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Freedom of Thought and the Longing for Reality: About 'Theory' as an Idea, a Concept, and Rhetoric

By Bengt Molander

> After having read 73 poems about flight and
> about wings,
> I want to pay tribute to the soles of my feet,
> my downward-facing soul, the art of stopping
> and having weight ...
>
> Werner Aspenström[1]

INTRODUCTION: BETWEEN FREEDOM AND REALITY

We can sense the full weight of facts, experiences, 'what is', what roots us in our reality. At the same time, we can think freely about what reality (with or without quotation marks) can be at its most fundamental. Humans have created the most fantastic theories about the reality beyond or beneath our experience. Not everything is what it seems. Not everything can be seen. And reality changes.

The current concept of theory is linked to freedom of thought and creativity. Theories are hypotheses. The concept of theory is also linked to order and systems. This is particularly true of scientific[2] theories. When the concept of theory became a separate basic philosophical concept—philosophy in the sense of the search for wisdom—it was primarily linked to the human ability to make contact with and connect to a reality beneath the multiplicity of experience. This is also true of the contemporary concept of scientific theory. This is where we will start.

I quoted above a few lines from Werner Aspenström's poem "Icarus and the Rock." Icarus is a figure in Greek mythology. He was the son of the

artisan and artist Daedalus and he tried to fly away from captivity on Crete using wings that his father attached to him using wax. However, he failed to heed his father's warning about flying too close to the sun. The sun melted the wax and Icarus fell into the sea and drowned. The myth is about human hubris and overestimation of oneself. Werner Aspenström leaves this in the background and creates a tribute to the soles of the feet instead. They root us to the ground but are also part of our thought processes, our "soul," as Aspenström says.

I see this duality as part of the dialectic of the concept of theory. Theories allow us, to a certain extent, to free ourselves from 'what is'. But our thought processes have another side. They exist in our hands and in the soles of our feet, in "the art of stopping and having weight," and in the art of carrying on.

This anthology is a multifolded exploration in craft sciences. The authors of the chapters are practitioner researchers in different craft fields but with a common interest in finding context appropriate theories and methods. This epilogue about the notion of theory is a contribution to craft research from a philosopher's perspective. Together with the contributions from the practitioner researcher, it shows that 'theory' and practice need not be separated in the development of craft sciences.

ABOUT THE METHOD

My objective is to provide a description of the landscape[3] of the concept *theory*. The aim of the description is to find and highlight principal meanings, or rather principal ideas, that lie behind different uses of theory, in the sciences and, to a certain extent, elsewhere.[4] Some philosophers love definitions. Others, including the author of this essay, love to find new and alternative terms and to approach the old ones from every angle without ever deciding conclusively what *theory* means.

Many discussions about theory start from an assumption that the concept is, or should be made, precise and unambiguous. I do not believe that this is correct. Consequently, one important objective of this essay is to try and blur the boundaries of the term, set it into motion—i.e., to show that it is already in motion and is neither precise nor unambiguous.

One particular objective is to contribute to, or at least enable, a concept of craft science—and craft theory—that is essentially developed through craft practice and studies of craft practice emanating from this practice itself (and not just through 'external' observation).

The method is a matter of writing: to write a text that gives an account of what theory can be, based on many years of reading and listening—and academic life. It is therefore a matter of *writing a text* that has both focus and a reasonable breadth. Writing a text is also about reading, taking a break, reading again—and rewriting. Trying out different terms and formulations.[5] The views of other readers are important. But the method is to write *my* text and thus find out where I stand. This is essential if I am to have something to say to others. The text is for you, dear readers.

IN THE BEGINNING WERE THE SPECTATORS AND THE SPECTACLE

The concept of theory has an interesting history which is not unambiguous or easy to understand from a present-day perspective.[6] The word *theory* derives from the Greek *theoria*, which, in the ancient world, had meanings related to witnessing, beholding, seeing, contemplation, and reflection, often 'internal' seeing through the soul or the mind. The entire area of understanding and insight

is full of words linked to sight and seeing. We see clearly and we are enlightened. Strictly speaking, there is no boundary between the more metaphorical and the less metaphorical.

Plato made *theoria* a special concept in his philosophy. He co-opted parts of an older, almost religious concept of *theoria*. A *theoros* (i.e., a theorist) was an envoy sent from a Greek state (city state) to another place to attend a religious festival and then return home and report on it. Being a spectator, then, also meant taking part in the divine proceedings. This meaning may 'theoretically'—through freedom of thought—be disengaged from its religious and historical context. Then, the theorist is the foreigner, who comes (sent) as a spectator to a foreign reality from which he or she is to return home and report on (cf. below about alienation through theory). Hans-Georg Gadamer says that the right place for hermeneutics is "between strangeness and familiarity" ([1959]1988, 76).[7]

For Plato, however, *theoria* stands for insight into reality, which, for him, means an (intellectual, spiritual) observation of the eternal, unchangeable objects—the ideas. Through *theoria*, the theorist, the one who has achieved wisdom, comes to see (the real) reality, the divine. The allegory of the cave in *Republic* speaks of divine contemplation. This is also a contemplation of the whole. It is difficult or impossible to modernise this concept of theory and disengage it from the rest of Plato's perception of reality.

In Aristotle, *theoria* came to be associated with science—theoretical science. Theoretical science means knowledge of the unchanging, of first principles and causes, of what could not have been different. In addition to theoretical science, he included practical and poetic sciences. 'Poetic' here is related to creative activities such as crafts. 'Practical' science is about gaining insight and achieving a good life. *Theoria* is the activity of reason, which mankind shares with the gods. For Aristotle, the theoretical life, *bios theoretikos*, was also the highest form of practical life. *Theoria* means here a contemplative form of life that is an expression of and leads towards the highest form of wisdom (*sofia*).

In the ancient world and in the Middle Ages, a contemplative concept of theory was dominant. Theory meant beholding the truth, which was often interpreted in mystical terms. Later, theory has been linked to various structural means of summarising experience, creating intellectual unity, and enabling a mastery of nature. Theory came to be associated with hypothesis only in the seventeenth century. In the eighteenth century, the term became more and more diverse and it lost some of its character of higher or privileged insight. For example, it was possible to talk about the theory of the art of gardening.[8] This brings us closer to the current, more open, concept of theory, which is not always so open. In the notion of scientific knowledge, it has both become more closed and has received a new elevated status.

I have taken more current meanings of the term *theory* from the biggest, most comprehensive English dictionary: the *Oxford English Dictionary* (*OED*). The extract is provided as an appendix to this essay. The meanings are collected here as, on the one hand, various understandings and explanations of various phenomena and, on the other hand, understandings of and principles for how one should act in various contexts. Theory may stand for a speculative hypothesis, but it may also stand for a system of explanations that have been tested against facts and have been shown to be robust, which does not mean infallible. Theory in this sense may sometimes have been elevated to a seemingly infallible faith.

Theory is something with which we organise reality or use to move forward in reality. This is an attempt to summarise the explanations in the *OED* in a simplified fashion. I will now switch to my own structure. (Calling it my own does not mean that it is particularly original. However, it is the structure that I have chosen and is thus 'beyond' true or false.)

THEORY AS CONNECTION—BETWEEN PEOPLE AND REALITY

Theory is usually, particularly in scientific and scholarly contexts, linked to explanation and understanding. Theory, like explanation, may be understood in a more subject-oriented or more object-oriented sense (I would prefer to avoid the terms objective and subjective):

> Theory is a human system of orientation with which we move forward, intellectually and/or in more concrete terms, in the world. It is a system of perspectives and ideas. It is something we carry with us and use for navigation. It also gives us an overall understanding of an area (area of experience/area of phenomena, the 'landscape').
>
> Theory is also designed to highlight (describe) 'the real,' the underlying forces and tendencies (etc.) that control what happens within a specific area of reality. A theory should go beneath the surface of empirical observations and experiences (which reach neither the smallest parts nor the biggest entireties) and present the most fundamental components of reality. Theory in this sense is to depict or represent reality.

These two sides should preferably match or fit together. The Western scientific tradition is based on the assumption or takes for granted that (large parts of) reality can be understood by humans. Georg Henrik von Wright summarises this as follows in his book *Vetenskapen och förnuftet* [*Science and Reason*]:

> The psychological foundations of the science and philosophy of the Greeks can be described as a tacit, rather than an explicit, belief that the power of human thought is able, without the help of any supernatural authority, to comprehend the *logos* of a thing, i.e., its meaning and inherent order. This might be referred to as a belief in the *intelligibility* of the cosmos. It recurs among the Renaissance pioneers of modern science in the form of a belief that "the Book of Nature" can be read by Man, provided he learns to understand the language of mathematics, in which it is written. A belief of this kind, or rather a conviction, that life is intelligible, is the rational foundation on which everything that can reasonably be called "science" is based. This applies both to the science of the ancient world and to our own. (von Wright 1987, 24–25)[9]

This longing both for understanding and to capture reality is evident in most attempts to explain and define theory in the field of science. The following is a good example:

> A scientific theory is an attempt to bind together in a systematic fashion the knowledge that one has of some particular aspect of the world of experience. The aim is to achieve some form of understanding, where this is usually cashed out as explanatory power and predictive fertility. […] Explanation […] is a matter of showing how things happened because of the laws of the theory. Prediction is a matter of showing how things will happen in accordance with the laws of the theory. Most significant is the fact that really successful theories bind together information from many hitherto disparate areas of experience […]. (Ruse 2005)

The first part of the explanation of the term is more subject-oriented, while the latter formulates the requirements a theory must meet for it to be said to match reality, i.e., explanatory power and predictions that are confirmed, and that the theory preferably binds together a number of fields of study.

As we can see, the meanings of theory may be more subject-oriented or more object-oriented.[10] A key concept for both may be connections, as understanding is based on (seeing) connections and on something being explained through connections to other phenomena (facts). Connections obviously have a subject-oriented side and a more object-oriented side. The two sides do not need to be strictly distinct from each other. The subject-oriented meaning may be more relevant when we perceive a theory as being more hypothetical, more like a scaffold for further methodical enquiry. The object-oriented meaning may be more relevant when we think of 'theory as results' of studies.

The last definition quoted above emphasises prediction. It best matches the typical natural sciences, which try to establish (more or less) general theories (laws) about reality. The definition also uses the term *scientific theory*, here primarily with reference to the natural sciences. It might also match well the self-understanding in many areas of technological science. However, it does not match very well the self-understanding of researchers within the humanities.[11]

So far, I have focused on theory as an intellectual or perhaps purely theoretical form of explanation and understanding. We assume the spectator's (or thinker's) position in relation to the world (reality) around us. In many occupational areas and activities, theory means instructions for how to do something. With reference to the *OED*, in the previous section I mentioned "understandings of and principles for how to act in different contexts" as a fundamental meaning. This is not just about an abstract correspondence between understanding and reality. It is also and perhaps primarily about establishing and maintaining connections by making and remaking reality and *understanding* through this making and remaking. Or, put more simply, creating comprehensible reality. This may be true of technological fields, craftsmanship, and much more besides.

Consequently, we have a third focus for theory in addition to the subject-oriented and the object-oriented. We can call it the practice-oriented meaning of theory.[12] In ordinary language and in most contexts, these (pedagogically motivated) meanings do not occur separately. However, when we take a close look at theory in various contexts, we must turn our gaze of enquiry in all these directions.

In the field of craft science, in the sense of science through crafts, I have found few or no direct references to theory in the sense of (a system of) formulated connections. However, there are often references to methods based in established sciences—both the natural sciences and others. This may concern material properties, dating and—very generally—experimental method. The methods are quality-stamped, so to speak, by reference to the *established scientific systems* and the methods developed and refined within them. If we emphasise this relationship with theory, it is easy to classify the field as 'applied' science. However, I believe that this may be easily misunderstood. Certain established (natural) sciences and their methods are applied in virtually all fields of research, at least as aids. Like other fields, craft science applies them and adapts them to *its* questions and investigative approaches. Application thus also becomes the development of new theory.

THEORY AS DEFINITION AND THE ESTABLISHMENT OF A FIELD OF STUDY

Theory may also be used as the designation of a field of study or research, for example 'theory of science' and 'theory of knowledge.' *Theory* may only be used

in the singular in this sense. The field of study or subject area is defined by fairly general problems. This is also true of literary theory, when the field is defined as follows in the *Oxford Encyclopedia of Literary Theory* (n.d.):

> Literary theory is the practice of theoretical, methodological, and sociological reflection that accompanies the reading and interpretation of literary texts; it investigates the conceptual foundations of textual scholarship, the dynamics of textuality, the relations between literary and other texts, and the categories and social conditions through which our engagement with texts is organized.

A theory may also be a theory about the field to be studied. The theory determines the 'objects' in that field and how they are to be studied. The objects and what are considered facts are created or co-created by the theory, rather in the sense of a subject-oriented and practice-oriented theory here. In this sense, we can talk about *various* theories of knowledge, theories of science, and literary theories. Let us take a few more examples from the field of literary theory.

LITERARY THEORY

> "Literary theory" is the body of ideas and methods we use in the practical reading of literature. By literary theory we refer not to the meaning of a work of literature but to the theories that reveal what literature can mean. Literary theory is a description of the underlying principles, one might say the tools, by which we attempt to understand literature. […] It is literary theory that formulates the relationship between author and work; […] (Internet Encyclopedia of Philosophy, n.d.)

The following relatively simple explanation is a clearer example:

> A very basic way of thinking about literary theory is that these ideas act as different lenses critics use to view and talk about art, literature, and even culture. These different lenses allow critics to consider works of art based on certain assumptions *within that school of theory*. The different lenses also allow critics to focus on particular aspects of a work they consider important. (Purdue Online Writing Lab, n.d.; my italics)

The explanation is accompanied by a long list of different literary theories. *Theory* here means SOMETHING that says what the 'object' literature is and how to treat it in the context of interpretation, criticism, and the mining of relevant knowledge and understanding (cf. the discussion of Gunnar Almevik's use of "theoretical starting points" in the section "Theory in Craft Studies and Craft Reality," below). Without different lenses, we see no 'literature'. The extent to which we are aware of the lenses we use is another matter. Although the above two quotations differ slightly, literary theory typically defines what *literature* is and the methods that can generate *facts* and *knowledge* in the field in question.[13]

There is no given form to which theory in this sense has to be adapted. Consequently, there may be, and there normally are, very different, competing literary theories in the broad field of literary studies. The situation is similar for (general) theories in other humanities and social science fields. Generally speaking, it may be said that literature, literary criticism, and literary studies cannot exist without theory (however, cf. the section below on anti-theory attitudes in science).

I said that theory in this sense generates—"creates"—facts. This means that what is *counted* as a relevant fact in a field of study is determined by theory. Theory in this sense is not tested directly against 'facts' because the theory determines what counts as a fact. *Theory* in this sense may also be cal-

led a *theoretical framework*, which may contain basic concepts (technical terms), theories in the sense of basic connections (theories as scientific systems/systems of general claims), and area-defining or at least acceptable methods. It may be said that theory in this sense provides a basic picture of the reality to be studied.[14] With a formulation that is partially inspired by Plato's *theoria*, we can say that we must learn to *see* correctly if a field that is at first foreign is to reveal itself to us.

Theory in this sense is in no way solely the preserve of the humanities and social sciences. It also exists within the most established natural sciences, but it is often more unambiguously determined by tradition and is (made) self-evident via the path to the subject area's knowledge that everyone takes, most often through an academic education.

We started this section with theory as the designation of a field. Now we have arrived at theory in its perhaps most fundamental sense—i.e., the approaches and methods that define the objects and facts in a field. However, this is theory in an extremely theoretical sense. Inspired by Marx's theses about Feuerbach, we may perhaps say here that the world not only needs to be interpreted; it also needs to be changed, *made and remade*—through crafts and in other ways.

There is an even more general sense of theory, where 'theory of' means 'philosophy of' something. It doesn't, however, seem common to talk about various 'philosophies of' craft science; the researchers rather prefer to talk about various 'approaches to' or 'perspectives on' craft science or 'craft studies' more generally. When it comes to craft and craftsmanship, however, there are plenty of discussions about what craft and craftsmanship *really* are and should be, which means that we enter the arena of theory as philosophy. One example is David Pye's discussions in *The Nature and Art of Workmanship* (1968), where his starting point, as a "first approximation," is that craftsmanship "means simply workmanship using any kind of technology or apparatus, in which the quality of the result is not predetermined but depends on the judgement, dexterity and care which the maker exercises as he works" (1968, 4).

Theory in the sense of philosophy is normative; it is a discussion about, and a philosophy of what *good* work or *good* professional conduct is. It is not part of my topic here to go into either the philosophy of craft, craftsmanship, or craft science. We turn instead to studies which distance themselves from at least object-oriented theory in the form of general statements.

BEING IN REALITY AND TALKING ABOUT IT—WITHOUT THEORY

Not everything is theory. As people, we have a fairly immediate relationship with the world closest to us and with other people. We tell others about events and explain by adding to and elaborating on what we say in various ways. We can understand others' narratives immediately in virtue of sharing a language and common human experiences.

In the humanities, movements that reject theory have primarily focused on description of particular cases and individuals as well as the ability of people to understand the inner world of others, often in combination with each other. They have primarily rejected theory in the sense of general connections.

The latter parts of the nineteenth century and the early twentieth century are a key period in the emergence of modern humanities and social sciences. Humanities were and were identified primarily as historical sciences. A pair of terms derived from discussions in German philosophy and historical studies which is still able to provide a basic model for understanding various fields of science is *idiographic*

and *nomothetic* studies. *Nomothetic* means establishing laws, and it was thought that typical natural sciences aimed to establish laws (general theories) on the basis of observations and experiments. The humanities (i.e., historical studies), it was thought, were typically idiographic—that is, they were descriptive of the individual. They describe (individual) works, cultures, periods, events, and courses of events, and human individuals for that matter.

The clearest idiographic theory of science (in a wide sense) was in *historicism*.[15] According to historicism, it is not possible to generalise from one historical event to another. Knowledge about a historical event (a work) must instead be based on studies of sources linked to precisely that event (the work). People should essentially be understood as historical beings, not as natural phenomena in the meaning of the natural sciences. History is therefore seen as the most fundamental of all sciences.

The most fundamental path to *understanding* in the natural science (nomothetic) field was to see how natural phenomena exemplified general patterns, i.e., *explain* them with general laws. The idiographic sciences were based on *understanding* the individual, ultimately on understanding other people—their actions and works. This understanding is still usually defined using the German word *Verstehen*, but it is nothing other than normal human understanding of other people. However, this must be systematised and used methodically.

Hermeneutics was a dominant source of philosophical elaborations ('theories') of understanding and interpretation as methodical tools for understanding. The relationship between the part and the whole determined by the hermeneutic circle is central to interpretation and understanding here. This says that understanding of a part, for example of a work, must be achieved by understanding the whole of which it is a part (the whole work, an author's works as a whole, etc.). This is about identifying or extracting *meaning*, not arriving at general claims. The most important proponent of this school of thought in the late nineteenth century was Wilhelm Dilthey, who also extended the range of hermeneutics to all humanities and made it, or tried to make it, a general doctrine of interpretation for all human expressions. Dilthey was both a hermeneutician and a historicist.

Other schools focused more on the historical learnings and interpretative ability that could be acquired by *being trained* in and developing through experience, without theory. In this way, you could become an expert in historical (re)construction.

However, you do not need to be an "-ist" or "-ian" of one kind or another to argue that descriptions, analyses, and the understanding of individual events, courses of events, and works, and not general theories, are the primary objective of research in the humanities. I have previously mentioned our ability to understand others, which can be, but need not be, instantaneous or immediate at all. We build understanding through finding objectives, motives, strivings, etc., which often requires no more than normal interpersonal understanding (and a measure of critical reflection). Another essential precondition is the ability of humans to agree on why someone acted as they did. We can establish consensus on our own and others' "expressions of life," to quote Dilthey.

Much of our understanding of others and their thoughts, deeds, and activities is communicated through narratives of various kinds. Context is based on and may be explored through narratives. Narratives may be seen as a fundamental way of understanding and expressing connections that cannot be reduced to other forms.

I have now presented a few perspectives on science (in a broad sense), all of which reject the

objective of establishing general theories. However, the relationship between a theory-free account (or narrative) and the underlying research process represents an important question. In history and several other of the humanities, there is a tradition of writing not only for specialists but also for a broader public. Have authors in their writings simply dismantled their theoretical scaffolds? I cannot look further into this question here, but it is clear that many humanities subject areas and some social science ones have an idiographic *style* in their published works in the broadest sense of the word. They talk freely about sources and empirical evidence, but rarely or never about theories and models. They have a narrative form, sometimes in the form of a travel narrative with a narrator visible in the text. We are invited along on the journey, on which objects are pointed out and placed in a historical framework with an origin, development, and perhaps change.

I will conclude this section by taking a step back and looking at some of my starting points for this account. I assume an opposition between the individual and the general, and these alternatives are also presented as exhaustive. As a consequence of this, the idiographic and nomothetic ideas of science become the only two (well-defined) alternatives. The oldest of all scientific methods is to divide in two, and this is also the oldest and perhaps most tried and tested of all philosophical methods. But neither life nor the sciences are quite as simple as that. I will now complicate the picture. It concerns more or less general *interpretive frameworks*.

What is theory in the form of general interpretive frameworks? It falls outside or between the meanings I have used in my overview thus far. I have assumed a contrast between theory as a (subject-oriented) orientation system and a system of general connections in reality: object-oriented theory. This classification is based on a subject-object relationship between researcher and research subject that has been questioned in the field of humanities. For example, the best-known hermeneutic philosopher, Hans-Georg Gadamer, describes the relationship between researcher and research subject as a dialogical relationship between two subjects. My third interpretative option, the practice-oriented one, may be understood instrumentally in a subject-oriented kind of way. It may also be understood dialogically. For example, both material and tools may *talk back*.

Most examples of studies in the field of craft science that I have seen are more or less comparative. Making systematic comparisons means starting out by typologising, finding typical or common (human, cultural) expressions in time and space, and thus building up explanatory contexts. Buildings, craft procedures, ways of gardening, etc., are thus charged with a meaning that contributes to (increased) understanding and thus explanation. This is the generation of meaning, which therefore also contributes to generating—not just establishing—facts of certain types (cf. the discussion above on theory as the defining of a field of study).[16] Such typologisation primarily means developing (building, modifying) *suitable concepts*, as opposed to looking at correlations that are shown through given (chosen in advance) concepts (cf. the last section below).

The dividing line between idiographic and nomothetic research strategies is a fairly blunt instrument. It is possible to find relatively pure examples of both types of scientific strategy. But in the field of cultural and social sciences, there are forms of generalisation and universality that do not properly fit in. Examples are the insertion of activities or phenomena into more extensive processes/trends/wholes, for example general historical development

processes; arranging under national or nationalist objectives; applying modernity theory and other extensive 'social theory.' This is theory that both sets limits and extends interpretations (cf. the section on critical theory below).

THEORY AS HEADING AND RHETORIC

Applications for research funding and scientific articles are generally required to have a theory section, often under the heading "Theory" or "Theoretical Framework." Exactly what this is expected to contain and the standards that apply may vary. A theoretical framework (usually) includes:

- a conceptual framework, indicating and explaining, where necessary, the most important concepts; [17]
- the theoretical perspectives used to formulate the research problem, often in the form of references to central works;
- the methods one uses to arrive at a result.

In an empirically dominated study, the theoretical framework may stand for almost anything that is the starting point or background for the empirical study. It may include references to theory that are particularly important for the choice of empirical evidence and methods (and design). If something is part of the standard repertoire in the research field, it does not need to be stated except perhaps extremely briefly. In theoretically dominated subjects and research fields, there is often a fairly extensive theoretical framework that is accepted by most.[18] A detailed description of your own framework is only required if you are deviating from this.

In summary, theory as framework can stand for any (important) starting points for a study. By using "Theory" and "Theoretical Framework" as headings at the right place in a text, you also show that you are part of the scholarly community. You have dressed appropriately to be accepted in the right salons. I call this *rhetoric*, a term which I am using in a broad but not derogatory sense. This includes all use of words to achieve the desired effect in social contexts.[19] It also sometimes includes exercising power and resistance to (others') power. It is not wrong to use rhetoric!

It is possible to exercise power by condemning others for not having any theories or not having achieved a theoretical level. Power may also be exercised in the opposite direction, for example by accusing someone of having nothing but theory. Claims of these types are often intensely context-dependent and there is therefore no reason to start an abstract ('theoretical') discussion on all sorts of potential interpretations here.

I will take an example of (good) rhetoric from the field of building history and conservation from Gunnar Almevik's thesis *Byggnaden som kunskapskälla* (*Buildings as a Source of Knowledge*) (2012). Chapter 2 of this thesis has the heading "Theoretical Starting Points." It is about various "sources of knowledge" and how they are interpreted, in particular buildings as sources of knowledge. Overarching knowledge and research perspectives are discussed with reference to important people and works.

> In my work, I have applied an approach that is both discursive and phenomenological. In this sense, the theoretical starting point is twofold. (Almevik 2012, 27)

Almevik also discusses "elements of the building history study" and three different perspectives on building history studies (forensic, plurality of sources, actors). Finally, he discusses images as tools for reflection and a scholarly/scientific language.

The thesis proceeds from a study perspective that is not firmly fixed in advance. It therefore

becomes particularly important to highlight—and discuss—different overarching perspectives (some would have talked about *paradigms*). It is all very interesting and well written, and it provides the reader with good information. But what makes it "theoretical"?

This word marks a contrast with ('concrete') studies and their results. The "theoretical" is not about practice or empirical observations in research. What it takes up are relatively general starting points. Some of them are rather philosophical or related to theory of knowledge. The chapter is valuable but could equally well have been called "Starting Points." *Theoretical* has a rhetorical function here and opens up for the inclusion of more general basic perspectives, also including a discussion of methods and methodological perspectives.

CRITICAL THEORY—LIBERATING THEORY

Critical theory primarily stands for a critical *activity*. It is about arriving at a critical theory of society that will contribute to a better society. The theory should serve mankind's liberation as a rational, social being, or more specifically, contribute to "man's emancipation from slavery" (Horkheimer 1982, 246 [postscript]). The theoretical—perhaps one could even say *intellectual*—activity should be designed in such a way that it is itself part of the liberation process. Theory here means a subject-orientated system, not an object-oriented system of general claims. We can also say that critical theory is practice-oriented, with the rider that it then concerns political or perhaps politico-philosophical practice.

The term *critical theory* has its origin in the article "Traditionelle und kritische Theorie", originally published by Max Horkheimer in 1937 and translated with a "Postscript" in Horkheimer 1982b. The original critical activity emerged around the Institut für Sozialforschung (Institute for Social Research) after Horkheimer became its head in 1930. Apart from Horkheimer himself, the best-known representatives of the 'school' (the Frankfurt School) are Theodor Adorno and Herbert Marcuse (it is typical for theory in humanities and social science fields to be linked to the names of people and schools). The activity was only able to continue in Frankfurt for a few years as the leading individuals were forced to flee Nazism. Most became active in the United States of America, and critical theory as an intellectual project was primarily held together via the journal *Zeitschrift für Sozialforschung* (*Journal of Social Research*).

Critical theory is inspired by Marxism, and criticism includes critique of ideology. Ideology, in the Marxist sense, means a system of ideas (a 'theory') which is maintained because it contributes to maintaining the (unjust and oppressed) bourgeois society. Let us briefly see what this might mean as criticism of 'traditional' theory and the researcher identity associated with it.

Traditional theory in the social sciences is tested against facts. However, facts may be facts about a society that is unjust and its members may be oppressed in many ways. A (traditional) theory that is well founded on facts and is able to explain other facts in the society thus becomes a superstructure that contributes only to describing and preserving the status quo. The connections established in the form of (traditional, neutral, 'objective') theory will contribute to a picture of what a society *is*, not what it *can become*. Traditional theory can, as an 'objective' tool, be used to rule and control the unjust and oppressed society.

The criticism is also directed at the role of researcher, as perceived in a bourgeois (capitalist) society—i.e., the role as producer of neutral, objective knowledge, which largely also coincides with

the researchers' own understanding of themselves. The more 'objective' and the less your research depends on human values, the better the research. This self-understanding is ideological in the Marxist sense. Researchers see themselves as producers of impartial theory, distinct from society in general—as suppliers of facts and fact-based theory. The role of researcher thus also becomes comfortable for bourgeois society, and comfortable for the researcher. However, critical theory researchers see researchers, including themselves, as producers of theory under specific historical and social circumstances. All use ('application') of theory is also an act in the society, a political act.

Critical theory—i.e., critical activity—cannot always produce theories as results. It remains sometimes just critical activity. It remains a radical enlightenment project based on philosophy's traditional belief in a rational society and in liberating and realising (in the society) mankind's reason. It is critical theory's task to do the latter.

An important line of thought that was also developed in the tradition of critical theory, above all perhaps through Jürgen Habermas's works, is that we are unable to achieve genuine knowledge in a society in which people are oppressed. Knowledge, through rational argumentation, requires societal liberation. As I have formulated this here, in extremely general terms, this may sound unrealistic as a concept of theory and knowledge. *Knowledge* is seen here as a societal and political project. It is not traditional.

In a broader sense, critical theory can now mean that oppressed groups are afforded space in the sciences and are able to express their perspectives there, their 'facts,' and their desire for freedom and justice (cf. Bohman 2005). Feminist critique is one example. Research based on the perspective of an indigenous population is another.

Craft science is a young science focusing partly on the values of traditional crafts and, perhaps, a traditional idea of craftsmanship. However, the notion of craftsmanship is inherently connected to values of what good work and good products are, which may go against what is considered as most important by the rulers of the present society or political (academic) culture. A developing craft science must open itself to discussion about whether to be (only) traditional or not.

ABOUT THE BENEFIT OF AND DELIGHT IN THEORY—AND ABOUT THE RISKS

This section contrasts with the previous ones, which primarily aimed to provide an overview of various meanings of theory. The idea behind this section was to say something as generally as possible about why we should seek theory, the benefit of theory in the broadest sense, and the risks inherent in having theory. Now that I have read it again, I see that it is difficult to fit it into the rest of the structure of this essay. I can also see that the term *benefit* mainly concerns formulated theory and that the risks are mainly associated with theory that cannot be seen—i.e., ideas that have always existed or have become invisible with time. Consequently, this section might not primarily concern theory. It might be more about the formulated and the unformulated. In any case, there are a few things that are worth considering in connection with theory.

Here are two quotations that illustrate benefit and risk:

> For sociologists, who generally study their own society, questioning and distancing themselves from taking things for granted is much more difficult than for an ethnologist or anthropologist who studies societies or groups in which he or she is an outsider. There is actually only one way

> of achieving the necessary distance from everything you find self-evident, and that is through theory. (Djurfeldt 1996, 16)

> I have more the crude attitude that, if you do not know what reality looks like, it is better to have no map at all than an inaccurate map. If you start to follow an inaccurate map, by definition you are doomed. But if you advance cautiously in unknown terrain, you might make some progress. (Tengström 1987)

However, it is not always easy to know that you do not know! Theories belong in contexts in which we know part of the reality about which we seek a theory. If you know everything, you do not need a theory. If you know nothing, you have no basis for a theory. This places us in an intellectual landscape in which we are sure about some things but have unanswered questions.

Theories are useful because they:

• are means to prevent us from becoming the prisoner of our own convictions. They let us see alternatives, allow us to distance ourselves, and thus to become aware of our own convictions (prejudices). Theories also encourage critical discussion and questioning of 'experience';

• are means for systematising and structuring our experiences and hypotheses, and of comparison with other theories;

• can grasp that which we have no (more) direct access through experience;

• enable (in some cases) calculations and more advanced forms of modelling and simulation;

• are or enable general description and calculation systems that form the basis of predictions, technological development, and experimental methods;

• explain by placing them in general patterns or a context of connections;

• can provide material for the 'mapping' (representation) of a field of experiences;

set free creativity.

We could perhaps also add the benefit of sacrificing hypotheses to save life. The main difference between Einstein and an amoeba, said Karl Popper, is that Einstein consciously seeks for error elimination. "He tries to kill his theories: he is *consciously critical* of his theories which, for this reason, he tries to *formulate* sharply rather than vaguely" (Popper 1972, 25). We can let our theories die, but the amoeba will not survive bad theories, because its theories exist only in the form of its reactions.

The points above mainly concern the methodological side of theories. They are useful methods or tools in studies. They also primarily concern linguistically or in some other symbolic way *formulated* theories.

In terms of risks, it is not the hypothetical-structural or the methodological-critical aspects of theory that come into focus. It is more blind faith in and a boundless love for theory and/or specific theories. Below is an attempt to formulate this in a few points:

• Theories can make us blind to reality—and to other theories.[20]

• Theories and reality get confused; we forget that a theory is a virtual world of belief, claims, and hypotheses.

• We forget that there are important ways of expressing knowledge other than statements and theories, for example action (practice) as an expression of insight into connections—or hypotheses about such connections.

• We forget that an insightful use of theories is a

matter of insightful practice, insightful people, and good judgement—not 'more theory'.

• We can have over-confidence in how much reality theories are able to capture.

The jibes here are forgetfulness about theory, theory-generated blindness, and over-confidence in theory, which can all result in alienation through theory. The risks depend, of course, on what other convictions or prejudices people hold. Some prejudices have become established tradition. I will quote myself:

> "Science" and "knowledge" within the academy are usually interpreted in terms of a theoretical tradition of knowledge. The aim is to exercise theoretical control—to nail something into place with well-defined concepts, unambiguous testimony. Knowledge is transformed into a *thing*. As a witness, theory can only address what has already occurred, what is finished, what has already concluded. As a result knowledge in action does not have a chance. This theoretical tradition has basically staked out every "sphere of reality" so completely that it only allows—this is the language of power talking—knowledge formation through (other forms of) theoretically-based specialisation. There are no blank patches permitted on a "map of knowledge" of this kind. Knowledge in action is understood as "application"—or is not understood at all. (Molander 2015, 298–99)

By theoretical tradition, I mean a conception of knowledge wherein knowledge is seen as a formulated or formulatable representation of reality. According to this conception of knowledge, you can have knowledge without being able to apply it (knowledge for its own sake). One of the major risks of theory—I am thinking about formulated or formulatable theory—is that we forget that knowledge is also, and above all, expressed through actions and situational understanding: how to proceed and position yourself in the world. This includes what is sometimes known as *tacit knowledge*.

The critical theory that I introduced above calls itself 'theory' but its main purpose is to provide a counterweight and to conduct a study of traditional theory and its societal foundations. It is not just critical of traditional and bourgeois theory. Horkheimer writes the following in a postscript to "Traditionelle und kritische Theorie":

> A philosophy that thinks to find peace within itself, in any kind of truth whatsoever, has […] nothing to do with critical theory. (Horkheimer 1982b, 252)

Benefit is not just about positive results. The question of the benefit (or not) of theories depends largely on how we distinguish between better and worse theories, a question that I have left in the background and which will have to remain in the background. Here are just a few reflections on this at the end of this section. This is an attempt: good theory is the kind of theory that minimises risks and maximises various aspects of benefit, including all-critical critical theory, with reference to the points about benefit and risk above. But what does 'that kind of theory' mean here? It is perhaps more about the *use* of theory. Theory means nothing in itself. It means something only when people use it.

Two comments on good use of theories. The first, short and sweet, is as follows: It is not enough for a theory to describe and explain what has been. A good theory must also lead to answers to *important* questions and, in particular, lead to *new* good *questions*. This is necessarily a matter of human values.

The benefit of and delight in theory also includes—and this is my second comment—the fact that you can generate theory about virtually

anything, even the generation and use of theory in various disciplinary research domains. This can be done in a number of ways. *Science studies* is an umbrella term for all empirical studies of science, both as more 'traditional' theory development and as 'critical' theory development, and for studies that do not fit into any of these designations. The main point now is that both the insider and outsider gazes are important for understanding what a field of study is (cf. the activities of a *theoros* in ancient Greece, as described above). It is not obvious that those working *within* a disciplinary domain always know best—not even those who conduct top-quality scientific studies. Fact-based studies not only produce a lot of 'facts'. They may also contribute general perspectives—theory. Theories may also be freely generated, 'invented'. Both 'proper' mirrors and 'distorting mirrors' may help us see more of and about ourselves. To be able to *see* one's own ideas, norms, and values, it is usually also necessary to be able to see *alternatives*.

THEORY IN CRAFT STUDIES AND CRAFT REALITY

This concluding section is not a summary. I present arguments concerning science and craft and think I can discern a few possible key points in a further development of craft science that is rooted in craftsmanship that actually exists, what researchers in the Gothenburg region like to call *craft reality* [*hantverklighet*]. Take these points as suggestions and starting points for further discussion. In this section, I connect with the traditional field of craftsmanship.

What is science? Science is the collective, organised seeking of theories and knowledge that are as trustworthy as possible. The seeking and the results must be open to criticism and questioning of various kinds. A science—or a disciplinary research domain—must also, if it is to thrive, be developed and continue to produce new results that continue to belong to the domain and continue to interest other researchers in the science. I have previously argued (Molander 1987, 275–80) that science, as a methodologically defined practice, is an important 'internal' definition of science.[21] This remains a good starting point. Research methods that are common within a field and recognised by others are an important stabilising factor in a scientific field. However, this characterisation is far too distanced from the researching, knowledge-creating *people* who carry a practice forward. Science means essentially a qualified understanding and knowledge of the entire spectrum of scientific *practice*: understanding problems, communication and argumentation, use of methods and 'seeing' as a researcher in the field. Thomas Kuhn talks about this in connection with his concept of paradigm as a form of "tacit knowledge" (1970, 44n1, and in the last chapter, "Postscript—1969," 174–210).[22] However, I will not go into the concepts of paradigm and tacit knowledge here. We can only talk about the knowledge and understanding that apply as *researcher proficiency*, which is something more than just *research* proficiency. Research is also professional craftsmanship.

Craft science is a field under development at the Department of Conservation at the University of Gothenburg. I have taken my impressions of this field from the material and people in this department. *Craftsmanship* there is an umbrella term for the craftsmanship in the fields of building conservation, horticultural conservation, and landscape conservation. Craftsmanship and craft products are studied and have been studied in various established subject areas, for example ethnology, art

history, and history. It is important for (the new) craft studies to proceed from and be rooted in craft reality, the exercise of craft knowledge, and its associated insight into human life and materials.

Consequently, it must be rooted in both science and craftsmanship. In a draft report on "Attempts to Provide Doctoral Studies Specialising in Craft," Peter Sjömar writes:

> The methodologically theoretical question to which answers are sought is: *Which approaches satisfy both scientific norms and the questions that crafting experiences and problem solving in craft raise*?[23]

I interpret the reference to norms here as requirements for accuracy, critical awareness, and standards for what may be counted as "methods." This is not necessarily problematic. Craftspeople are used to meeting high standards in the performance of their work. However, it is necessary for the scientific community (not 'the science') to be open to expressions other than the traditional, which are largely linguistic. Or, put another way, the scientific community must be open to what I call "practical knowledge traditions."

Scientific fields that, by their very nature, are linked to practical fields outside science must be based on a broad concept of *expressions of knowledge* and *expressions of theories*. Craft may be used to *depict*, *show*, and *demonstrate*—with "express" as a covering term. Of course, this is not about replacing linguistic formulations. It is about expanding and supplementing them. I believe that this process is already in progress, in part through experiments with different types of artistic research. In this connection, multimedia forms of accounts have also become more and more accepted.

I return to the question of the dual anchoring. It cannot be a matter of a craftsperson 'adding' an extra third-cycle programme to learn (others') research methods and express themselves scientifically to meet the requirements of others. There would then be a risk of becoming a theorist (*theoros*) and thus alienating oneself from what is to be studied *through* craft science. Or you try to be an anthropologist in your own practice, which is like trying to lift yourself up by your own hair (or something like that).

In most forms of qualified occupational practice, the common occupational practice will also function as an organ of sight and understanding—sight here as a metaphor (representative) of the sensory forms of perception. This applies to both research and craftsmanship. You see (parts of) reality through your own practice, you might say. This includes the immediate ability to read (with all your senses) reality and the ability to make complex judgements. This is what makes the reference to "crafting experiences" so central (cf. the quotation above). I would prefer to say that craft practice functions as a *medium* for sensory experience (and thought, even theories in fact). Roald Renmælmo says the following in a presentation (which I subsequently received in written form): "Reading and interpreting the traces of a joiner's production process require experience of corresponding work." He also quotes Jarle Hugstmyr, who says:

> I assume that the working methods used by a craftsperson to produce mouldings are linked to procedures that can be explained by technology, understanding of materials and work techniques, and that the work process is thus based on practical sense that it is possible for a craftsperson in the 21st century to understand. (Hugstmyr 2008, 11; quoted in Renmælmo)

You could certainly call what I am searching for "practical sense." Kjell S. Johannessen would talk about intransitive understanding (see Johannessen

2006). It is not necessary to choose one term to cover what I am searching for (what I have written about here comes under theory as the demarcation and establishment of a field of study).

If craftspeople who want to be researchers are to be anchored in craft reality, they have to proceed from their medium, their experience, and their practical sense, and conduct research through this. We may perhaps talk about *grafting* a researcher proficiency onto craft reality. And this may not need to be too complicated. Good craftsmanship is methodical and systematic, and it involves procedures for studying materials, joints, etc. Classifications from occupational experience can be used. Carpenter Tomas Karlsson, who researches planing bench joinery, says in the same presentation as the one mentioned in respect of Renmælmo that he that he works with a "model for description and analysis taken from occupational practice." I will return to models for description and analysis, but we will return to the subject of theory first.

It is obvious that within the framework of craft science we can use or utilise theories (and other things) from other fields of study and research. For example, these may be material properties of various kinds or biological processes. However, what is most interesting is the question of specific (internal) craft theories within craft science. I will quote a long section from Gunnar Almevik's article "Professor i byggnadsarbete. Om erfarenheter av möten mellan handlingsburen och akademisk kunskap" ("Professor in Construction Work. About Experience of the Encounters between Action-based and Academic Knowledge"). The section concerns "Craft Theory":

> Advanced studies may involve assimilating knowledge that was developed in a scientific tradition, for example measuring moisture content and calculating timber shrinkage in a joinery course or studying the chemical process at an aerated lime plant and measuring evaporation and carbonation in a course on mortar and plaster. A seemingly simple way of achieving an advanced level of education would be to stack knowledge of a different kind onto craftsmanship. However, building crafts intersect many traditionally defined and analytical fields of knowledge because craftsmanship is exercised in processes. The starting point in an existing building requires historical understanding. Assessments of damage and measures must be explained. Execution requires skill and coordination requires familiarity. Problems arise because the scientific theories of practice often focus on situations in isolation and disregard all of the complications that are irrelevant to the theory. This is not the case in the practice of theories. An important insight in the work to guarantee the advanced level of the study programme was to not treat theory as anything external to craftsmanship.

An ambitious knowledge target in craftsmanship must entail something more than the ability to repeat a work process in a given situation under supervision. At the same time, it is impossible, in a short programme of study, to include all possible tasks and circumstances in a future full working life. The art of building stairs, for example, is not primarily about cutting and joining strings, treads and risers. Theories about templating, measurement and fitting in joining techniques can be learned in a basic planing bench joinery course. The theory of the art of stair construction lies more in the practical geometry applied in the verdict on the planned staircase's dimensions and angles in the plan projection and as a template for three-dimensional construction. The same geometry is transferable, for example, to the distribution of mansard roof structures. Instead of covering all tasks based on the same craft theory superficially and without reflection, a representative task was selected for

more thorough review. One conclusion was that the study programme must seize on the 'internal' theories of the craft and that a high universal level of skills must be achieved. (Almevik 2011, 43–44)

What does "high universal level" mean? The answer may perhaps only be given as a result of successful craft research and not as a theoretical starting point. However, it is not decisive for every research project and every experiment to have such high universality. It is more like a target for the level of scientific discipline that researchers can—and want to—seek to achieve. The precise extent to which the universal is emphasised can also vary across all scientific fields.

What *type* of universality is involved? I have talked about subject-oriented, object-oriented, and practice-oriented theories. These categories are not mutually exclusive. Theories in craft reality must be practice-oriented—that is, they must be formulated in such a way that, as theories (principles, procedural descriptions, etc.), they can be understood and put to use in reality by skilled craftspeople.[24] This means theory that is able to help establish and maintain robust connections between craftspeople and what they work with and on, possibly in a multidisciplinary setting.

Such theories must also function as orientation systems and thus be subject-oriented. An important part of the development of knowledge within the framework of craft science is also separating the purely subjective from that which is tenable and informative for everyone with (adequate) craft proficiency. This requires that craft studies be organised in relation to the communities of craftspeople, but this is not part of the subject of this essay.

I will take a closer look at the procedures and study perspectives that I can see among craft researchers at the University of Gothenburg, although my account is fairly sketchy. Against this background, as the last topic, I will return to the type of universality and emphasise conceptual generalisation in connection with classification and typologisation.

I have received presentations from five thesis projects.[25] Two of them, linked to building crafts, are primarily historical. Two, which are linked to horticultural craftsmanship, focus primarily on composition and design. The remaining project includes both history and design/composition. The following elements appear central to me:

- Observation and interpretation of practices, materials, tools (reading and interpreting traces).
- Description, presentation, documentation of practices, materials, tools.
- Structuring and typologisation of practices, materials, tools.
- Composition (design), possibly with "dirty hands" (like in gardening).
- Experiments, also in connection with historical studies (reproduction or reconstruction).[26]

These appear to me to be elements of normal scientific work, except that the basis is craft experience and much of the methodical research work takes place through this reality, including materials, tools, and experience—practice as the medium, which I talked about earlier in this section. As anticipated, there are few traces of generalisation in the sense of expressions for general connections. It is more about *discovering and establishing connections*, both hands-on and by developing the *concepts* and terminological tools that already exist as part of the craft reality. Theories here mainly mean interpretative schemes (interpretative perspectives), which are established and generalised to the extent that they may also be used in other cases. This means a practice-based or practice-oriented generality. The

classification and development of good typologies are central to this. A few words on this, which I hope may lead to further discussions, will be my last topic in this section and this essay.

Description is never something trivial. A language (with technical terms) is not something that exists in addition to the craft practice. Language and practice are interwoven and no language is isolated. It is possible to borrow from other specialist languages (without forgetting that language is not just an abstract system). It is possible to use Wittgenstein's concept "language game" here, but I mention that purely in passing. All languages also contain classification systems and typologies. It is an important (theoretical) task to develop those that already exist or create new ones that can be incorporated (relatively) friction-free into *the craft language*—and thus also into the craft practice. For me, the clearest example of typology is Tina Westerlund's typology on (and for) plant propagation practice (in this anthology and in Westerlund 2017). Colour theory is also essentially typology. The term typology is *closely related to* theory. This may also apply to typologies of (and for) rebating and the practical geometry of the art of staircase construction (to link to Gunnar Almevik's example in the quotation above).

What is a typology? The general explanation is that it is a form of classification. Typologies of objects are common in many sciences, for example in archaeology, where, for example, lines of influence and development may be mapped using similarities and differences. It is often stressed that a typology must have a scientific basis. However, the topic now is craft science based on craft reality. Typologies must not be imported (ready-made) from other scientific fields. However, it is, of course, always possible to *learn* from people active in other fields.

Relevant typologies are built up based on types of information within an activity and the typologies that already exist in that activity. They often focus on procedures. *Connections* between different 'things' (methods, procedures, results, etc.) are important. A typology must capture the natural—the reality itself—within a field of activity. In respect of craft reality, this means a 'scientific' classification that proceeds from and is firmly attached to this reality.

The general must *emerge from below* through typologisation. It is not primarily general *claims* and *laws* that are established. It is general concepts, which are built up through connections to other concepts and actions. Typologies may very well be practice-oriented. The *language* belonging to an activity is always linked to different action and responsibility contexts. You could say that typologies and connections are built up and rebuilt *within* the language.

Finally, a systematically constructed typology with a reasonable level of universality[27] perhaps cannot just be called a theory. It *is* a theory. And, like any other theory, it can usually be improved.

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ENDNOTES

1. From the poem "Ikaros och gossen Gråsten" ("Icarus and the Rock") from *Dikter under träden* (*Poems under the Tree*), 1956, quoted here from Aspenström (1994, 69). Translation by Katherine Stuart, revised by Bengt Molander.

2. Most of the time I use the term *science* in a wide sense, like the German *Wissenschaft*, which also includes the humanities.

3. On the metaphor 'landscape': a landscape can be described from many different perspectives. For example, that of a walker as they move through and encounter the landscape. Or that of a surveyor. And so on. I see the perspective of the walker as the primary one.

4. I provide few references. The point is not to provide a literature overview but to present a perspective—my perspective—which is based on wide reading and listening over the years.

5. Georg Henrik von Wright writes: "For a writer, an essay is what an experiment is for a scientist, a device for revealing the truth" (1987, 51).

6. I base my approach primarily on the entry for "Theorie" in *Historisches Wörterbuch der Philosophie* (*Historical Dictionary of Philosophy*) and the introductory chapter in Nightingale (2004). Cf. also the etymological introduction in the *Oxford English Dictionary* (see Appendix).

7. We can also say "the right place of *understanding*."

8. These sweeping generalisations are based on a detailed presentation in *Historisches Wörterbuch der Philosophie*, to which I refer anyone wishing to learn more about the history of the term.

9. Quoted from Molander (2015, 78), translated by Frank Perry.

10. In philosophy of science, the first variant is often called *instrumentalism* or *anti-realism* and the second, object-oriented variant (scientific) *realism*.

11. Researchers in 'the arts' are 'scholars'.

12. Of course, this does not mean that, by assimilating practice-oriented theory, one will also master the practice concerned.

13. The focus may be on objects (ontological) or methods (methodological).

14. This meaning of theory overlaps partially, and, not surprisingly, with Thomas Kuhn's (1970) concept of paradigm (as a disciplinary matrix).

15. Information on historicism is available in Schnädelbach (1984).

16. This may also be expressed as "seeing something *as* something."

17. Cf. Schön's term "naming and framing" (Schön 1983, 40, and in other places).

18. Part of this has been thematised within the framework of the term *paradigm*, which I will not go into in further detail here.

19. *Rhetoric* means eloquence or the art of persuasion. Here I am focusing on the external, social side of this.

20. Cf. Kahnemann (2011), who refers repeatedly to "theory-induced blindness."

21. This refers to a Swedish book, *Räkna rätt och tänka fritt* (1987), in which I distinguish between three aspects of a science or a field of scholarly study: 'The idea of science,' which means a common, open, and critical search for truth; 'methodologically defined research practice'; and 'the arts and sciences as social institutions.'

22. He refers to Michael Polanyi's term "tacit knowing."

23. Unpublished draft, 13 August 2012.

24. Cf. Polanyi's term "maxim," a rule that only those that are already skilled can follow (Polanyi 1978, 30–31). Cf. also Winch (2010) about "knowing how something is done" being one thing and skilled execution another.

25. I have had access to material from: Roald Renmælmo (on bearers of tradition, their craftsmanship, and their tools), Nina Nilsson (on colour composition and shaping of parks and gardens), Tina Westerlund (propagation of perennials; plant knowledge; and plant composition), Ulrik Hjort Lassen (post construction), and Tomas Karlsson (planing bench joinery; door production).

26. Renmælmo talks about studying tools and craft objects "by making copies."

27. Cf. what Gunnar Almevik (quotation above) calls "high universal level."

APPENDIX

Taken from the Oxford English Dictionary, 2nd edition, 1989. Online version June 2012. Accessed 13 August 2012. http://www.oed.com/view/Entry/200431.

I have excluded meanings which are no longer used, which are marked as rare, or which have a special mathematical meaning.

theory, n.[1]

Etymology: < late Latin *theōria* (Jerome in Ezech. xii. xl. 4), < Greek θεωρία a looking at, viewing, contemplation, speculation, theory, also a sight, a spectacle, abstr. n. < *θεωρός* (< **θεαορός*) spectator, looker on, < stem *θεα-* of *θεᾶσθαι* to look on, view, contemplate. In mod. use probably < medieval Latin translation of Aristotle. […]

[…]

3. A conception or mental scheme of something to be done, or of the method of doing it; a systematic statement of rules or principles to be followed.

4. a. A scheme or system of ideas or statements held as an explanation or account of a group of facts or phenomena; a hypothesis that has been confirmed or established by observation or experiment, and is propounded or accepted as accounting for the known facts; a statement of what are held to be the general laws, principles, or causes of something known or observed.

b. That department of an art or technical subject which consists in the knowledge or statement of the facts on which it depends, or of its principles or methods, as distinguished from the *practice* of it.

[…]

5. In the abstract (without definite article): Systematic conception or statement of the principles of something; abstract knowledge, or the formulation of it: often used as implying more or less unsupported hypothesis (cf. 6): distinguished from or opposed to *practice* (cf. 4b). in theory (formerly in the theory): according to theory, theoretically (opp. to *in practice* or *in fact*).

6. In a loose or general sense: A hypothesis proposed as an explanation; hence, a mere hypothesis, speculation, conjecture; an idea or set of ideas about something; an individual view or notion. Cf. 4.