
article

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Agency ‘in itself’. A discussion of inanimate, animal and human agency *Torill Christine Lindstrøm**

Abstract

‘Agency’, the concept, its connections to ontology and its uses within archaeological theory, are discussed and criticized. In recent archaeological theory, the term ‘agency’ has been attributed to things, plants, animals and humans. In this paper it is argued that the term ‘agency’ is logically meaningless if applied to everything that moves or has effects on its surroundings, and that we need a new, more precise terminology that discriminates between ‘agency’, ‘effect’, ‘actant’ and ‘effectant’. That people, of all cultures, perceive and experience things/objects as having agency is explained as being due to projections of human characteristics, human psycho-neurological functioning, and the fact that all individuals and cultures are deeply involved with and dependent on things/objects. Connected to this, questions regarding different ontologies, animism, ethics and sciences are discussed. The paper presents a critique of symmetrical archaeology and materiality studies. Broader paradigmatic perspectives, more theoretical and methodological inclusiveness, and more inter- and trans-disciplinary endeavours are suggested to increase archaeology’s ‘agency’.

Keywords

ontology; animism; essentialism; science; archaeological theory; inter-/trans-disciplinary

Pebbles, peanuts, ponies and people

‘Agency’ seems to have become ‘a hammer’ for archaeology. ‘If I have a hammer, everything looks like a nail’ (Maslow 1966). Agency is now a quality that is attributed to entities as different as pebbles, peanuts, ponies and people (objects, plants, animals, humans) – and has attained an explanatory position of its own. While *human* agency is often regarded *not* as an individual quality, but as depending on social structures, contrastingly, *animal* agency is increasingly recognized, and even *inanimate objects/things* are argued to have agency ‘in themselves’, not only as ‘secondary’ or ‘distributed’ agency. This paper aims to discuss, and criticize, these uses of the concept ‘agency’ within

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archaeological theory, connect it to ideas regarding different ontologies, question the newness of the perspectives of symmetrical archaeology and materiality studies, and suggest other empirical and theoretical developments within archaeology.

Agency, as an explanatory concept, is a relatively new term within archaeology. Among the first to discuss it from a purely archaeological angle were Dobres and Robb (2000), and it was elaborated by their co-authors. Dobres and Robb described ‘agency’ as a ‘notoriously labile concept’ (ibid., 8), used and developed within archaeology in very different manners (ibid., 3–14). The theoretical foundation of ‘agency’ in the humanistic and social sciences lies in the works of several scholars, particularly Marx (1959), Bourdieu (1977, 70–76; 1990, 56–60), Giddens (1979, 150; 1993), Gell (1998), Knappett (2005), Knappett and Malafouris (2008), Malafouris (2013), Latour (1993; 1999; 2005), and others. Agency’s history within archaeology is thoroughly presented by Johnson (1989), Dornan (2002), Gardner (2004), Robb (2010) and Johannsen (2012).

Within archaeology, agency was first discussed and conceptualized around questions of human individual agency and creativity versus human agency as determined by social structures. Agency understood as the latter was proposed by Shanks and Tilley (1987), as constituted by social forces by Pauketat (2001, 74–79), as an interplay between social forces and individual enterprise by Bell (1992, 39–40), as emanating from socially shared practices and meanings by Hodder (1986), as emerging from the ‘lived life’ of individuals with ‘forward-looking intentionality and creativity’ by Hodder (2000, 23), and as ‘actions of individual social actors embedded within a broader socio-cultural and ecological setting’ by Joyce (2000, 71). With Robb (2010, 493) there is a turn to agency understood as a concept that has to be ‘historicized in specific contexts rather than used generically’, and in *relational* terms, as ‘a quality of the relationships in which humans act’ (ibid., 515). These relationships can be with humans as well as with contexts and things.

Agency is also a subject for other fields than philosophy and archaeology. Within psychology, Bandura defines agency as an ability to act consciously and intentionally, and as a prime force in human adaptation, development and change, on both collective evolutionary and individual levels, and human agency implies a moral agency through affective self-regulatory mechanisms. He claims there are continuous co-development systems and feedback systems between individual human agency, social structures and contexts/environments. All are intricately interwoven (Bandura 2006). This resembles Ingold’s (2001, 27) ‘immanent intentionality of human beings’ engagement with their environment in the course of perception and action’. Bandura’s agency is a systemic approach, like Robb’s, but with an impetus on humans as actants, with corresponding human ethical responsibilities. Things are not mentioned.

‘Things-in-themselves’ – agency or ‘animism’?

Symmetrical archaeology (Webmoor 2007; Witmore 2007; Olsen 2010) focuses on ‘things-in-themselves’ and claims a non-a-priori distinction and division between human agency and material (non-human) agency.

Everything (every thing) and everybody (every body) is a potential actant. When Bandura argued for co-developments and interactive feedback loops between society and individuals, symmetrical archaeology extends the range of interactions beyond the human realm by claiming that objects and people also interact and co-create each other.

Similar positions are proposed by others. Gell (1998) explored how people and objects 'interact' and how people experience objects as having agency and personality. He apparently struggled to reach a conclusive position, ending with allocating 'primary agency' to living entities and 'secondary agency' to objects. Latour (1993; 1999; 2005) developed the actor-network theory (ANT), in which he claims that humans and objects interact and co-act so intimately and symbiotically that division lines are practically fictional in the extended networks. Both people and objects are defined as 'actors', objects even as moral actors, co-responsible for consequences. Things have agency in that they delegate for humans. Hodder (2012a, 95) argued for an entanglement and entrapment between people and things. But in addition to attributing to things a 'secondary agency', which Gell also distinguishes from the human 'primary agency', Hodder argues (2012a, 216) that 'in their objectness things also have primary agency' that is not derived from human agency. 'Things have primary agency in that they act in the world as a result of processes of material interaction, transformation and decay'. Symmetrical archaeology takes this position of things' agency to the extreme.

Symmetrical archaeology has been seen as a further development of postprocessual thinking (Lucas 2012), even as a substratum of it (Hodder 2012b). Contrastingly, according to Johannsen (2012, 310) symmetrical archaeology also grew out of a *dissatisfaction* with the postprocessual, constructivist position, a position that (according to symmetrical archaeology), first, represents an overly anthropocentric perspective where everything is described and explained from peoples' positions and perspectives; second, focuses more on relations than on individual entities in the interactive processes; third, contextualizes explanations to the point of making people (as well as other agents/actants) into puppets on strings that are completely contextually determined; fourth, focuses on meaning (immaterial mental and cultural construction) as *the* primary explanatory force (causation); fifth, thereby, marginalizes the materiality of artefacts ('things') and people–artefact interactions by seeing them as simply expressions of culturally constituted negotiations of meanings, and therefore as secondary to processes of culture (Schiffer 1999, 6; Olsen 2007); and finally, has an overly submissive attitude towards anthropology (Olsen *et al.* 2012, 9). In sum, according to symmetrical archaeology, the postprocessual perspective has a tendency to reduce the materiality of archaeological findings and artefacts, as well as sites, almost to epiphenomena: only indicators and containers of *human* constructions, meanings and minds.

This confrontation with postprocessualism seems justified. Yet surely the postprocessual persistent insistence on the importance of meanings and social constructions, on contexts and on the relativism of idiosyncratic cultures, has fertilized the soil of archaeology and become schemata that most archaeological work now takes into consideration. However,

postprocessualism's potential for philosophical relativism; multiverse interpretations; and multiple, relativistic and unstable social constructions, along with an insistence on 'meanings' almost to the point of oblivion to the material objects 'in-themselves', may have led archaeology away (perhaps even astray) from its identity as a science of material findings from the past.

Symmetrical archaeology claims that the move from processualism to postprocessualism (although certainly not a universal phenomenon in archaeology (Pearce 2011)), implied a shift from a locus of explanation focusing mostly on nature-and-things, to a locus of explanation focusing mostly on people-and-society (Webmoor 2007, 567, figure 2). Webmoor claimed that a symmetrical approach transcends both these different foci. He claimed that it thereby closes 'the Great Divide' in Western thinking between nature-and-things and people-and-society (Latour 1993, 13 ff.), by having *all* the various articulations of people-and-things *and* nature-and-society as equivalent loci of explanation. He argued that they should not be kept distinct on analytical or explanatory levels: 'This post-humanist repositioning de-centres humans as autonomous, independent beings in need of distinct explanatory concepts, making the non-(a)modernist recognition that things are just as much a part of *being*' (Webmoor 2007, 570, original emphasis).

Symmetrical archaeology's return to 'things in themselves' (Olsen 2007, 581) is thus not a return to the materiality of traditional archaeology: the counting, classification, and 'catalogue-ization' of artefacts, their materials, their manufacture and the interpretations of their presumed purposes. 'Things in themselves' is a dramatically different return to the material, with both the agency of things (inanimate agency) and the 'thingliness' or 'materiality' of humans accentuated (Boast 1997; Webmoor 2007; Witmore 2007; Knappett and Malafouris 2008; Olsen 2010). Symmetrical archaeology, with its philosophical connections to post-humanism (e.g. Pickering 1995; 2001), distances itself from the descriptionism of processualism, from the constructionism of postprocessualism and from the anthropocentrism of both. It focuses rather on what 'a new and unknown actor: the silent thing' (Olsen 2003, 89) did, and does, to other things, to nature, to animals, to people, and to culture.

The inanimate agency ascribed to things is argued to *not* imply an anthropomorphic attribution of *intentionality* to objects which 'animism' holds.¹ However, I find it strangely reminiscent of 'animism' when it is claimed that things

are capable of making an effect, acting on other entities, not only because they are related, but also because of their own inherent properties. In other words, their ability to affect and act on us cannot be reduced to our inescapable enmeshment with them; rather it is grounded in their own specific thingly qualities (Olsen *et al.* 2012, 13).

And that the goal of symmetrical archaeology, namely to level out differences between inanimate and animate beings, is 'egalitarian' (Olsen 2003, 88) and

'democratic and inclusive' (ibid., 98). Olsen reassures us, 'Again, this is not a question of anthropomorphizing things, treating them as humans', but then continues, 'but rather of respecting their otherness and integrity' (Olsen *et al.* 2012, 203). Of this I must ask, 'respecting'? Why not simply 'recognizing'? Symmetrical archaeology seems to equalize (make symmetrical) the agency of things and people, the lifeless and the living, and apparently attributes them all with much the same kind of agency: an ability to act and inflict on one another.

To attribute agency to everything/every thing appears to represent a de-animation of living 'things': people and animals alike; and an attribution of an almost 'animistic' agency to 'any-thing'. This symmetrical world of actant things and the 'new and unknown actor: the silent thing' (Olsen 2003, 89) is somewhat disturbing. It resembles the horrors of 'The Thing' of fiction and philosophy alike (Botting 2012).

Symmetrical archaeology is not unique in decentering humans in the nexus of interplays between people, things, plants and animals. It is archaeological zeitgeist. Materiality studies and New Materialisms are relevant labels. In many respects this zeitgeist is an interesting shift from an anthropocentric to an omniscient perspective: a levelling out of importance and meaning of humans and things in descriptions and interpretations, and the implementation of a post-humanistic change of punctuation of sequences where no entity is regarded as a primary cause, but as an element in multi-interactive causal sequences, networks and chains. This zeitgeist has many facets, and proponents with varying positions and profound disagreements (Ingold 2007; Knappett 2007; Witmore 2014; Ingold 2014). Even disagreements with themselves: 'Symmetrical archaeology is not a claim to an undifferentiated world,' wrote Witmore in 2007 (at 547), but in 2014 (at 206) this reservation is gone, as he claims that 'air and soil, rain and sea, wooden doors and stone orthostrats, nitrogen-fixing bacteria and clovers, psycho-political commitments to Rome and Hadrian's Wall ... all are things'.

This zeitgeist has positive potentials for increased understanding of human–animal–plant–thing interactions, and a return to a focus on things in archaeology without necessarily the explanatory appendices of 'for what human purpose or meaning' was this or that thing made, done or allowed to happen. These perspectives in archaeology have resulted in captivating presentations, such as studies of people's perceptions and experiences of their relations to 'things', in books like *In defence of things* (Olsen 2010), *What things do* (Verbeek 2005), *Entangled* (Hodder 2012a), *The transmission of affect* (Brennan 2004), *Archaeology. The discipline of things* (Olsen *et al.* 2012), *Vibrant matter* (Bennett 2010), *Rethinking materiality* (DeMarras, Gosden and Renfrew 2004) and particularly *Handbook of material culture* (Tilley *et al.* 2006) and *Excavating the mind* (Johannsen, Jessen and Juel Jensen 2012), and a multitude of papers. Many are tantalizing reading. However, I question the 'newness' of many of the New Materialists', material studies' and symmetrical archaeology's perspectives and findings.

‘Old wine in new bags?’

But has anybody ever thought otherwise?

(Professor Holger Ursin to a Ph.D. student who was enthusiastically showing statistically significant research results – that in content were, in fact, quite banal).

Although they are presented as *new* perspectives, arguing for the intimate, intricately interwoven and interdependent connections between entities (primarily humans and things, but also plants and animals), as well as the past and the present, I will say that they are not particularly new. The language and formulations, sometimes tantalizing and enchanting, but often impressively baroque, complex and opaque, represent perhaps a *new genre* in archaeological texts, contrasting the conservative clarity of more traditional texts. But the neologisms – enmeshment, entanglement, entrapment, embeddedness, fittingness, materiality, objectness, pragmatology and others – do not in themselves guarantee academic theoretical ‘newness’. Nor does intricately complex language with almost impenetrable philosophical sophistication guarantee high intellectual standards or signal mind-blowing quantum leaps of paradigmatic shift (as Ingold (2007, 2; 2014, 231–35) also spells out). I contend that many of the alleged new insights are ‘old wine in new bags’.

A few examples. It is commonly known that archaeology deals with old remains in various stages of (ongoing) decomposition. So Witmore writes (2014, 213, original emphasis),

It is worth recalling how, ontologically, archaeology does not deal with what was; it deals with what becomes of what was, and what was, ostensibly, is always ongoing in its formation (Olsen *et al.* 2012; Shanks 2012). In other words, we always encounter remnants as what they *are*, not what they *were*, and what a line of stone reveals concerns *its* erstwhile lives.

The *newness* of this information is not what strikes me.

Symmetrical archaeology and other materiality studies refer consistently to phenomenological philosophy. Its relevance for material-culture studies is thoroughly described by Thomas (2008, 43–72). Its contribution is particularly connected to clarifying the embodied engagements that take place between humans and things, to human being-in-the-world, and to perception. Thomas (2008, 48) refers to Merleau-Ponty (1962, 203) and explains his ideas about perception thus: ‘An embodied human being can see, and can move around, position itself in relation to things, and handle them. Sight, touch and movement provide quite particular ways of entering into relationships with things, and none of these can be achieved by a disembodied mind.’ Apart from the obvious mistake that ‘an embodied human being can see, and can move around’ (I know many ‘embodied human beings’ who cannot see or move around very much), and apart from the pathetic convoluted way of saying that seeing and moving are dependent on a body, what is new in this? Although published in 1962, even then people knew that most people could move and see.

Regarding enmeshments and networks and interactions between people, things and the world in general, other sciences also know this, and long have done. Psychological-developmental theory and research have since long recognized as axiomatic that nature and nurture (from food and family to cultural contexts and climate) interact inseparably (Bronfenbrenner 1979; Feldman 2008). The same is recognized in medicine, genetics and epigenetics (Spector 2012). The body and mind of the individual have long been known to be an 'in-dividable' unity (Borghini and Cimatti 2010). And in a wider perspective, that individuals are deeply integrated into and co-created with their geographical contexts, social ambiances, material creations and cultural contexts is considered basic and banal within psychology.

Biology has long recognized that the division lines between matter and organisms and between dead and alive are not that easily defined. There are continuous processes of life and death going on in every living entity, and lifeless materials are constantly incorporated into parts of living organisms and vice versa. Living creatures contain dead cells, death is not a point but a process, and viruses have been defined as both matter and organisms as they fulfil some, but not all, criteria of biological organisms. What appear to be stable individual entities are, in fact, unstable processually interwoven 'entities'. This is axiomatic from atoms to galaxies.

To postulate that human beings' production of, and interaction with, 'things' in the world have had transformative effects on those 'things' as well as on humans themselves should come as no surprise to archaeology or to evolutionary research (Deacon 1997). Two well-known examples can be mentioned. People started to cook, and the cooked proteins had profound effects on humans' teeth and jaw muscles, which in turn affected the development of the human brain (Wrangham and Conklin-Brittain 2003; Pennisi 1999). And humans' domestication of plants, wolves, sheep and cows had profound transformative effects on plants, wolves, sheep and cows, as well as on landscapes, human subsistence and material as well as immaterial culture, and finally 'fed back' to create changes in human bodies, brains and minds (Serpell 1995; Mlot 1997; PBS-Nature 2007). This interrelationship between mind and matter in the form of intricate co-development of brains, cognition and material culture has in recent years been solidly recognized (or rather 're-cognized') in cognitive archaeology (Renfrew 2004; Malafouris 2013). So to point to the difficult distinctions between, and deep entanglements of, dead matter and living organisms, processes and products, complex interactive mutual involvements, networks, and feedback loops between people, their surroundings and whatever people make or manipulate is to 'reinvent the wheel'.

In the important text 'Symmetrical archaeology. Excerpts of a manifesto', Witmore (2007, 556–57) makes a point of the phenomenon that structures made in the past are still parts of our lives today, that people walking down Oxford Street in London today are physically directed in their movements by the structures of the underlying Roman road (Via Trinobantina). He presents this as an example of the agency of a 'thing', the Roman road, and its continued presence in the present as an actant: 'Here, achievements of the Roman period orient movement today, thereby impacting on thousands

of twenty-first-century lives on a daily basis.’ An enchanting, almost poetic, way of describing how the past and present are inseparably blended. But it is common knowledge that history influences the present, that the past is present in various ways, in physical structures, traditions and memes. And as Witmore also says, many modern roads are constructed on top of ancient Roman roads. One could add: and they continue to connect cities also laid out by the Romans and still flourishing. His statement about Roman roads does not give any new information, but is old classical archaeological knowledge in a new wrapping, ‘old wine in a new bag’.

Agalmatophilia

*[W]e touch the things and the things simultaneously touch us.
The relationship is reciprocal.*

(Tilley 2006, 61).

Agalmatophilia is sexual attraction to, and sexual behaviour towards, statues, dolls and other human-shaped figures. I use it here as a metaphor for ‘love of things’. A common observation is that both lay and learned are criticized for irrationality if they anthropomorphize animals. Yet now, with ‘turn-to-things’ approaches, an anthropomorphizing of *things* seems accepted as rational and in vogue in archaeology. This is strange and contradictory.

Surely, objects, in both ancient and present times, are often *attributed* with *anima* (‘spirit’), identity, characteristics of a personal kind, and invested with human affection (Lindström 2009a). For instance, in various cultures and epochs, weapons have been attributed with personalities and biographies (Pearce 2013; Gansum and Hansen 2002, 16–17). And many of you who read this have spoken to your computer, and have, like Gell (1998, 18–19), experienced your car having personality and a will of its own, perhaps even suffered grief when dumping it. But still that does not mean, or prove with *any* scientific meaning, that objects actually and factually have ‘animacy’ or ‘agency’ resembling that of living beings. Therefore Gell wisely calls artefacts (things) ‘secondary agents’ with ‘secondary agency’ in contrast to the ‘primary agency’ in ‘primary intentional agents’ (humans):

I describe artefacts as ‘social agents’ not because I wish to promulgate a form of material-culture mysticism, but only in view of the fact that objectification in artefact-form is how social agency manifests and realizes itself, via the proliferation of fragments of ‘primary’ intentional agents in their ‘secondary’ artefactual form (Gell 1998, 21).

But other positions attribute *primary* agency to material objects, things. That is ontologically and scientifically problematic.

Surely, things are important. Studies of human conceptions of things; attributions to things; relations to things; uses of things as markers of personal, social, political, philosophical, religious and existential meanings and as ways of constituting the ‘objective’ frames around peoples’ lives, thereby shaping human experience, activity and culture; and studies focusing on the fact that whatever humans do, both to themselves and to their

surroundings, they do through/by/with things, are definitely highly relevant in archaeology. This is to 'engage in the dialectics of people and things', as Stanford University describe the aim of materiality studies in 2014 (<https://web.stanford.edu/dept/anthropology/cgi-bin/web/?q=node/1097>). But in fact this is largely what archaeology already is about.

We would not be the species *Homo sapiens sapiens* without our things. Human agency materializes, comes into being and evolves through/by/with things. Our lives are mixtures of minds and materials. Humans' intricate involvements and attributions to things are relevant to archaeology, history, anthropology, sociology, psychology, philosophy, economy and possibly other fields, and hopefully in trans-scientific research, as envisioned by, among others, Ingold (2001, 255–79). Still, I claim that these studies tell us only something about 'things-in-themselves', but a lot about 'humans-in-themselves'.

Humans love things. Humans' emotional involvements with things are explicable. They are not examples of *irrationality* in humans. Contrastingly, they point to a deep-rooted human *relationality* (Bowlby 1969; 1973; Robb 2010, 494). This quality is typically human (but not exclusively so), and is an essential part of human nature and adaptation. A possibly particular human (or primate) twist of this tendency to relate, emotionally and socially, is the importance of face recognition (Tsao *et al.* 2006; Tsao, Moeller and Freiwald 2008). Psychoneurological research has shown that human beings are neurologically 'wired' (in the fusiform gyrus) to be particularly alert to faces and facial expressions. This explains why we tend to 'see' 'faces' in all sorts of objects and arbitrary stimulus complexes (Hadjikhani *et al.* 2009).

Likewise, that inanimate objects appear to have animacy, in that they may seem to act on their own, is because we are psychologically and neurologically impelled to be alert to movements, to interpret movements as 'willed', and to attribute agency and intentionality to anything that moves, particularly if it has something that looks like a face. This propensity made our ancestors alert to the presence of predators and other humans (Tinbergen 1951, 191–92; Atran and Norenzayan 2004).

We project onto our surroundings what and how *we* are. 'Projection' is the psychological term for attributing our own characteristics, emotions and motives unto others. This process is spontaneous, unconscious and strong, and is also directed towards animals and things. Therefore to feel phenomenologically that objects are animated and alive, and act on their own, is a common human phenomenon (Brown and Thouless 1965; Harvey 2005), and certainly not, as is often believed, only typical of children and hunter-gatherers. Amazingly, the ancient Greeks, famous for their philosophy, logic and early science, tended to perceive statues as animated (Schnapp 1994), and some loved them even to the point of having sex with them (agalatophilia) (Scobie and Taylor 1975). To sum up: certain characteristics of human perception, projection and cognitive attribution processes, along with the strong human tendency to form relationships, make 'animacy' and 'agency' in inanimate objects very likely to be perceived and experienced – by hunter-gatherers, ancient Greeks, and modern university professors alike.

Mind and matter

But still, somehow people tend to *know* the difference. Although many of us speak to our computers or windowsill plants, most of us still recognize them *as* computers and plants, and would find it spooky if they spoke back.² Still, Latour insists (2005, 63), ‘Objects too have agency’ and calls them ‘different types of actors which are able to transport the action further’ (ibid., 70). He writes,

After all, there is hardly any doubt that kettles ‘boil’ water, knives ‘cut’ meat, baskets ‘hold’ provisions, hammers ‘hit’ nails on their head, rails ‘keep’ kids from falling. Locks ‘close’ rooms against uninvited visitors, soap ‘takes’ the dirt away, schedules ‘list’ class sessions, price tags ‘help’ people calculating, and so on. Are those verbs not designating action?

And further down, ‘these implements, according to our definition, are actors, or more precisely, *participants* in the course of action’ (ibid., 71, original emphasis). I disagree. We *say* that ‘kettles boil water’, but in fact I/you/he/she/we/you/they boil(s) water in a kettle, cut(s) meat with a knife, hold(s) provisions in a basket, hit(s) a nail on the head (or on our own thumb, which seems the rule more than the exception) with a hammer, etc., etc. But the *agency* is human. We *say* that a ‘building impresses us’, but it is in fact *we* that have the impression. The building doesn’t do anything to us in itself. These are metaphorical manners of speech, and should be recognized as such.

We have emotions towards and attachments to things. It is part of our common human nature and species characteristic. As several materiality studies have shown, things are part of our individual as well as group identities, contain our history and can be deeply significant. But things don’t attach to us. Children know that dolls, although invested with affection, are dolls. Children know *when* they are playing, and are aware *that* they are playing. Sámi people know that *sieidi* (sacred boulders), although sacrificed to, and invested with emotions, history and symbolic significance, are boulders. Sámi, just as *all* human beings, have emotional relations to things. But most persons recognize that there are ontological differences, too. And the ‘too’ is the pivot point: it signifies the common ability to differentiate between *phenomenology*, the experience of things (their symbolic meanings, the bundle of projections, associations and memories connected to them), and *ontology*, the nature of things (their material constituents and properties).

Differentiations between ‘physicality’ (body, matter, exterior) and ‘interior’ (soul, psyche, mind) ‘seem to be universally present’, says Descola (2005, 140), who otherwise claims cultural diversity (ibid., 149). Likewise, Gell states (1998, 131), ‘It seems that ordinary human beings are “natural dualists”’. So apparently, despite our human propensity to animate things, despite our common manners of speech to talk about things in ‘animistic’ and anthropomorphizing terms, and despite the sometimes blurred overlaps of ontological qualities and apparent agency of things, people nevertheless recognize differences between living and non-living, exterior and interior, ‘body and soul’, mind and matter. In that our minds are right, and that matters.

Ontological differentiations matter. The fact that everything on this planet consists of atoms does not wipe out that there are quantum leaps between atoms and molecules, between any assembly of molecules and organic matter, and between blue-green bacteria (cyanobacteria) and mammals. Humans tend to perceive and experience these differences. (But please note: I am here not talking about the traditional *scala naturae*, the ladder where the status of a creature is defined according to the complexity of its structures. After all, spiders have eight eyes and eight legs, humans only two of each).

Irrespective of the interconnectedness and the difficulty, or perhaps impossibility, of defining absolute division lines between being and becoming, alive and dead, process and state, you and me, this and that, we still live in a human life-world where we, perhaps due to the inherent aspects of our species' perceptual and mental apparatus, tend to recognize these phenomena as being different and separate, and *also* intricately interwoven, interacting and interdependent. It is usually quite simple for most mentally intact persons to perceive, experience, and understand both these aspects: the separateness and the unity, simultaneously, and without needing to attribute 'agency' (or any other kind of *anima*) to anything.

Yet the opposite standpoint has been voiced. Kant claimed that we can never know the world as it is in itself: 'Das Ding an sich', only as it appears to me (or us): 'Das Ding für mich' (Hartmann 1871). Social constructivism and anthropology take this line of thought to the extreme by insisting on human perceptions and ontological categorizations as being relative, and often profoundly different between cultures (Nelson 1983; Burr 1995; Viveiros de Castro 1998; Ingold 2000, 25, 111–31; 2006). Contrastingly, Descola (2005) suggests a categorization of all ontologies into four basic types, thus reducing the idiosyncrasy somewhat. However, if differences in ontologies are really so profound and pervasive, one may wonder, how is it that people from various cultures can communicate and interact at all?

There seem to be enough common factors in 'being human' to make interaction possible. Language is one. The human perception and cognitive processing of the world are filtered and expressed through language. It is therefore not irrelevant to the question of 'different ontologies' that all languages share common structures to an amazing degree (Faarlund 2009, 229; Goettner-Abendroth 2012, 16), and that people can learn several languages. This points to essential similarities between humans and human cultures regarding perception and categorization of phenomena in the world. But paradoxically, on a detailed level, language can also be deceptive and convoluted, and difficult to decipher (Mumford and Anjum 2011). This makes translations and interpretations difficult. As a consequence, this may interfere with our understanding of other people, and lead to ideas of so-called 'different ontologies'.

Different ontologies?

It is regarded as correct, biologically speaking, when we say that humans are a kind of animal, but when 'others' say that animals are a kind of people, we call it 'animism'.

As an argument for attributing agency to things, ethnographic and anthropological records of ‘different ontologies’ are often mentioned. It is noted that, in several hunter-gatherer and pastoralist cultures, specific animal species are regarded as another kind of ‘people’, or ‘kindred beings’ with minds, motives, personhood, individuality, intelligence and agency, transcending the species barrier (Myrstad 1996; Ingold 2000, 69–72; Fowler 2004; Descola 2005, 41; Willerslev 2007; Alberti and Bray 2009; Fijn 2009). Interpreting this as a ‘different ontology’, Descola (2005) defines it as animism, implying that humans and animals are seen as having similar ‘souls’ (‘similar interiorities’), but different bodies (‘different physicalities’). Likewise, Viveiros de Castro (1998, 470, 478) calls this perspectivism: spiritual unity and corporeal diversity. In some cultures, also plants, stones, rivers and other phenomena of nature are reported to be regarded as animated, personal and possessing agency, shown, for instance, in food offerings to particular stones (Åikäs *et al.* 2009), and in greeting and hugging particular trees (Olsen *et al.* 2012, 29–30).

Western negative stereotyping clichés regarding animism, primitivism, magic and shamanism have often coloured descriptions and interpretations of other peoples’ thinking (Willerslev 2007, 75, 181–82). Attributions of ‘irrationality’ are often undercommunicated undercurrents. For example, it is regarded as correct, biologically speaking, when we say that humans are a kind of animal, but when ‘others’ say that animals are a kind of people, we call it ‘animism’.

Before jumping to the conclusion that there are ontologies that are completely different from and incompatible with the Western ontology, we need to scrutinize how these are verbally expressed. In particular we need to be aware of subtle nuances in research interviews with people from other language groups, and listen beyond our own cultural and linguistic categories (Kvale 2006; Willerslev 2007, 185).

How ‘different’ is the alleged ‘different ontology’ of animism *really*? I am convinced that there are no differences between ethnic groups regarding rationality and irrationality. And cultures that are labelled ‘animistic’ and ‘shamanistic’ do recognize animals, stones and plants as being somewhat different and distinct from humans, and from each other. And lo and behold: in his detailed analyses of animism and shamanism, this is *exactly* what Willerslev (2007, 81) records when quoting his Yukaghir informant Vasili Shalugin: ‘Naturally, humans, elk, and bears think differently. They are different kinds of people.’ Now, when interviewed informants say that certain animal species are ‘*another*’ or ‘*different* kinds of people’, that clearly does *not* imply sameness. So we must scrutinize what the informants mean by ‘people’. It could simply be that, among them, it is recognized that these animal species share certain characteristics, abilities, habits and habitats with humans, that in these respects animals and people are similar, and can therefore both be labelled ‘people’. The informants’ use of the term ‘people’ in this connection may thus not be synonymous with ‘human beings’, but rather a category used for all species with certain characteristics in common. But this does *not* mean that humans and animals are so similar as to intermarry, as stated by animist shaman informants, and also noted by

Descola (2005, 148). To transcend the species barrier is actually regarded as potentially dangerous, informants explained to Willerslev (2007, 89–118). After extensive interviewing and sensitive interpretation, Willerslev concludes that the animist and shamanist Yukaghirs in Siberia, both psychologically and linguistically, are deeply preoccupied with the differences between humans and non-humans, the dead and the living (ibid., 188, 190). *Their* world is absolutely not an undifferentiated fusion of 'pebbles, peanuts, ponies and people' with the same kind of agency.

Animist shamans are actually recorded as regarding their magic experiences and practices as explicable by, and non-conflicting with, natural science (Grøn 2010).³ These shamans expressed that what might appear to be 'different ontologies' are not mutually exclusive, as also Descola admits (2005, 147). Also the ontological typologies suggested by Ingold (2000) and Pedersen (2001) are presented with similar reservations: the typologies are neither absolute nor mutually exclusive, and mixtures exist. Willerslev and Ulturgasheva (2012, 50) demonstrate that this lack of precise distinction between ontologies may be more the rule than the exception.

Projections and presumptions

Humans project and attribute agency and life onto things. As Kohring (2014, 248) puts it, 'it is a cognitive extension of self and experience to transfer anthropomorphic characteristics and actions onto physical objects'. But just as you and I speak to our things, but would be startled if they spoke back, I presume that Sámi who revere *sieidi* (sacred boulders) by sacrificing food to them would be surprised if the stones literally gaped and consumed the food. The Sámi girl who hugs a particular tree when returning to the summer camp after winter (Olsen *et al.* 2012, 30) would be startled if the tree hugged her back.

Contrasting the idea of 'different ontologies', I would suggest that there are 'degrees', 'levels' and 'variations' in human experiences and beliefs that, in Western research, are labelled 'animism', an often grossly undifferentiated, erroneous and derogatory term.

First, as a species, humans share certain characteristics. Humans are neurologically 'wired' to experience objects in the surrounding world as animated and alive (Atran and Norenzayan 2004).⁴ Therefore we *project* and attribute *our* characteristics onto beings and objects around us, *presuming* they are like us. This is shown, for instance, in folk stories and fairy tales worldwide, which are full of talking animals and animated, talking objects. Numerous television programmes with hidden cameras have shown that even modern, urban people are remarkably willing to respond to 'talking objects'.

Second, on a collective level, cultures differ with regard to attribution of *anima*, agency, and personhood to non-human entities (animals in particular, but even humans for that matter: in earlier Europe and America women and slaves were presumed to lack or have inferior souls). But we should be very careful about interpreting the ethnographic and

anthropologic reports, because linguistic meanings and nuances can be very subtle, and translation difficult.

Third, on an individual level, humans differ in the propensity to experience the non-human world as being animated and personal, and differ with regard to what that means for each person, regardless of collective cultural norms.

Consequently there is a variety of differences and similarities regarding ‘animism’, animism, and attributions of agency to humans, animals and objects that run criss-cross through our rough (and rude) distinction between ‘the West’ and ‘the Rest’.⁵

Still, many will insist that there are cultures with ontologies that are profoundly different from that (or those) of ‘Western’ cultures (Hoskins 2006, 74–84; Ingold 2000; 2001; 2006; Olsen 2010; Olsen *et al.* 2012, 29–35). This has given impetus to the attribution of ‘agency’ to things. Respect for ‘different’ ontologies seems implicitly connected to respect for the rights of indigenous peoples. However, this face-value acceptance could paradoxically imply disrespectful attitudes, lack of proper understanding, or both. Be that as it may. Respect for others does not preclude self-respect. For good or worse, this is the ‘catch-22’ of social constructivism: if all ontologies are equally ‘valid’, then the so-called ‘Western’, science-based one also is. So far, at least. It is possible, even likely, that ‘our’ scientific theorems and paradigms may be abandoned or changed, when proven wrong or inadequate through new research and evidence. (And let me emphasize: I use the term ‘science’ as a synonym for *Wissenschaft* (German) and *vitenskap/vetenskap/videnskab* (Scandinavian languages), a generic term for all scientific endeavours, encompassing both the natural and the humanistic and social sciences). These sciences seem reasonably well accepted around the world (‘Western’ medicine even embraced). Differences in culture and ‘ontology’ seem to represent no obstacles.

Knowledge gained in scientific empirical investigations, qualitative or quantitative, under the conditions of methodological stringency, stringent concept definitions, operationalizations, systematic quantitative statistics or systematic qualitative interpretational procedures, probability estimates, logically constructed interpretations, inter-rater validity or inter-interviewer agreement and (re)testable results, is the ‘gold standard’ of science. It is operationalized in the ideals of validity and reliability, concepts that are relevant in both quantitative and qualitative research. Scientific ‘truths’ (reasonably reliable and valid knowledge) are not established through democratic processes: neither by the decisions of the majority, nor by respect for other cultures or religious fundamentalists. To respect that some groups of people adhere to ‘different ontologies’ (if that really is a precise description) is not the same as ratifying them.

Peoples’ attributions and attachments to things and objects, and how people attribute agency to various entities, are legitimate and interesting research questions in themselves. But that is not the same as studying and establishing whether various entities actually have agency. It is here

that symmetrical archaeology, New Materialisms, and materiality studies go astray.

Abolishing agency as a 'one-size-fits-all' concept

What consequences should the above considerations have for the concept of agency in archaeology? How can we define 'agency' and use it in a meaningful *scientific* way?

Logic is the basis of all sciences. So, first, *logically* speaking, if a term is applicable to everything ('pebbles, peanuts, ponies and people'), it becomes *nil*, void of meaning, logically useless and void of explanatory power.

Second, the word 'agency' already has a rather well-established meaning, as Johannsen (2012, 339, original emphasis) defines it: "agency" may be defined as *the physical capacity to initiate actions on one's own behalf* (actually very close to Bandura's definition). Therefore, to use the same word, 'agency', for a quality in, or of, entities that are vastly different 'in-themselves' ('pebbles, peanuts, ponies and people'), *and* as a term for phenomena that arise out of these entities' interplay, enmeshments, interconnections, networks and assemblages, *and* for a relational quality that is a temporary, contextual, situated and contingent occurrence, is bewildering and scientifically imprecise. Other terms than 'agency' could be coined and properly defined. 'Secondary agency', 'object agency', 'distributed agency' and 'network agency' may work. Neologisms can be very appropriate and justifiable. Academic concepts should be as precise and unequivocal as possible. It simplifies compiling, combining, comparing and communicating theories, hypotheses, methods and findings. It is vital for building theories. And, not least important, it facilitates meta-analyses. In short, it enhances scientific development.

Third, we should confront the materialism of some sections of post-humanism by being bold enough to differentiate between *effects* and *acts*, *effectants* and *actants*. If a rock (an inanimate material thing) falls down and crushes a house, it is not the rock's 'agency' that 'did' it. In fact, if anything should be attributed with causing or creating the effect, it is Earth itself, or rather Earth's gravity. The crush was an *effect* of gravity. The same holds for a tree (an inanimate living thing) looming over a house: if it falls down on a house on a stormy night, nothing about or within the tree itself 'did' it, although it is a living organism. The fall, and the subsequent crush, were *effects* of moving air and gravity. Also falling animals or people can have *effects* on whatever they land upon, but neither are those effects products of their agency.

Fourth, along with the differentiation between effect and act, I think we should reclaim the difference between the *lifeless* and the *living* in order to have a meaningful definition of agency. Cars were originally called 'automobiles'. Despite the Roman proverb *nomina sunt consequentia rerum* ('names are the essences of things'), to call a car 'automobile' ('self-moving') is objectively wrong. It does not move 'by itself'. The driver makes it move. Computers and other electronic gadgets do nothing by themselves, not even when they 'interact' in complex ways, or 'communicate' with us. Everything they do is pre-programmed by people. It is people's agency,

people's 'distributed agency', that is effected/performed through these things. Knappett's example (2005, 25) of a pacemaker merging with the body of a person it is implanted in, and Latour's example (1999, 176–93) of what he described as a merged identity between person and thing – a man with a gun – and a distributed agency between them when shooting somebody, are both easily countered. Neither of these examples is a convincing example of human–thing merging or of inanimate agency. The pacemaker does not move by itself, its activity is enacted by humans through pre-programming; although implanted in a human body, is still easily discernible and extractable as a discrete object. And it is *the man* who shoots; and he does it with/through/by the gun, but *he* is the actant. *The man* could have chosen another weapon, *the gun* could not have chosen another man. Therein lies the difference. The pacemaker and the gun are vehicles for *people's* choices, performance and agency. The *ethical* problems in attributing agency to objects are paramount. It is absurd to say that the gas was *responsible* or *co-responsible* for killing people in Nazi concentration camps. Only people were.

The lifeless are not actants, but can be *effectants*. Only living organisms can be actants, or have animacy, as also argued by Johannsen (2012, 338–40). But whereas Johannsen, correctly, points to vast inter-species differences, particularly differences between humans and other animals, I hold that we should first differentiate between living organisms with and without a central nervous system – non-cerebral life forms versus cerebral life forms.⁶ If the above-mentioned tree's roots dig into the wall of the house, that is something such an organism is likely to do, but the 'doing' is not an act proper, 'motivated' in a central nervous system. Its 'agency' is at best a 'secondary agency' (Gell 1998, 21), an effect of ongoing processes in the living cells of the plant, with no behavioural flexibility (intentionality, change or choice) involved. Alternatively, the plant's 'agency' could be called a *reactive agency*, in that processes within the plant are triggered by automatic reactions (re-actions) to chemical and physical stimuli. In contrast, if an insect starts to pull apart and eat the walls of the house, the insect indeed 'does' it, and is an actant proper. Its behaviour is an *act*. Although insect behaviour is considerably dominated by pre-programmed behaviours, an insect's behaviour still originates within an organism with a central nervous system that is complex enough to imply a certain behavioural flexibility (some capacity to make choices and changes, and to learn). The insect has an *active agency*. In vertebrates (fish, birds, mammals), and some invertebrates, this active agency with behavioural flexibility, the ability to *act*, and to act consciously and intentionally, becomes a main characteristic (Cambridge Declaration on Consciousness 2012⁷). Cerebral vertebrates not only have *effects* on their surroundings and *react* to them, but have an *active agency*, and *act on* them.

Animal agency – and human

Our conceptions of (other) vertebrate and cerebral animals have varied, but apparently have always contained a certain fascination: what are they? How are they? Who are they? Peoples' dependency on, and

interaction, cooperation and cohabitation with, animals have triggered many categorizations and conceptualizations, ranging from regarding them as mindless things (Descartes 1984) to regarding them as highly complex creatures, even divine beings (Graves 1997; Ingold 1994; Gilhus 2006, 95–100). The ancient Greeks and Romans, to whom we owe so much of our culture, had extremely ambivalent and complex relationships with animals (Gilhus 2006; Calder 2011; Lindstrøm 2010), and people still do. Today, with the development of human–animal relations studies (Oma 2010; Hill 2013; Jennbert 2011), questions regarding animal agency vibrate within archaeology.

The postulate of animal agency is often evaluated against human agency. Here psychology may contribute. Bandura (2006, 164–65) aligns four core characteristics of human agency: intentionality (motivation, plans, strategies of performance), forethought (cognitive representations of anticipated outcomes), self-reactiveness (regulation and adaption of behaviour and plan execution), and self-reflectiveness (meta-cognitive reflection of plans and results, a self-aware evaluation of oneself). For comparison, I therefore suggest that animal agency be assessed against these four criteria.

The question then becomes, are there situations that require and encompass all these characteristics of agency, and thus can serve as touchstones for animal agency? Yes: situations that require complex (instrumental and observational) learning and situations that require complex, flexible problem solving. Such situations have already been extensively studied in animal subjects. The methodologies used have been scientific, stringent and rigorous, such as controlled experimental design and systematic observation. The results are astonishing. Here, only a few among an abundance of findings are mentioned: animals do manage complex learning and sequential problem solving with behavioural flexibility, forethought, self-reactiveness and reflectiveness (Midgley 1995; Bovet and Vauclair 2000; Bekoff, Allen and Burghardt 2002; Griffin and Speck 2004; Auersperg, Kacelnik and von Bayern 2013), and have social learning (Bennett and Laland 2005). Animals make plans, and have intentionality and motives (Tolman 1948; Bugnyar and Kotrschal 2002; Wilcox and Jackson 2002; Raby *et al.* 2007). Some animals can, like humans, distinguish between intentional and accidental acts in others (Call and Tomasello 1998), a finding that indicates that 'intention' is a real phenomenon and a meaningful concept. More remotely related to agency, but not irrelevant to it, animals have emotions that are similar to ours and evoked for the same reasons (Seligman 1975; Overmier 1986; Midgley 1995; Panksepp 1998a; 2005a; 2005b; Ganguli 2006; Bekoff 2007; Panksepp and Biven 2010). Like us, animals live in social systems with complex hierarchies, behavioral codes and rules of conduct (Midgley 1995, 25, 66; Smuts 2002; Bearzi and Stanford 2008). Animals have individual personalities (Gosling and John 1999; Stamps 2007); many have self-awareness (Coy 1994; Panksepp 1998a; 1998b) and self-recognition in mirrors (Povinelli *et al.* 1993; Plotnik, de Waal and Reiss 2006; Prior, Schwarz and Güntürkün 2008), and can comprehend others' perspectives (Kaminski 2013; Clayton, Dally and Emery 2007). Animals have communication skills, and many even understand the communication of other species (including human language) (Bradbury and Vehrencamp 2011). And

this list of capacities is far from exhaustive (for more details see Lindström 2012 and Cambridge Declaration on Consciousness 2012). There are, of course, vast *inter-species differences* in agency as well as in other capacities, and vast individual *intra-species differences*. Nevertheless, the conclusion must be that animals (perhaps particularly vertebrate, cerebral animals) have actant agency proper.

So when hunter-gatherers, pastoralists and others tell ethnographers, anthropologists and archaeologists that certain animal species are ‘another’/‘different’/‘kindred’/‘kind of people’, this need not express a ‘different ontology’. If by ‘people’ is meant having cognitive and emotional faculties, social systems, communication, agency etc., these are not incorrect attributions to animals, ‘animism’ or anthropomorphism, but are realistic impressions based on observations of, and interactions and concrete experiences with, animals (Willerslev 2007, 73–118). There is therefore no need to ‘accept’ their statements out of respect for non-Western ontologies. These peoples are simply right. Modern research has documented animal agency beyond any doubt. It is not a human construction, it is not dependent on our interaction with animals, and animals’ characteristics are irreducible to our representations of them (Reed 1988). We can perceive them reasonably correctly. (Here Kant was wrong.) When people perceive animals as animated and having agency, it is not, as with inanimate objects, because they *appear* to have faces and *seem* able to act; it is because they have (faces) and do (act). Thus, in the wording of symmetrical archaeology, animal agency can, indeed, be an example of ‘things-in-themselves’ and ‘their own inherent properties’ – or more precisely, *animals-in-themselves*. One must be permitted here to use an unpopular term: agency is part of animals’ *nature*.

Agency is also human nature. But not solely actant agency. We, other animals, plants and insects are also reactive actants. Our brains and bodies have numerous automatic reflexive aspects (Gardner and Gardner 1998; Shackelford, Schmitt and Buss 2005; Barrett 2010); and we have many unconscious and subconscious aspects (Pinker 1999, 3, 86–389; Ohman and Mineka 2001; Ryan and Jethá 2010) – perhaps more than we like to believe. Still, human agency is, to a considerable extent, conscious and intentional, an *actant agency*, an *agency proper*. It is a kind of agency that we have in common with other vertebrate cerebral animals. But human agency definitively has more far-reaching consequences than the agency of any other species. The level of cerebral complexity, cognitive complexity, capacity for abstract thought and behavioural and instrumental flexibility that characterizes *Homo sapiens sapiens* as a species is special. With it comes an ability to foresee complex consequences of behaviours and to make choices, and a capacity (potentially at least) for abstract moral thinking (Bandura 2006).

During the last decades humans have become able to predict even extreme long-term consequences of their behaviours (such as climate changes). That, combined with our agency to transform, on large scales, everything around us, implies a profound ethical responsibility for all life on Earth, a responsibility that is unique to humans,⁸ a moral concern also expressed by Hodder (2012a, 221). I hope we will never see ideas about distributed agency and

shared responsibility used to exempt humans from their responsibility.⁹ Human agency, individual as well as embedded in social systems, makes possible extremely complex interactions with, but also uses, manipulations and transformations of animate and inanimate objects, in order to create 'things' (artefacts, technologies), relations, surroundings and landscapes that may be purposeful for humans (although often catastrophic for other life forms). Actually, archaeology is *the very science* that has testified to this human agency, on both an individual and a collective social level, across times and cultures. Agency is indeed part of *human nature*, of *humans-in-themselves*.

'Things in-themselves' = the nature of things

To speak of 'human nature', or the 'nature' or 'essence' of *anything*, for that matter, has been banned from archaeological theoretical discourse for decades. 'Essentialist' has become an abusive term. This is odd, for two reasons: first, a conception of the species characteristics of humans, that there is a 'human nature' that is common to all humans, is so widely accepted as to be the basis for the Universal Declaration of Human Rights (UDHR): 'All human beings . . . are endowed with reason and conscience . . .' (Article 1), and for other international legislative measures expressing the principle that people should be treated equally. Equal rights rest on acknowledging a certain sameness regarding essential characteristics. The horrific consequences of abolishing this concept of a shared 'human nature' need not be spelled out: the Holocaust of the Second World War is pertinent.

Second, to abolish the concept of something's 'nature' or 'essence' is odd considering that archaeological *practice* increasingly employs, in very sophisticated ways, knowledge from scientific fields that *do* study *the nature of things*. Some examples: knowledge from geology, mineralogy and petrography is used to understand the properties of stones for tools, and the effects of volcanic eruptions (Sigurdsson, Cashdollar and Sparks 1982; Goldberg and Macphail 2006; Zastawnia *et al.* 2013); botany provides understandings of the use and domestication of plants and agricultural developments; palynology augments studies of prehistoric climate and diets (Molloy and O'Connell 2004; Moe *et al.* 2007); zoology and ethology are used to understand animal characteristics (including the agency of animals), for analyses of hunting, domestication and other interactions with animals (see references above); biochemical DNA analyses are mandatory for studying human evolution (Ovchinnikov *et al.* 2000; Dalton 2010); dentistry, physiology and pathology are used to estimate age, sex, nutritional aspects, disease and causes of death from human bodily remains (Prag and Neave 1997; Piontek and Vančata 2012; Myszka, Piontek and Miłosz 2012); and cognitive psychology and neuropsychology highlight the cognitive processes connected to the cultural changes occurring in the Upper Palaeolithic (Renfrew and Zubrow 1994; Corballis and Lea 1999; Wynn 2002).

All this is already well-established *archaeological practice*. As a consequence, a return to 'things-in-themselves' and 'materiality' in archaeological theory should absolutely lead to (re)consideration of things' *nature*, and its (re)inclusion in the analyses. These 'natures' are

not 'new things', new concepts, or new fields to be discovered by theoretical archaeology or phenomenological philosophy. Sciences other than archaeology already have a good grip on the stuff that they investigate. The wheel does not have to be reinvented.

By continuing the already established tradition of archaeology as a multidisciplinary and interdisciplinary practice, it can continue to develop also as a transdisciplinary one. Multidisciplinarity is research on a common problem area, but with each discipline keeping within its own area. Interdisciplinarity is the integration of research and theory on a common research question. Transdisciplinarity synthesizes theories and data even more profoundly, and borders between disciplines can be dissolved. I agree with Ingold (2001, 276) that any 'divisions . . . of inquiry must be relative rather than absolute, depending on what is selected as one's focus rather than on the a priori separation of substantive, externally bounded domains'. Both inter- and transdisciplinarity involve theoretical and interpretive challenges, and connect to challenging methodological integrations. Instances include methodological triangulation and various kinds of mixed-method research (Teddlie and Tashakkori 2003; Johnson and Onwuegbuzie 2004; Rothbauer 2008). But the greatest challenge is perhaps that of *attitude*: the different paradigms and sciences must be acknowledged as being relevant for providing answers to different questions or to different aspects of the same questions, and as having theoretical paradigms and methodologies that are scientifically relevant and valid.

Here are four examples. First, burials of horses and dogs are found across cultures and periods. Their frequency represents quantitative data. Yet they are not explicable solely by the economic value and practical uses of horses, but are qualitatively interpretable by understanding the relationships between animals and humans (Argent 2010; Jennbert 2011; Lindström 2012). However, interpreting how such relationships could develop is dependent on including knowledge about inherent characteristics of both horses and humans, explored and documented quantitatively within ethology, psychology and neurology. Second, whether the Great Fresco in the Villa of the Mysteries in Pompeii shows cultic activities is highly disputed in classical archaeology. One piece of evidence would be exploration of whether the persons in the fresco wear cultic clothes. Such clothes are qualitatively described as having certain properties, such as colour combinations with symbolic significance. By using a quantitative test (chi square) it was shown that the colour combinations on clothes were hardly arbitrary but intentional, supporting the hypothesis of cultic activities. However, the symbolic meaning of the colours needed to be discussed qualitatively from science of religion (Lindström 2009b; 2014). Third, archaeoethnology has long been a transdisciplinary field. Analysis of human remains requires extensive collaboration from various disciplines, and provides information on various levels; for instance, forensic dentistry, pathology and osteology give quantitative information regarding the physical conditions of the person found, both in life and during the decomposition process. But it is vital, in addition to archaeology, to employ anthropology and science of religion for the qualitative analysis of the cultic and ritual aspects of mortuary

practices. An understanding of natural and cultural contexts is dependent on knowledge in both the 'hard' sciences and humanistic sciences (Piontek and Vančata 2012; Myszka, Piontek and Miłosz 2012; Nilsson Stutz 2010). Fourth, archaeoacoustics is a new transdisciplinary field. Sounds of various kinds are used in rites and in many cultic places, cross-culturally and from different epochs. Many cultic places have structures that magnify sounds. The acoustics must be measured by quantitative methods. Sounds could be used to evoke emotional reactions in listeners, as known from qualitative descriptions. However, how sounds may have been used to make people compliant and manipulable is explicable by a theory from social psychology developed through experiment and quantitative analysis (Dolinski and Szczucka 2013; Lindstrøm and Zubrow 2014). Hopefully, these examples from varied areas and periods illustrate how different sciences, through theoretical and methodological integration, are already employed interactively to answer archaeological questions.

One could argue, against what I have said here about ontology, and against my advocacy for readmitting the 'hard sciences', that I may be ignorant of the critiques of science as a project that is epistemologically pure and free of values and potential political tendencies, and that sciences can be tainted with overt and subtle power relations. I am not. But somehow I have difficulty seeing that acknowledging ontological differences between objects/plants/animals/humans is politically, ethically and epistemologically problematic. In contrast, to *blur* them can be, as I have already argued regarding ethics and responsibility. True enough, sciences, both natural and humanistic-social, have been misused politically. Still (I may be terribly misinformed, but), I have never heard it argued that the 'hard sciences' – such as mathematics, glaciology, botany, astronomy, geology – are produced by particular structures of power or manipulated by race, wealth or gender. In contrast, these fields seem to be regarded as equally relevant and valued in all societies, from communist to fascist. In contrast, the 'soft sciences' – history, sociology, anthropology, theology – and the 'mixed hard-soft' sciences – like psychology and archaeology – seem much more prone to manipulation by politics and power. And it appears relevant and significant to this debate that 'Western science' (which is not only 'Western' in origin, but very much Arabic), is increasingly accepted globally. Under all political regimes and power relations, ('Western-style') universities are found and founded.

Conclusion

'Agency', the concept, its connections to ontology, and some of its uses within archaeological theory have been discussed and criticized in this paper. A metaphorically formulated conclusion is that the concept of agency is not a 'hammer' that can be used on every-'thing'. 'Agency' is not a 'one-size-fits-all' concept.

'Agency' becomes a logically meaningless concept if applied to all phenomena that move or in some way have an effect on their surroundings. Only animals and humans have agency proper. Human involvement/enmeshment/entanglement/entrapment with things does not imply that things have 'agency'. At best one may say that things have

a ‘secondary’, ‘reactive’ or ‘distributed’ agency. Or, one can use ‘agency’ *metaphorically* as ‘object agency’, ‘inanimate agency’, ‘network agency’ or ‘assemblage agency’, thereby indicating the mixed composition of different entities in processes. But used *non-metaphorically* it implies an attribution of agency to things and matter that is scientifically incorrect.

Despite our human inclination to project and attribute our own nature onto ‘things’ and our propensity to see ‘things’ as animated, we must, as scholars, accept that there are ontological differences between the living and the lifeless, effects and acts, effectants and actants. Ontology and epistemology must be based on empirical research.

That agency is debated within archaeology is nevertheless appropriate and important. The views of symmetrical archaeology and materiality studies are interesting in that they represent different ‘points of view’, perspectives, ways of seeing. They pinpoint and accentuate the importance of, and important interactions with, ‘things’ in human existence, self-understanding, self-definition and activity, and show how human agency emanates from such interactions and networks. And symmetrical archaeology re-establishes archaeology as primarily ‘the science of things’ and emphasizes materials and objects as its starting point.

Yet humans have not only created *things*. Also many animals and plants are artefacts, changed to suit our needs. We are interlocked, and locked in a perpetual embrace, with our creations, technologies and things. ‘Things R us’, Hodder (2012a, 38) jestingly (?) concludes. Human agency is actualized through/with/by/in things – or, more accurately, through/with/by/in humans–animals–plants–things connections. This interconnected, interactive, integrated, interdependent, entrapment, entanglement and enmeshment is a fact beyond dispute. But it is not a revolutionary new idea.

‘Existence’ is a mystery. There are many ways of being and nothing is static. *Panta rei* (Herakleitos). Time and space are relative and interdependent. There may be other universes. But given the universe we exist in, the kind of temporality and time–space modalities that we, human beings, exist within on this planet, and the characteristics of the perceptual and mental apparatus that we have, I claim that it is rational for us, personally and professionally, to distinguish between phenomena like ‘pebbles, peanuts, ponies and people’. Among other essential differences, they differ with regard to agency ‘in itself’.

One admittance and some appeals

I have, in a perhaps provocative way, re-presented and represented the antithesis to the dominating theoretical paradigms of symmetrical archaeology, materiality studies, New Materialism and parts of postprocessualism. Nevertheless, I think it is deeply relevant within archaeology to do research on how materials effect (metaphorically ‘act and inflict on’) each other and disintegrate over time; on how people, animals and things (metaphorically) ‘interact’; and on how people perceived themselves in the world and perceived the world they lived in (their social, material, psychological, spiritual and contextual entanglements).

But, it is fully possible to recognize and do research and theoretical analysis on the enmeshments of time and periods, past and present, and of entities as different as 'pebbles, peanuts, ponies and people' within a more 'classical' ontology, one which differentiates between effects and acts, effectants and actants, and reserves 'agency' as a quality of cerebral life forms, animals and humans.

By turning the focus a bit away from overinvolvement with philosophy, symmetrical archaeology and materiality studies can have great potential, particularly in exploring perception and experience of practical interaction (workmanship/craftsmanship) with materials/materiality and materials-in-themselves (as also Ingold suggests (2007; 2014)). But to use the same concept 'agency' in all these connections is scientifically imprecise and creates theoretical complications. And why preclude recognition of knowledge and insight from other (perhaps even 'hard(-er)') sciences? They may provide some complementary, interesting and relevant 'why-explanations' to the 'how-descriptions'. The grim ghosts of prejudice and 'political correctness' are haunting all exclusive paradigms.

Finally, it would be nice to see a development from *thesis* and *antithesis* towards *synthesis* in archaeological dialogues, theory and research. More theoretical and empirical inclusiveness, broader paradigmatic perspectives, more daring employment of divergent methodologies (mixed-method designs), more recognition of insights from other disciplines – in short, a further move towards inter- and transdisciplinarity. It might increase archaeology's 'agency'.

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Notes

- ¹ In the following I will use 'animism' (with quotation marks) for an undifferentiated belief that everything is alive and animated, whereas I will use animism (without quotation marks) for a deeper conception of (some) hunter-gatherers' and pastoralists' ways of describing the world.
- ² Also animals react with surprise and fear whenever objects (things) make sounds or move by themselves as if they were living. That animals find this uncanny indicates that also they differentiate between the living and the non-living. But domesticated animals do not respond with fear to the movements and sounds made by technical objects that they know humans use, or those that they use themselves. Domesticated animals are cultivated/encultured/used to machines in their environment, and can use them. (My great-grandfather's dog regularly took a ferry to visit a human friend).
- ³ One of Grøn's informants had a Ph.D. in medicine (Grøn 2010, 110).
- ⁴ This is adaptive from an evolutionary standpoint, although Ingold (2006, 11–12) declares it to be daft.
- ⁵ In urban Norway today, few things are met with stronger public outrage than the cutting down of large, old trees. They are loved living beings, although recognized as plants. An internationally recognized Norwegian professor in philosophy, Arne Næss, declared that

to him the Hallingskarvet mountain was a father figure. This was not regarded as strange, as many Norwegians have deep personal affection for mountains and other ‘things’ and places in nature. Still, Norwegians are not regarded as animists. Contrarily, a pervasive rationality characterizes Norwegian culture, according to the Polish philosopher and cultural analyst Nina Witoszek (1998).

- 6 ‘Cerebral’ means having a central nervous system, a cerebrum, a brain. It is a biological term. The term ‘sentient’, ‘having sensation and consciousness’, referring to brain functions, is primarily a philosophical term and less precise.
- 7 The Cambridge Declaration on Consciousness was written by P. Low and edited by J. Panksepp, D. Reiss, D. Edelman, B. Van Swinderen, P. Low and C. Koch, and publicly proclaimed in Cambridge, UK, on 7 July 2012, at the Francis Crick Memorial Conference on Consciousness in Human and non-Human Animals, Churchill College, University of Cambridge. It was signed by the conference participants in the presence of Stephen Hawking, in the Balfour Room at the Hotel du Vin, 7 July 2012, Cambridge, UK.
- 8 That cyanobacteria produced oxygen and therefore contributed to the creation of the Earth’s atmosphere did not make them responsible for that environmental change. But modern humans are responsible for polluting the atmosphere with CO₂.
- 9 Recognition of human agency as including moral responsibility is the backbone of all legal systems worldwide. To have rules and moral imperatives appears to belong to human nature.

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