

2

PLEADING FOR PLURALITY: ARTISTIC AND OTHER KINDS OF RESEARCH

Søren Kjørup

One of the worst misfortunes that might hit the budding tradition of artistic research is if it should get squeezed into one single format.¹ Fortunately, the concrete activities that go on around the world under the umbrella of ‘artistic research’ and related terms like ‘arts-based’ or ‘practice-led’ do not show any signs in that direction. Whether they have the status of PhD-studies or not, they are as diverse as one might wish. If there is any common denominator at all, it seems to be that artistic research is any kind of research and development – any kind of production or original use and dissemination of knowledge – that artists make as part of or in connection with their artistic creativity.

As my title makes clear, my present contribution is a plea for plurality, and first of all plurality in concepts and understanding of what artistic research may be and how it should be conducted. Not only will this be the only way of doing justice to what is actually going on in the artistic world and not imposing restrictions for purely formalistic reasons, I also feel convinced that a pluralistic approach that leaves problems of quality and category to a discussion about each research achievement and not its formal setting, will secure the most interesting and diverse results of artistic research. Therefore I am, simply, pleading for a way of understanding artistic research that accepts the plurality and, if necessary, finds ways of defending it. What I am up against, then, is fellow theoreticians (and some practitioners) who want to define some specific kind of activity as the one and only *real* artistic research, and especially those whose reason for this position is their conviction that to be research at all, artistic research must meet the requirements of what they take to be the one and only *real* kind of *scientific* research.

Arguing my point, I plan to go the other way round. Instead of presenting a picture of scientific research to which artistic research might have to comply, I want to argue that ‘scientific research’ is not just one thing, but many different things – and therefore there is no reason to expect artistic research to be just one thing. And I want especially

to introduce a few standard issues, views and concepts from philosophy and from the theory and history of science that suggest this plurality and discuss how they can contribute to a broader understanding of artistic research.

Science in a broad sense

But let us take one important point right away: as most of my readers probably know, not all languages that have such a narrow use of the word ‘science’ as English: ‘Science is the effort to understand how the physical universe works, with observable evidence as the basis of that understanding,’ as stated by Wikipedia on the English-language ‘disambiguation’ page for the concept.² In German, the Scandinavian languages and many others, corresponding words – like the German *Wissenschaft* – do not only refer to studies of ‘the physical universe’, not only to the natural sciences (like physics and biology), but also to formal sciences (like mathematics and formal logic), social sciences (like sociology and anthropology) and the humanities (like linguistics and art history). To avoid too many clumsy expressions like ‘the sciences and the humanities’, which do not cover the whole scope of *Wissenschaften* anyway, I shall mostly use the simple word ‘science’ in this broad sense (but I will do my best to indicate that this is the sense I am aiming at). And when I really mean only the natural sciences, I will write ‘the natural sciences’.

The issues, views and concepts that I want to introduce are first, the varieties of ‘scientific’ disciplines and their relations, especially the position of the humanities within the general scientific field; second, the varieties of fundamental research activities, especially the difference between basic research, applied research and experimental development as defined by the OECD for statistical purposes; third, the character and use of definitions and the Wittgensteinian concept of ‘family resemblance’; and fourth, the Kuhnian concept of ‘paradigms’. After these discussions I will conclude with a flashback to the position of the visual and other arts and sciences in the Renaissance, hoping that this may also throw some light on the situation of artistic research today. But I want to start out here by just sketching four examples of artistic research projects with a few commentaries to suggest some different models that have actually been used (and not in any way trying to be exhaustive or systematic): three PhD-projects but also one example of a project that does not belong to any kind of PhD-program.

Artistic research as the study of creative processes

When I first got involved in the discussion of artistic research in Norway nearly 20 years ago, several of us theoreticians were looking for the special contribution that artists can make to the body of knowledge in the world, and our answer was that it would be natural for artists to study creative processes with their own work as the main example (Kjørup 1993). Our reasoning was that if artistic research is supposed to be different from all other kinds of research, it is natural to focus on the artist as the researcher, and what is specific for the artist is her or his privileged access to her or his own creative processes. You do not have to be an artist to do research *on* art (like art history) or *for* art (for instance developing techniques), but it seems sensible to think some kinds of research *in* art (or *through* creative work in the arts) can only be conducted by artists, to

use Henk Borgdorff's later, but well-known twist on Christopher Frayling's even better known categorisation from the 1990s of the main types of artistic research, (Frayling 1993; Borgdorff 2006). And this way of conceiving of artistic research is still alive. You meet it for instance in the preface to the book *Artistic Research: Theories, Methods and Practices* (Hannula *et al.* 2005) where Hans Hedberg and Mika Hannula give this definition of our theme: 'artistic research means that the artist produces an art work and researches the creative process, thus adding to the accumulation of knowledge.' Artists' explorations of their own creative processes are probably pretty rare, however, as suggested by the fact that none of the four interesting examples of artistic research projects that Hedberg and Hannula present in their forth chapter ('Artistic Research in Practice') is of this kind.³

I am also still of the opinion that perceptive studies by artists themselves of their own creative processes may be of great both general and professional interest. Let me mention the analysis by Tone Saastad of her own creative work for an exhibition of her printed textiles as an example (Saastad 2007) – the non-doctoral project on my little list.⁴ Yet there is good reason to notice a few reservations, not of the actual activity, but of the thinking behind it.

First of all it is an open question how weighty the argument about the privileged access of artists to their own creative processes really is. Somehow the artist has to become both a creative maker and an inquisitive analyst, and it is by no means obvious that whoever is a master in the creative field, is also a master in the analytical one. One natural procedure in that kind of research may be that the artist keeps some kind of log of her or his creative venture, and afterwards analyses the process as it appears from the notes (which is what Tone Saastad has done convincingly) – but should a social anthropologist or psychologist of adequate training and experience not be at least just as qualified as the artist for mastering this part of the task? The immediate answer is of course that the artist knows which experiences, sensations, emotions, etc. are hidden in the necessarily rudimentary notes, but some of that knowledge might just as well come out in interviews with the anthropologist or psychologist. And while the artist undoubtedly is closer when it comes to the tacit knowledge embedded in the process, the researcher may be able to ask questions and spot patterns that escape the artist.

These reservations do not mean that producing an artwork and researching the creative process is not a feasible format for artistic research. And the fact that the specific research part of such a project can be performed by a non-artist, does not make it obsolete either; the question is not who can or who may do the research part, but who actually does so. But this kind of artistic research is certainly not the only one.

Gathering, using and disseminating knowledge as part of the creative process

The Norwegian sound and visual artist Trond Lossius does not analyse his own creative process in his report *Sound, Space, Body: Reflections on Artistic Practice* (Lossius 2007), even though he does tell us about its main steps, drawing on the blog of reflections that he has been maintaining through his three year fellowship.⁵ The aim of the project was to produce a series of multi-media installations, some in collaboration with other artists, but the final one, *Cubic Second* (2006), alone. One might describe Lossius' work

behind the installations as research *for* art, since he has been experimenting with digital programs and equipment and gathering knowledge from various sources, but he insists (correctly in my opinion) that it is more than that, namely some version of research *in* the arts, in so far as his artistic practice has been ‘an essential component of both the research process and the research results’ (Lossius 2007: 6).

Trond Lossius has not been conducting research to create results about some theme that should be communicated through his artistic works, but the results of his research are both a prerequisite for his installations and expressed in or through them. In a certain sense, his works ‘say’ that ‘This can be done in this way!’ His colleague in the Norwegian fellowship programme, the embroiderer Hans Hamid Rasmussen, however, formulates the aim of his research project, *Homage to the Hybrid*, as ‘to look into intercultural experiences and see how they can be expressed through visual art’ (Rasmussen 2008: 1). One theme for his research, intercultural experiences, can thus be said to belong outside the specific artistic field, but this – for him very personal – theme is explored through the artistic work, and even though the results are sketched in the (very short) written report that accompanies his embroideries, it is first of all through the embroideries that they are conveyed. Another theme for his research, however, is ‘visual art’, and he experiments with means of expression within embroidery to develop this medium to convey his findings about intercultural life. One might say that his works not only claim that ‘intercultural experiences are like this’, but also that ‘intercultural experiences may be expressed like this’.

These are both examples of artistic research where the artistic work is the main result and the one aimed at, not, for instance, what is written in the report. The written report is a prerequisite for achieving the degree, but the actual communication of the results of the research is done through the artwork.⁶ Most other projects within the same programme, whether within visual arts, music, film, dance or whatever, have the same character (not least because the rules of the programme put up the artistic work as the aim, of course),⁷ but I shall not refer to them because their results (or documentation of the results like concerts and exhibitions) are very difficult to get hold of, and most of the writings are not in English.⁸

Other artistic research projects have another weighting of (and connection between) artistic result and writing, and also another use of the verbal medium. Let me just mention what may be considered the main example in the James Elkins-edited issue of *Printed Project* with ‘The New PhD in Studio Art’ as its theme (Elkins 2005a), the photographer Jo-Anne Duggan’s *Beyond the Surface: The Contemporary Experience of the Italian Renaissance*. Duggan does not use the word ‘research’ about her work in her dissertation with that title, but opens her abstract with the declaration: ‘It is the intention of this Doctor of Creative Arts to convey the complexity of viewing art in museums’ (Duggan 2003: viii). And she conveys this theme – concentrating, as her title suggests, on great palaces, collections and museums like Palazzo Vecchio, Galleria Doria Pamphili and Palazzo Pitti – through a combination of verbal text, older photographs of museum interiors, etc. and her own photographs. The pictures are joined to the printed text on a CD-ROM, to the PDF-document on the net as interposed pages – but her own photographs have also been exhibited in two exhibitions, ‘Before the Museum’ and ‘Impossible Gaze’, and two of the chapters in the dissertation contain her reflections on these exhibitions.

But behind the text and the photographs lies of course a research project where Duggan has not only used her theoretical knowledge of the history of viewing, but also her professional insights into the ways that museums have shown art from the Italian Renaissance, into ways of viewing and into photography (her bibliography covers around 250 entries). And first of all she uses her own photographs as part of her study of the contemporary museum of the art of the Italian High Renaissance (and the way it is seen), namely, she uses her creative work both as a tool in her research and as a tool for the dissemination of her findings.

A study in (one's own) creative processes; experimental development as a prerequisite for artistic results; creative work as a means to interpret own cultural experiences and finding ways of expressing the results; and creative work to study the experience of art in museums then and now: these four examples of artistic research are not easily put into one strictly defined category (and especially not into one that takes the natural sciences as its model) – but why should they be?

Humanities and natural sciences

If we want to understand the current situation of the fairly new artistic research within the broader field of science, it may be elucidating to look at the situation of the humanities in the middle of the 19th Century. A good place to start would be in 1843 when the English economist and positivist philosopher John Stuart Mill (1806–1873) launched his huge work *A System of Logic* and opened its sixth and final 'book' with the remark 'The backward stage of the moral sciences can only be remedied by applying to them the methods of physical science, duly extended and generalised' (Mill 1987 [1843]: 19) – 'the moral sciences' being what was right away translated into German as *die Geisteswissenschaften* ('the sciences of the spirit'), i.e. roughly the social sciences and the humanities. Many humanistic scholars and theoreticians protested against Mill's view of the backward stage of 'the moral sciences', but others followed Mill in claiming that the social sciences and the humanities should imitate the methods of the natural sciences to become real scientific disciplines, obviously on the premise that whatever wants to be recognized as research, has to proceed in the very same way, and that way could only be the one known from physics, first of all. Towards the end of the 19th Century, however, one can distinguish two types of defence of the specificity of the humanities, represented by the *hermeneutic* tradition (with Wilhelm Dilthey as the main spokesman) and the *neo-Kantian* tradition (Wilhelm Windelband), respectively, the first ontological, the second epistemological.

The hermeneutic philosopher Wilhelm Dilthey (1833–1911) claimed that what he and his fellow theoreticians called *die Geisteswissenschaften* simply had to use other methods than the natural sciences because the two types of research were concerned with ontologically different objects: while the natural sciences would conduct research into something that is alien to man, namely nature, the social sciences and the humanities are concerned with man himself (or herself, as we might want to add) and with her or his cultural products (works of art, history, institutions). Dilthey therefore argued that the natural sciences have been forced to design specific methods to investigate its 'dead' subject matter and to give some kind of 'external' *explanations*

of what goes on in the world of nature, while ‘the sciences of the spirit’ might use the researchers’ ‘empathy’ (*Einfühlung*) in human actions and cultural phenomena as a basis for creating some kind of ‘inward’ *understanding* of them (cf. Dilthey 1991 [1883]).

The neo-Kantian philosopher and historian of philosophy Wilhelm Windelband (1848–1915), however, did not look for the difference between disciplines in the ontology of the *subjects* for research, but for the difference between the *aims* different kinds of sciences (obviously in a broad sense) actually have. The important distinction here was between what Windelband would call (with his own newly invented terms) ‘nomothetic’ and ‘idiographic’ sciences, respectively. *Nomothetic* sciences are the ones that search for *general laws* (or at least general knowledge) as most of the natural sciences, and Windelband makes the remark that even a humanistic discipline like history might have an aim like that, so there is no intrinsic differences between disciplines. It is, however, a fact, he maintains, that when we study history (or art, it is tempting to add), we are normally not interested in general laws, e.g. for historical development, but in single events, single periods, single personalities, and the *idiographic* disciplines are the ones that study these subjects in their specificity (Windelband 1915).⁹

Several aspects of this historic discussion should be interesting for artistic research today. The most obvious one, of course, is that the humanities, just like artistic research quite often, were met by the idea that there is only one kind of research, and that the only acceptable methods for research are the ones known from the natural sciences. Seeing the historical parallel may encourage us to shrug off the claim and wait for the recognition of the special character of artistic research, just like the humanities have achieved recognition (at least in most circles). But it is also worth at least considering the two different rejoinders, the ontological one and the epistemological one – even though a conclusion may be that none of them will be completely satisfying for our theme, first of all because both take artistic research to be one and only one thing, which of course is unsatisfying for the pluralist.

If we want to claim that artistic research should be left alone to develop its own methods, should the reason be that the *object* of artistic research is something special, or should it be that the *kind of knowledge* artistic researchers want to produce, is different from the knowledge produced in traditional disciplines and not least in the natural sciences? It is indeed tempting to argue that artistic research is research into art, and that art has a special ontological status, different from the physical world studied by the natural sciences – but as we have seen, e.g. in Hans Hamid Rasmussen’s project, not all artistic research takes art and the creation of art as its object. And it may be just as tempting to argue that the knowledge produced through artistic research has an idiographic and maybe even special subjective character, alien to the natural sciences. Yet even though the study by Tone Saastad of her own creative process behind one specific work of art (or rather group of works) may indeed be idiographic, we may also be interested in the knowledge produced for nomothetic reasons, i.e. for the insight it gives into creative processes in general – and the ‘subjective’ point of departure for studies like this should hopefully not make the results unreliable, hence less ‘objective’.

So let us not get caught up in the exact criteria discussed by Dilthey and Windelband for maintaining that not all ‘sciences’ should follow the example of the natural ones. At any rate it should be noticed that Windelband did not claim that all humanistic disciplines are idiographic; he only pointed to historical studies (and could have added

at least most of the aesthetic disciplines), but maybe he just remembered that a core humanistic discipline like linguistics looks for general grammatical patterns (not just the way you or I happen to talk), and is therefore nomothetic, not idiographic, breaking up the nice and much too clear distinction between supposedly nomothetic natural sciences and idiographic humanistic ones.

The whole discussion about the status of the humanities should first of all be taken as a reminder that there are many kinds of research with different objects and intentions, and that goes not only for the relationship between artistic other kinds of research, but also between different kinds of artistic research.

Three different interests

In the 1960s the German philosopher Jürgen Habermas tried to escape the then still vigorous positivistic, monolithic understanding of science and scientific methods by formulating a modern version of how one might differentiate between scholarly disciplines, more inspired by Windelband's epistemological trend than Dilthey's ontological one (but also with a hermeneutic element). He distinguished not two, but three types of research according to what he (or rather his translator) called the 'knowledge-constitutive interests' (*Erkenntnisinteressen*) they would try to satisfy, and therefore also the different methods they would have to develop to satisfy these interests (Habermas 1972).

One type of disciplines would satisfy a *technical interest* by producing knowledge that might be used for prediction and control (and the creation or prevention of events); these 'empirical-analytical' sciences, first of all the natural sciences, would therefore typically develop *experimental methods*. Another type, however, would rather satisfy a *practical interest* by creating an understanding of cultural phenomena through studies of texts, that is through *hermeneutic methods*, and these 'historical-hermeneutic' disciplines are obviously first of all the humanities. And finally we have what Habermas calls 'the systematic sciences of action' as economy, sociology and political science. Some of these try to formulate general laws like the natural sciences, but they also have 'critical' varieties with an *emancipatory interest* that through *self-reflective methods* try to find out which laws describe real constituents of social action, and which of them are only expressions of hardened ideological convictions.

Habermas' insistence on the interests behind research procedures can be seen as a blow to a positivistic insistence on impartial objectivity of research: we choose scientific methods out of interests! And of course we do. Research is not just following certain rules, but trying to find answers to questions that we find pressing or interesting, solving urgent problems, creating things we want or need – or just satisfying curiosity. And hopefully we find the relevant methods for solving those problems. But Habermas' insistence on the interests behind research may remind us of the one thing that we more often than not must search for in vain in general and abstract discussions of artistic research, namely statements about the *aim* of these kinds of research. What do we want to know that artistic research will be able to tell us? What do we want to achieve through artistic research?

Looking at the three kinds of knowledge interests that Habermas mentions, it is obvious that much artistic research is guided by a technical interest, while studies in

creativity are guided by what Habermas calls a ‘practical’ interest and uses hermeneutic methods. That art and artistic research can articulate a critical view on man and society, and work for emancipation through self-reflective methods is obvious (here Hans Hamid Rasmussen’s project may be a case in point), but my feeling is that Habermas’ specific involvement with various kinds of nomothetic social sciences alienates his thinking from the artistic one.

Basic research, applied research and experimental development

One thing is the discussion between philosophers and theoreticians of science (and often also the practitioners themselves) about the character of research. Quite another are the official standards used by huge international organisations when it comes to statistics of a nation’s research and related activities. The best known organisation in this field is of course the ‘club’ of 30 democratic nations with an open market economy (cooperating with another 100 nations that more or less fulfil the criteria), the Organisation for Economic Co-operation and Development, better known as the OECD. To be able to gauge the nations’ expenditure on what is here called R&D (‘research and experimental development’), the organisation needs some working definitions of what they are looking for, and the latest version of these you can find in the no-less-than-256-pages-long 2002-edition of the so-called *Frascati Manual* (OECD 2002), that carries that name because the first version was sprung from a meeting in Frascati in Italy in 1963.¹⁰

Fortunately, while the many pages contain lots of technicalities that are of no concern for us, the definitions of R&D are rather concise. The overall definition goes like this:

Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

(OECD 2002: 30)

It is worth noticing that for the OECD both the production of new knowledge, and the use of existing knowledge to devise new ‘applications’ are drawn into consideration. The OECD does not make a fundamental distinction between ‘fine’ research proper and ‘inferior’ use of knowledge to solve practical problems.

Research, however, is divided into two categories by the OECD, *basic research* and *applied research*, as we see in this slightly broader account, which also gives a much more comprehensive description of what *experimental development* may comprise:

Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. Applied research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. Experimental development is systematic work, drawing on existing

knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed. R&D covers both formal R&D in R&D units and informal or occasional R&D in other units.

(OECD 2002: 30)

Maybe the wording of these definitions is not as clear as one might wish,¹¹ but that is not the issue here – and the *Manual* actually uses 15 pages to discuss the distinctions between the three activities in detail, admitting that ‘Breakdown by type ... is usually more easily applied to R&D in the natural sciences and engineering (NSE) than in the social sciences and humanities (SSH)’ (OECD 2002: 77), plus no less than 20 pages to discuss borderline cases. What is important, however, is that even the OECD is not caught up in the false view of research that it is just one thing, with just one aim, method, etc. Or maybe one should not say ‘even the OECD’, but rather suggest that once you are forced to take a bottom-up approach, looking at what is actually going on out there where people do research (so that you – as the case is here – can get it into your statistics), you have to realise the plurality of the field, for instance in such a way that the simple statement about experimental development that it is ‘the use of this stock of knowledge to devise new applications’ grows to several lines as we just saw above.

It should not be hard to make different kinds of artistic research find their places amongst the three categories (with subcategories), at least if we stretch the formulations a bit in the way the *Frascati* authors have done themselves with the ones for ‘experimental development’. Quite a few artistic research projects are examples of development (if not necessarily *experimental* development) in the sense that they use already existing knowledge to devise ‘new applications’ in the form of works of art (to a large extent like the one by Trond Lossius), while others are a kind of basic research, at least in the sense that they are not intended to solve any practical problems, at least not right away – like the one by Jo-Anne Duggan, although she does also formulate an objective:

Through examining these museums with their multiple histories and contents I hope to argue for a slower, more considered engagement with art, that encourages the viewer to experience the sensual as well as the intellectual aspects that this opulent environment offers.

(Duggan 2003: viii)

Artistic research, however, is not mentioned in the *Frascati Manual*. Or, to be precise, it is mentioned, but at one place only, and a rather strange place at that, namely as an insertion, looking like an afterthought, in a passage in Table 3.2. ‘Fields of science and technology’ as part of the enumeration of the humanities (after history and linguistics with subcategories):

Other humanities [philosophy (including the history of science and technology), arts, history of art, art criticism, painting, sculpture, musicology, dramatic art

excluding artistic ‘research’ of any kind, religion, theology, other fields and subjects pertaining to the humanities, methodological, historical and other S&T¹² activities relating to the subjects in this group].

(OECD 2002: 67)

It is, indeed, surprising to find artistic research – with ‘research’ in warning quotes – excluded from dramatic art, of all things, as if that is where it would belong. So let us neglect that. The important thing is that also at a place like the OECD we meet a pluralistic view on what science is, and that the categories of the OECD may invite us to think more deeply also about artistic research.

Definitions

It is a natural thought that not only if we need categories for statistics, but also if we just want to discuss things like research, art and science unambiguously, we need clear definitions of these various items. On the other hand, it should not take too much reflection to realize that it must be impossible to give satisfying *descriptive* definitions of cultural terms like these, i.e. definitions that simply draw the lines in such a way that everything that may correctly be called research, art or science falls within the boundaries of the definitions and everything else is kept outside. You can of course give *stipulative* definitions, stating which way you intend to use the terms for a specific purpose (as the OECD has to do). Or even *persuasive* definitions, that rather common type of stipulative definition where you purport to indicate the ‘true’ or ‘commonly accepted’ meaning of a term, while in reality you promote an altered use, perhaps as a justification of some specific view of yours.

Cultural phenomena like research, art and science are simply too diverse to fit into standard descriptive definitions enumerating necessary and sufficient conditions (and some philosophers would even claim that this goes for all phenomena that we talk about in natural languages). That does not mean, however, that it is impossible to formulate sensible elucidations of what research, art or science are all about. The problem is only that we cannot mention one single rule or condition that would not have exceptions.

An example of an element in a definition may be the statement that one criterion for research is that it is the production of *new* knowledge, and new, not just to the researcher, but also to all of her or his peers (or in principle to all of humanity). A very sensible criterion, indeed, that we need to know to be able to grasp the point of research, and that seems to fit in nicely in some more elaborate descriptive definition – yet a criterion that will have absurd consequences in certain extraordinary, yet not unrealistic cases. If you go through all the normal research motions to solve some problem and come up with your own solution that you get published in a peer reviewed journal, and then, a couple of years later, you find out that some hitherto unknown Brazilian colleague of yours had published the solution to the problem already in the 1930s, would you then have to reconsider the genre of your work? Does the emergence of the Brazilian article mean that you had not been doing research after all? (And if not, what had you been doing?)

One more example might be that we cannot understand what art is, if we do not grasp that works of art are products of human creativity, not of natural coincidences.

However, if we put that up as an absolute criterion, what about driftwood as sculpture? (And the answer is that you have to invent stopgap solutions like ‘Picking up a stick at the shoreline and taking it to the exhibition, is also a creative act’ – which may of course also be true, but is not exactly what was originally intended by the formulation ‘products of human creativity’). Or we could use the example that it is normally completely all right to make a distinction between science and religion by claiming that science is based on observation, religion on speculation – but we should not forget what I will here let the Austrian-English philosopher Karl Popper (1902–1994) formulate (and Sir Karl was absolutely not an anarchist in matters of science and philosophy): ‘the modern theories of physics, especially Einstein’s theory... were highly speculative and abstract, and very far removed from what might be called their “observational basis”’ (Popper 1963: 255).

Family resemblance

The fact that we cannot squeeze cultural and many other phenomena into standard descriptive definitions, has been forcefully pointed out by another Austrian-English philosopher, Ludwig Wittgenstein (1889–1951), in §§ 65–78 of his *Philosophical Investigations* (Wittgenstein 1953). His examples are things as supposedly exact as numbers (cardinal numbers, rational numbers, etc.) or as loosely conceived as what Wittgenstein calls ‘language games’ (various ways of using language in various situations), but his main example of a concept that cannot be pinned down in a descriptive definition, is ‘game’ (in his original German as *Spiel*, which is somewhat broader than ‘game’, also covering ‘play’ – and here I quote most of his §66):

Consider for example the proceedings that we call “games”. I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all? – Don’t say: ‘There *must* be something common, or they would not be called ‘games’ – but look and see whether there is anything common to all. – For if you look at them you will not see something that is common to *all*, but similarities, relationships, and a whole series of them at that. To repeat: don’t think, but look! – Look for example at board-games, with their multifarious relationships. Now pass to card-games; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost. – Are they all ‘amusing’? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball-games there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck; and at the difference between skill in chess and skill in tennis. Think now of games like ring-a-ring-a-roses; here is the element of amusement, but how many other characteristic features have disappeared? And we can go through the many, many other groups of games in the same way; can see how similarities crop up and disappear.

(Wittgenstein 1953: §66)

It is easy to ‘translate’ this passage into a text about ‘research’: I mean making chemical experiments, sending out questionnaires, bird watching, interpreting poems, digging for archaeological remains, solving problems in formal logic, gathering astronomical data by way of radio telescopes, and so on. What is common to them all? Don’t say: ‘There must be something common, or these actions would not be called “research”’ – but look and see whether there is anything common to all.

Let us now look at art:¹³ I mean sonnets, ready-mades, operas, novels, paintings, films, pantomimes, and so on. What is common to them all? Don’t say: ‘There must be something common, or these products would not be called “art”’ – but look and see whether there is anything common to all.

Now, let us turn to science: I mean statistics, history, philosophy, neurology, semiotics, agricultural science, dramaturgy, political science, glaciology, and so on. What is common to them all? Don’t say: ‘There must be something common, or these academic fields would not be called “sciences”’ – but look and see whether there is anything common to all...

But how do we give the same name to various groups of phenomena, counting them in the same category, if they do not have anything in common? Wittgenstein seeks a solution to this problem by taking his point of departure in the last phrase of my quotation: ‘similarities crop up and disappear’; the quote continues ‘We see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail.’ And in the next paragraph Wittgenstein gives this pattern a name:

I can think of no better expression to characterize these similarities than ‘family resemblances’; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way. – And I shall say: ‘games’ form a family.

(Wittgenstein 1953: §67)

We might add that this is the same for various kinds of research and research methods, the different arts and the different sciences.

Wittgenstein has been much criticised for his use of the catchy term ‘family resemblance’, because it does not seem evident that his observation about the criss-cross of physical and psychological traits among members of a family is at all true, not even among the genetically related. But the point is not how much members of families are alike, but whether his point about our use of words and concepts is both correct and illuminating. And that he is not dependent on the specific metaphor of the family, can be gathered from his just as metaphorical remark about how the concept of number develops:

And we extend our concept of number as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres.

(Wittgenstein 1953: §67)

Again this is a reflection that we easily recognise from histories of art and aesthetics, and which is just as pertinent when it comes to research and science: cultural phenomena like research, art and science develop through time, not only by adding new features, but also in such a way that old features may get obsolete and may even be contradicted by new ones, yet we can still talk about common traditions.

Prototypes

But if concepts like games and numbers cannot be circumscribed by single descriptive definitions, how can we both learn them and use them and explain them to one another in a reasonably consistent way? Wittgenstein's solution (shared by many others) is that we see something as for instance a game by seeing the similarities between it and some standard example or prototype of a game:¹⁴

How should we explain to someone what a game is? If we don't have a common thread running through everything we call a 'game' it seems very chaotic! How on earth do we teach people to use this term 'game'? I imagine that we should describe games to him, and we might add: 'This and similar things are called "games"'.
 (Wittgenstein 1953: §69)

And again it is easy to see the parallel to concepts like research, art and science. Explaining what art is, consists in mentioning various artists from different art forms, genres, epochs, etc. and examples of their work, maybe adding 'This and similar things are called "works of art"'. And obviously the same should go for concepts like 'research' and 'science'. But as suggested above, many formulations in theoretical texts that are called 'definitions' are strictly not definitions at all, but exactly these kinds of elucidations, often mixed up with sketches of how the concept has developed and explanations of what the item in case may be used for.

But even such elucidations that avoid the definition trap of trying to do the impossible, may be what we should rather call 'stipulative elucidations' or even 'persuasive elucidations', – elucidations with the aim of narrowing down what sensible artistic research may be, often owing to an overly narrow concept of what is scientific research.

Paradigms

In the theoretical discussion of what artistic research might be, a distinction is often brought forth between what is called 'the scientific paradigm' and artistic research, maybe even 'the artistic research paradigm'. But even though the concept of 'paradigm' may be useful in the discussion, starting out with the premise that there is only one scientific and only one artistic research paradigm, sets the whole discussion on a false track.

Unfortunately, there is no general consensus about what a paradigm is. In this context of epistemology, the concept stems from the American physicist and historian of science Thomas S. Kuhn (1922–1996) and his book on *The Structure of Scientific*

Revolutions, now best known in the enlarged edition with a new postscript from 1970 (Kuhn 1970 [1962]), yet not even within the covers of that book does the concept stand out with just one clear content. As the English Wittgenstein-disciple and computer linguist Margaret Masterman (1910–1986) made clear in her essay on ‘The Nature of a Paradigm’, Kuhn uses the term in at least 21 different ways (Masterman 1970: 61). The first meaning that Kuhn gives the term in his book, is the etymologically most obvious one (since *paradigma* in Greek means ‘example’), namely ‘that some accepted examples of actual scientific practice ... provide models from which spring particular coherent traditions of scientific research’ (Kuhn 1970 [1962]: 10).

In present-day science Kuhn thinks of the large, basic textbooks, but before that genre broke through in the natural sciences in the middle of the nineteenth century, big ‘classic’ works played this role: ‘Aristotle’s *Physics*, Ptolemy’s *Almagest*, Newton’s *Principia* and *Opticks*, Franklin’s *Electricity*, Lavoisier’s *Chemistry*, and Lyell’s *Geology*’. It is already tempting here to make the reflection that each of the natural sciences have and have had several different paradigms – and also that artistic research is still far from having standard textbooks, not to mention classics.

Better known than ‘paradigm as example’ is a derived meaning of the term, namely the scientific ways of thinking that these standard works exemplify, the traditions they have created and keep alive: ‘Ptolemaic astronomy’ (or ‘Copernican’), ‘Aristotelian dynamics’ (or ‘Newtonian’), corpuscular optics (or ‘wave optics’), and so on. Once again it is a presupposition for the concept that there is not only one paradigm of natural science, but many. And this grows to very many if one looks at some of those places where Kuhn writes about the size of the groups that are adherents to or work within a certain paradigm. While the examples so far suggest something like all researchers within a certain field in a certain period (which may stretch through many decades or even centuries), other examples of the original text point in the opposite direction, and the ‘Postscript’ of 1970 makes it clear that it is not only possible to talk about groups as large as ‘all natural scientists’, but also of subgroups like all organic chemists or all radio astronomers, down to ‘communities of perhaps 100 members, occasionally significantly fewer’ – each group gathered around its specific paradigm.

It is therefore safe to conclude that even if we only conceive of science as natural science, we do not have just one, but many different paradigms. And the picture gets even more motley if we do not only consider the natural sciences, but also the social sciences and the humanities, not only physics, chemistry or astronomy, but also anthropology, sociology and economics, and the studies of art and culture, language and history – plus non-empirical disciplines like mathematics and philosophy. One type of science, one paradigm that an eventual specific artistic research paradigm might resemble or differ from, does not exist.

The pre-paradigmatic stage

In his book on scientific revolutions Thomas Kuhn does not only discuss the ‘revolutionary’ transition from one paradigm to another, but also the situation of a given scholarly discipline before one broadly accepted paradigm imposes itself at all (Kuhn 1970 [1962]: 10–22). In his first treatment of this theme he clearly uses the concept of a paradigm in the sense of a prototype or standard work like the ones

mentioned above by Aristotle, Newton, Lavoisier, etc., and his point is that what such works have to offer, is on the one hand ‘sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity,’ and on the other ‘sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve’ (Kuhn 1970 [1962]: 10). And as I have just clarified, standard works like that do not exist in our artistic field. Artistic research is still a pre-paradigmatic activity.

In his postscript to the second, enlarged edition of his book, however, Kuhn more precisely enumerates four main characteristics of what he now prefers to call ‘a disciplinary matrix’ (Kuhn 1970 [1962]: 182–7), but what in the tradition after Kuhn is still called a ‘paradigm’, now nearly always in the sense of a broader disciplinary way of thinking. In this version of Kuhn’s theory such a paradigm is determined by a set of first, symbolic generalisations, second ontological commitments, third, values, and fourth examples.

In our connection we can nearly ignore the symbolic generalisations because they are almost only known from Kuhn’s own main discipline, physics, namely formulae like $f=ma$ (force equals mass times acceleration) (Kuhn 1970 [1962]: 183). The point in these formulae is that they do not only show the mutual relationship between certain concepts, but also make it possible to treat measurements mathematically. Things like that are obviously completely unknown in artistic research, but the reason why we can only ‘nearly’ ignore the symbolic generalisations, is their ontological element (for instance the explanation of what ‘force’ is), which is carried on to the next common element of paradigms, and which is not without importance for artistic research.

Kuhn’s examples of the ontological element (which he himself calls ‘metaphysical’) is inevitably also from physics, namely conceiving heat as kinetic energy or of molecules of gas as tiny elastic balls (Kuhn 1970 [1962]: 184). And obviously, different concepts of what artistic research is – different artistic research paradigms – may be rooted in different assumptions of what kind of reality is explored by the artistic research project in question, and how this reality is constituted (a version of a thought that we met already in Dilthey’s defence of the special character of the humanities).

The third element of the paradigm is values, and here Kuhn again first mentions examples from physics, for instance about predictions: ‘they should be accurate; quantitative predictions are preferable to qualitative ones; whatever the margin of permissible error, it should be consistently satisfied in a given field; and so on’ (Kuhn 1970 [1962]: 185). But he also mentions more general values like ‘science should (or need not) be socially useful’ – and once again it is easy to find equivalents for artistic research in formulations like that: while some artistic researchers and theoreticians of the field would argue that artistic research should melt into artistic work, others would claim that artistic research should use artistic work or take its point of departure there, but should stand alongside the work (for instance as a written dissertation) and satisfy ‘normal research criteria’.

To Kuhn, the most important, nay principal, element of the paradigm is the shared examples, because it is first of all through them that researchers acquire (often only tacit) knowledge about and allegiance to the other elements and come to understand which role they play. And once more: since we do not yet have any generally accepted examples or prototypes of artistic research, the whole field of artistic research is still in a pre-paradigmatic stage. One sign of such a stage, he suggests, is that the contributions

to the field most often have the format of ‘major works’, ‘starting from first principles and justifying the use of each concept involved’ (Kuhn 1970 [1962]: 19f.). If you look at the more formal contributions to our field, the final writings of PhD students, you can find this observation corroborated, for they nearly always have these introductory chapters on how their authors conceive of artistic research.¹⁵

The question is, however, whether we should hope and strive for the constitution of just one or, a more probable situation, a few common paradigms within artistic research, or rather be satisfied with the actual pre-paradigmatic stage – or, if the situation turns out to be permanent, should be satisfied with what should maybe rather be called a *non-paradigmatic* stage (which would not mean that artistic research projects could not be described within an adapted version of Kuhn’s disciplinary matrix, the way I suggested above).

In the original edition of his book, Kuhn makes the remark that ‘it remains an open question what parts of social science have yet acquired [their first universally received] paradigms at all’ (1962: 15). One might however argue that Kuhn’s picture of periods of ‘normal science’ with ‘puzzle solving’ based on a certain paradigm and interrupted by scientific revolutions that introduce new paradigms, needs meticulous adaptation when used outside the natural sciences. In my own book on the humanities I have for instance argued that it is characteristic of humanistic disciplines that partly competing, partly supplementary paradigms can exist side by side within the very same fields in periods of ‘normal science’, and that this does not mean that the humanities are simply pre-paradigmatic in the sense of immature (Kjørup 2001: 90–5). It might therefore also be natural to expect that artistic research will never live up to Kuhn’s picture, but find its own mature format.

For the sake both of the development of artistic research as such and of the theory of this kind of research we must hope that the whole field as soon as possible will reach a stage where we will all settle on a set of standard examples – for imitation, variation, opposition and theoretical analysis and discussion. Compared with other disciplines it is rather surprising that after 10, 20 and at certain places even nearly 30 years of institutional commitment artistic research has not developed any generally known classics and no stars (while the names of a small group of theoreticians have become quite run-of-the-mill).

Rhetoric and academic prestige

Allow me to approach the conclusion of this chapter by posing a few questions:

- Why do we talk about ‘pictorial composition’?
- Why did history painting range on top in the classic hierarchy of genres – and why was it called ‘history painting’?
- What is the name of the well-known bodily posture that we for instance know from Apollo in classical Greek statuary (one leg stretched, the other bent, shoulders bent etc.) – and why?

Obviously, my questions are rhetorical in the sense that my readers are not really expected to answer them; they are just supposed to make a point. But the point might be said to be rhetorical in another sense, because their common answer is ‘rhetoric’.

To answer the questions we have to go back to the early renaissance and to the (successful) attempt by theoreticians of painting to move the visual arts out of the sphere of craft and into a more prestigious sphere, namely the scholarly or academic (Blunt 1940; Baxandall 1971). One of the most important disciplines in the university world at this point was rhetoric, the most important of ‘the seven liberal arts’¹⁶ which constituted the official nucleus of university teaching up to the level of bachelor, and as performative practice and pedagogical basis rhetoric was the foundation of any kind of academic activity.

Music already belonged there, since one of the liberal arts was a kind of mathematical harmonics. And poetry joined in by simply being part of the rhetorical field. So if it could be demonstrated that the making of paintings rested on the same theoretical basis as the use of verbal language, painting could be considered as a learned discipline, equivalent to the academic ones.

One of the important academic projects of the early Renaissance was to resurrect classical Latin after the many years through which the antique Roman language had developed into what we now know as the Romance languages (Italian, French, Spanish, etc.), while it was used in more and more simplified versions within the Church and the universities. Cicero’s elegant and elaborate way of putting words together, i.e. of *composing* (from the Latin *componere*) words to phrases, phrases to sentences, sentences to paragraphs, etc., was admired and imitated – and Leon Battista Alberti (1404–1472) argued in his book on painting from 1435 that the very same thing happens in painting where elements are assembled into larger wholes (Alberti 1966 [1435]: 68–72). Hence *pictorial composition*.

But according to Alberti, composition is just a means to what he points out as the most important element of the art of painting, namely what he in the Latin version of his book calls *historia*, in the Italian *istoria*, hence *history painting*: ‘The greatest work of the painter is the *istoria*’ (Alberti 1966 [1435]: 70). And in the tradition this became what rhetorically educated orators would draw on in their speeches making rhetorical allusions and comparisons, i.e. figures and tales from classical antiquity and the Christian tradition.

Finally, the classical posture is of course the *contrapposto*, ‘the opposition’, conceived as a visual reminder of the base form of rhetoric, the discussion of some topic highlighting the *pro* and the *contra*, the arguments for and against – once again giving visuality a chance of connecting to the rhetorical tradition and in that way giving painting a chance of coming across as a learned discipline.

Learning from history

My reason for taking up this episode from the history of painting is that the early renaissance situation is not unlike the one we have today, and that we may learn from it. Also today artistic disciplines – and now not only painting and music, but also for instance film and various forms of performing arts – try to be accepted as on a par with academic disciplines, such as being part of the Bologna process. And since particularly the educations within the third cycle of the Bologna process, the doctorate level,

are research educations, the concept of research has been called up and applied to artistically creative disciplines.

I am not blind to the fact that this way of putting the background for the contemporary discussion about artistic research may sound somewhat ironic, but it is certainly not meant in that way. On the contrary, I am heading for the point that one of the things we may learn from history in this connection is that the renaissance rapprochement from the artistic side to the academic (to such an extent that the new institutions for education in the visual arts that were erected in Europe during the first couple of centuries after Alberti, were called ‘academies’) did not ruin the artistic field or create institutions alongside it, but on the contrary strengthened it, even on its own premises.

Alberti and his peers did not create completely new artistic activities. They created a specific perspective on already existing activities and promoted some at the expense of others, but they did not promote anything radically new and different. Yet it is obvious that the new perspective in the longer run did have consequences for the direction of the development of art, for instance through the focus on history painting and the founding of institutions that insisted on these perspectives. In this way it also became influential concerning what was expected of those who would get jobs to teach in these institutions.

It is the same pattern we observe today. The focus on the research dimension of creative activities reminds us of the fact that artistic creativity has always presupposed a certain amount of creation or at least retrieval and use of knowledge. One cannot write a history painting without having acquainted oneself in depth with the story one wants to tell and the figures one wants to discuss; one cannot compose a symphony without mastering the symphonic conventions that are handed down and deciding how one wants to make use of them or maybe rather transcend them; and one cannot rehearse a Shakespearean role without analysing the text that one is going to perform. This is certainly not ‘Research’ with a capital R, but always at least more or less ‘systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing’ – in our case – new works of art and design (to partly quote, partly rephrase an excerpt from the *Frascati* definition of ‘experimental development’).

Questioning quality and craving a canon

I started out by expressing my satisfaction at observing the huge variability in what goes on under the heading ‘artistic research’, i.e. in the production, use and dissemination of knowledge and insights connected to creative work in art and design. And I hope to have made it clear that any attempt at squeezing artistic research into one single format with reference to ‘the scientific method’ (in the definite form of the singular) or to one single concept of research, will be a misunderstanding: there are many different kinds of sciences using many different methods to solve many different kinds of research problems.

Pleading for plurality in artistic research when it comes to problems and methods is not the same, however, as neglecting the question of quality. On the contrary, once you let go of the ideal of a small set of formal criteria for what may count as ‘real research’,

you open the doors for a serious and much more interesting discussion about what should be considered *good* research, research that gives us interesting, eye-opening, inspiring, enlightening, fascinating, edifying, uplifting contributions to knowledge and insights that are also well-founded, justified, persuasive.

That discussion, however, is best conducted not in the abstract, but in connection with concrete research contributions. One thing of which my presentation here of a few standard issues, views and concepts from the philosophy of science has reminded us, is the blatant need for some kind of ‘canon’ of artistic research projects, a stock of commonly known examples of remarkable contributions to this still fairly new tradition, some prototypes to imitate, analyse, criticise or make one’s mind up about and use and discuss in other ways. Another deficiency on which I have not had any opportunity to comment, is the absence of a kind of public sphere with means of communication (journals, blogs or the like) for reviews of results of artistic research. May the next wave of contributions to the understanding of the potentials and promises of artistic research not be purely theoretical – like mine here – but take its point of departure from various outstanding examples of arts-based research.

Notes

- 1 In this chapter I use ‘artistic’ as short for what belongs to both art and design.
- 2 1 April 2009. Nearly four months later, on 26 July, the first part of the sentence has been changed to the just as narrow phrase ‘Science is the effort to understand how the universe works through the scientific method’.
- 3 The four projects are: a study of artists’ books by the editors of the Swedish art review *OEI*, the Icelandic-Danish Olafur Eliasson’s explorations of basic elements of daily life like sun, light, water, soil and wind in his work, British Jacqueline Donachie’s inquiry into the illness myotonic dystrophy as basis for her artistic work, and Finnish-American photographer Lisa Roberts’ work.
- 4 I played a supervisory role regarding Tone Saastad’s project.
- 5 The report is the written part of a project within the National Norwegian Artistic Research Fellowships Programme. The outcome of going through the programme is not a PhD, but it is equivalent to a PhD.
- 6 But especially the 119-page report by Trond Lossius does contain lots of material on sound, installations, computers and computer programs, etc., that must be of interest to other artists and practitioners in the field.
- 7 See <http://www.kunststipendiat.no/en/regulations>.
- 8 Of the first seven candidates from the programme, only the writings by Lossius, Hamid Rasmussen and the composer Øyvind Brandtsegg are in English. Brandtsegg’s project was called ‘New creative possibilities through improvisational use of compositional techniques: a new computer instrument for the performing musician’ – and he actually developed and demonstrated such an instrument as part of his research. His reflections, divided into several digital-only documents, can be reached through <http://oeyvind.teks.no/results/> (accessed 4 December 2009).
- 9 Please note that Windelband’s term is ‘idiographic’, not ‘ideographic’; ‘idiographic’ means literally ‘what describes the specific’, whereas ‘ideographic’ means ‘what describes ideas’ and is the term for a specific kind of written signs that do not mirror the pronunciation of words but ‘directly’ signify the actual concepts (like numbers or signs for chemical compounds). ‘Nomothetic’ is derived from the Greek ‘nomos’ that means ‘law’.
- 10 My inspiration to look at the Frascati Manual in this connection comes from a keynote speech by Henk Borgdorff – ‘Artistic Research within the Fields of Science’ – at the fourth ‘Sensuous Knowledge’ conference, arranged by the Bergen National Academy of the Arts at Solstrand, Norway, in November 2007, now published as Borgdorff (2009a).
- 11 To mention just one problem: How can statisticians – or more or less centrally placed respondents to questionnaires – be sure whether investigations are undertaken with or without practical

aims? Who is supposed to be conscious about the aims? How long down the line of participants in the research projects?

- 12 'S&T' is an abbreviation for 'Science and Technology'.
- 13 The American philosopher Morris Weitz (1916–1981) has famously made the same kind of argument for 'art' only a couple of years after the publication of Wittgenstein's book (Weitz 1956), but I am not quoting him directly here.
- 14 Wittgenstein himself does not use the term 'prototype', nor do his translators.
- 15 A typical example might be the discussion in Mike Bode and Staffan Schmidt's dissertation *Off the Grid* (Bode and Schmidt 2008).
- 16 The seven liberal arts were the three 'verbal' ones (the trivium): rhetoric, grammar and logic, and the four 'mathematical' ones (the quadrivium): arithmetic, geometry, music and astronomy.