

Theory

Karen Barad

- philosopher, American feminist theorist, and physicist
- New Materialism (white, pappa, apple..)
- Material have agency (warm, cold, trees, sun wall, circle, bads)
- Co-creation, resonance
- Entanglement/intra-action
- determinacy



- Postmodernism 1960-1990
- The world is a construction, especially via values of languages

- Intra-action (agency) ==> humans
 - There is/exists no world outside of us
 - Person outside the relation
 - Phenomenon/phenomena
 - Also Non-humans
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- *There is no pre-existing autonomous entity that acts entirely on its own; properties and capacities always emerge in relation to other things. A particular form of agency never belongs to an individual alone but always arises within the relations between entities.*





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- Niels Bohr (1885 – 1962)
 - Danish theoretical physicist
 - material animated
 - active phenomena (co-create)
 - Things bring each other into meaning and being
 - exist not individual beforehand
 - acquire their properties and meaning/entanglement



Discussion light: fotons/wave

some measurement setups

*Light can be both a particle and a wave,
but you can't measure them
simultaneously.*

*The more precisely you measure the
particle, the less you can measure the
wave, and vice versa.*

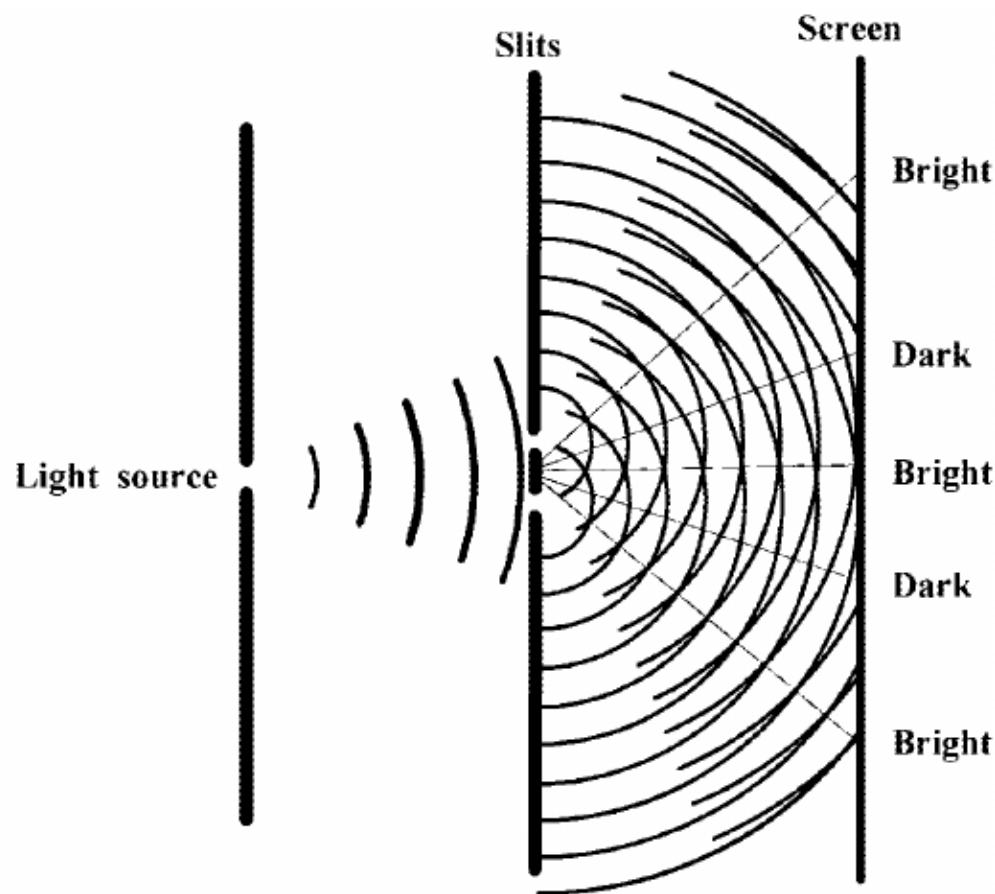
Knowledge/Being

Heisenberg/limitation.
There's an absolute with absolute
values/disturbed

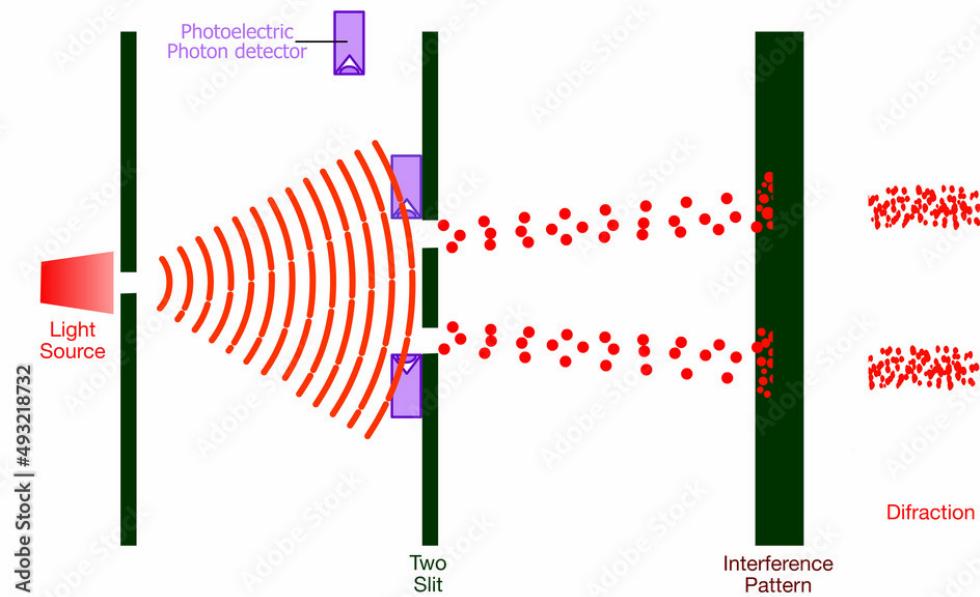
determinacy and indeterminacy



- In Heisenberg's view: there is a supposed "background reality" (the thing-in-itself) that pre-exists, and our knowledge of it is limited by measuring equipment or our brain. Being and knowing are separate: first there is reality, then our attempt to know it.
- In Bohr (and Barad's view): reality arises in interactions between measuring equipment, particles, people, and expectations. What something is (ontology) cannot be separated from how we know it (epistemology).
- We are not outsiders to the world but part of it in its constant intra-activity. There is no reality “out there” just waiting for us to discover it; reality is co-constructed by the process of measurement.



Double-Slit Experiment (with observer detector)



Non-Human Ethico-onto-epistem-ology

silence/nest-stone/control populations/plague insects==> affect trees/gardens/plants ==>
pesticide, birds/polli



spacetimemattering

- intra-action (space-time-matter)
- constantly constitute each other ==> phenomena ==> performance
- space and time are not absolute containers (beforehand), in which things happen, but that they themselves arise in and through intra-actions.
- Example: lightning bolt/thunder: how this brings forth space, time, and matter themselves in this event.

Space:

a horizon ,light/touches horizon, reflection
seize, cloud formations, a lightning bolt.
echoing sound

Time:

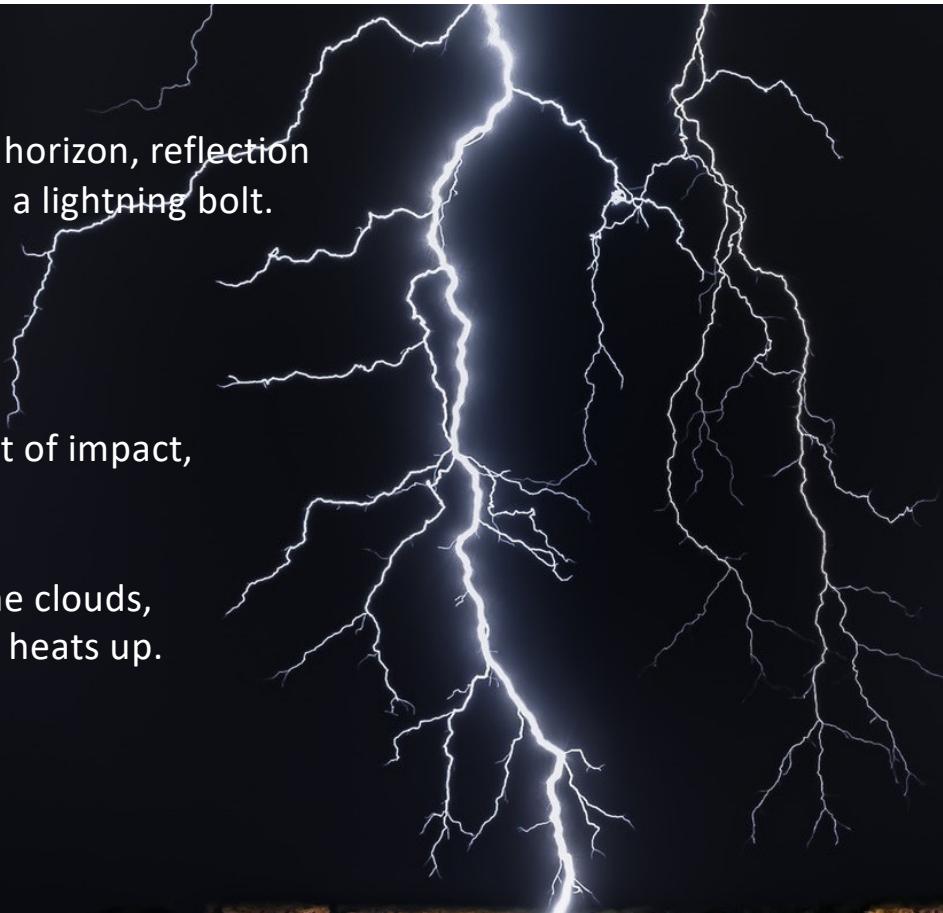
distance/seize,
appears in the duration
of the flash, the moment of impact,
the aftershock.

Matter:

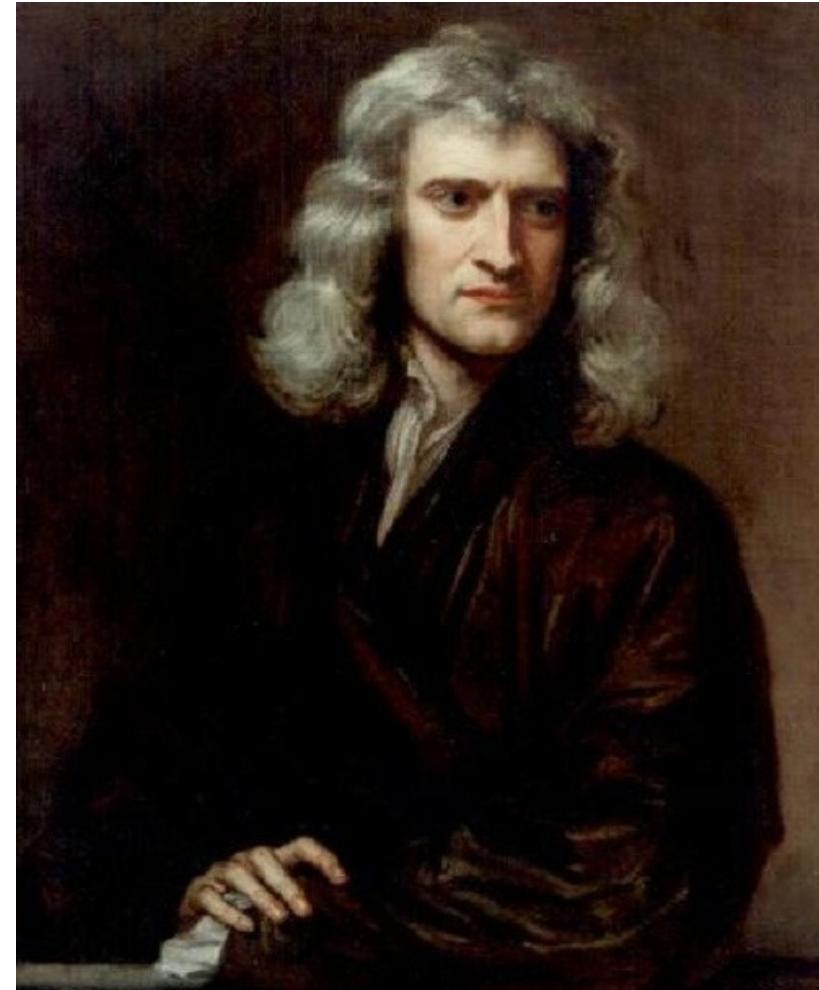
the charged particles, the clouds,
the air that vibrates and heats up.

Person:

fear or fascination



- For Newton, space and time are absolute containers: they exist independently of what happens in them.
- Space time containers ==> beforehand
- thunder (matter) is shown against the background of space and time (box)
- Matter moves within that fixed space and time, as if it were billiard balls on a billiard table.
- For Barad, there is no predetermined space and time.
- Space, time and matter arise together in phenomena, through intra-actions.
- So lightning is not something that takes place in an already existing space and time, but produces space, time and matter itself in that event. (fear)



Sir Isaac Newton (1643–1727)

Space-Time-Mattering Ethico-onto-epistem-ology







making straight rivers meandering

- Olafur Eliasson: Playing with space and light | TED Talk - TED.com, 2009





Eliasson, New York Waterfalls 2008

“[...] there is one thing about falling water which is very much about the time it takes for water to fall. It's quite simple and fundamental.

“[...] If you stand still, the landscape doesn't necessarily tell you how big it is. It doesn't really tell you what you're looking at. The moment you start to move, the mountain starts to move. The big mountains far away, they move less. The small mountains in the foreground, they move more. And if you stop again, you wonder, "Is that a one-hour valley? Or is that a three-hour hike, or is that a whole day I'm looking at?"

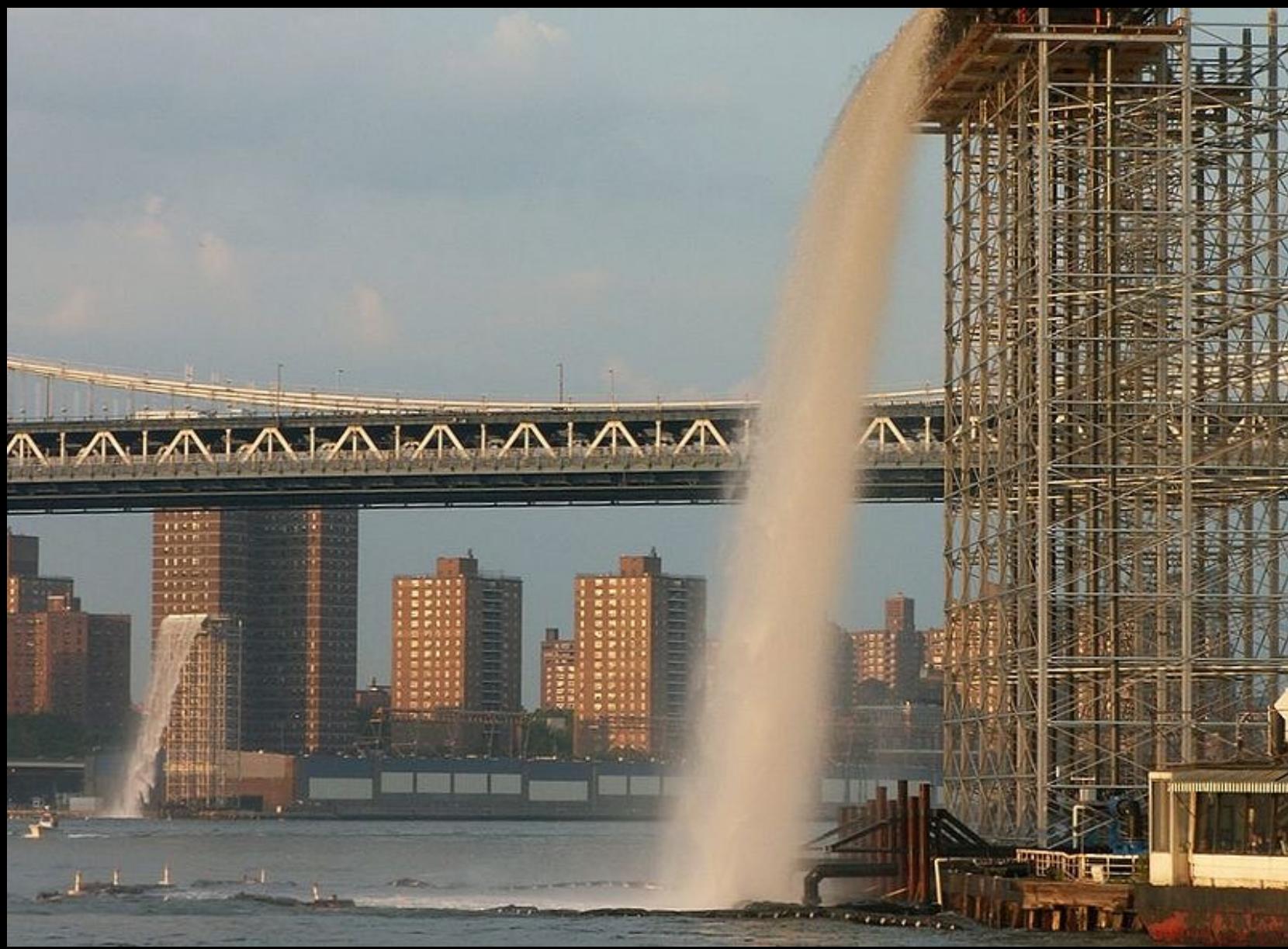
Elliason:

"If you have a waterfall in there, right out there at the horizon; you look at the waterfall and you go, "Oh, the water is falling really slowly." And you go, "My god it's really far away and it's a giant waterfall." *If a waterfall is falling faster, it's a smaller waterfall which is closer by -- because the speed of falling water is pretty constant everywhere. And your body somehow knows that. So this means a waterfall is a way of measuring space".*



It was also about giving the city a sense of dimension. And why would we want to do that? Because I think it makes a difference whether you have a body that feels a part of a space, rather than having a body which is just in front of a picture.

So if I have a sense of the space, if I feel that the space is tangible, if I feel there is time, if there is a dimension I could call time, I also feel that I can change the space. And suddenly it makes a difference in terms of making space accessible. One could say this is about community, collectivity. It's about being together.





Eliasson, New York Waterfalls 2008

Ethico-onto- epistem-ology

Green river in Tokyo





The green dye is not environmentally dangerous, but it obviously looks really rather frightening. And it's on the other side also, I think, quite beautiful, as it somehow shows the turbulence in these kind of downtown areas, in these different places of the world.

The "Green river," as a kind of activist idea, not a part of an exhibition, it was really about showing people, in this city, as they walk by, that space has dimensions. A space has time. And the water flows through the city with time. The water has an ability to make the city negotiable, tangible. Negotiable meaning that it makes a difference whether you do something or not. It makes a difference whether you say, "I'm a part of this city. And if I vote it makes a difference. If I take a stand, it makes a difference."

This whole idea of a city not being a picture is, I think, something that art, in a sense, always was working with. The idea that art can actually evaluate the relationship between what it means to be in a picture, and what it means to be in a space. What is the difference? The difference between thinking and doing.



Who decides what reality is?

How do we configure the relationship between our body and the space?

How do we reconfigure it? How do we know that being in a space makes a difference?

What consequences does it have when I take a step?" "What does it matter?" "Does it matter if I am in the world or not?" "And does it matter whether the kind of actions I take filter into a sense of responsibility?" Is art about that? I would say yes.
