Sorcery, thought and the "ghosts of departed quantities"

by Matt Lee

1. Intimate knowledge in contrast to alien knowledge

The critique of correlationism developed by Quentin Meillassoux[1] aims to re-establish thought's connection with the absolute, a connection that was supposedly severed by Kant when he inverted the relation between object and knowledge. Kant famously argued that the object corresponds to our knowledge of it rather than our knowledge corresponding to the object. The world is real but access to this reality is dependent on our concept of it. The 'absolute' becomes a feature of our concepts and thoughts rather than something we can directly touch. Meillasoux attempts to re-establish access to the absolute through the power of a mathematical understanding of primary qualities but the gap itself, the breach between object and knowledge, must be assumed if there is to be any problem of access in the first place. It is this gap that I want to look at in this essay.

This gap presupposes that the concept of 'the known' is of a product alien from the producer. Supposedly, that which I know is known in so far as it does not depend on me. I own the known but as something outside myself that I can have a degree of access to, in the form of property rights, in much the same way I can have access to land. Just as in land rights, however, I can also be refused access. I have certain rights to the known providing I can fulfil specific criteria of ownership. For example, it might be said that I can know something in so far as I possess a belief that is true about

1 Quentin Meillassoux, *After Finitude*, (Continuum, 2008). It is interesting to note that the central idea of correlationism, that modern post-Kantian (transcendental) philosophy takes the world to be a correlate of human consciousness, can be found much earlier than in Meillassoux, even if it becomes central and most highly developed in his work. For example, we find the same basic idea in the opening pages of Gunther Stern's article on Heidegger from 1948 - Guenther Stern (Anders), "On the pseudo concreteness of Heidegger's philosophy", *Philosophy and Phenomenological Research*, Vol. 8 No. 3 (1948): 337, footnote 2.

the world together with a justification for the belief[2]. I can then have my belief checked, the justification validated and if my papers are in order I can demand recognition and communication rights so that this knowledge is acknowledged. Whatever definition of knowledge is used, however, the general aim of the definition is to establish authority, power, for the knower.

This whole concept of the known as a product outside myself that I own, which underpins the problems of access, is a wholly bizarre and curious concept of knowledge. It exists not as a concept of knowledge in itself but as a means for producing the justified exchange value of knowledge tokens. It exists to enable rights of recognition but this process is not innocent. To acknowledge rights of recognition for some means to refuse such right to others and such a refusal assumes a lack of recognition as the basic starting point. If you cannot show your rights of ownership, the critic argues, then you don't own the knowledge. Another way of putting this is to make the claim that most people don't actually know what they think they know. The story of knowledge as a product is a story of dispossession, a story of enclosure. It represents a naturalisation of a shift in power from inalienable capacities to alienated products.

This story I am telling here suggests that there is a moment in which the model of knowledge as product - which I will refer to as alien knowledge - develops from a prior state in which such alienation does not exist or at least does not exist in that alienated form. I will refer to the 'prior' form as 'intimate knowledge', both to indicate its 'intimacy' with the knower and the way in which such knowledge often operates through intimation as much as implication or inference. This moment of change from intimate to alien knowledge can be thought of both as historical and as developmental. In the first framing, of a historical moment of change from intimate to alien knowledge, I envisage the shift as analogous to the way that there is a historical moment of the enclosure of land. Just as in the moment of land enclosure, there is violence imposed on social

2 One of the standard definitions of knowledge, supposedly derived from Plato, is of 'justified, true, belief'. Most philosophers would regard this definition as incorrect because of 'Gettier problems'.

dynamics by a faction of the social, violence that displaces power from one location to another. The consequences can be long term and far reaching, as they were with land enclosures. The concept of 'common ownership', for example, embodied in the simple notion of 'Commons', is uprooted by the land enclosures and it gradually declines in social power, although it also morphs and puts out shoots, some of which nurture an emergent communism. In the second framing of the shift, the more developmental mode, I envisage some sort of maturation process, as though it were part of the way thinkers, knowers, develop. This developmental mode appears in the guise of objectivity but it too brings with it a violence imposed on the social dynamics by a faction of the social. The shift from intimate to alien knowledge is a change of frames and powers best understood as a genealogical change, in the Nietzschean sense[3].

The intimate-alien distinction, whether historical or developmental, is put to use whenever an epistemologist ('member of the knowledge police') attempts to suggest that alien knowledge has the advantage of communicability, sociality, rationality, thus generally being a public good. This public good that is provided by the more communicable, social and rational knowledge that is alien knowledge is not a public good simpliciter. What is meant here, in effect, is a particular type of public good, that of exchange value, a public good that is concretely and particularly good for a particular social faction. We are urged to develop the wealth of knowledge through the form of alien knowledge because exchange and communicability increase the productivity of knowledge. The idea here seems to be straight-forward: in so far as we can increasingly exchange knowledge reliably, we can then put that knowledge to work more often, more effectively and more consistently (it has greater exchange value, greater power). Science and reason are the frameworks

3 In contrast to a geneaological model we might instead put forward a 'weltanschaung' or 'weltbilder' model, whereby the realm of the 'framework' has a degree of autonomy. Genealogical models – and historical materialist models as well, albeit in a different way – instead suggest the framework is functionally dependent on underlying dynamics. A useful summary of Weber's critique of both the Nietzschean and Marxist models can be found in the essay by Dimitri D'Andrea, “The world in images - subjectivity and politics in Max Weber”, in *Human.Mente*, 18, (2011).

commonly deployed as the central features of such increased productivity in our knowledge. We can do more, make more, heal more, see more, know more, if we organise our knowledge into the form of alien knowledge, enclosing the reality of knowledge in the borders of reason, reliable response and regularity.

It is unnecessary to dispute the productive superiority of alien knowledge as against intimate knowledge. It is instead a question of the product itself that is taken to be the more interesting issue, a question of what is produced by alien knowledge. The problem of alien knowledge lies not in its productivity per se but in the inadvertent effects it has on the knower[4]. Alien knowledge produces the side-effect of alienating the knower from their own most intimate truth. The claim is that in the framework of alien knowledge there is an indisputable unleashing of power but simultaneously that the knower inevitably loses something. The question of knowledge thus raises ethical questions, specifically, what is it we lose and is the loss good or bad. The problem of 'how we know' begins to over-ride 'what we know' because of the side-effects that result from the framework of alien knowledge[5].

2. Instrumental alien knowledge in contrast to sorcerous alien knowledge

There is a problem in the story so far. The idea that there was a moment of intimate knowledge that somehow preceded the contemporary form of alien knowledge is difficult to sustain. The tension between the alien and the intimate is perhaps the longest standing problematic in knowledge. In the Socratic dialogues this problem is found in the difficulties surrounding the concept of virtue and learning. Firstly, the problem of virtue encountered in akrasia, weakness of the will, in which the question is 'why does the knowledge of what is right not suffice to produce the right action?'.

4 There is an analogous problematic which we can find in Heidegger's articulation of the problem of technology as well as in Marx's analysis of the commodity form, a problem of the effects of the *form* of a type of productivity.

5 This ethical problem underlies the discussion of knowledge in Gilles Deleuze, *Nietzsche and philosophy*, (Athlone, 1996), 73-78 and 97-99.

Secondly, the problem of learning found in the Meno formulation, in which the question is 'if I know what I'm looking for I don't need to look and if I don't know what I am looking for then how can I even begin searching?'. Both these problematics arise from a situation in which the relation of knowledge to the self is fundamentally conceived in terms of alien knowledge. It is only because knowledge is something outside, other, that we encounter an issue of either marrying it to our self (virtue) or discovering it in the world (learning).

Philosophy, by which I mean the very specific mode of thinking that is traditionally called Western Philosophy, begins from a moment of critical breakthrough that is almost entirely constituted by an encounter with the alien. Central to Socrates is the daimon, this alien source of thoughts that lives inside the thinker. Yet there are many ways of loving the alien, ways that range from loving it for what it can do for me to loving it because of what it can do to me. The alien acting for me is tamed, enclosed and then deployed so that I can slip inside the strongest defences of the enemy who resist my will. On the other hand, the alien embraced because of what it can do to me is encountered as a means of allowing my own defences against change to be breached. The former we might call the instrumental alien, the latter the sorcerous alien. In both cases the alien is an ally but the mode of the alliance is radically different. The instrumental alien attempts to deploy power through exchange value - it demands rights, its judgements must be obeyed, it rules. The sorcerous alien, on the other hand, impregnates and activates, it seeds new possibilities inside the mind as it gradually transforms one set of beliefs and thoughts into another.

Alien knowledge, as a product externalised and alienated – in Marx's sense of the terms, as he uses them in the 1844 manuscripts – derives from the thought of the alien, an alien that has been with us at least since Socrates' daimon. There is, however, an intimate knowledge that derives from alien knowledge of the sorcerous kind, intimate because it inhabits and infests us, rewriting and reorganising the bundle of individual affects that we are. This form of intimate knowledge is

distinct from a simple subjective position because it does not derive from the subject as source but instead arrives with the subject as position. The alien knowledge embraced because of what it can do to me has many names[6], at least one of which is the Absolute.

It is this alien knowledge in its sorcerous aspect as the intimate encounter with the Absolute, as G-d, as nature, as the sublime, as law, as Diana at her bath, that is inevitably the most pre-occupying. It manifests as a huge, eyeless face of reality, monstrous and terrifying in its power, wielding the sword of necessity as the source of its authority. It is encountered in various ways but always something of the same seems to be at work, something divine, something awesome. Yet the encounter with this face of the alien fractures reality 'in the blink of an eye' (augenblick) and it is this fracture that then persists in the form of the fractured self. I momentarily see with the illumination of the black sun before the heat sears the wound and reality resumes. I encounter the absolute as the ghost of departed quantities of black sun illumination.

3. The ghosts of departed quantities

George Berkeley is famous for his attack on Newton's mathematics. In the short essay entitled 'The analyst', Berkeley criticises the centrepiece of Newton's new mathematical understanding of the universe, the calculus. In particular, Berkeley argues against the legitimacy of the concept of the infinitesimal. Berkeley claims that these infinitesimals are a metaphysical and logical nonsense[7] and that any mathematics that relies upon treating infinitesimals as real is wrong. For Berkeley, these infinitesimals are nothing more than the "ghosts of departed quantities"[8] and are no more real

6 One of these other names, is 'reason'. "*Why is the **ratio** evaluated as the highest human faculty? Because it is the least **human** faculty. Least human, in so far as it does not need objects given to it from a source other than itself.*", Walter H.Cerf, "An approach to Heidegger's ontology", *Philosophy and Phenomenological Research*, 1:2, (1940), 180.

7 See Piotr Blaszczyk, Mikhail Katz and David Sherry, "Ten misconceptions from the history of analysis and their debunking", arXiv:1202.4153v1 doi: 10.1007/s10699-012-9285-8.

8 George Berkeley, *The analyst; or, a discourse addressed to an infidel mathematician* (London, 1764), S. XXXV.

than ghosts in general. The problem Berkeley identifies is roughly as follows: if the calculus offers an explanation for how the Universe works, and yet it relies on these ghostly entities called infinitesimals, then it is no less metaphysical than an alternative explanation that also relies on a ghostly entity, God for example. The fundamental aim of Berkeley's critique is to undermine any *anti-religious* implications that might be drawn from Newtonian mathematics. If the Newtonians thought their new method offered a non-metaphysical and scientific route to the truth about the Universe, Berkeley wanted to show that they are simply wrong.

Berkeley attacks what he takes to be the duplicitous existential commitments involved in calculus. At one point, he argues, the calculations define a variable as nothing and then at another point the same variable is defined as something. This *logical* duplicity masks an *existential* impossibility, namely that something cannot be *both something and nothing*. The argument of The analyst illustrates this process quite clearly. In the first 8 sections the claim is that infinitesimals are incapable of clear and distinct conception. From section 9 onwards, however, we find that Berkeley's argument rests no longer on the *conception* of the infinitesimal but instead turns to the *operation and definition* of the rules of calculations. The final move, grounded on the claim that "*whether you argue in symbols or in words, the rules of right reason are the same*" (Section XV), brings together the detailed analysis of the way the rules work with the problem of meaning. "*Nothing is easier than to assign names, signs or expressions to these fluxions, and it is not difficult to compute and operate by means of such signs.* ***But it will be found much more difficult, to omit the signs and yet retain in our minds the things, which we suppose to be signified by them***" (Section XXXVII). Berkeley's claim is that the original formulations of the arguments at the heart of calculus could not be correct, because even if they could be codified into an *operational* set of rules, they rest on a foundation of contradictory *meanings.*

This argument provokes a reaction within mathematics which is highly productive, part of the

historical background to the development of numerous mathematical innovations during the nineteenth century that eventually result in a concept of calculus 'purged' of the infinitesimal. This purge attempts to remove latent existential commitments by replacing any formulation which contains such commitments with *procedures*. Clear rules enable a concept to be defined not in terms of *meaning* but in terms of *how it can be measured* as specified by *'well-prescribed measuring procedures'*[9]. The general history of calculus understands this ongoing process as one of moving from the mysticism of meanings to the rigor of rules. In the process 'calculus' becomes renamed 'analysis'.

The shift from 'meanings' to 'rules' involves an expunging of implicit existential commitments in favour of a method of proving. A rigorous proof is one where the rules can be checked and followed and *confirmation* involves checking that the rules have been followed, nothing more. The concept of rigor is algorithmic in essence, dependent on the clarity and distinctness of the steps undertaken. It results, in modern mathematics, in proof-checking being carried out by mechanical computers that are capable of algorithmic calculation at a far greater rate and degree of accuracy than any human.

Once again I want to complicate the story I am telling. Unshakeable proofs enable epistemological authority. Yet clear explanations that make sense of observations also attract authority. The gravitational theories of Newton developed in the Principia are dependent on the calculus. Their authority rests, however, first and foremost on the observational testing that calculus enabled. Newton tells the story of the cosmos in a mechanical method that can be seen to be true. While Newton's authority depends on the observation of the correctness of his mathematical calculation, Berkeley's challenge undermines the *foundations* of these very same calculations. For a long time the issue of foundations is pushed aside and does not return for a century or so. The manner in which it returns, however, is illuminating.

9 Victor J Stenger, *The comprehensible cosmos – where do the laws of physics come from?*, (Prometheus 2006), 34.

In 1784 the 'prize problem' of the Berlin Academy is the question of the foundations of the calculus. Judith Grabiner tells us some of the background of this story, involving the way in which the problem of foundations had developed gradually during the eighteenth century[10]. The posing of the Berlin Academy prize problem, in the same year that Kant responded to the philosophical problem of the Enlightenment, shows that the issues were not merely theoretical rather they were becoming problems of authority, specifically the authority of the teacher.

Grabiner argues that in the late eighteenth century there was a shift in the social position in which mathematics was taught. From being a feature of the declining Royal Courts mathematics moves into the public realm. In places such as the Ecole Polytechnique, courses on calculus were taught to engineers. Teaching, claims Grabiner, "*forces one's attention to basic questions"*[11]. The reasons for this might be thought of in two different ways. Teaching forces the need to explain ideas simply and from the beginning. In order to explain arguments to a non-initiate the teacher needs to return to what has often been taken for granted by the teacher themselves as they moved through their own educational development. However this 'force' is not simply a pure motive of clarity, rather it is deeply embroiled in the need for the teacher to establish an authority in the face of questioning. If the subject being taught is one that supposedly rests on nothing but rational clarity – as is the case with mathematics – then that rational clarity better be there for all to see. There is nothing worse, in this situation, than having to rely upon a vague and curiously self-contradictory foundation. The problem of foundations becomes a problem of authority, a problem of the teacher being able to explain clearly and accurately exactly what they mean. For this reason, as Grabiner suggests, it is no coincidence that a whole series of mathematical developments occur as a response to the practical and qualitative relationships practitioners have with their students. In the case of the

10 Judith Grabiner, "Who Gave You the Epsilon? Cauchy and the Origins of Rigorous Calculus", in *The American Mathematical Monthly*, 90:3, (1983).

11 Ibid.

calculus, the rigorous development of the concept of limits arises when Augustin-Louis Cauchy teaches at the Ecole Polytechnique. In 1821 Cauchy produced the Cours d'analyse, the book that is now taken to be the first real step towards the modern rigorous calculus.

The point of this story about the origins of the calculus is to suggest that *reason is deeply embedded in the practice of real living.* To understand the course of rational knowledge it is useless to *simply* look at the internal consistency of that knowledge. Reason is not some holistic self-contained set of inferential relations that are gradually cleaned and polished as we proceed. Reason is an engaged, embedded, process. It is engaged and embedded in the practices of real living which involve co-ordinations between social dynamics, individual affects and material necessities. Berkeley challenges the internal consistency of a theoretical construct. This challenge is not *simply* accepted and its refusal begins to produce various unsatisfactory responses, unsatisfactory in the sense that they cannot dismiss Berkeley's problem. Yet Berkeley's problem does not undermine the social dynamics that rest upon the observational efficacy of the Newtonian model. The model continues to produce a rational challenge to religious understanding *in spite of* the rational problems Berkeley raises. Only gradually, as the transmission of that model seeps into the practices of the engineering classes, does the rational problem in its theoretical foundations become a problem that needs solving. In understanding our reason, it is necessary to be cautious not of simple error or mistaken inference but of forgetting the bodies of reasonable beings. The real ghosts of departed quantities are not the 'somethings' taken for 'nothings' that Berkeley points to but the actual bodies of the reasonable beings involved in the actual processes of knowledge.

4. Speculation and divine necessity

I will now turn to Meillassoux, after having briefly told these two stories of alien sorcerous thoughts and the ghosts of departed quantities. In the second chapter of After Finitude we find the argument that correlationism leads to a *religionizing* (enreligement) of thought[12]. This situation, where "*the*

12 Meillassoux, *After Finitude,* 47.

contemporary philosopher has completely capitulated to the man of faith"[13], is one of catastrophe. If faith reigns over reason because we have lost the rational absolute then we open the door to holocaust. Meillassoux, in an echo of Horkheimers' story of the fall of objective reason[14], claims that "*if nothing absolute is thinkable, there is no reason why the worst forms of violence could not claim to have been sanctioned by a transcendence that is only accessible to the elect few*"[15].

The central problem that Meillasoux diagnoses is the power of necessity within philosophy. At the heart of the correlationist move, in particular in strong correlationism, is a reduction of the force of necessity to a subjective moment of our understanding rather than an objective feature of the world. The correlationist claims that necessity cannot be anything other than part of the appearance in which we exist. This is expressed in what Meillassoux calls the "*second principle of correlationism – that of the essential facticity of the correlation, which has proven to be its most profound decision*" [16]. This facticity is best understood by thinking about the distinction between description and deduction. If the forms of knowledge can only be described, rather than deduced, then they could always have been otherwise and hence anything known is contingent in so far as it is dependent on the forms of knowledge[17]. The forms of knowledge are only *our* forms of knowledge and the alien may have different forms of knowledge entirely. The idea that we might be able to communicate with the alien on the basis of some shared absolute form of knowledge such as mathematics or music is, for the strong correlationist, simply unknowable – we might share something, we might not, it would just be a matter of whether or not we happened, *in fact*, to share some form of knowledge. There would be no absolute necessity that meant we *must* share some

13 Ibid.

14 Cf. Max Horkheimer, *The Eclipse of Reason*, Continuum, 2004.

15 Meillasoux, *After Finitude*, 47.

16 Ibid., 52.

17 This distinction between description and deduction takes the form of an opposition between Kantian inspired strong correlationism (Wittgenstein and Heidegger being the two main representatives) and Hegelian absolute idealism, cf Meillassoux, *After Finitude*, 38-39.

form of knowledge with the alien. We cannot know, a priori, that we can communicate with the alien rationality.

For the correlationist, the facticity of knowledge means that it is *not impossible* that the in itself of reason is radically otherwise than it is for us. For Meillassoux, strong correlationism "*can be summed up in the following thesis:* ***it is unthinkable that the unthinkable be impossible***"[18]. Here we must ask about the necessity of this thesis. Where is the force of the necessity in the first moment of 'unthinkability' ('it is unthinkable that...') that allows in the reality of the unthinkable? The 'unthinkability' is necessary because of the fact that 'there is' a form of knowledge in any act of knowing and that form is itself only capable of being described not deduced. Facticity thus grounds the necessity of the unthinkability. In doing so it inadvertently reintroduces us to the absolute. "*We must grasp how the ultimate absence of reason, which we will refer to as 'unreason', is an absolute ontological property, and not the mark of the finitude of our knowledge*"[19]

There is a tension here that is centred on the concept of reason which we can best identify by pointing to a distinction between 'reason for something' and 'reason forcing something'. The reason for something is a reason for it only in so far as it articulates the reason forcing that something into reality. When Meillassoux refers to 'the ultimate absence of reason' we must hear the absolute in the echoes of ultimare, the act of conclusion. What is it in the end, the conclusion? In reason we find a way in which we can bring each other to a conclusion by offering reasons. Reason is that which invades us, forces us, transforms us in an act that is sorcerous because it deploys the divinity of necessity to intimately transform the real.

Rationalists encounter reason not as some subjective force but as a *real force*, they encounter reason as alien. Meillassoux appears to try and make the alien into an outside, convert the 'fact' into the

18 Ibid., 41.

19 Ibid., 53. This is the basis of what Meillassoux will call his 'principle of unreason', Ibid., 60.

ground of the outside, rather than the *reason* of the fact. Yet this rests in a forgetfulness of the inhuman nature of reason and the consequences of such forgetfulness, the horror of which is described in The Eclipse of Reason. Once we forget that reason is alien (inhuman) we can no longer find the outside in reason. It is not the absence of reason that is the ontological feature of the absolute but the force of the conclusion.

The great battle with faith that constituted the Enlightenment is silenced by the terrible compromise of Kant. As that compromise established itself the forgetfulness of 'the outside in reason' took shape. No longer was reason allowed to be the outside because it had been presenting the possibility of another world *(another world is possible!*). The outside we encountered in reason was both the outside of artificial intelligence, found through calculation – *calculemus!* - and the outside of social relations – *sapere aude!* It is no coincidence that we find the reality of utopian thought springing from the reasonable men and women of the Enlightened mind, because that Utopia appeared with the same lawfulness and necessity as did the calculations of mathematics. Ideas of justice were attached to reality with the same deep roots (ghosts of departed quantities) that calculus revealed numbers to have.

5. Living with the alien

It is not a question of the right or correct relation to with the alien absolute that matters. Talk of the 'correct relation' is the language of the Prussian police state, so ably articulated by Kant and Hegel. Meillassoux has brought forward the great problem of the alien, but in a way that turns the alien into something other than us, the 'great outdoors'. Whilst this is a strategic move to open up the absolute to rational debate rather than religious fanaticism, it does so by relying on the need for our absence. The great error of correlationism is that it is incapable of taking an absolute seriously and yet the absolute that Meillassoux takes seriously is the fact in and of our absence. This may be a necessary stage in the overcoming of a great error but it offers little wisdom about the effects of a

new relationship with the absolute[20].

If thinking must re-establish its relation with the absolute then it must do so in the right way, that is in effect what Meillasoux wants to claim with his principle of unreason. In so far as the first clause of that claim goes it is welcomed by the sorcerers of thought who live with and love the alien. Yet it is this last, this 'right way', that troubles the sorcerers. Whilst there are wrong ways, there is a plurality of 'right ways' to live with the absolute, crooked paths cut through the undergrowth of conclusions already arrived at. For the sorcerer it is not the 'right' relation to the alien that matters but the healthy relationship. This healthy relationship is the one that brings forth life, where the ghosts of those departed quantities of the absolute live amongst us daily, as allies and friends and guides, intimate partners on a path to a conclusion.

20 There is a kind of 'white-coat wearing scientist' form of the 'outside' in Meillassoux that is all too human. For example, the brief and rather sad references to the 'sense of desolation and abandonment' (Meillasoux, *After Finitude*, 116.) felt in the face of the scientific mode of thinking 'a world without anyone in it'. **The pathos of our absolutism is vital**.

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