describes an alternative perspective by providing, in addition to the classical foundations for truthful statements, a dialogical basis, which only uses dialog-definite composite sentences – built from empirical elementary sentences (as in the present case) – and regulates how to attack and defend these sentences. At the beginning of the consultation are the proponent's claim and the doubts of the opponent. This is followed by a discussion at the end of which the participants conclude. From a participant  $S_1$ , which makes an initial assertion  $A_1$ , it is said: " $S_1$  asserts that  $A_1$ ", symbolized as " $S_1\Theta A_1$ ". Here,  $\Theta$  (for "theory" in the Aristotelian sense) refers to descriptive sentences. It is assumed that further assertions ( $A_2... A_n$ ) follow, which after a reasonable discussion lead to the conclusion B. From a participant  $S_1$  who has followed the discussion and agreed to the conclusion B, let it be said that he has formed knowledge: " $S_1$  knows that B", symbolically represented as " $S_1\Theta^o B$ ". B is defined as dialogue-definite, if the dialogue ends (not with a fictional, but) with the actual participation of proponent and opponent and in compliance with the dialogical application rules for the reciprocal attacks and defenses (summarized by Kamlah and Lorenzen 1973, 209 – 225).

## 7. Incompatible Purposes

In this dialogue, the acts of the proponent and the opponent are subject to purposes incompatible with each other. This means that the facts which proponent and opponent each attempt to maintain, or to avoid, cannot be realized at the same time. How each of the two person's acts to reach their purposes triggers a surprise in the other person. The question of whether and how the unfamiliar can be bridged is at the same time a continuation of the search for a method of generalizing the individual.

Statements about purposes are no descriptive, but prescriptive statements. Prescriptive statements say what state of affairs shall be. In the foregoing, the modality  $\Delta$  ("necessary") is introduced. " $\Delta A$ " means: "The statement A is necessarily true". If the modality  $\Delta$  is used iterated, then it can be interpreted as a necessity not for present assumptions but for future statements. " $\Delta A$ " in this case means that A will necessarily be true.  $\Delta$  in this use is a modality of the mellontic modal logic. Finally,  $\Delta$  of the mellontic modal logic can be interpreted as the obligation of promises of the future, connected with a preceding! " $\Delta! A$ " means the obligation of a future state of affairs: "The state of affairs A shall be". In this interpretation, as a modality of deontic modal logic,  $\Delta$  can be used in a method for rational decision-making about prescriptive statements.

The method consists, in analogy to the procedure on the descriptive level, to base the principle of the overcoming of the subjectivity also on the effort to the justification of prescriptive statements and to call it the principle of transsubjectivity. The principle prescribes that, when it comes to the justification of prescriptive statements, every participant in the counseling should endeavor not to insist on his subjectively determined purposes with which the counseling begins. Beginning with the initial purposes  $A_1... A$  through rational consultation the decision B arises which is considered justified because of its transsubjective origin. The principle of transsubjectivity serves as legitimation of a prescriptive basic system. It is also the starting point for the argumentative mediation about incompatible purposes. The purposes are not yet transsubjective, as long as they are represented only by a particular person. A decision taken on the basis of reasonable advice can be used to overcome the incompatibility. Thus it can be said: "The participants agree that decision B should be", symbolic: " $S_i\Pi^o B$ ". Where  $\Pi$  (for "practice" in the Aristotelian sense) refers to prescriptive statements. This legitimate decision is the prescriptive basic statement, from which by logic further prescriptive statements follow.

The method is that proponent and opponent transform their initial (subjective) prescriptive utterances. They formulate a single purpose which fulfills two conditions. Both can agree with it. Everyone recognizes in principle his own, his original concern again. This single new purpose represents the ultimate purpose in a multi-level hierarchy of purposes. In doing so, the general purpose is the prerequisite for adherence to other purposes, the sub-purposes. Through the hierarchization important things can be distinguished from less important ones. Through the establishment of a hierarchy of purposes, rational decisions can be made. With reference to the variant of the Methodical Constructivism developed by Lorenz (2005), it is said: Initially incompatible purposes are made compatible by revising one's own and the unfamiliar at a reflection level. Proponent and opponent invent again what they initially called "own" and "unfamiliar".

## 8. Dialogical Training of Experience

In several empirical studies, Krope (2006) investigated the ability of adolescents to dissolve transsubjectively the incompatibility of purposes by establishing a hierarchy of sub-and super-purposes. To this end, the young people had been asked to look for ways out of controversies similar to the moral dilemmas of Lawrence Kohlberg (1994). As a result, two prerequisites for success can be established. A solution was more likely to be achieved if, firstly, the intention was to reach an amicable communication. The second prerequisite was that the participants were provided with methodological support for a teaching and learning process, which was described as "dialogical training of experience".

The language is built up in the Methodical Constructivism with examples and counter-examples. The concept of the dialogical training of experience is based on an indirect variant of the exemplary definition. The variant is sketched by Lorenzen (1987, 179) and executed by Krope (2017). That is the story telling. Fictitious stories can be used for this. The stories need nothing to do with reality. In the present case the story begins with a narrative on the central topic of "violence" proposed by the proponent, and a narrative that has been put forward by the opponent, which is concentrated on "recognition". Proponent and opponent are asked to enumerate a variety of aspects for both narratives, which are related to their respective themes from their very own point of view. The expression "from their very own point of view" is said to mean that the dialogue partner does not have to share the interpretation at the beginning of the encounter.

On the level of descriptions the proponent and the opponent have described their own experiences, which they had made before the meeting. For the description of the domestic blows, the proponent used the predicator "violence", the opponent the predicator "recognition". On the level of objects, however, proponents and opponents, when they have the claim to individuality, are unable to say anything about it, because the object is only their object. Individual objects can only be named in their case by means of a definite description (Kennzeichnung). For example, they can say, "That, what happened on that day at my home". This reference to the individual is not suitable when a comprehensible communication is intended. Through the enumeration of the manifold aspects in the narratives, proponents and opponents are empowered to a language with which they can communicate with their conversation partners – beyond the individual on the level of objects. In order to arrive at an amicable communication, they will determine the general between the stories. In doing so, unequal objects of the different narratives are equated. By abstraction there is a transition from an inequality to an equality and thus from an individual to a general. In his Oxford lectures, Lorenzen (1969, 73f.) describes the analysis of factual genesis and normative genesis as two principles serving the generalization. What is meant by this is the step-by-step understanding of the historical and cultural emergence of a purpose, which represents a dialogue partner in a current debate. Based on this, the question is asked whether, under the changed current conditions, the purpose in question can be justified or need reevaluation. If the process of generalization is successfully completed, the conversation round can come to an understanding upon new, shared experiences.

## 9. Conclusions

The central question of this paper follows an empirical study carried out from 2013 to 2015 in five Eu countries. The question touches on the epistemological foundations of the empirical social sciences. It is: "Is there a methodically assured transition from particular empirical statements to general empirical statements in the empirical social sciences?" The paper looked for a method by which empirical statements can be comprehensibly generalized.

Whoever takes the natural sciences as model is classifying the particular into comprehensive contexts on the basis of probabilities. According to the natural sciences, a single event is recorded as an objective fact. It is classified into a probabilistic law, which is supposed to enable a secure action.

The answer to the question, which is given in this paper before a methodological-constructive background, is to be distinguished from the natural science-oriented answer. The empirical statements about persons and events are also an integral part of the latter. But these statements serve to form input hypotheses. In order to decide the hypotheses, the linguistic means must be provided. In Methodical Constructivism, the general occurs in language as the generality of a predicator. Predication is the place where the relationship between individual and universal can be developed.

How do the two paradigms differ? The method of the natural sciences is based on the probability theory of Kolmogoroff. The Soviet mathematician introduced the set theory, the measure theory, and functional analysis as its most important mathematical foundations. The application of probability theory presupposes, therefore, that mathematical laws are recognized as the world ruling principles of universalization. The individual cases are classified into these laws. - The concept of the Methodical Constructivism is based on a process called "dialogical training of experience". With its help, characteristics can be assigned to persons methodically secured; the syntax and semantics of a science language can be provided as an interpreted formal language; and transitions from particular to general empirical assertions can be established. In the language construction described as "dialogical training of experience" the persons involved in the process are not only the addressees, but also the authors of rules and abstractions. The dialogical training of experience is a teaching and learning process with the aim to come from particularistic self-presentation to universal understanding.

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