# QUESTION 1: APPARATUSES

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Jessica Wyman in Conversation with John Reardon and Bettina Buck



Apparatuses: [lab experiments / research processes] are not mere static arrangements in the world, but rather apparatuses are dynamic (re)configurings of the world, specific agential practices / intra-actions / performances through which specific exclusionary boundaries are enacted. Apparatuses are boundary-making practices.

Thinking about the science of Ecology we are asking ourselves how we develop opportunities to "know the apparatus better" which for Gregory Bateson, in his book Steps to an Ecology of Mind (1972) is an integral part of knowing how to create phenomena (interconnectedness of living organisms, ideas, cultures, forms of imagination). We are trying to understand Barad's questions about the apparatus and the 'limits' of the apparatus? Barad asks: Is the outside boundary of the apparatus coincident with the visual terminus of the instrumentation? What if an infrared interface (ie, a wireless connection) exists between the measuring instrument and a computer that collects the data? Does the apparatus include the computer? Is the printer attached to the computer part of the apparatus? Is the paper that is fed into the printer? Is the person who feeds in the paper? How about the person who reads the marks on the paper? Or the scientists and technicians who design, build, and run the experiment? How about the community of scientists who judge the significance of the experiment and indicates their support or lack of support for future funding? What precisely constitutes the limits of the apparatus that gives meaning to certain concepts at the exclusion of others? The real knack, according to Barad, is getting to know when the experiment is working. Another kind of observation is what counts; the uncanny ability to pick out what is odd, wrong, instructive or distorted in the antics of one's equipment. The experimenter is not the "observer" of traditional philosophy of science, but rather the alert and observant person.

# **RESPONSE TO QUESTION 1: APPARTUSES**

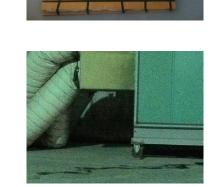
Perhaps we can see the idea of an apparatus as potentially instrumental, but the forms and modes of deployment are hardly beside the point. And to what extent do people understand that their presence is not simply about completing an operation within a bounded structure but that they are invited to make space for themselves within the framework that they have entered? This speaks for me in part to the problem of trying to program experience. Creating phenomena is something that we may desire to do, but just as an attempt to program affect or to attempt to locate it within any particular moment of a work seems to be setting up an impossible proposition, one of the great challenges in working this way is to account for the multiplicity of forms and modes of participation, and to signal that any and all such forms are desirable. In functioning as agentive and effective (producing of effect, rather than referring to a matter of success), all of the apparatuses exceed their capacities which to me is where this all gets so interesting. The very bounded structure is unable to be bound by its structure. At the risk of being "meta" in a retro / post-modernist way, this descriptive incapacity is very liminally exciting. All of this is about activity rather than passivity. These things do matter very much. And this is also where the language of affect, etc., has failed thus far, or at least fallen short. Trying to focus on these as systems of circulation requires that we reimagine how to internalize Barad's idea of how language is both insufficient and overrated and that the more we wrestle with the specialization of language the more we risk alienating anyone who is "outside" of such thinking as a form of discourse. Seeing people as being agentive in the relationships and capacities to effect change required that they need to be understood as already within the apparatus. not as after-the-fact comers. As ever, one of the challenges is not just to be committed to the reflexivity of process in theory, but to imagine how this functions. One where the boundaries are both already exceeded and meant to be further opened?

# **QUESTION 2: PHENOMENA**

Phenomena: [how animate and inanimate materials relate to one another...] "The primary ontological unit is not independent objects with inherent boundaries and properties but rather phenomena. Phenomena do not merely mark the epistemological inseparability of observer and observed, or the results of measurements; rather phenomena are the ontological inseparability / entanglement of intra-acting "agencies," ... 'matter' refers to phenomena in their ongoing materialization " (Barad, 2007, 151). In other words, matter "is not a blank slate," or "immutable or passive," but "a doing, a congealing of agency". "Matter is a stabilizing and destabilizing process of iterative intra-activity" (ibid). It is "neither fixed and given nor the mere end result of different processes. Matter is produced and productive, generated and generative. Matter is agentive, not a fixed essence or property of things" (Barad, 2007, 137). How does material relate to other material and how are we material and part of the material we are gathering and generating? How do these create the kinds of feedback loops which according to Hubert Zapf turns elementary information into complex structures, providing individuals with new vocabularies, new words and entire languages, which can potentially impact the imagination of an entire society, and thus offer more tools designed to interact with social life through breaking up closed circuits of dogmatic world views and exclusionary truth-claims in favour of plural perspectives, multiple meanings and dynamic interrelationships." (Zapf 2006, 56)? Moreover,









if apparatuses are as Farzana Dudhwala argues, the phenomenon they are measuring, then the researcher / experimenter must also be the phenomenon: they are part of the intra-action too. Barad: writes "We" are not outside observers of the world. Nor are we simply located at particular places in the world, rather, we are part of the world in its ongoing intraactivity." (Barad 2003, 828). We are also thinking about phenomena as not being the 'result' of laboratory experiments or research but that the laboratory experiments or the research process is / becomes the phenomenon itself. And that without those laboratory experiments or research processes, there is no phenomenon? In other words, "...apparatuses [lab experiments / research processes] are not mere static arrangements in the world, but rather apparatuses are dynamic (re)configurings of the world, specific agential practices / intra-actions / performances through which specific exclusionary boundaries are enacted" (Barad 2003, 816). Apparatuses are not interchangeable objects that sit on a shelf waiting to serve a particular purpose, but are constituted through particular practices that are perpetually open to rearrangements, rearticulations and other reworkings (...) any particular apparatus is always in the process of intra-acting with other apparatuses.

# **RESPONSE TO QUESTION 2: PHENOMENA**

Yes, phenomena are not just things that happen seemingly by accident but situations / events / experiences that are constructed consciously and / or as a matter of opportunity (which makes them no less intentional even if they are not a result of long planning or anticipation).

For me the question of intentionality within this set of acts is of interest but so is the matter of exposure to the "elements", e.g. those who were not part of the acts of construction but nevertheless become enfolded within the phenomenon at hand and without whom such a thing would never emerge beyond interiority (always a danger in any case). In the realm of intra-action, the focus on exchange within a mechanism / phenomenon serves to activate (or expose) that which may have been understood in archaic pedagogical models as unidirectional learning or information transit. Working in clear opposition to that narrative of linearity, the concern for intra-acting phenomena centres on the politic of exchange that desires the enfolding of all participants into the "batter" of engagement. This is a wonderful ideal.

And yet, I also cannot shake a degree of concern about how this manifests in a particular situation. The first concern is that of access to the space of production of phenomenon (the question of programming experience that I have already raised): while it is true that all comers inevitably func-



tion within the phenomenon, there is a degree to which this may not so readily admit the agency that is claimed for all who enter (as in: becoming part of the phenomenon in a way that is more than transient). In the phenomenon that has already been established, and in which the primary agents have already produced the phenomena of both the space in question and themselves, how can the actions effected by these other entrants / actors be not just taken into account but registered as phenomenal effects?

Additionally, I wonder about the claims that are made for the entry into the phenomenon of those "later" agents. The function of agents and phenomena are here interchangeable (as in: all people are agents and are therefore not just within the phenomenon but participants in its creation) should perhaps be viewed a bit askance. What I mean by this is that the critical faculties that have brought about commitment to just such a model should not be laid aside toward inadvertent production of another undesirable and politically suspicious model. I don't know of a way completely around this, as there is no such thing as a "perfect" manifestation, but certainly working this way is itself a demonstration of commitment to exploring alternative models that challenge traditional hierarchies of authority and interpretation. Undoubtedly this is complex in the realm of real human inter / intra-action, but it seems that such complexity is precisely the reason for diving into these waters - and ultimately the criticality and even the resistance that such experiences have generated (for me, anyway) have themselves become productive in thinking through the relation between the imagined and the "real" in the realm of phenomenon production.

### **QUESTION 3: INTRA-ACTIONS**



Intra-actions: [people / infrastructure] ...material apparatuses produce material phenomena through specific causal intra-actions, where "material" is always already material-discursive. That is what it means to matter. "Things" don't pre-exist; they are agentially enacted and become determinately bounded and propertied within phenomena. Outside of particular agential intra-actions, 'word' and 'things' are indeterminate. Matter is therefore not to be understood as a property of things but, like discursive practices, must be understood in more dynamic and productive terms, in terms of intra-activity.

There is vitality to the liveliness of intra-activity in terms of a new sense of aliveness. The world is effervescence, its exuberant creativeness, can never be contained or suspended. Agency never ends, it can never 'run out.' The notion of intra-actions reformulates the traditional notions of causality and agency in an ongoing reconfiguring of both the real and the possible...

We want to know how to work with the agency at the core of this making and unmaking. We want to know how and where we look for the particular kinds of exclusions, limitations that Intra-actions entail; intra-actions being constraining but not determining. In other words, new possibilities open up as others that might have been possible are now excluded; possibilities are reconfigured and reconfiguring. It is through these specific agential intra-actions that a differential sense of being is enacted in the ongoing ebb and flow of agency and that phenomena come to matter - in both senses of the word.

We want to understand how agency is 'doing' or 'being' in its intra-activity. We want to understand agency in its doing' or 'being' in order to understand matter as an agentive factor in its iterative materialization, and open sense of futurity which does not depend on the clash or collision of cultural demands. Rather it is inherent in the nature of intra-activity - even when apparatuses are primarily reinforcing, agency is not foreclosed.

We want to think about meaning as not a property of individual words or groups of words but an ongoing performance of the world in its differential dance of intelligibility and unintelligibility. In its causal intra-activity, part of the world becomes determinately bounded and propertied in its emergent intelligibility to another part of the world, while lively matterings, possibilities, and impossibilities are reconfigured. Discursive practices are boundary-making practices that have no finality in the ongoing dynamics of agential intra-activity.

Iterative intra-actions are the dynamics through which temporality and spatiality are produced and iteratively reconfigured in the materialization of phenomena and the (re)making of material-discursive boundaries and their constitutive exclusions. Exclusions are constitutive elements of the dynamic interplay (intra-play) of determinacy and indeterminacy. Indeterminacy is never resolved once and for all.

Exclusions constitute an open space of agency; they are the changing conditions of possibility of changing possibilities. Where change is not a continuous mutation of what was or the unravelling of what will be, or any kind of continuous transformation in or through time, but the iterative differentiatings of spacetimematterings. Does it matter what we bring together at a given time?









# **RESPONSE TO QUESTION 3: INTRA-ACTIONS**

I am very taken with Barad's concern that emphasis on language as an element that constructs the world and meaning is over-stated and often overtakes considerations of matter and, I would add for this particular purpose, the consideration of action itself (not to talk about action mattering, which would surely be just another instance of her fatigue with puns on "matter" as being about anything but [Barad,132]). In this way, I am also very attached to her view of performativity that sees the power of constitution located not just in language, or maybe in language at all, but in the capacity to contest "the excessive power granted to language to determine what is real" (Barad, 133) although I do think that power has enormous capacity to reveal (if not to constitute) the ways in which just such power structures manifest.

Consonant with this concern / commitment, I am interested in the strength of liminality and what happens in spaces that are seen as inbetween, marginal (guttural, even), overlooked, and relegated (to "otherness", for example). is for me a powerful locus of intra-action as it's also an inter-space. I love that which is between (inter-) and within (intra-) simultaneously, and would love for so many such operational spaces to be acknowledged as sites of productivity although enacting them politically can sometimes shine light on them so brightly as to (inadvertently) efface their productivity (a conundrum which I've already referenced).

That said, yes, it does matter what you bring together at a given time. It always matters. Even when what is of most concern is the opportunity for engagement and action, the pivot point always matters. There is no control over outcome, or even over discourse, but that which is meant to serve as fulcrum can never be beside the point. It is central, by definition.

Without a construct, there is no thing from within which to act and engagements would be external to the object (even if its objectness, for this particular aim, is somewhat beside the point). Here's the thing: actions are always intra- and only ever partially agential in that they are always at some level inter-dependent (on contexts) and almost always subject to revision, reinterpretation, resubjectivation, etc. But this is what makes it all so great and so interesting! No interpretation can be the final one, and the situational (inter)dependence that may confound positionality is precisely that which activates it.

It seems to me that there is no space in which investigation of intra-action is not relevant and resonant.









#### **QUESTION 4: AGENTIAL-CUT**

Agential cut: (specification of material apparatus / stable and unstable materials / how are ethics, reflexivity and criticality performed). Intraactions cut 'things' together and apart. Cuts are not enacted from the outside, nor are they ever enacted once and for all. On an agential realist account, causal relations cannot be thought of as specific relations between isolated objects rather causal relations necessarily entail a specification of the material apparatus that enacts an agential cut between determinately bounded and propertied entries within a phenomenon. The larger apparatus (e.g. the specific configuration of barriers, slits, particle sources and screens) is causally significant. It is not that a pre-existing entity receives a mark from a separately determinate entity but rather that the marking or specific materializing 'effect' identifies the agencies of observation as agentially separable from its 'cause' (the 'object') within the phenomenon. Cause and effect emerge through intra-actions. Agential intra-actions are causal enactments. We want to know how and where things become visible within the iterative differentiatings of spacetimematterings through looking at the specification of the material apparatus that enacts an agential cut between determinately bounded and propertied entries within a phenomenon. The larger apparatus (e.g. the specific configuration of barriers, slits, particle sources and screens) is causally significant. Does it matter what and whom we bring together in terms of how the agential cut enacts a resolution within the phenomenon of the inherent ontological (and semantic) indeterminacy? Or how in other words the agential cut - specific agential intra-actions / boundaries and properties of the components of phenomena become determinate and particular concepts (that is, particular material articulations of the world) becomes meaningful? And depending on what and whom we bring together how do we do this with an ethics, reflexivity and criticality in a way that things 'stop working', so that the apparatus is noticed, so that the entangled nature of phenomena and the importance of the agential cut and their corollary constitutive exclusions emerge. So that the normative concepts or designations such as normal or able-bodiedness are understood not as natural states of being but specific forms of embodiment that are co-constituted through the boundary-making practices that distinguish normal from abnormal or able-bodied from disabled. Depending on what and whom we bring into this space how can we make clear what it means to be normal, to be ablebodied is to live with / in and as part of the phenomena that includes the cut and what it excludes, and that what is excluded is never really other, so that being normal or able-bodied means being in a prosthetic relationship with the abnormal or disabled.





Barad asks "what would it mean to acknowledge that the "able-bodied" depend on the "disabled" for their very existence? What would it mean to take on that responsibility? What would it mean to deny one's responsibility to the other once there is a recognition that one's very embodiment is integrally entangled with the other"?

# **RESPONSE TO QUESTION 4: AGENTIAL CUT**

I want to propose that the agential cut is a splice. Although this term is perhaps less provisional than the way in which Barad seems to propose it, an ethic which is very rich, I see the splice as that which is enacted initially as / by a cut but which by definition is also a stitching together of things. That things are stitched together does not make them seamless, nor even fully integrated. The splice can still read as a cut or a jump but also denotes a joining-together of things that were not previously adjacent. Two things are thus brought together in (agential) relation and the meaning of this conjoining is not (necessarily) instrumental or even fully comprehensible.

Meaning itself is not only a cut (in the fabric / context that has been instantiated), it instigates the production of further objects through intraaction. More is always produced by the cut than can be anticipated in the co-situating of forms or objects that are not "normally" co-extensive.

The work is in continuing to cut (and splice). It is in this way that "norms" can be seen to be as provisional as that which has been coded as beyond or outside of the norm, queering normativity in just the way that the non-normative has been articulated as a powerful subject position (or set of positions) that destabilize the assumptions of power and authority within the hegemon. This, in a "queered" way, could perhaps normalize the prosthetic relationship that you speak of.

As for making this clear, though? All one can do is to make space for intraactions, for the realisms that (hopefully) may emerge through agential exploration of phenomena and apparatuses. As a project located within an ethics of radical subjectivity, clarity is desirable, a "nice-to-have", but not a marker of success and certainly not its guarantee.

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