

24 Pieces on pragmatism
Bart Nooteboom

published 21-12-2018

25. Forms of truth

published 23-8-2012

Notions of truth correspond with ideas of knowledge. For the philosophical *rationalist*, such as Descartes, knowledge comes from *innate* ideas that are true because God infuses them. For the *empiricist*, such as Locke, something is true if it *corresponds* with reality, on the basis of objective *sense data*. For others such not already interpreted atoms of truth do not exist, and truth is *coherence* with a relevant body of knowledge. That can take the form of logical *deduction* from assumed premises, but also *consistency* or mutual *reinforcement* with things that are taken for true. That comes close to the notion of *plausibility*. There were ample conditions where it might have been refuted but was not. According to a related notion propagated by pragmatic philosophers, something is true if it is *fruitful*, i.e. contributes to successful practice, if it remains standing in action.

There is a well-known distinction between *analytic* truth by definition or logical deduction, and *synthetic* truths of fact. The strict distinction has been criticized because truths of fact are often dependent on definitions and hence analytic truth. They are also *theoretically laden*, i.e. are theory-based interpretations of phenomena.

An entirely different notion of truth concerns 'truth to form' as in 'that is not a true work of art'. It can also refer to lack of authenticity, with falsehood referring to insincerity, false pretence, and the like, as in 'you don't truly mean that'. One might speak of moral truth, as true to moral precepts, as in 'he is truly a good man'.

Traditionally, a clear distinction was made between the 'is', the *descriptive* and the 'ought', the *normative*. That also has become doubtful. Observations, and their theoretical interpretations, are routinely subjected to standards of methodology, which are normative. Descriptive statements are mostly intentional, i.e. are part of a project, directed towards a goal, an interest, as a result of which one looks in selected directions and ignores others. In other words, scientific theory is *value laden*, by both methodological norms and intentions. Many economists, for example, pay no attention to theories that are not mathematically formalized according to the prevailing fashion.

Much in our use of language is a form of action and a matter of effectiveness rather than a matter of truth or falsity. In his work on *Doing things with words*, Austin made a distinction between expressions that are *locutionary* statements, with *propositional content*, saying something about the world, and *illocutionary expressions* that are intended to affect someone, such as an order, request, accusation, and the like. Many statements are both at the same time. Earlier I used the example of my wife calling out 'that is not a screwdriver' as I use a knife to turn a screw. That has propositional content but the point of it is illocutionary.

26. Pragmatism

published 23-8-2012

Descartes began with radical doubt to arrive at the indubitable ‘I think therefore I am’. But there are many other things we cannot doubt. Nor can we prove everything. Between doubt and proof lies *belief that we are prepared to act upon*. Beliefs are temporary and fallible, but we adapt or transform them as we gain further experience, in the practice of our doing. That is the insight from American *pragmatism*, in the work of C.S. Peirce, Dewey, William James and G.H. Mead. The idea goes back further, to David Hume and the practical wisdom of Aristotle.

Pragmatism is a theory of meaning, knowledge and truth. The meaning of a word or expression lies in its implications for phenomena or actions. A proposition is meaningful if it explains: if something could not have happened unless the proposition is true. Once, it was meaningful to claim that God must exist as designer and creator, because it was otherwise inconceivable how complex forms of life could have arisen. Now, from evolution, we have an alternative explanation.

But how about *a priori* truths of logic and mathematics, then? Do they have implications for practical conduct? As the philosopher C.I. Lewis argued: yes and no. Internally, in deduction from a set of axioms or assumptions, truth is formal, ruled by the principle of non-contradiction. Deductions are valid given the assumptions. However, different systems of logic and math are judged by their contribution in constructing theories that help in our practical conduct.

Concerning truth, somewhat misleadingly pragmatism has been attributed the view that something is true if it useful or satisfactory. That was more or less the standpoint of William James, but not of Peirce and Dewey. It is nonsense. Lies often work well but are nevertheless lies. Delusions can be satisfactory. However, truth is still meaningful as *warranted assertibility*: we have good reasons for a belief, on the basis of its fruitfulness, its contribution to solving problems, and the ability to maintain it in critical debate. The warrant may be direct, in its contribution to practice, but also indirect, in its *coherence* with a system of thought that contributes to practical conduct.

In contrast with philosophical rationalism, the warrant of truth is taken from experience, but not the immediate, uninterpreted *sense data* of empiricism, but experience as mediated by cognition and sense making. Experience is not atomistic sense data but coherent, purposeful ‘things going on, things being done’.

Concerning knowledge, pragmatism is oriented towards action, and opposes the ‘spectator theory’ of knowledge as contemplation of eternal, immutable truths. It has emphasized problems and their solution: situations where an existing idea turns out not to work or not to fit and needs to be adapted or replaced. I add, however, that another source of new ideas lies in new opportunities: the idea does fit but alternative ideas turn out to also fit while being more fruitful, providing an opportunity for novel combinations with ideas one had.

I thank John Groenewegen for his comments on a previous version.

31. Invention

published 2-9-2012

How does pragmatism work? How do ideas arise and change, from action? In an earlier work *Learning and innovation in organizations and economies* (2000), I proposed a 'cycle of discovery'. The basic idea, which accords perfectly with pragmatism, is that knowledge develops by applying existing knowledge to new areas. That yields challenges and insights for change.

In a nutshell, the cycle is as follows. In *generalization* an existing mental scheme or practice is applied to novel contexts. Generalisation is needed for four reasons. First, to escape from the existing order in the present area of practice. Second, to obtain fresh insights into the limitations of existing practice. Third, to create pressure for change for the sake of survival. Fourth, to obtain insight into alternatives. Generalisation can be real, as in a new market for an existing product, a new field of application of a technology, or virtual, as in a computer simulation, laboratory experiment, or a thought experiment.

To survive in the new conditions the scheme is *differentiated* in an attempt to deal with them. For this one taps from existing repertoires of possibilities and capabilities learned from previous experience. If that does not yield survival, one tries to adopt elements of local practices that appear to be successful where one's own practice fails, in *reciprocation*. This yields hybrids that allow experimentation with novel elements to explore their potential, while maintaining the basic logic or design principles of the old practice. One next obtains insight into the obstacles from the old architecture that prevent the full utilization of the potential that novel elements have now shown. This yields indications for more fundamental changes in the architecture, in *accommodation*. Next, the new architecture, with old and new elements, is still tentative, requiring much experimentation and subsidiary changes, and elimination of redundancies and inappropriate leftovers from old practice, in a process of *consolidation*. There is often competition between alternative designs, which mostly results in a *dominant design*. And next, to get away from that one again needs generalization, and the circle is closed.

One illustration is the following. Before in the car direction indicators with flashing lights were invented, direction was indicated by waving a hand, as on a bike. From signs at railways one learned that it could be done better with a mechanical hand, without needing an open top or window. In fact, those indicators at first did have the stylised shape of a little hand. The mechanical hand has all the disadvantages of moving parts: in getting stuck, breakage, stalling, rusting, and maintenance. But when also electrical light was inserted the leap was made to using a flashing light instead of moving parts. To distinguish it from basic lighting it had to flash.

Another illustration is that when in the construction of bridges the move was made from wood to iron, use was at first still made of 'swallow tail' connections that make sense for wood but not for iron, which can be welded.

The philosopher Kant made a distinction between the realm of knowledge and truth concerning the world and the realm of ethics. This corresponds with the distinction between causes, which operate in the world, and reasons, which belong to ethics. As part of the physical world, the self is constituted by causes, as part of the ethical world by reasons.

This brings Kant into great problems. One problem concerns the issue of free will, which I discussed in item 5 of this blog, and I will not repeat my position here. In viewing the self as part of the world Kant sees its actions as governed deterministically by causes (in the brain). In the view of the self as a moral agent, however, the self (the *transcendental subject*) is free and fully responsible for its actions. This separation of realms, I think, is not very helpful, and I don't see how it can be tenable.

According to Kant, and I agree, in our knowledge of the world there can be no certainty in any *correspondence theory* of truth, according to which elements of knowledge, either rationalist Cartesian *a-priori ideas*, or empiricist *elementary sense data* correspond, somehow, with elements of reality. We cannot know the world as it is *in itself*, or rather, we cannot know whether or in what way we do. We cannot do other than apply categories that are part of language and cognition, right or wrong, to form perception and understanding.

In item 28 I adopted an evolutionary perspective. There I accept that reality exists even if we cannot objectively know it. Then there is realism in our conceptualization of objects and agents in time and space: If it were not in some sense adequate to reality we would not have survived in evolution.

According to Kant, in the ethical realm, outside the realm of causality in the world, we *can* achieve certainty, in rational ethical judgement, as in the *categorical imperative*. Earlier in this blog, in items 17 and 95, I accepted that imperative as a guideline, but subject to conditions, not as an absolute universal.

In my discussion of forms of truth (item 25) and pragmatism (item 26) I proposed to use the notion of truth as *warranted assertibility*. This is wider than pragmatism in its traditional form: an assertion is adequate if it 'works' in practical application *including debate*, i.e. stands up to logic and facts.

I now propose that it applies to both knowledge of the world and ethics. We can never be sure about either. I add that while the distinction between causes and reasons makes sense, in our cognition reasons are causes that we are aware of, in contrast with drives that operate outside our consciousness.

In knowledge of the world the warrant for assertions lies in both logic (and mathematics) and empirical observations. With Kant I accept that observations are constituted

cognitively, so that facts are *theory laden*. However, they still form a basis, albeit not an absolute and sometimes a somewhat shaky one, in that facts are more intersubjectively and temporally stable than the theories they are used for to test. Warranted assertability is never certain and always provisional, as pragmatism claims.

Morality is based on warranted assertability in arguments concerning the good life and ways to promote it. I can say this because I follow Aristotelian virtue ethics, not Kant's rationalistic, universalistic, *deontological* duty ethics.

118. Debatable ethics

published 4-11-2013

In this blog I have argued (e.g. in item 16) against absolute universals that apply strictly everywhere and forever. Concerning knowledge, I arrive at *warranted assertability*, instead of *truth* in any absolute sense of being objective and indubitable, as discussed in item 104. We cannot claim truth in an absolute sense but this does not necessarily yield relativism in the sense that any opinion is as good as any other. Arguments matter, using logic and facts whenever those can reasonably be established, imperfect though they remain, and conditions for their use are satisfied.

Now I arrive at the equivalent of this in ethics. There are no absolute, i.e. strictly universal and fixed rules of conduct. In item 95 I even rejected Kant's famous categorical imperative (a variation upon the ancient *golden rule* that one should not do to others what one does not want done to oneself). I accept fundamental moral rules as guidelines that are to be followed as a matter of strong principle, but I allow for exceptions and special pleading. To many philosophers this yields a debatable ethics, and indeed that is precisely the point: ethics is debatable.

That, after all, is also what we find in legal courts, where judges interpret the law and mete out punishment with an eye to motives, pressures, circumstances, means, and capabilities. Here also we find the use of multiple causality that I discussed earlier in this blog. There generally is no simple single cause of misdemeanour or crime.

But how, then, can argumentation in deviance from rules occur without resulting in a relativism where any excuse will do? It is a matter of debate, again with arguments concerning multiple causes, as indicated.

There are problems in the notion of a just debate, without one-sided imposition of power, as I discussed in the preceding item (with reference to Jürgen Habermas). Perhaps under unequal power such debate should look more or less like jurisdiction: with a prosecutor and a defence attorney. And should there then be a jury, as in countries with an Anglo-Saxon tradition, or only a judge?

A complication here is, of course, that there are no detailed moral laws as there are legal laws, and no independent judges, prosecutors and attorneys, subjected to standards of

knowledge, training and ethical conduct. Once upon a time priests and vicars fulfilled that role, executing divine law.

There are good reasons for this. Political mechanisms determine legal laws but liberal societies are averse to laying down similar moral laws beyond legality. That does not mean that no more or less law-like moral rules arise, as part of institutions, but that they are beyond democratic control, and as a result they are even more subject to hidden structures of power than legality already is.

Morality should be based on ethics, so what ethics do we use? As I argued earlier, I am a follower of Aristotelian virtue ethics, recognizing that virtues are multiple, often not instrumental but intrinsic, often incommensurable, contingent and subject to change. So, what moral debates can this yield? Similarly perhaps to Socratic dialogue. But rather than this being dominated by a single clever rhetorician, such as Socrates, there should be competent opponents. In case opponents are not competent, mediators and perhaps something like a jury. Or could one perhaps think here of the role that the chorus played in ancient Greek tragedy, taking an outside view for commenting on the proceedings? Is that perhaps how we can ideally interpret public debate in the media?

132. Religion and pragmatism

published 10-2-2014

Almost everywhere and always, people have sought religion, in a flight from existential anxiety, pain, suffering, vicissitudes and uncertainties of earthly life, into something transcendent. But that was not always God.

In her *The great transformation* Karen Armstrong analyses the emergence of spirituality and religion in different regions of antiquity, in East and West. She focuses on the *Axial Age*, from 900 to 300 BC, so called because it was a pivotal time, an axis around which development of spirituality and religion turned.

From that book I draw the key notion of *kenosis*: emptying the self of egotism, greed, and violence, and practice of the spirituality of compassion. All religions have exhibited that, and they all arrived, independently, at the Golden Rule: Do (not do) onto others what you (do not) want done upon yourself.

One difference is the following. In Christianity and Islam the idea developed that one should begin with belief in God and a doctrine on his being and the divine order, in order to subsequently apply that to spirituality and ethics. In the East, in Confucianism, Buddhism, and Taoism, the idea was the reverse: that practice comes before theory; that disciplined sympathy would itself yield intimations of transcendence. That implements the pragmatism that I have pleaded for in this blog.

I don't know whether Eastern philosophy has influenced pragmatist philosophers, but the pragmatist philosopher John Dewey did influence developments in neo-Confucianism.

Perhaps what pragmatism added was a commitment to active experimentalism, testing ideas for failure.

A second difference, related to the previous one, is that theology, with a written doctrine, in Bible and Koran, was pervasive in the West while in the East it was stringently avoided. Hinduism and Taoism did have an idea of a supreme being or principle (Brahman, Tao) that is the source of all good and bad, is the 'all' and 'one'. But here there is much more evidence of the view that the 'higher' is ineffable, cannot fit into our limited human categories, and is best met with silence. That was part of early Christianity and Islam but was later inexorably replaced by doctrine and orthodoxy, and what was left was relegated to pockets of mysticism. I also have made that plea for recognition of the ineffability of the higher in my blog.

Whether or not there is a sense of a higher being or principle, in Eastern philosophy there is a pervasive sense of impermanence, movement, production and reproduction, of change and transformation, and of variety and particularity, in contrast with the Western orientation towards permanent substance and universals, beyond particular individuals. The world and existence are diverse and in flux, in ongoing production, reproduction and transformation. One can rise above it in spirit, on the basis of disciplined contemplation and kenosis, achieving a sense of being at one with the universe, but it mostly remains being in the world.

148. Imperfection on the move

published 2-6-2014

While I sympathise with Nietzsche's thought on several points, I deviate from it in several ways, to develop my perspective of *imperfection on the move*.

Like Nietzsche, I reject absolutes but take values seriously. I add that most often values are adopted tacitly, without any question of validity arising at all. I will return to that in a later item in this blog. But where critical reflection is possible and relevant, one can legitimately accept values (and truths), as temporary, currently the best we have, given language and largely tacit established notions, while remaining open to possible failure of our cognitive make-up and to the need for revision in the face of new experience, meanings, or arguments.

Instead of Nietzsche's Will to Power I posit a Will to Creation, including art as well as invention and innovation. That includes the need, and perhaps Nietzschean enjoyment, of overcoming resistance, but counter to Nietzsche, not as a fundamental value in itself, but as inevitable in creation. While for Nietzsche the will to power is primary, with creation as its highest manifestation, for me will to creation is primary.

Like Nietzsche I propose that one's own prejudice also yields a resistance one needs to overcome. Will to power should apply also to the self. However, Nietzsche sought that in rivalry with opponents. In contrast with Nietzsche I propose that instead of vanquishing others, one needs to be receptive and empathetic to them, to be open to their opposition.

This is needed to achieve the highest form of freedom: the freedom to change what one wants to want, and to overcome one's prejudices. I argued this extensively in my book 'Beyond humanism', and in earlier items in this blog (49 and 60)

Here, I oppose enlightenment rhetoric of autonomous selves, in self-realization, and Nietzsche's extension of it into self-affirmation. Even according to Nietzsche himself there is no originary, unitary, given self to affirm. The self is multiple and in flux, and develops in interaction with especially the social environment.

As indicated earlier in this blog, I endorse the fallibilist view of pragmatism, and the related notion of 'truth' as 'warranted assertibility', but with some modifications.

How relativistic is the principle of warranted assertibility? The answer to the absence of absolute, objective values should not be relativistic surrender to the incommensurability of values from different perspectives but, to the contrary, commitment to ongoing effort at debate between opposing views.

The criterion of warranted assertibility is not only success in terms of utility, but also success more widely, in debate, with arguments that mobilize all relevant knowledge and experience, including facts.

While accepting the impossibility of achieving certain, objective truth, I re-institute facts and realism, in a non-absolute, contingent fashion.

Facts are indeed perspectival and theory-laden, but they are mostly less arbitrary and more reliable than theoretical speculation. In my practice as a scientist I have encountered situations where the perception of facts did vary with differences in theoretical perspective, but also cases where one could agree on them to settle differences in theory.

I do not believe in realism in the form of correspondence between ideas or perceptions with items in reality, but I do endorse realism in the sense that our ideas develop, mostly tacitly, without our being aware of it, in interaction with reality, as a function of experienced success, and in that sense somehow reflect them, though not as in a mirror. What, then, do we 'have in mind'? I will discuss that in a later in this blog.

Finally, how could and why should one adopt the basic value of creation that I propose? I think we *do have* the drive and ability to creation as a result of evolution: it has given the human species an advantage in survival. I think it is *advisable* to adopt creation as a value for the flourishing of one's own life and lives after that. Why? Does flourishing human life have absolute importance? I don't know, but since we have life it seems best to make the best of it.

How all this works out in life and society has been the subject of a number of previous items in this blog.

There is an obvious connection, recognized by many, between Nietzsche and pragmatism. What they share is perspectivism and contribution to life as a criterion for validity. But how, in more detail, do they compare?

They both reject the separation of subject and object, of thought and world, as well as the separation of fact and value, of 'is' and 'ought'. The subject develops its knowledge and ethics in interaction with the world, and truth is judged in relation to purposes of actions.

In mainstream pragmatism (of Peirce, James, Dewey), ideas are revised when they fail in their application. I add, and I am sure Nietzsche would have concurred, that ideas also arise to create or respond to novel opportunities.

Mainstream pragmatism assumes that in the end knowledge will converge, in the limit, to objective truth. Nietzsche, by contrast, thinks of an ongoing creative destruction without any guarantee or indication, or even sense, of such convergence, and I go along with that.

According to mainstream pragmatism truth, or adequacy, or validity, is judged on the basis of utility or success in practice. Of course, that depends on the perspective one takes. In a wider view of pragmatism not everything is focused on practical ends. For Nietzsche, merit of ideas lies not in their direct contribution to utility, indeed Nietzsche despised that criterion. The criterion of usefulness or success raises the question: useful for what?¹ Lies and cheating can be very useful. Usefulness should be related to views of the good life. For Nietzsche that is life which contributes to longer term, supra-individual flourishing of human life, in spiritual growth, and self-overcoming. Lies and cheating don't offer that.

Earlier in this blog I adopted an Aristotelian virtue ethic, with multiple, often incommensurable values, including honesty, openmindedness, courage, integrity, and prudence, in finding a way between extremes, depending on conditions. One recognizes several of these values in Nietzsche.

I propose that one can debate dimensions of the good life across cultures and communities, often finding at least partial overlap, in some degree of family resemblance.

Some dimensions of the good life are incommensurable between cultures, and this is problematic but not necessarily insuperable. They can be incommensurable already within cultures and even within views of an individual. At least partial agreement need not be hopeless and there need not be surrender to power and force. The paradox is that while absolutes are supposed to provide the basis for adjudication between different perspectives, they do in fact lead to struggles of power and force, since they do not allow for leniency, compromise or hybrid.

¹ Cf. Rossella Fabbrichesi, 2009, Nietzsche and James, A pragmatic hermeneutics, *Economic Journal of pragmatism and American philosophy*.

Nietzsche would have railed vehemently against Rorty's brand of pragmatism, with consensus in a community as the criterion of validity. He would have denounced that as a vile manifestation of the 'herd mentality'.

Nietzsche would be less sanguine than mainstream pragmatism concerning facts and empirical science, wary as he was of 'scientism'. Here, I take a middle position, with the view that while in principle facts are theory laden they can nevertheless often serve to settle disputes between theories.

Pragmatism is sympathetic to democracy and religion, while Nietzsche is not², at least not to theistic religion. If, however, one adopts a wider view of religion, as I have done in this blog, as a striving for transcendence including transcendence that is immanent, in this life, and horizontal, towards something bigger than the self, in this world, then I propose that Nietzsche would qualify.

What most distinguishes Nietzsche from pragmatism is his notion of the will to power, the overcoming of resistance as a value in itself. And I share the doubts on that, as I argued earlier.

168. Word as a process

published 20-10-2014

Following the preceding item in this blog, the puzzle now is this. On the one hand words can refer to things (objects or abstractions) that have some identity, i.e. some stability across different contexts. On the other hand meanings are context-dependent. They arise in relation to meanings of other words in specific action contexts or 'language games'. So how can we reconcile this 'identity' across contexts with dependence on context?

What is the identity of these spooks that change as they move from room to room, while retaining their appearance?

The solution I proposed earlier in this blog, using established theory of meaning, is that meaning has two faces. One face is static *reference* to something, when one identifies something *as* something (a chair, say), and the second face is the dynamic *sense* or of *how* one does the identification, and how that is affected by contexts of action old or new. Reference stands to sense as a picture to a film.

Features by which we identify, in making sense, constitute the *connotation* of an expression. Which features are picked out depends on the context. 'Chair' refers to one thing in talk of academic appointments and quite another in talk of interior decoration. And new kinds of objects may turn up to serve as a chair. Connotation is a moving penumbra, as it were, which accompanies a word as it is applied across contexts. It is a bundle of shifting potentialities.

² See Richard Rorty, 1998, *Berthelot: pragmatism is romantic utilitarianism*, in Morris Dickstein (ed), *The revival of pragmatism*, Duke University Press, p. 21-36.

Saying that features are selected for identification would suggest some deliberate, rational choice. In fact the features are picked up, largely tacitly, in 'framing', prompted by the context.

I elaborated this in terms of the *hermeneutic circle* (in item 36 of this blog). Meanings of sentences are functions of the meanings of individual words in it, as recognized in analytic philosophy, but *at the same time* the meanings of the words depend holistically on that of the sentence, which does not sit well with analytic philosophy.

As recognized by Wittgenstein and Heidegger, the crux and cradle of meaning lie in practice. Semantics (theory of meaning) follows and arises from pragmatics (language use). There, I think, lies the fundamental basis for pragmatism.

While analytic philosophy neglects the birth of meaning in practice, pragmatic philosophy neglects the abstraction of concepts from practice. In that abstraction most of the fuzzy set of connotations is shed. The sun is at its zenith and the penumbra is slight. Abstraction violates, kills perhaps, what Wittgenstein called the 'form of life' of words.

But we need abstraction to go from one context to another, plucking experience to employ it elsewhere. But when applied in a novel context the abstraction needs to be enriched again, cloaked in connotation, as a form of life, as it is absorbed in the crucible of the context, being amalgamated with other words there.

All this is reflected in the double meaning of being as a thing and being as a process. Old philosophy was built on the first, and later philosophy (of Nietzsche, Wittgenstein and Heidegger) on the second. It is both, along the hermeneutic circle.

169. Truth on the move

published 28-10-2014

The best-known notions of truth are static, concerning a state of knowledge. Here I add a dynamic notion, concerning a process of learning.

In item 25 of this blog, I discussed static notions of truth. The dominant notion was that of *correspondence* of ideas and knowledge with reality, on the basis of objective *sense data*. A second notion is the view of truth as *coherence* with a relevant body of knowledge, including accepted facts and logic, or in other words *plausibility*. A third is the *pragmatic* view, where something is true if it is *fruitful*, i.e. contributes to successful practice.

I combine the coherence and pragmatic views into the notion of *warranted assertability*. This includes both practical success in action and consistency with accepted facts, related knowledge and logic. It is a matter of debate what the relevant existing knowledge, logic, and accepted facts are.

A different notion of truth concerns *truth to form* or *fidelity* to some ideal, in ethical and aesthetic truth, as in ‘he is a true friend’ and ‘that is a true work of art’.

I adopt a wider notion that includes both warranted assertibility and fidelity to ethical and aesthetic ideals, which I call *adequacy*. This re-establishes the ancient idea of bringing together the true, the good and the beautiful.

Truth in a dynamic sense lies in a process of trying to achieve truth in a static sense.

The most notorious dynamic notion of truth lies in the philosophy of Friedrich Hegel. In his view, absolute truth, in an absolute spirit, manifests, realizes itself step by step in the course of history. This notion was adopted in the historical materialism of Marx.

An ominous result was that an appeal could be made to people to submit to suffering as a sacrifice to progress towards a horizon of truth and justice. And what is to be sacrificed is up to the ideologues, the Politbureau or the apparatchiks, to decide, as the visionaries of historical necessity.

Nietzsche’s view is closer to my heart: what matters is the ongoing search for truth, not the illusory claim to have reached it.

Final truth cannot humanly be achieved. In this blog I argue that adequacy is *imperfection on the move*. Things will come to be seen as truths that now seem absurd, unthinkable.

Can the static and dynamic notions of truth be reconciled? I propose two ways for this.

The first way is this. My ideal, my view of the good life, a flourishing life, is to utilize one’s talents in a creative contribution to the hereafter that one leaves behind, in a dialogic fashion, in debate and collaboration with others.

Then, truth in the form of fidelity to that ideal yields a dynamic notion of truth, in the ongoing striving for truth in the form of adequacy, defined above, combining warranted assertibility with fidelity to ideals of ethics and aesthetics.

For the second way to reconcile the static and dynamic views I use the notion of the *regulative* vs. the *constitutive*. This is related to a distinction made in the philosophy of science between the *context of justification* and the *context of discovery*. The regulative, in justification, lies in criteria for good argument, such as factuality, logic, and coherence with what we know, and fidelity to ideals. The constitutive, in discovery, lies in the process of achieving such adequacy. How that may work is a different story (see item 31 in this blog).

The first and second ways of reconciling the static and dynamic views of truth amount to the same.

173. Where does argumentation stop?

published 24-11-2014

Earlier in this blog I endorsed the idea (attributed to Wittgenstein and Heidegger)³ of social action in the world, or *language games*, as the cradle of meaning, but I objected to the all too easy acceptance that judgement of adequacy or 'truth' is simply up to consensus, established practice. That would yield an unacceptable, horrendous surrender of personality, creativity and responsibility.

Personality would be sacrificed to the collective. There would be no room to deviate and create something new, a new game with new rules.

Such radical social, cultural relativism would entail surrender to prejudice and discrimination. It would entail submission to the rule of powers that be. Large-scale aberration from justice, like the recent financial crisis, would be taken for granted (as indeed it seems to be, in view of the limited rebellion against it).

Yet, argumentation does indeed have to stop somewhere, and some basic conventions, terms of discussion, have to be taken for granted, to avoid *infinite regress*.

So, how far should argumentation go, and how can it escape from prejudice? How can individuality and sociality, self and other, be combined? How can unity and variety, and stability and change be combined? Those questions constitute perhaps the biggest theme in this blog.

While I accept pragmatic, temporary stops to argument, I cannot accept permanent ones. Indeed, that would be against the spirit of pragmatism that I employ in this blog, because it would raise temporary truth to the level of an absolute. One should not too easily assume *incommensurability* between language games (or *paradigms*) and accept differences of view as irreconcilable.

Earlier in this blog (item 21) I criticized some basic elements of the Enlightenment, but here I maintain its basic value of commitment to discourse, debate and attempts at mutual understanding.

Earlier, I discussed *cognitive distance*, as a source of variety for creation, and the need to 'cross it' in order to realize its potential.

How does that work? One central tool to trigger understanding between views (or *paradigms*, or *language games*) is metaphor: describing one thing in terms of another. This can be elucidated in terms of the *scripts* discussed earlier in this blog. In those terms, metaphor would entail the attempt to substitute items from one script into another, or to import a node from one script to another. Or in linguistic terms, to exchange connotations.

³ See Lee Braver, 2012, *Groundless grounds; A study of Wittgenstein and Heidegger*, MIT Press.

There is an evolutionary argument, from evolutionary psychology, why gaps between rival language games or paradigms should not, in principle, be unbridgeable. The human species developed ways of cognition that contributed to survival in the world, and that, I propose, has somehow become part of our shared genetic make-up. Perhaps that will sometime show up in brain science.

As a result there is a fundamental similarity between people in how they see the world. That similarity is greatest where it concerns interaction with nature, with its stable laws, in what I would call 'first order similarity'.

In this blog I argued that this has also led to what I called the *object bias*, whereby we try to make sense of abstract notions on the basis of metaphors taken from experience with physical objects in time and space.

As a result, socially, culturally and morally cognitive distance is greater. Nevertheless some common basis remains, if only in the basic, primary, natural, physical experience that supply those metaphors used to make sense of abstract notions. I would call that 'second order similarity'.

239. Ideas, action, and integration

published 13-1-2015

Let me now get more practical. In preceding items in this blog I discussed culture mostly in terms of ideas, perspectives, and ideologies. How about action? Isn't that more basic and important for multiculturalism?

In view of having adopted a pragmatic perspective, in this blog, perhaps I am a little late with this, in my analysis. If ideas not only shape action but are also formed by it, then shared activity, in common practice, is perhaps the best basis for multiculturalism.

These days, a study appeared in the Netherlands showing that immigrants who entered for work integrate much faster and better than refugees seeking asylum, who are isolated for a long time, in detention centres, waiting for residence permits, without work or training. That blocks integration.

What is to be shared, then, between people from different cultures, in a given society, is interaction, work, in some organizational structure and process.

Then one may think or say whatever one likes, according to one's own culture, as long as it does not preclude working together.

Then a problem arises when one's culture forbids participation, or there is lack of shared language, or there are other cultural blockages.

An Islamic patient may refuse to be treated by people from an opposite sex, or to be bedded in a ward with people of mixed sex or religion. Or a personnel manager may discriminate applicants according to sex, religion or appearance.

Of course, the idea of action as a basis for integration is not as simple as it may seem. Organizations are shot through with culture. The degree and form of authority, deliberation, style of communication, degree of prejudice, style of socialization, rituals, etc.

Lack of understanding often relates not to deep or fundamental issues but to trivial things in daily practice that are taken for granted in the country hosting refugees but are not familiar to the refugee.

To understand this, I pick up, as a link between action and thought, the notion of scripts that I used before (in item 34) as a model of mental 'framing'. To recall: A script is a network of connected *nodes* that represent component activities (in case of a practice) or notions (in case of a concept). In an activity a connection between components may indicate a sequence in time, one-sided or mutual dependence, the use of pooled resources, a relation of authority (supervision, control), etc. In a concept or theory it may indicate logical implication, conditionals, etc.

The classic example is that of a restaurant, seen as a sequence of nodes of entry, seating, selecting, ordering, eating, paying and leaving.

If something happens but one does not have the appropriate script to absorb it, as part of a culture, one is at a loss about what to do. If one is not used to self-service restaurants, then just taking a seat will not get you served. This is part of the problem of integration of foreigners: they cannot properly 'read' events.

In earlier items (219, 231, 232) I discussed the notion of 'voice', the deliberation between conflicting views or interests. Voice needs a script. Outside the script voice is just noise.

Scripts entails prejudice, invalid attribution. A gesture towards a pocket is falsely interpreted as the reach for a gun. Scripts serve to identify an individual as having a place in one or more scripts.

Exhibiting, in ones actions, the absence of the 'proper' scripts, one is branded, largely subconsciously, as not belonging. And that may trigger the instinct for 'parochial altruism', with suspicion and ostracism of outsiders, which I discussed in item 205. That applies not only to foreigners, but, to a lesser degree, also within a culture, to class differences. Down to the way you hold your knife at a dinner. Some rituals or practices arise for the very purpose of ostracism or discrimination.

In sum, the scripted nature of ideas and practices yields problems, especially between people from different countries or cultures, carrying different mental scripts.

But it also shows all the more clearly how important shared action is, to develop scripts that allow for collaboration and mutual understanding.

Of course, organizations are free to craft their scripts, within the law, and newcomers will have to adapt to them in order to integrate. Newcomers may need to adapt their goals and values, and learn requisite knowledge and skills, and they must be given the means to participate, and not to be excluded by discrimination. It can help to have role models of people that had success in this.ⁱ

However, innovation entails changes of script, and organizations do well to welcome misfits in the script, which may trigger novelty. Here again we have the potentially beneficial effect of cognitive and cultural distance, discussed before, in his blog. In the long run those organizations will be most successful who have learned to collaborate with people who think differently.

264. Useful, warranted, or workable?

published 5-6-2016

In this blog I have adopted the notion of truth as ‘warranted assertibility’. The warrant is to be based on arguments and facts. In this blog I have also adopted pragmatist philosophy, found in American philosophers Peirce, James, and Dewey, but also in Nietzsche (see item 149) and Wittgenstein. Some peopleⁱⁱ claim that pragmatism demands that we no longer claim or ask whether someone or something is ‘right’ but only whether it is useful. That is not my view.

As I argued in item 246 of this blog, it is still useful and warranted to claim one is right, compared to some rival claim, in the sense that one has better arguments. Without any such claim, what is the point of debate? To stand behind one’s arguments is to claim one is right.

Note that there is a pragmatist argument here. If usefulness is the criterion of warrant and we can argue that debate is useful and that for debate claims of being right is useful, then claims of being right are warranted.

While some (American) pragmatists indeed claim that something is true if it useful, what I make of it is the wider criterion that ‘it works’. To be useful something must work, but if it works it need not be useful. What does ‘it works’ mean? Dutch has the expression ‘het klopt’. That expresses exactly what I have in mind, but is difficult to translate. It means something like ‘it fits’, ‘hangs together’, ‘stands up’, ‘works’.

In science, something is taken to be true if it ‘works’ in the sense that its implications accord with logic and experience. For warranted assertibility I propose that an assertion should work either in that sense or in the wider sense that it has implications for action that are effective, reach some goal, are indeed useful in that sense, or for which there are arguments also in a moral sense. In the latter, warranted assertibility becomes what I

called 'debatable ethics'. In sum, I render 'warranted' as 'workable', which is wider than 'useful'.

I recall that the philosopher Hegel said, in German, that 'Das Vernunftige ist das Wirkliche, und das Wirkliche ist das Vernunftige'. 'Vernünftig' means rational, or reasonable. 'Wirklich' means real or actual, but literally it says 'workable'. So perhaps what I am saying in this piece is attributable to Hegel.ⁱⁱⁱ

'Working' has several dimensions: logical, empirical, practical, moral, validity, Thus warrant is relative to which of these aspects one is talking about. These, in turn, depend on perspective, context, purpose.

The question then is what or who determines whether 'it works', or what criteria apply. Here I arrive again at Foucault's view that it is determined by established, institutionalized 'regimes of truth'.

In philosophy, one such regime is analytic philosophy, and another is 'continental' or 'non-analytic' philosophy (see item 158 of this blog).^{iv} They have different views on what are interesting and legitimate assumptions and questions.

In economics, mainstream, neo-classical economics gives priority to formal rigour, in the use of economics. Heterodox economics attaches more importance to plausibility and realism of assumptions.

If in one such system one disagrees and does not conform, one needs to accept the price of ostracism, go in a hiding of some sort, or opt out, or switch to a different system.

Genuine novelty does not fit, offers new meaning, 'does not work', lacks recognized warrant and hence is not accepted, until it is shown to 'work' in novel ways and gathers cognitive, social and political clout to break the old frame. It is 'untimely', as Nietzsche called it.

Are there assertions, questions or expressions where it does not make sense to ask for a warrant? Consider poetry. Is it not the point of poetry to escape from warrant, to say something unwarranted? Even there one may debate, as among literary critics, whether or not, and in what way, a poem 'works', in terms of rhythm, sound, tone, rhyme or alliteration, metaphor, originality,

Consider *illocutionary speech acts*, such as 'go read that book'. One could ask 'why, explain'. And consider expressions of feeling, in the following exchange: 'I love you', 'that is not love', 'why not?', There is a saying that there can be no dispute about taste, but why not? One can explain the liking of something by comparing it to something else that is evidently likeable. But at some point argumentation must stop, as I argued before (in item 173 of this blog). At some point the debate will end in 'that is just how I feel', or 'that is just how it is done'^v.

274. Is pragmatism conventional?

published 30-7-2016

I has been claimed (e.g by Richard Rorty) that pragmatism is conventional: ‘treating conventionally accepted norms as foundations’^{vi}. I am a pragmatist and yet I disagree, up to a point. If pragmatism were conventional, it would be inherently conservative, and I propose that pragmatism can support novelty.

What is conventional? I propose that it can be rendered as operating within an established language game. Certain terms, meanings and ‘rules of the game’ are taken for granted. In science, it could, I proposed in the preceding item in this blog, be rendered as preserving the ‘core’ of a ‘research programme’, in the terms presented by Imre Lakatos: fundamental theoretical and methodological principles that are not susceptible to falsification. Empirical anomalies are to be dealt with by means of alterations in a ‘protective belt’ of auxiliary assumptions.

In my view, as I argued before (in item 264 in this blog), something is to be accepted as ‘warranted’ when it ‘works’, logically, empirically and practically. I propose that this does not necessarily require fit in some existing language game, and hence can escape conventionalism in that sense. I grant that it does presuppose some agreement on criteria concerning logic, empirical testing, and practical success across language games. There is no rock bottom for truth beyond any and all perspectives, but we may not stand empty handed in trying to step out of a language game, or a research programme, into a wider, more generic one. I am not claiming that this is always possible, and that there is some ultimate, authoritative language game that can decide universal legitimacy.

There is overlap of at least some terms, principles, assumptions, perspectives, between language games, even if they are in different languages (English and French, say). If terms are shared, they are not likely to have identical meaning, since meanings depend on relations between terms in the game, but, I propose, they are likely to have some family resemblance if they are used across games.

To be specific, let me expand a bit on a project for a radical transformation of economic science, which I mentioned in the preceding item in this blog. That is based on radically different perspectives on human conduct, ethics, scientific conduct, and the notion of uncertainty. Many economists reject this out of hand. However, I do employ some established concepts from economics, (such as ‘transaction costs’), though twisting and extending them a bit, and I refer to phenomena that economists might acknowledge (though they look differently on their relevance for theory). My ambition is to show that alternative theory explains certain facts better if only one accepts them as relevant. That ambition may fail, but it is not necessarily hopeless.

Can a pragmatist offer rigorous arguments? Richard Rorty said he/she cannot because rigour requires unshakeable foundations, which the pragmatist does not accept. Again I disagree. He confused rigour with certainty. One can have rigorous arguments on uncertain foundations. Take mathematics. It is rigorous on the basis of uncertain, merely

assumed axioms. The grounds for rigour may shift, but they are still there for some time or in some area. Euclidean geometry was supplemented by other geometries. It applies on a plane but not on a sphere.

I agree (with Rorty) that rigorous argument requires a shared language game, terms with shared meanings, shared assumptions, shared grammar or method (rules of the game), and shared explanatory goals.

Compare this with Thomas Kuhn's notion of a 'paradigm shift' involved in breaking the rules of a game, stepping out of the game, resulting in 'incommensurability', an impossibility of rigorous argumentation between games.

But, as I suggested, one may still have the benefit of a wider, roomier, more general game. A different ball game is still a ball game. Parts of argumentation may show a family resemblance between language games. I do think that discussion between language games involves differences of meaning and intention, and therefore is always imperfect tinkering, and often does fail. Moving between games is more like literary narrative than like rigorous scientific discourse. That may be rejected as unscientific, and then debate is indeed hopeless.

What games are there in philosophy? I take this question also from Richard Rorty. One game is to take philosophy as 'transcendental', reflecting on the conditions under which some theory or practice (concerning truth, reality, or morality) is possible. But what are the conditions for such conditions to be possible? It yields an infinite regress of conditions for conditions. The underlying intuition is that there are, must be, independent, fixed principles to build on.

Another game, going against that intuition, is that of anti-essentialism, anti-foundationalism, as in pragmatism. Think of philosophers Peirce, Dewey, Nietzsche, Wittgenstein, Quine, Derrida, and Rorty.

Are these two games incommensurable, with no recourse to sensible debate? One may think of the supposed rift between analytic and continental philosophy. However, they still have things in common, such as the themes of knowledge and morality, even if they differ fundamentally in their views on them. Disagreeing on fundamentals, they may still compare implications for science, politics, economics, literature, They may even agree that in some cases the other side seems to be making sense. And indeed, some bridging between analytic and continental philosophy does seem to be taking place.

275. Science and politics: how different are they?

published 8-8-2016

If there is no ultimate, universal, fixed ground for any science, as argued in preceding items in this blog, does this mean that there is no great difference between science and politics? Richard Rorty claimed that: '... no interesting epistemological differences between the aims and procedures of scientists and that of politics'^{vii}.

I disagree. To make a long story short, I would say that the procedure of science is to argue rigorously inside some language game, while in politics, in a democracy at least, the aim is to achieve some agreement across a variety of language games, and that cannot be rigorous and scientific. Ambiguity and shift of meaning is part of the game. It is more a matter of practical wisdom than of analytical rigor.

Hence the frequent failure of attempts to make policy making scientific, as happened in the delegation of much economic policy to economic scientists, for example.

I connect this difference to that made by Pascal between the ‘spirit of geometry’ and the ‘spirit of finesse’^{viii}. As he formulated it: the spirit of geometry is difficult, at first, since one has to switch one’s regard away from the complexity, the richness and variability of the world we are in, in the turn of abstraction. But then it becomes easy, to argue rigorously, in step with the march of logic or math. The spirit of finesse, by contrast, is easy, at first, because one keeps looking at the world in all its complexity, but then it becomes difficult to argue without error while maintaining that complexity.

In contrast with Descartes, I do not think that the spirit of geometry has access to rock-bottom foundations of truth in the form of self-evident ‘distinct ideas’. I do think it helps to clarify arguments and check their consistency.

Take economics. It uses mathematics but the virtue of that, in my view, is not that it yields workable models, but that it allows one to detect errors of argument. But then, to work in application to policy making one needs to revert to the spirit of finesse.

Politics, more like literature than like science, needs to allow for differences and for shifts in perspective, meanings, assumptions, aims, in what people variously think, value and want.

If pragmatism means ‘anything goes that works’, then whether and how it is supposed to work is very different between science and politics.

In science, to work is to be consistent with established theoretical and methodological assumptions, and with what are accepted as facts.

In politics, to work, in a democracy, is to be feasible in the field of political forces and to appeal to a sufficient part of the electorate. Whether it is logically and factually coherent is of secondary importance, alas. In politics this may work, not in science. However, this is no reason not to try to make arguments for policy as consistent and informed as possible.

An authoritarian regime may impose a single language game, with aims, conduct, meanings and values settled centrally, and enforced on all. That is what makes it totalitarian. Some people love it.

It does not thereby become like science. In contrast with science it is not aimed at truth seeking and openness of conduct given established method, but at conformance.

286. Creative conflict and criticism

published 24-10-2016

Present culture wars in Western societies, with shouting matches between nationalists and cosmopolitans, 'elites' and 'commoners' or 'grass roots', highly and low-educated, free traders and protectionists, are due, in large part, I think, to an unwillingness and inability to engage in uttering and absorbing constructive criticism. At the same time there is an urge towards expression and self-assertion. Together, they have disastrous effects of polarization, with mutual indifference, or intolerance and escalation of negative conflict.

Conflict can be creative but that demands the effort and ability to engage in giving and accepting, appreciating, constructive criticism, based on openness and curiosity, aimed at mutual understanding. Those may be based on Christian virtues of faith in the positive potential of people, hope of its realization, and love for the give and take of relationships. It may also be based on traditional, cardinal values of reflection, courage, moderation and justice. We seem to have lost all of those, somehow.

What is happening?

First, young generations, not having suffered the horrors of war, racism and nationalism, have grown up in a safe, protective environment, robbing themselves of the need to deal with hardship that builds strength and resilience.

This has fed risk avoidance, in an obsession with safety and control. That has produced excessive control mechanisms in many realms of work, which stifle professional initiative, kill intrinsic motivation of work, and narrow room for improvisation and for catering to variety of taste and circumstance.

Second, postmodern philosophy has generated, mostly as a result of misunderstanding, an excessive, perverse relativism, according to which any view is as good as any other. Opinions are as good as arguments, and everyone has a right to his or her own. There is no common ground for debate, and criticism is seen as intolerant, offensive, power play.

The misunderstanding is this. I accept relativism in the form of renouncing absolute objectivity and truth, accepting that one's views, and even observations, are biased by forms of thought, based on one's biological and cultural inheritance, and formed along one's individual path of life. However, the resulting difference in ideas and views, in what earlier in the blog I called 'cognitive distance', form a reason not for abandoning debate, but, on the contrary, for engaging in it. Precisely because our views are biased, the only chance we have at correcting them lies in looking at other, conflicting views. As I argued at several places in this blog, one needs opposition from others to achieve freedom from one's prejudices and errors.

In contrast with this, an ethic has arisen where respect is seen as avoiding criticism, rather than valuing opposition. People congregate with whom they agree, cuddling their conformity.

Third, there is a romantic urge for individual self-expression, authenticity. In combination with unwillingness and inability to voice and absorb criticism constructively, this becomes a noisy celebration of narcissism.

At some schools, students are bedded in safety, in a pact of mutual non-aggression. Trust is seen as softness, conflict avoidance. Instead, students should be educated to voice and absorb constructive criticism. It is precisely because there is trust that one can tell each other 'the truth'. Returning to the cardinal virtues: one should learn to listen and reflect on what is said, what to say, and how to say it. Have the courage to take the risk of giving and evoking criticism. To be moderate and modest in one's claims, and just in judgement.

This issue is connected with the notion of cognitive distance. To recall: cognition here is a wide notion, including knowledge as well as moral views concerning the conduct of relationships. Distance is bothersome, makes collaboration difficult, but also yields the potential for learning. Ability to cross cognitive distance enhances learning by interaction. It is good for society as well as the individual.

One can make a distinction between distance in substantive knowledge and moral/relational distance. The latter is more difficult to cross than the former. Constructive conflict is best served by reducing moral distance, in order to better cross distance in knowledge. Dealing with each other while disagreeing.

309. Being involved, in knowledge, nature, and organization published 1-4-2017

It is an old idea and ideal of knowledge, starting with the ancient Greeks and continuing into modern Western philosophy, with René Descartes, to see knowledge as contemplation of an eternal truth. That contemplation is also the root meaning of the word 'theory'. The knowing subject is a spectator, standing outside the object that is contemplated.

This spectator theory of knowledge has had far ranging implications, spilling over beyond theory of knowledge and science, into views of nature, and of organizations, in management.

In Western philosophy of knowledge it yielded the claim of objective knowledge, and the Cartesian duality of mind and body, and in theory of meaning, with meaning seen as reference to something. Concerning knowledge, the problem then was how cognition is able to grasp reality without being part of it, immersed in it. That yielded the split between idealism, where reality is seen as conceived mentally, and realism, where mind is seen as an inscription in the brain of reality by means of elementary perception.

A better position, in my view, arose in American pragmatist philosophy, some 100 years ago (with Peirce, James, and Dewey), adopted in different ways by continental philosophers such as Nietzsche, Wittgenstein, and Heidegger. Its view, which I adopt, is the constructivist one that cognitive structures guide action but are also formed in it. Not a static view of contemplation but a process view of involvement. One tries to assimilate perception and experience in existing mental structures, but when fit fails, the mind accommodates to the misfits, in some way, elaborated earlier in this blog. In this way, the knowing subject is involved in the object, and vice versa.

This creates a problem of truth, since knowledge now is a mental construction. In pragmatist philosophy, objective truth is replaced by the notion of ‘warranted assertibility’, where ‘working’ in practice is an important criterion of ‘truth’ or ‘warrant’. Meanings of words depend on use, in ‘language games’, as Wittgenstein proposed. Truth is not a given outcome but a process of dialogue.

The implication is that while scientists should to their utmost to be objective and detached, they cannot fully succeed, and they should recognize that even their thought is involved in premises, disciplinary perspectives and methods, and value judgements, implicit or explicit, in choices and the framing of research questions. To mend this, scientists need to be involved in application of their results, and the ‘stakeholders’ associated with it need to be involved in the formulation of goals and the application of research.

Concerning nature, the outside view, separating man from his environment, has led to an instrumental, manipulative practice, increasingly destructive of the environment. This is connected with the dominant value and virtue of utility in liberal, Western thought, which neglects the intrinsic value of nature, and virtues of care. Instead, dealing with nature should be based on a feeling of being involved in nature,

In management theory and practice, the outside view sees people as instruments, neglecting the intrinsic value of human relationships, and virtues of justice. Economic theory of organization has been governed by the idea that a ‘principal’ (a nicer word than ‘boss’) governs an ‘agent’ (a nicer word than ‘labourer’), sets the goals and targets that the agent must achieve. Supervision is seen as control, measuring performance against pre-set standards.

The absurd situation then arises that people are employed, as professionals, in present ‘knowledge society’, because they have knowledge and skills that management does not have and yet management, as the ‘principal’, has the pretence of being able to judge what the professionals do.

In the neo-liberal drive of privatization and liberalization of public services (such as health care), and market-like incentives in services that are still run publicly, this idea of control has also proliferated, in top-down ‘accounting for performance’, according to set protocols. This is done in spite of the scientific literature on ‘communities of practice’,

which shows that professional practice is too complex and variable, because context-dependent, to be caught in such protocols.

This type of control turned out to be needed because markets don't really work when users cannot judge quality of the 'product' (as in health care). So what was started from a market ideology of freedom from interference, *laissez faire*, ended up in a baroque rigmarole of control.

There is an alternative form of 'horizontal' form of control that entails involvement of the control agency in the object of control, which is involved in the specification and application of controls (see item 75 of this blog).

313. From outcome to process
2017

published 4-5-

Earlier in this blog, in item 29, I proposed the hypothesis that there is an 'object bias' in thought and language. The idea is that in a long period in the evolution of humans, as hunter-gatherers, thought and language have been biased as a result from the need to deal adequately, for survival, with objects moving in time and space, and human action upon such objects. Think of the sabre-toothed tiger, enemies on the prowl, a lost child, an incoming spear, building a shelter, carrying burden, etc.

Then, when abstractions became needed, those were conceptualized as metaphors in terms of such objects and actions. This is helpful, but sets thought on the wrong foot, since abstractions do not behave like such objects in time and space. A chair when carried from one room to another does not drop a leg or change colour, but the meaning of a word changes when moved from one sentence to another.

One of the results, I propose, is that thought is pre-occupied with substance rather than process, to outcomes rather than the processes by which they may or may not be produced.

One salient example, in my experience, is the preoccupation of economists with optimal outcomes, in equilibria, regardless of how they might be achieved. I was confronted with this while working at a business faculty at the University of Groningen, the Netherlands. Dealing with organizations one cannot just look at outcomes because it is processes, in particular the 'primary process' of production, that is the topic at issue.

This difference in thought yielded one of several fundamental obstacles to integrating two faculties, of business and economics, as it was my task to accomplish at the time, as director of a research institute. I now think that the preoccupation with outcomes is connected with the object bias.

It is a special case of the preoccupation with substance and with stable absolutes, as an ideal of thought, in Western Philosophy. There were exceptions, such as Heraclitus, who

saw the world as flow, in contrast with Parmenides. Aristotle in some of his philosophy was oriented to process, of development towards an end, such as growth in nature, and more generally process as the realization of potential. But there has been a dominance of Platonic thought of a higher reality, beyond the chaos, buzz, complexity and change of the observed world, of stable absolutes.

It is also associated with the outsider, 'spectator' view of the thinking subject, observing the world from without rather than being involved in its process, which I discussed in item 309 of this blog.

I think the object bias bedevils thought in a wide range of notions, including happiness, love, thought, truth, meaning, and trust. The deeply rooted inclination is to see these categories ('seeing' is itself one of the metaphors) in terms of object thinking, in terms of 'having' something, 'being in' something, 'working on' something, 'transporting' it, etc. We are 'in love', 'in trouble', 'grasp' knowledge, 'store' information, 'send' information along communication channels', 'have' a body, and 'have' an identity.

I think understanding can be much improved, and with it our 'grasp' of society, by thinking instead in terms of processes, rather than states or outcomes.

In items 6, 124, and 193 of this blog I discussed love as a process of developing 'eros', passionate, romantic love, into 'philia', loving companionship.

In items 8 and 211 I discussed identity as a process of formation

In item 183 I defined happiness as a process.

In items 104 and 264, I discussed truth as a process of dialogue, debate, trying to establish and test 'warranted assertibility'.

In item 168, I discussed the notion of word as a process.

In items 31,35, and 138 I considered economics and learning as a process of trial and error, akin, up to a point, to evolutionary logic, rather than 'intelligent design', in a 'cycle of invention'.

I noted, in items, 128 and 137, that in Eastern philosophy there is more awareness to process, in Buddhism and Taoism. I noted that my 'cycle of invention' seems akin to the cyclical interaction of Yin and Yang.

320. Emergence

published 17-6-2017

Reductionism is a form of scientism: the idea that natural science is the only respectable form of knowledge, on the basis of experimental facts and rigorous, preferably

mathematically formalised argument. Reductionism is analytical: it decomposes phenomena into fundamental elements that together explain the whole.

The opposition claims that ‘the whole is more than the sum of its parts’. In the formation of the whole something is added that cannot be found in the parts. That is called *emergence*. Aristotle already talked about it.

Emergence is akin to *self-organization*. That arises in nature, as in evolution, where forms do not arise from ‘intelligent design’, but from random trials that are selected out when they do not function well enough to survive and replicate.

More generally, in emergence elements have a potential to unfold properties, in interaction with each other, and develop collective properties, depending on the environment.

The fundamental theoretical argument for the novelty that is added in synthesis is the following. The whole, be it an organ, an organism, a brain, a sentence, an organization, a market, or a society, must achieve some coherent functioning to survive in its environment, which determines what works and what does not, and it must incorporate the conditions for it. As a consequence, not everything comes ‘from inside’, from the components, but also from outside, the functional conditions for survival. In that, the whole reflects the external conditions, which did not lie in the parts.

Emergence arises widely in nature and society, on many levels. Chemistry arises from physics, biology from chemistry, evolution from genes, consciousness from neurons, organizations from people, markets from firms, consumers and institutions, societies from people, communities, culture, language and institutions.

In language, the meaning of a sentence depends on the meanings of words in it, but also, the other way around, word meaning also depends on sentence meaning. Earlier in this blog, I used the *hermeneutic circle* to analyse this (items 36, 252 in this blog). Concepts are embedded in sentences, where they obtain one of several potential meanings, but in the action context they can also acquire a new meaning, which shifts the concept. Here, the outside selection lies in the language community, and in what Wittgenstein called *language games*.

Meanings and ideas arise from action in the world. I proposed (in item 29) that this yields an *object bias* in our conceptualization of abstract notions as if they are like things moving in time and space, and in terms of ‘what you can do with them’ (*affordances*). That also connects with the idea from pragmatist philosophy that truth can be seen as ‘what works’.

Relations are emergent. If individuals develop their perception and ideas, and their judgements, in interaction with their physical and social environment, then the course of relationship is fundamentally uncertain. That means that it is not known beforehand what

can happen. One may have expectations about what people may do, but one is regularly caught by surprise. One cannot even reliably predict one's own responses.

In groups, social constellations, complexity increases further, in on the one hand mimicry of conduct and on the other hand rivalry and rebellion, in agreement or conflict. As discussed elsewhere in this blog (item 205), it looks like people have both an instinct for survival, by protecting their interests, and an instinct for altruism, at least within one's own group, where one is prepared to make sacrifices at the cost of self-interest, in what is called 'parochial altruism'.

Organizations and institutions can lead to what I have called 'system tragedy' (items 109, 159, 187 in this blog). The culture of an organization, the (international) markets in which it finds itself, and the public institutions of laws and regulations, form expectations, positions, roles, interests, and entanglements between them, which routinely yield outcomes that were not expected or intended, and where guilt cannot easily be attributed to single individuals, who often could not, or did not dare to act otherwise, given their positions. An example is that of 'the banks'.

History is even more complex. If anything is unpredictable it is that. Look at what has happened in just one year, with the rise of populism, the election of Trump, Brexit, and the rise, apparently out of nowhere, of Emmanuel Macron. With each of those one would have been declared a lunatic if one had predicted it. Where does that complexity come from?

In an earlier item in this blog (item 100), concerning the nature of causality, I analysed the emergence of the Dutch United East India Company (VOC) in the 16th-17th century, as a mix of causal factors of different kinds: accidental conditions of climate and geography, entrepreneurial action, eclipse of competitors, technological and organizational innovations, in more or less accidental 'novel combinations', and conditions of war. If any of those factors had been different, or occurred at another moment, nothing or something entirely different might have occurred.

321. Adaptiveness

published 24-6-2017

In the preceding item in his blog I discussed emergence, where elements produce wholes with properties not present in the elements. Emergence is studied as 'adaptation' in the research field of Complex Adaptive Systems (CAS). A subfield of that is that of Agent-Based Computational Models (ABCM). There, interaction and adaptation of agents is simulated in computational models. I have used that, with a PhD candidate and a postdoctoral researcher, to study whether and how trust can arise in markets.^{ix}

In general, such a model has at least the following elements: properties of agents (such as capabilities, preferences), a representation they make of relevant elements in their environment, rules for decision making, a mechanism whereby they observe and evaluate

each other, adaptation, i.e. strengthening or weakening of rules and preferences, depending on perceived success, and the invention of new rules.

In this case the central question was under which circumstances, if at all, trust can emerge in markets, even while profit is the criterion of success, and agents can choose between competition and collaboration. They form an opinion on the trustworthiness of partners on the basis of loyalty in collaboration. Next to profit, trust may form part of the value of collaboration. The weight attached to trust relative to profit is adaptive, depending on realised profit. Their own trustworthiness is also adaptive. It is modelled as a threshold of defecting from a relationship: the higher the threshold, the greater the loyalty. In adaptation there is also a random element.

The model enabled us to investigate when and how frequently trust may grow even though success is measured as profit. The aim was to test claims from economics that under competition trust cannot survive. According to the simulations with the model, often trust does indeed grow, but it depends on the circumstances, governed by the settings of parameters of the model.

Beyond this modelling, here I give a reflection on traits that help adaptiveness. If through the uncertainty of emergence it is not possible to determine ahead of time what may happen, then one must be prepared for the unexpected. There are several ways for this.

In *robustness* one chooses a way that is not sensitive to unexpected turns. Then one may lose some benefit in some cases but avoids heavy loss in others. Robustness can be explored in *scenario analyse*. There, one invents different possible futures (scenarios) to investigate how sensitive options are to differences between them.

In *flexibility* one chooses a way that can easily and quickly be replaced by another, to adapt to circumstances as they arise.

In *resilience* one is resistant, able to incur and absorb adversity. One form of that is to create *slack*: excess capacity to absorb unforeseeable shocks, in money, time, space, reputation, or cognitive capacity.

In *Inventiveness* one learns to learn, to invent new ways, depending on experience, and to analyse the conduct of others for their success, and to deliberately seek novel challenges by which one can discover new ways. That is found in the theory of invention that I discussed earlier in this blog (items 31, 35).

Diversity is important for the evolution of a group (such as a species, in evolution, or an industry, in markets), and for discovery. It increases the chance that at least one of the various forms fits whatever emerges.

According to Kant, we can know neither the ‘thing in itself’, out in the world, nor ourselves. Hegel turned this epistemological gap: we don’t know, into an ontological one; it does not exist. Žižek went along with Hegel, and, following Lacan, proposed that people craft an illusory ‘object-a’, for things and selves, as discussed in the foregoing items in this blog.

This objet-a is part, I propose, of what I have called an ‘object bias’: the irresistible urge to see the world and ideas, concepts, meanings in terms of objects.

Here I propose an alternative: let us shift the focus of our understanding of the world from object to process. I have argued for that in several places in this blog, concerning being, identity, cognition, truth, meaning, and democracy. I summarize this below.

I have referred to Heidegger’s view of ‘*being*’ not as a noun but as a verb. I deny *identity* as some fixed given, with some enduring essence, and presented it as a process of emergence in acting in the world. As an alternative to the idea of identity as an object I proposed the idea of identity as a position in developing networks of contacts with people. Inspired by Levinas’ philosophy of the other, I proposed that identity is developed in interaction with others, and that intellectual and spiritual progress requires openness to opposition by the other.

In all this, I use the view from pragmatic philosophy (Peirce, James, Dewey) that *cognition* is developed from interaction with the physical and social world. Instead of *truth* as some ‘thing to be found’, I employ the idea from pragmatist philosophy of truth as ‘warranted assertibility’, in a process of debate, and ethics not as a fixed order but as ‘debatable’, in Aristotelian ‘phronesis’ or practical wisdom, where ethical judgements depend on context.

I also use the work of Maxine Sheets-Johnstone that *feelings, ethics and morality* arise from interaction in movement and bodily interaction with others. This yields a ‘dynamic congruency’ between emotions and movement that is not a given but is ongoing. Among other things, this yields mirror neurons.

Mirror neurons are not present at birth and are not genetically determined in later development. Like other mental constructions they arise from networks of neuronal connections that emerge and develop in time, ‘sprout’ and are ‘pruned’ depending on how often they are activated and how productive they are. It is no coincidence that they arise in the motor regions in the brain, which govern movement.^x

I present *meaning* not as some fixed reference, with a word as a label attached to a thing it refers to or ‘denotes’, but as a process of sense-making, of how to identify whether something belongs to some class, or whether something is true. This is done on the basis of connotations one attaches to things. I adopt the distinction between *reference* and *sense* from the logician/philosopher Frege. Reference concerns something as ‘given’, sense concerns ‘the way in which it is given’, as Frege put it, which I turned into ‘the way in which we identify something, an X as an Y’.

Sense depends on experience: connotations are collected along the course of one's life, in a culture, in a series of contexts. A life course is unique to a person, and hence sense varies between people, yielding 'cognitive distance'.

Reference can be undetermined, with uncertainty, or difference of opinion, whether some object belongs to a class or not. It can also change. I used the example of a stuffed cow used as a chair. New connotations emerge from action in the world, and they may remain idiosyncratic or become publicly adopted. I used the 'hermeneutic circle' as a model of meaning change.

Perhaps the distinction between sense and reference can also be used to clarify Žižek's notion of 'master signifiers' attached to the idealized 'object-a'. He uses the example of the monarch as the master identifier of the social order. Here, the 'objet-a' is the intended reference, and the 'master signifier' is a leading sense maker for identifying it.

The peculiarity here is that what is referred to does not in fact exist, is a 'phantasm', as Žižek calls it, but people believe, or make believe, that it does exist. In other words, the reference has no ontological anchor, so that the sense of the signifier cannot be tested, and master signifiers can be manipulated, and become an instrument of ideology.

Žižek used the example of 'professor'. Other scholars may have the same degree of knowledge, talents, and scientific achievements as the professor, but are not professors. Thus, Žižek claims, the term 'professor' is 'empty'. It is not. It has sense, in helping to identify someone as a professor, also to people who cannot judge his/her qualities. It brings in a link with official standards, procedures and authorities appointed to appoint professors.

Thus, a master signifier yields institutionalized sense. Is it thereby indoctrination? It certainly is, but it is also a pragmatic necessity to avoid endless debate between different senses of scholarship, in order to get on with the job of appointing professors.

For *democracy*, I proposed to replace the current perspective of positioning, in voting for a political party and its programme, once in four or five years, by an ongoing process of being involved in making and implementing policy, in a 'commons', at least on a local level, in citizens councils.

To summarize all this, I used the motto of 'imperfection on the move'.

356. Dialectics on the move

published 10-2-2018

Žižek tells us^{xi} that Hegel's dialectics has been falsely interpreted as a closed circle: he intended the end as a new beginning.^{xii} This goes beyond the old Aristotelian idea that things have a potential that is realized in the end. With Hegel, on the path to realization of potential a new potential is created. The question now is how this works. Unless I missed

something in Hegel, he gives no explanation how, by what logic, dialectics works, produces novelty, from opposition or tension.

In a later item in this blog I will discuss ontology: the philosophy of being, of things in the world. There, I will use the idea, shared by Graham Harman and Tristan Garcia, that there are two dimensions to objects in the world: first, how they are composed, ‘what is in them’ and second their position in their environment, ‘what they are in’^{xiii}.

The first is the analytic view of science, breaking things down into their components, the second is the phenomenological view, considering the lived experience of things. The latter connects with philosophical pragmatism and Wittgenstein’s notions of ‘meaning as use’. I will now claim that the two arise from each other: how something is composed determines, in part, how it exists in its context, and that, in turn, affects how it is composed. How does that work?

For transformation, in this blog (item 31), and in a book published in 2000), I proposed a ‘cycle’ of discovery or invention. I did not develop it with Hegel in mind, at least not consciously, but was perhaps fed by prior readings of Hegel. I was inspired, more explicitly, by the theory of the developmental psychologist Jean Piaget concerning the development of intelligence in children. The basic idea there is that when one is confronted with new experience, the attempt is made to *assimilate* it in existing mental frames, and when that fails such frames are *accommodated*. I now wonder if it can be seen as a further development of Hegelian thought. In a later item in this blog I will propose that it clarifies ontology, in what I call *dynamic ontology*.

To recall, I proposed that the cycle of change starts with *generalization*, defined as application of a practice in novel contexts. In the novel context, the practice is challenged by new conditions of survival. What had been adopted as a universal is confronted with novel particulars.

Note the link with evolution here, with the idea that novelty, in *speciation*, arises from challenges in a new *selection environment*. The classic example is the emergence of new species after the disastrous crash of a meteor on earth, which made the dinosaurs and other species extinct. In innovation policy some firms now actively seek novel markets to find out limitations by identifying failures, as a source of innovation.

Faced with failure in a novel context, the first step, which stays as close as possible to the existing frame, is to ‘tweak’ that frame, in *differentiation*, in trying out different variants of the same, with recollection of earlier forms that were at play in the emergence of the present practice.

This may not suffice for survival in the new context. Here is where Hegelian opposition or contradiction kicks in. In the failure of the practice one gets to really know it, with its limitations that call for renewal.

From the conflict between practice and the novel context, experiments arise, in what (adopting the terminology of Piaget) I call *reciprocation*, inserting elements from practices met in the novel context that seem to succeed where the old practice fails, into the logic of the old practice. This yields misfits between the old and the new, novelties that conflict with existing logic.

This, I think, is the fundamental step in dialectics: experimenting with hybrids of the old and the new, to discover ways of relieving the tension between them. It allows for the exploration of the potential of novel elements, and of the limitations of the old logic that obstruct the realization of the new potential, which gives hints in what directions a novel logic might be explored.

Necessity is both the mother and the midwife of invention.

Novelty, as it emerges in a new basic logic, is hesitant at first, labouring with inconsistencies or frictions that remain, with fall-backs into the old, requiring further adjustments in the constellation of the new basic logic and its elements, until it settles into what in the innovation literature is called a ‘dominant design’.

In sum: in moving to a new place or context one encounters the need and insight to open up content to new possibilities. What was taken as a universal is confronted with deviant particulars (see the preceding item in this blog). Note the similarity to the *hermeneutic circle* (item 36, 252).

Note that the cycle is in fact a spiral, not a closed loop.

Is this helpful as an elaboration, elucidation, or twist of Hegelian dialectics?

357. The success of failure

published 17-2-2018

A Hegelian principle is that one gets to know something best in its failure.

This appeared in my discussion of what I made of Levinas (item 61 in this blog): in order to achieve the highest level of freedom, which is freedom from pre-conceptions and errors, one needs opposition from the other.

It also appears in the Popperian principle of falsification in science. One cannot prove the truth of a proposition on the basis of evidence, but one can falsify it. Criticism of failures in science is needed, in the forum of science, for science to succeed.

It appears in democracy: cumbersome and often inefficient as it is, political opposition is needed to prevent survival of failed policies. In a centralized, non-democratic, authoritarian regime such failure is not recognized or acknowledged, to protect the prestige and position of the regime. The strength of democracy is that it can fail (item 339).

It appears in innovation: the failure of an innovative venture is not waste, but has value in showing what does not work, as a basis for further research and development. Entrepreneurs serve society in their failures.

The necessity arising from failure of what exists is the mother of invention.

Evolution arises from a selection environment that eliminates failures to fit. Humans, however, have a distinctive capacity to deliberately and consciously select or construct a favourable niche, and there failure may fail to succeed.

Similarly, a virtue of markets is that competition ensures that no waste of resources arises from failures that survive.

The present perversions of capitalism serve to clarify why and how capitalism fails, and to understand some of the sources of populism (item 47) and shortcomings of the political left.

The most fruitful failures are those that could not be foreseen, and were in that sense uncertain (as opposed to risky), because they most radically close off existing avenues, to open up new ones.

However, failures need to accumulate, to clarify the boundaries of validity of the old, to build up motivation to drop the old and search for the new, and to give indications of directions for the new. This progressive form of conservatism was recognized in a famous debate in the philosophy of science, between Popper, Kuhn and Feyerabend, in the 1960's, in which Popper consented that instantaneous falsification, at the merest falsification, was not rational.

In ontology and epistemology, the need for outside opposition to success, in order to recognize failure, to motivate and indicate avenues for novelty, is the most convincing argument for objects in the world to exist independently from ideas, as a selection environment for the evolution of ideas.

Žižek argued that strict, universal rules demand too much from people, who are imperfect and are also caught in the vagaries of contingency, so that for the rules to succeed there must be some space for deviance, failure to conform (item 337).

All this is consistent with my argument for 'imperfection on the move' (items 19 and 127).

396. From optimal to adaptive

published 10-11-2018

The assumption, in economics, that people exhibit rational choice that leads to optimal outcomes yields an excuse not to look at processes that may or may not yield optimal

outcomes. That may contribute to simplicity, avoidance of complexity, but also leads to neglect of important realities, of actual decision making, conduct, market imperfections, and differences between industries. And when optimality is impossible, due to uncertainty, one needs a different, adaptive stance.

It is needed, for government and management of firms, to act on the basis of insight in those realities. There is a myth afoot that for management it does not matter where you are manager, because it supposedly is the same everywhere, and that is not the case. Economic variables such as economies of scale, concentration, integration in mergers/acquisitions or alliances, entry barriers to markets, transaction costs, transparency of product quality, technology, knowledge intensity, uncertainty of markets, investments and their lead times, type of labour, importance of teamwork, fluidity of knowledge, etc. vary with industries.

On the macrolevel it is useful to see the economy and industries as evolutionary systems of variation, selection and transmission of what survives. State interference is then seen as exerting influence on those processes, rather than direct interference in conduct, though the latter may have to be part of it. In any case, an evolutionary, adaptive approach is modest concerning planning, especially planning of innovation. That would be as if evolution planned, designed new species. There is little scope for 'intelligent design', as in biology.

In economies, variation arises from entrepreneurship and invention, selection is performed by markets and institutions, and the transmission of success lies in growth of successful forms, imitation, publication, and teaching. One can influence variation by enabling entrepreneurship, with financial and fiscal measures, and employing it in the innovation of public policies and services. One can further the selection by markets by preventing monopolies and oligopolies, entry barriers to markets, and other conservative ploys of existing firms. One can further transmission of success with policies concerning communication, information, education and training.

In the further filling in of the processes of variation, selection and transmission, important differences arise in comparison with biological evolution. There is artificial variation in combining genes other than by breeding, in genetic manipulation. Firms can influence selection by markets and institutions by political action, such as lobbying. They can test products before they are brought to market. Invention still involves trial and error, but it is not entirely random, as variation is in biology, because it is fed by learning, logics of inference and science.

The logic of adaptation in evolutionary systems avoids the problem of rational choice, on the basis of calculation, with probabilities attached to possible outcomes, that it cannot deal with uncertainty that is 'radical', in the sense that one does not know all that can happen. Given the impossibility to predict, due to uncertainty, and the consequent impossibility to find an optimal strategy, one can make use of scenario's, alternative imagined possible futures, and seek a strategy that performs reasonably well across them, without optimality in any single one of them. One can use computer modelling,

simulation, for this. In the development of products one can mimic evolutionary processes of variation and selection, as happens, for example, in the development of robots and algorithms.

On the level of the individual also, uncertainty has its implications, requiring adaptiveness. One should grow up to be robust under unforeseeable setbacks, be resilient, learn to fall and stand up, have reserves to fall back on, and be flexible and creative in taking new directions when needed, even when they are not known in advance.

ⁱ See item 220, on a logic for hosting refugees.

ⁱⁱ e.g. Richard Rorty in his *Essays on Heidegger and others*.

ⁱⁱⁱ I have not checked with the literature on Hegel whether this has perhaps already been said and is warranted.

^{iv} ‘Continental’ is a misnomer, since American pragmatist philosophy is also non-analytic.

^v As argued by Wittgenstein.

^{vi} E.g. by Richard Rorty, in an essay on Derrida, in *Essays on Heidegger and others*, Cambridge U. Press, 1991, p. 119

^{vii} Richard Rorty, 1991, *Essays on Heidegger and others*, Cambridge University Press, p. 172.

^{viii} In his *Pensées*.

^{ix} See: T. Klos & B. Nooteboom, Agent-based computational transaction cost economics, *Journal of Economic Dynamics and Control*, 25 (2001): 503-526, Alexander Gorobets & Bart Nooteboom, Adaptive build-up and breakdown of trust: An agent-based computational approach, *Journal of management and Governance*, 10 (2006): 277-306.

^x Maxine Johnstone, ‘Movement and mirror neurons: A challenging and choice conversation’, *Phenomenology and the cognitive sciences*, vol. 11/issue 3, p. 385-401.

^{xi} In his *Parallax view*.

^{xii} The Latin word *terminus* can mean ‘end point’ as well as ‘starting point’.

^{xiii} Tristan Garcia, 2014, *Form and object; A treatise on things*, Edinburgh University Press.