Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

The construction of truth

Nørreklit, Lennart

Publication date:
2006

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

The construction of truth

- truth as integration and learning
- a contribution to pragmatic constructivism

Lennart Nörreklit

The construction of truth – truth as integratn and learning - a contribution to pragmatic constructivism

The construction of truth

- truth as integration and learning
- a contribution to pragmatic constructivism

Content

Introduction

The purpose of this theory of truth is to supply the integrative theory of reality (Nörreklit 1991, Nörreklit 2005, Henriksen et all. 2005, Nörreklit et. all. 2006) with a theory on the logical construction of truth and thus start building an epistemology adequate for the theory of reality.

According to the integrative theory of reality the distinction between real and not real is a distinction within the complex relation between the actor and the world. That something is real means that the actor can function as actor. Unreal means that the actor is unable to construct a functioning relation to the world. An unreal world is spooky, it does not function as expected. It is impossible to make it work according to the intentions of the actor. The future is totally unpredictable.

The condition for functioning relation is that the factual, the values and the meaning or communication dimensions are integrated: There must be a factual ground. Otherwise the world is like a dream. The factual ground must open possibilities. Furthermore, values of the actor must lie within the range of the possibilities. Finally, this synthesis of facts, possibilities and values must be expressed in the meaning of our communication.

The integration of meaning, facts, possibilities and values opens the reality of *time* to create the *life world* of the actor. The disintegration of these dimensions makes the reality vapor away. If there are no possibilities, then one is dead. The possibilities must be grounded in the facts. Otherwise they are fictive. If the values are not within the possibilities, the actor has neither reason nor motivation to act and may do nothing. Finally, if the integration of facts, possibilities and values is not embedded in the communication of the actor, the communication becomes useless and meaningless and unable to position the actor in the world.

Expressed or expressible knowledge and truth are constructed integral parts of human life that vastly improve human practices. The condition of the improvement is that we possess a concept of truth that enables us to bridge not one but all the possible gaps between knowing and doing, such as the possible gaps between knowing and deciding, deciding and doing, starting to do and finishing the work, and finishing the work and reaching the goal (Searle 2001). If these gaps cannot be bridged, then theoretical knowledge, knowing that, as well as knowledge as known truth, is irrelevant to practice.

However, knowledge is obviously not irrelevant. Scientific technology works. Within the humanities and social sciences we are able to organize a highly complex human life. Thus the gaps are not only bridgeable, they have to a large extend been somehow bridged.

Nevertheless, the resulting world is not without problems. And the problems seem increasingly due to the ways we have chosen to solve the problems of bridging the gaps. There are serious flaws: poverty, wars, deceases, stress, mental deceases, drug problems and so on. There are still flaws and limits in our ability to bridge the gaps. We need to hunt problems in our ways to bridge the gaps.

According to the main argument of pragmatic constructivism, a functioning reality is constructed by integrating the four dimensions constituting reality, i.e. the factual, the logical, value and the communicative dimension. The overcoming of the gab between knowledge and doing must therefore be achieved by the practical integration of these dimensions. And, there will exist a knowledge-doing gap as long as these dimensions are not adequately integrated in our knowledge. This leads to the idea that what we need is an integrated theory of truth that is able to handle integration in the dark, so to say, to create the light of bridging knowledge. Traditional theories of truth seem basically to relate to one or two dimensional substructures of reality only. They concern an abstract world, which presupposes integration of additional dimensions.

The basic traditional theories of truth – such as correspondence, coherence, phenomenological, hermeneutic and pragmatic theories of truth - inform us about different aspects in the problem of truth. None of them can stand by itself. They all presuppose each other. We need an integrated theory of truth. Correspondence concerns the factual dimension. Coherence concerns the logical aspect that is the foundation for the construction of possibilities. The phenomenological theory concerns the uncovering of the hidden as well as the withholding of subjective pre-judgments which is essential for subjective as well as objective aspects of the world to reveal themselves to us. Interpretation (hermeneutics) is necessary in order to let language and communication comprise the integration of factual, logical and subjective aspects. All theories tell something important and necessary.

How integration works cannot be demonstrated a priori because a priori demonstrations presuppose tools that already embed an integration of the factual and the logical. Thus integration depends on historical conditions – cultural, legal and technological. Thus it must be learned through practice. This learning is brought about by the pragmatics of truth: If our activities do lead to intended results, then the interpretations used are essentially true – there is no essential gap between understanding and reality. If activities do not fulfill the suggested expectations, then one must improve understanding of reality, i.e. of the operating integration.

The strategy of the article is as follows: The first part consists of four steps which are used to establish a concept of *pro-active truth* by combining phenomenological, rationalist and positivist perspectives on truth. The second part first establishes the concept of *pragmatic truth* (step five) which is considered the real truth, although it is useless in itself because it is an ex post perspective and not ex ante. In step 6, the pro-active and the pragmatic truth are integrated and used to form the basis of a *learning ideal of truth.* The third part, step 7, analyzes the *performatory* problem that pro-active truth statements are speech acts that at least in a social setting are likely to influence the pragmatic outcome thereby influencing their own truth value leaving us in the dark with respect to the truth without proper precautions.

The purpose of this article is thus not to clarify the meaning of the notion of truth. It is not to work out a detailed version of the one or the other truth theory. The purpose is to create a logical guidance to the construction of truth by unfolding the understanding of truth that is hinted at in the various theories of truth to comprehensive structure of the

complexity involved in establishing the difference between valid truth and falsity. This result is outlined in the logical steps below involved in the construction of truth.[1]

Part 1: Pro-active truth

- *Step 1, phenomenology of truth, uncovering:* Careful observation and study of reality as phenomena, as experienced life world lays the ground for the construction of truth. Uncovering, laying things in the open, uses a variety of observation methods. It is highly interactive. The phenomenon studied shows itself in many ways.
  In a scientific context it results in the creation of a data basis that constitute the epistemic platform for theoretical analysis.

- *Step 2, grounding a model by factual correspondence:* Out of this material reality as a model is constructed by means of abstraction: the phenomena are conceptualized in a language system. When the model is internally logically coherent, we have a framework with which one can analyze the reality.

- *Step 3, grounding the model by institutional coherence:* By testing the model for external coherence with the institutional conditions – legal conditions or other – of society we analyze the logical possibilities of the modeled part of reality to function in the institutional environment.

- *Step 4, creating pro-active truth by correspondence and coherence:* By operationalizing and dimensionalization of the concepts of the reality model we create an intersubjective information and control system, with which one can capture and communicate the situation of the reality as well as establish control over the reality / life world. Now correspondence between the model and phenomena can be studied, relevant points for measurements can be defined and measurement tools be created, and one can start working with the model and generate statements about the reality. These statements aim at expressing what here is called pro-active truth.

Part 2: pragmatic truth and learning ideal

- *Step 5, pragmatics of truth:* The results of the activities show to what degree the reality model expresses the reality itself. The *real truth* depends on the outcome of the endeavors and may therefore differ from the pro-active truth.

- *Step 6, learning ideal:* Hereby the learning perspective becomes the objective of the installation of observation and monitoring systems. Any observed deviation is information about *truth difference*, i.e. the difference between the reality and observation. Such observation should lead to analysis of the monitoring system in order to improve the system. The dynamics of the world will always tend to make pro-

---

[1] The distinction between the variety of truth criteria and the meaning of truth is in "Sandhed som korrespondens mellem, udsagn og virkelighed" (Nörreklit 1969), where various truth theories were considered complementary *criteria* of truth.

active truth and real truth drift apart. The implemented learning process counters this problem.

Part 3: Performatory problems
- ▪ Step 7, performatory problems: Finally we consider a problem related to the speech act theory of truth. This problem is reduced by the ability to establish knowledge of the expectations and learning about how the pro-active truth statements effect the expectations.

In the following these steps are explained.

Part 1. Pro-active truth

Step 1. The observational ground – reality as phenomenon

Truth about reality is based on observation. The observational basis must be comprehensive. Poor, inadequate and insufficient observational knowledge leads to poor knowledge. Establishing a solid observational ground is a primary task in truth finding.

The reality of life world determines how it functions in its environment. It is not enough to monitor the life world. One must understand its very reality, i.e. the dynamics of how things function in order to distinguish the apparent from the real in the world we live in, in our life world.

Observation must be guided by a critical scientific reflection. To understand reality needs more than observing the phenomena of the world with open eyes. It is to *uncover*, what is going on. It is to *reveal* reality as an experienced life world. It is to uncover what is going on. This way of observing is interactive. It experiments, it questions - it is an ongoing dialogue with questions and answers between the observer and the observed world. This careful study reveals the dynamics of the world including, for instance, understanding and misunderstanding of people, suppressed observations, integrated and not-integrated motivations and values, conflicts between groups, the level of knowledge and skills and so on. It reveals and lays open the technological functioning of things as well as the social organization as phenomena.

As a phenomenon reality is in itself infinitely complex. What interests us is the functioning of our life world in relation to its environment. The theory of reality as integration of fact, logic, value and communication/meaning guides our observations to observe the knowledge of facts, of possibilities, and of values and their integration in the communication in this life world as being essential for understanding the phenomena as an expression of real functioning reality and not just observing some form of epiphenomena.

The methodology to observe the life world phenomena (Brentano 1930), and the uncovering (Heidegger 1930) what is going on, is broadly speaking phenomenological in nature and guided by the idea of truth as uncovering and laying things in the open. The

observer must go directly to the world he wants to know the truth about. 'To the things themselves', is the motto. In this context, truth is not a question of correspondence between on the one hand some linguistic entities such as statements and reports and on the other hand facts. Truth is about uncovering the world - including its language. At this stage, where the observing truth seeker confronts the infinitively complexity of the world, a language to analyze this complexity, a language in which to systematically establish and express facts about this phenomenon, is not yet the relevant issue, although the language of the observer may influence his observation. The relevant issue is that there is no in between the phenomenon and the observer. Truth is not represented, it is revealed.

Language is always very limited in vocabulary compared to the infinity of the complexity of the phenomena. Thus language is essentially reductive. Such reductions should only be made based on proper insight in the phenomena. In the process of uncovering the life world of the actors and the organization, the observer acquires a complexity of knowledge, information and data that will help him in setting up a relevant conceptual system for observation of facts and exerting influence and control.

Values are subjective and liable to be protected, covered and hidden under pressure. Naturally it may be complicated to uncover and establish credible insights in sensitive subjective phenomena such as subjective values. These insights are important though, because irrespective whether they are covered or uncovered they operate and exert continuous influence. In order to understand what is going on, it is necessary to uncover the subjective values operating. The dimension of value - the values of the actors and the organization must be uncovered.

Often leadership focuses on externally defined goals and mistakenly considers them to be the operating values. Externally defined goals must be internalized in order to be operating values. This mistake often amounts to mistake the dimension of possibility/logic with the value dimension. The effect of this mistake is that the organization or institution does not by itself set it values, but simply tries to realize external goals only. This poor form of value orientation creates weaknesses in the interaction with actors and parties and causes difficulties in creating a convincing profile of the organizational work.

In some competitive or criminal environments the phenomenological step is often used to *avoid* establishing the truth in order to manipulate the outcome to make them fit with the interests. By analyzing, where interest of their competitors score high or low, the parties become able to choose the criteria for information so that the subsequent information furthers their interests rather reflecting any real truth about the subject.[2]

The openness in the investigation is the so called phenomenological epoché (Husserl 1900). According to Habermas (Habermas 1999) it is a context where there is no dominating power, i.e. a context created by the confidentiality and the absence of use of power in the investigation. The openness combined with a sense of the social atmosphere, stress and tensions combined with the use of dialogues and other interactive procedures enables the observer to recognize and analyze how the forces and values of the

---

[2] Compare: One still quotes Churchill for saying: "Don't trust any statistics you did not fake yourself," although Churchill never said this. On the contrary, it was systematically attributed to Churchill by Goebbels in speeches in 1940 in order to discredit him. We still follow Goebbels portrait of Churchill, thinking that this was very clever of Churchill.

different elements and parties are observed, respected and integrated in the functioning of organized life and whether the organization itself is seen as a unit representing clear values (cf. Prangsgaard et.all. 1983, Nörreklit 2006).

Summary:

Philosophy of truth	Results	Methods
Phenomenology: - Uncovering phenomena as they are, - To the things themselves	Knowledge of reality as phenomena, life world: - Things are laid open - Infinite complexity - Visibility of subjective elements	Open inquiry: - Triangulation - Critical epoché - Penetrating dialogues - Sharp observations - Careful scrutinizing

Data – the epistemic platform

In a scientific context the step from observation to the step of creating a conceptual model is facilitated through creating collections of observational data that provide an *epistemic platform* for careful selection and development of the concepts to be included in the model. In pre-scientific contexts it is simply our memory and bodily knowledge that constitutes this platform as a more or less intuitive and unconscious knowledge for our reflection.

The role of the platform is to establish a transition in status form being an observed phenomenon to being an established fact by means of a stable in between observer and things or phenomena. In a pre-scientific world such transition is replaced by the reality of the practice itself – this reality guarantees that the foundation is factual and not purely subjective observations. In pre-practice types of contexts such as experimentation, reflection, investigation where new practices are in the making, this guarantee must be established by special procedures. There scientific procedures of data collection, tracing of data, triangulation etc. play the role of establishing the observations as facts. Facts are not special types of phenomena. Facts are phenomena that have obtain a special reliable status. In this sense facts are social constructs. On the other hand, facts are also things in themselves. The chair I sit on exists independently of me or any other people. The chair is not a social construct. It is primarily a physical construct although made for a social use. But that *it is a fact that there is a chair* that is a real social construct.
This feature is then integrated in the forms of practices that base themselves on scientific studies.

The facts established on the platform are in themselves an immense reduction compared to the infinity of the phenomenal ground out of which it is constructed. We cannot record everything we observe. Nevertheless the data represent reality to the scientist. The poorer this selection of data as a representation of reality is, the poorer the resulting scientific truth as representation of the reality of the phenomena is likely to be.

Step 2. Coherence and the world as a model

The second step concerns considering the world as a real model and to create a coherent theoretical model of the world. The focus on logical coherence is a focus on identifying the range of possibilities. The important use of logic is to assist in identifying that which is possible rather than to identify the necessary.

According to the coherence theory truth is a holistic or structural matter. Statements cannot stand alone. They only have meaning in the overall linguistic context. Thus, a statement is never true or false just by itself. If a statement is true, then a great many other statements are true too, and similarly it is never false by itself – if a statement is false, then a great number of other statements are false too. Thus truth comes in sets of statements. Not in individual statements. When we test an individual statement, say "the sun is shining (here now)" it appears that we are testing the one statement, and that all other statements are irrelevant. But that is not the case. Say: I look up the sky and claim, that I see the sun shining. Suppose, it is midnight. That it is dark outside. The street lamps and all the lights in the windows are shining. Now in this situation to say, "the sun is shining" suddenly is very little convincing. What makes the truth is what generates the greatest coherence. And in this case, the statement that the sun is shining creates very little coherence no matter whether I think I saw it or not. We will conclude I saw something else.

In stead implementing a theoretical model given a priori, one may create a reality model of the world studied based on abstraction from the phenomenological material much in the manner of grounded theory (for instance as described by Strauss & Corbin, 1990). In scientific contexts the model is based on the data of the epistemic platform thereby ensuring that the model is based on facts. At this stage we develop reality as a model of what is going on in the life world. This model functions as a basis for a structured communication about the nature of the reality in question. A model that is not carefully grounded will miss essential aspects of reality – i.e. aspects that are important because of their influence on the workings and dynamics of the life world.

One must distinguish between phenomena as say passive appearances is an impression or vision obtained by observation on a deeper level phenomena as force, power or dynamics obtained by experience in interactive studies. Thus the deeper level is not – as in realistic models – something principally unobservable that only can be deduced by some rather metaphysical inference, but discloses itself as phenomenon in interactive studies. By recognizing the inter-active nature of recognition one can create models and theories for the dynamics of the world without engaging in the metaphysical speculation which reference to realist models enforce.

The model must then be developed and analyzed for internal coherence. For that to be done it must be transformed into a set of theoretical statements – a theory. As long as the relations of a model are open and undetermined, test for coherency makes no sense. Test for coherence as for truth only makes sense if the indeterminate relations of the model are replaced with propositions or hypotheses about these relations. The imagination of some undetermined relations between the elements in a model cannot be tested before they are thus specified. The model becomes a theory through such specification of the relations of the model, and the theory must be logically coherent and empirically true.

The analysis of coherency draws on theoretical techniques from theories and methods of in logic and argumentation and the result is a refined theoretical model.

The process of creating concepts by abstraction and to saturate these concepts though theoretical sampling (Straus & Corbin 1990) creates a rich language with which one can describe the social actor (actor, organization, business etc.) and its situation. However, the phenomenal ground is always infinitively more complex to be expressed in any model. One and the same ground can be described from infinitely many different perspectives. All these perspectives are true as passive abstract images of the phenomenal world, although they are not equally relevant to understanding its dynamics, i.e. they are not generating equally valid forms of truth. The interactive observations help the observer to identify dynamics and operating forces, however, the observations will be open to a variety of interpretations. Thus to enable validity concerning statements of the dynamics, one needs a learning process through which one can identify the theories that capture the real dynamics of the world – i.e. it captures the dynamics in a way that is decisive to the ability to function and realize plans and expectations. This is the task of the following steps that guide us to come from model to truth.

Thus, at this reality model level, the theoretical model *describes* existing life world and some of its dynamics. However, the validity of the dynamics of this reality cannot be analyzed by these means yet. In order to do this one must create coherence, i.e. a conceptual dynamics in the model by embedding the actor/organization in its environment (step 3) and developing criteria and measurements that enable the observer to replace subjective impression of change with functional observations that can be analyzed and improved (step 4).

Summary:

Philosophy of truth	Results	Methods
Rationalism Systems theory / Coherence theory of truth	Creating a model, a conceptual structure - creating statements and theory - All dimensions integrated - Intersubjective communication model	Logical analysis – Abstraction, - theoretical sampling - logical analysis - theoretical perspectives as meta-theories

Step 3. Institutional and environmental coherence – reality as a social construct[3]

The third step considers reality as a social construction. The theoretical as well as the practical models must externally cohere with (be isomorphic with) the institutional framework, and this framework must itself be internally coherent.

---

[3] Although concepts of social reality are extensively analyzed it is seems uncommon to consider the institutional framework as a special set of truth conditions. The idea is due to Hanne Nörreklit.

Propositions always operate within a linguistic institutional environment. The institutions of society constitute the framework for creating social facts. The theoretical models, propositions and perspectives created in step 2 always relate to such environment in a more or less direct manner. The work in step 2 is based on an institutionalized conceptual framework. In the environment of modernity and globalization the framework includes not only the constitution of financial instruments, of property rights and functioning markets but also the basis for integration and intercultural learning. In other types of societies the institutional frameworks are different, and organizations are run according to different principles.

The globalized framework of modernity functions as a set of conditions for social-economic success, with which any organization must cohere. This institutional framework is on the one hand a condition for creating any reliable social facts at all. Since it holds for all organized work in the societies, it also defines the conditions of the competitive environment of the organization. The condition for survival and success is the ability of the organization to mirror and adapt to this institutional and environmental framework. This we call *institutional* or *external coherence* meaning that the model of the operating social actor must not only be internally coherent but also coherent with the institutional conditions. On the other hand, there is a risk that the framework is incoherent in that the global ambition implements conditions that are counterproductive and invalid.

Thus there are three sets of relations that must cohere internally as well as match externally or be isomorphic. The operations of the social actor, its inner logic, must match the logic of the constitutive institutions of society otherwise the social actor functions badly in society. Further, these systems should match theoretical modeling otherwise there is a theory-practice gap.
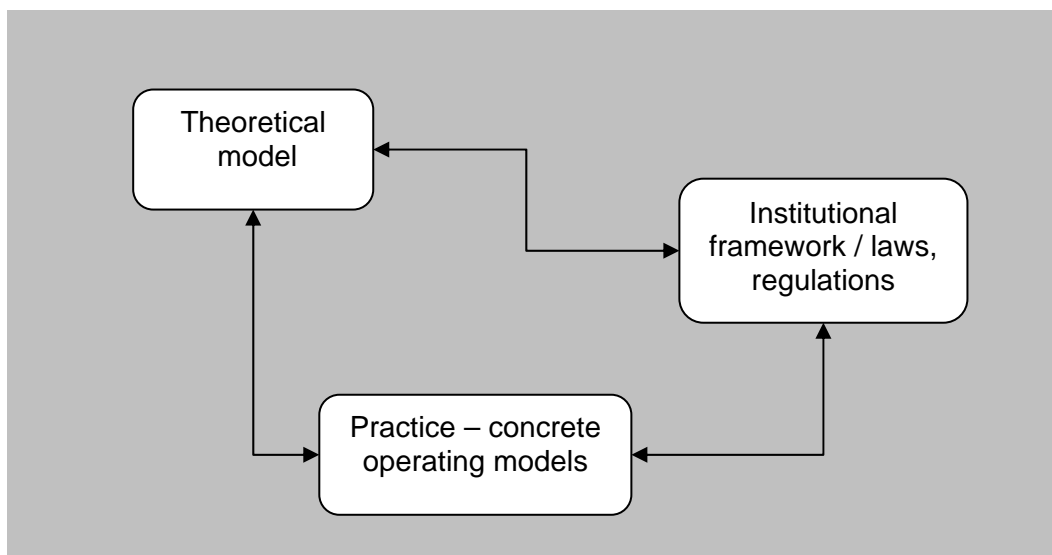
All three models must be internally coherent as well as isomorphic and express the same structure. If practice does not reflect the institutional framework, it is in conflict with its society. Relation between practice and institutional framework is part of the theoretical analysis. Thus, theory is not only reflecting the coherency of practice and the institutional framework, but may itself influence these.

These three systems have some degree of isomorphism and should therefore in principle be able to apply to the same set of factual foundations. There is, however a difference in degree of generality. The theoretical system is purely logical and should fit any situation. The institutional framework depends on the nature of the organization and work, and is generally much narrower than the theoretical framework. That is the reason why theories can be applied to improve or modify the institutional framework. The institutional frameworks differ according to traditions and ideologies. The company mirrors the relatively general conditions set by the institutional framework to create a specific model for its functioning. This model is lively and always changing but maintains its isomorphism with the institutional and the theoretical systems as long as it functions satisfactory.

Summary:

Philosophy of truth	Results	Methods
Social constructivism: Coherence theory of truth	Reality as social fact	External coherence with constitutive rules

Step 4. Correspondence, control and pro-active truth

The fourth step considers practice as a controllable unit and is concerned with establishing correspondence between theory and practice and integrating truth in our control of activities. Since at this level we have not yet a model that generates valid truth about the dynamics of reality, the truth we generate is called pro-active.

Correspondence is an intuitive appealing concept of truth. If the world is in the way it is stated in the statement, then it is true; if not then it is false. Thus correspondence operates with a difference between a medium that can express reality in a true or false way - say a linguistic medium by which we create true or false sentences or propositions or say a mental medium by with we create true or false thoughts or ideas. Propositions or thought etc. are true if the world is as they claim it to be. That is correspondence. If the world is different than expressed in the proposition etc. then there is no correspondence.

A problem in the correspondence theory is, that there must be some image or vision that corresponds to a reality. Correspondence cannot mean that say some group of signs point at some things in the world. There must be some content or structure – otherwise one cannot establish a difference between truth and falsity. This means that the correspondence theory cannot stay alone. It must be supplemented with a different theory of truth, that enables us to create the linguistic or mental content, that can correspond to reality or not – which leads us back to the coherence theory.

Nevertheless, correspondence is necessary. We do look at the world in order to find out, whether a statement is true or not. In order to establish correspondence between the theoretical model and the phenomenal world, the concepts of the theoretical model must be operationalized, observations points must be defined and measurement tools created. When this is done, the model can be used to describe facts and factual change and indicate possible dynamic structures and causal relations. Now a system connecting

the elements of the dynamic life world with social, technological and economic per-spectives is in place, and leadership and management can analyze the situation, make decisions and create plans according to the various forms of goals and operate success-fully in the environment. The statements resulting from this system claim to be true, re-alizing the demands from phenomenology, coherence/logic as well as correspondence. The system set up in this way generates a *pro-active truth*.

Correspondence in a scientific context is not a relation between statement and reality only, but a relation that involves the data on the epistemic platform. Thus there are two relations involved in correspondence: the operationalization connecting theoretical con-cepts with data *and* the relation between data and the phenomenal reality. If people just look at the relation between data and general theoretical statements, one may be with-out contact with reality. It is often tempting to generalize available data and then feel to be in control. It is however an illusion, unless the data are properly grounded and the concepts properly operationalized. Here there are often problems that then lead leaders or managers to run the unit in an ineffective way.

Summary:

Philosophy of truth	Results	Methods
Empiricism / Correspon-dence theory of truth	Reality as controllable units All dimensions inte-grated Pro-active truth	Operationalization Dimensionalization – then: Data generated by the system

Part 2. Pragmatic truth

Step 5. Pragmatics of truth – life world as reality

According to the pragmatic theory of truth, a statement is true if and only if it functions, i.e. if activities based on the statement lead to success and create the intended results. Pro-active truth is in itself no guarantee of any results. However, *real truth* depends on the ability to match future, real truth is pragmatic. Any statement may be interpreted as giving information about possible outcome of activities. The statement is true, if the activities based on the statement actually lead to the results predicted in the statement. For instance "it is raining" implies that I get wet, if I go out without protection. Statements that have no practical consequences have no meaning.

The problem with the pragmatic theory of truth in this traditional form above is that it – contrary to the pragmatic intension – cannot be used at all without introducing a different concept of truth.

First, it can only be used retrospectively. Pragmatic truth is a form of prediction. A statement is not true here and now. It must wait to become true. If a statement was true here and now, then that would mean that the statement was true because of some conditions that take place here and now. These conditions may be correspondence or coherence, but they cannot be the future results.
Therefore one cannot know a pragmatic truth before the future has arrived so that one can check whether the prediction is fulfilled or not. One cannot a priori know the truth about the future. And this is – contrary to the very intention of the pragmatic theory - of no help in managing practice. Practice wants to know the truth before one acts upon it.

However, when the future has arrived, then *again* the truth claim is about the future results of possible actions as is any truth claim in the pragmatic theory. It does not help to wait for the future to arrive, because the problem reappears. It s an infinite regress. Say: "it is raining (outside, here and now)". The statements claims, that "if we go outside we will get wet if we have no proper protection such as an umbrella." To check this out, we go outside without any protection and stand in the middle of the rain. Now we get wet. But can we know the truth about this according to the pragmatic theory of truth? To know whether it is true that "we get wet" (or more correctly "if we go outside we will get wet if we have no proper protection such as an umbrella") we have to test the implications of these statements. According to the pragmatic theory it has a number of consequences for our activities, for instance, to get wet means that if I go inside, then I will make things, I touch, wet. If I cannot make things wet by touching them or by my hair touching them or my cloth touching them, then I am not wet. Thus: I went out in the rain to test whether it was true that it rained, and now I must go inside again in order to make a new test in order to find out whether my first test gave a positive or negative result. And so on ad infinitum. The regress can only be stopped by the introduction of a different theory of truth. For instance: I go out and recognize that I get wet – I am standing in the rain. Here I went to the things themselves and used a phenomenological idea of truth to establish the pragmatic truth.

Therefore first of all, an independent source of truth not depending on knowledge about the future but fulfilling the conditions of constructivist pragmatism is needed. This is the system to generate pro-active truth described in the steps 1-4.

Summary:

Philosophy of truth	Results	Methods
Pragmatism / Pragmatic the-ory of truth	Actor/organization as real unit Real truth	Analysis of the truth difference - Expectations compared with re-sults

Step 6. Learning to validate, integrate and create reality

Constructivist pragmatism is pragmatic in this sense. In order to develop a useful concept of truth, constructivist pragmatism connects to future results as demanded by the pragmatic theory by claiming the fulfillment of a set of present conditions, namely the integration of the four dimensions of fact, logic, value and communication.

The truth concept needed to supplement pragmatic truth is the pro-active truth described. The concept of pro-active truth intends to create an idea of truth that looks into the future based on the present conditions. The pragmatic understanding of truth enables us to compare the *difference* – call it the *truth-difference* - between the pro-active prediction and the pragmatic result. Thus there is a continuous learning situation through which the validity of truth system and the truth claims continuously improve.

This is not invalidated by the fact that the pragmatically realized result again is to be expressed by a proactive truth. What is compared in the truth-difference is the pro-active truth predicting the results before action and the pro-active judgment of the achieved action results. Pragmatic truth is the ability to keep the truth-difference within such limits that actions have results.

Validity is constructed and maintained by establishing an ongoing learning process that enables testing for validity of the dynamic aspects as they are expressed in the theoretical model applied, finding flaws and improving the system. The successful integration is by its very definition an integration that enables the company to construct a future.

Depending on the quality of operationalization (step 4) one can observe the ability to create realizable plans and predict events with sufficient precision that enables the study of the degree to which pro-active truth matches the real truth, i.e. to which the outcome of the activities match the expected or planned results. The observation and analysis of the *truth difference*, i.e. the difference between the expected pro-active and the realized pragmatic truth should be the vehicle of a system of learning that constantly enables us to create better pro-active truth and thereby to make better predictions and decisions. Learning is the result of systematic analysis to identify and overcome the causes that create the observed truth difference. The learning analysis must look for the reason for deviation in all the steps we have presented. The measurements

may be misleading, the understanding of the institutional framework may be unsatisfactory, there may be hidden incoherencies, the abstractions may be too narrow or the phenomenological basis may be poor and misleading for instance because it was manipulated, sloppy or because some new type of phenomena have occurred unnoticed. As a result of the analysis the system generating the truth difference may be revised. The revision may concern the proactive aspects. Or they may concern the way the pragmatic truth is worked out. Or it may concern the way the two are compared. In any case, it should explain and resolve the truth difference.

The learning process is necessary. This process differs however from Poppers idea of learning by creating bold hypotheses and trying to falsify them.[4] Based on the pro-acting system, the company creates expectations and predictions – often these predictions are safe, but sometimes they are bold, as Popper recommends in his so called critical rationalism. But here we do not learn through attempts to falsify the predictions. The company learns from the marginal deviations. Falsification attempts would generally be disastrous. Learning must take place before falsification occurs. Learning in practice takes place in relation to any truth difference, any deviation. Attempts to learn by falsification only works where general laws are tested in experimental situations, in statistical studies or in analyzing prototypes. When working with live cases where the pragmatics of truth is essential, error elimination is attempted falsification. This implies, however, that survival depends on creating sufficient margin so that one can survive some degree of deviation, otherwise no learning is possible, and if learning is impossible, the troubles of the firm will start to accumulate.
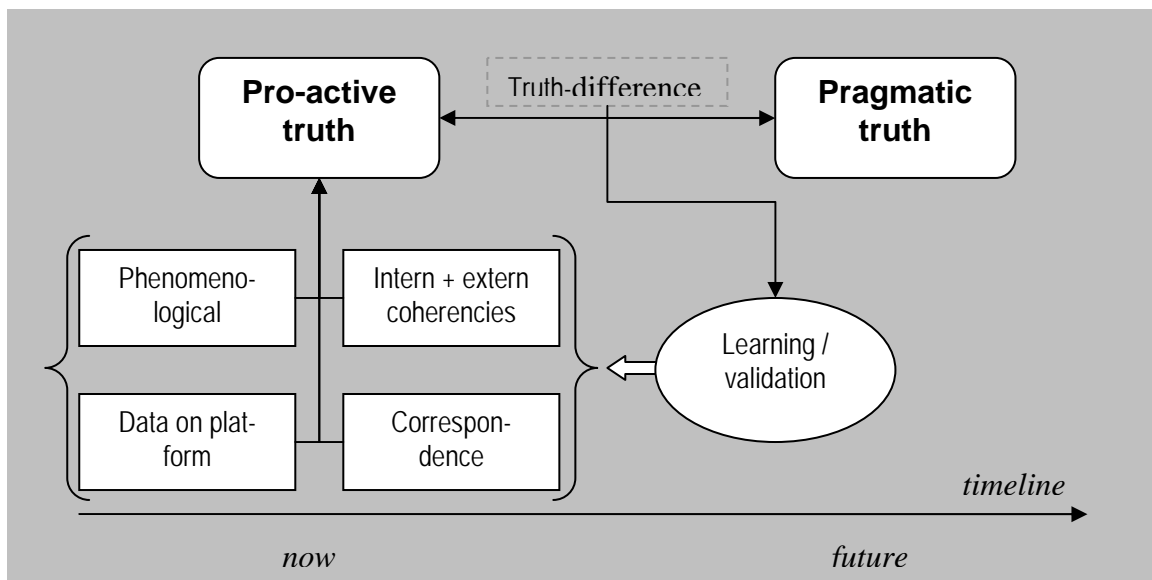
[4] Cf. Popper 1973.

Summary:

Philosophy of truth	Results	Methods
Constructivist pragmatism - Integrating theory of truth	On going learning assimilation of pro-active truth to real truth	Leaning to reduce the truth difference between proactive and real truth

Part 3. Truth as Speech Act[5]

The problem

A pro-active truth proposition, report, or evaluation influences the social reality in which it is stated. This is even more the case, if it is presented within the world, which it purports to characterize. If for instance it is an evaluation, then it immediately influences the evaluated unit, when it is presented in this unit. Thus, as soon as it is known, then it causes effects that may imply that if it is or rather was true before it was stated, then it is not true anymore after it is stated.

This is a general truth problem in relation to social constructs which one must consider especially in a modern environment, where institutions and governments constantly call for such evaluations to take place.

Step 7. The solution

When making an evaluation one can also analyze the expectations to the performance of the unit. By comparing the expectations with the actually realized results, one can to some degree predict the effect of the evaluation. If results are better than expected, the value will increase, and vice versa. This can therefore be taken into account in the evaluation report.

Here one can introduce concepts to analyze certain kinds of fraud such as fraud by expectation control. If the performance is expected to be say 'catastrophically' low, then leadership and interested parties might be interested in hiding this situation for a period in order to rearrange things, for instance empty the unit for values before it is finally closed down.

Physical versus social facts and truth

Every investigation is an activity that interferes with the object it is studying - compare for instance Bohr's principle of complementarity. This does not hold true for the study of social facts only, but for physical facts as well.

Consequently, there is in every type of study an element of indeterminateness where no truth can be established. This problem differs from the problem that *uttering the truth* and *making it known* is a speech act which affects the situation and especially that the uttering of the truth may make it false. This problem relates to the effect the information about the truth has on the actors, if it differs from the actors expectations. The complementarity problem relates to the interactive nature of any investigation of any system.

---

[5] J. L. Austin advocated the performatory theory of truth. See Krikham 1992.

Reference

Ayer, A. J. 1936. *Language, truth and logic*.

Arbnor and Bjerke, 1997: *Methodology for creating Business knowledge*. London. Sage.

Brentano, F. 1930: Wahrheit und Evidenz,

Heidegger, M. 1930: "Vom Wesen der Wahrheit" in Heidegger, M. 1976: *Wegmarken*, Vittorio Klostermann, Frankfurt aM.

Habermas, J. 1973.: "Wahrheitstheorien." In: *Wirklichkeit und Reflexion*, W. Schulz zum 60. Geb.

Habermas, J. 1999. *Wahrheit und Rechtfertigung*

Henriksen, L. B.., at all. 2005: *Dimensions of change*. Copenhagen School of Business Press.

Goebbels on Churcill 1940
http://joongangdaily.joins.com/200603/27/200603272201537179900090809081.html

Kirkham, R. L.: *Theories of Truth, a critical introduction*, Cambridge, London, Bradford, MIT press 1992

Nørreklit, L. (1969). "Sandhed som korrespondens mellem udsagn og virkelighed". Philosophia Arhusiensis, no. 3.

Nörreklit, L. 2005: "Hvad er virkelighed?" [What is reality?], in Christensenh, J, ed. *Vidensgrundlaget for handlen*, Aalborg University Press.

Nörreklit, L. 2006: "Validity of Management Control Topoi", *Management and accounting research*.

Popper, K. R. 1973.*Conjectures and Refutations*: New York, Harper.

Putnam, H. 1981: *Reason, truth and history*

Quine, N. W. 1992.: *The pursuit of truth.*

Rescher, N. 1973: *The Coherence Theory of Truth*, Oxford, Clarendon

Rescher, N.: "Blanshard and the coherence theory of truth" in Shilpp 1980, s. 574-588 *The Philosophy of Bland Brandshard*

Searle, J. 2001: *Rationality in action*. Penguin.

Strauss and Corbin, 1990: *Basics of qualitative research: grounded theory procedures and techniques*

Tugendhat, E. 1967.: *Der Wahrheitsbegriff bei Husserl und Heidegger*.