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COMMENTARY TO ANNE DIPPEL'S *METAPHORS WE LIVE BY. THREE COMMENTARIES ON ARTIFICIAL INTELLIGENCE AND THE HUMAN CONDITION*

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Reading the provocation of Anne Dippel (2019) I wonder how much of her reflections emanate from her experience as a mother or rather as an STS scholar. Not to say that one excludes the other, of course, but her reflections seem to me to be the result of a long concoction of STS readings. However, since I have the impression that I have been invited to write this commentary because I am too a mother (and a feminist STS scholar, mind you) I will first engage with a commentary on babies and intelligence.

Anne Dippel writes a commentary about the limits of the metaphor of *human intelligence* as translated or mobilized in Artificial Intelligence (AI). Based on her fieldwork with computer scientist and physicist working at CERN, she reflects on the limits of the metaphor between artificial intelligence and human intelligence while holding her newborn. It occurs to her to be a far-fetched metaphor. Her baby, in contact with her body and under her care learns and grows. They both interact. Smile. Smile. Giggle. Giggle. Pull tongue out. Pull tongue out. A tiring labor of love and nourishing care.

When my daughter was around 15 months old, someone showed me a YouTube video entitled *The Still Face Experiment*. In the video you see a baby girl and her mother interact. They are working together and they learn to respond to each other. They interact, they are responsive to the world and to each other. The mother greets the baby. The baby greets back. They are working together and they work to coordinate their responses. The baby points her finger to the ceiling, the mother follows the finger and looks at the ceiling. Then, for the experiment's sake, the mother expression turns blank. The baby, in response, does all her tricks to get her mother back. She smiles, points to things using her finger, makes noises, moves her body violently, screams, and still she doesn't get the reaction of her mother. The baby girl becomes very distraught. She needs her mother responsiveness. What a lesson about intelligence! The baby, in the nourishing, emotional, and safe relationship with the mother, thrives. Learns. Becomes a tiny human being. Learns how attune herself to the other human being she has in front. Develops her *intelligence.* What is intelligence after all? For me this video actually shows a crucial part of what intelligence may be –something learnt in context, in the emotional interactions with others and the environment, a responsive dance of coordination, dissonance, and repair. The mother, after a while, gets her responsive face back and starts to interact again with the baby girl, repairing the brief break. The lesson may very well be, in Anne Dippel's text, to try to think harder outside of what seems to be a very narrow definition of intelligence embraced by AI (modeled mainly on reductionist views of human memory and visual cognition). How many intelligences, developed in what scientific contexts, and for what purposes?

Anne Dippel touches upon and laments the reductionist vision typically hold by her AI interlocutors of intelligence. What is more, she worries, that such a reductionist view might have wider political implications, including a positivist view of AI progress with deep roots in a Darwinist view of humanity. She worries that «while computer science is bringing man to the centre, natural culture research decenters him» (Dippel, 2019: 32) that is, there is a reclamation, she detects, in computer science of Man with capita M in a quasi-demiurgical power position. Scary indeed. When the vision of man in AI relies on a vision of a politics of domination and neoliberal positivism, Dippel writes, it reproduces relations of domination and post-colinialism. That ideological ground is disastrous.

What to do? How to intervene? I keep asking myself. Anne Dippel has been doing fieldwork for years in the AI environment, probably working together with many different researchers, reading essays, getting attuned to the epistemological problems faced in AI debates. I wonder if she has sent her paper for comments to her interlocutors and gotten feedback from them, because the picture she makes of them is not a very handsome one. The simplistic view of intelligence Dippel accuses colleagues in AI of hailing, I wonder, is an anecdote of her fieldwork or representative of the wider field? Little do I know of the discussions in the field, but my colleague Marieke van Erp points out to me that «The connection between cognitive processes/learning and embodiment has been thoroughly debated and investigated by roboticists such as Rodney Brooks for at least 30 years» (cf. Brooks, 1990). Maybe there is hope?

She ends her essay asking that *humans* should «take responsibility instead of dreaming of outsourcing to a techno-god» (Dippel, 2019: 40). The question is more complicated though. How can one intervene, how can one assume the responsibility that Dippel asks us to assume when in fact the design and conceptualization processes of AI technologies are closed-off and we are limited to receiving the results of those design processes? How to intervene then? How is *she* intervening? This is a long question in STS. While in STS there seems to be an increased interest in experimental projects of intervention (Zuiderent-Jerak, 2010), the question might be how to make STS useful to the practices it engages with (Bal and Mastboom, 2007). I don't have an answer and after reading Dippels text I wish she may have a situated answer for the field of AI where she works as an anthropologist.

To finish, I would really like to read a further comment elaborating on the issue of human exceptionalism in AI. Because indeed, not only humans do have intelligence(s), other creatures do learn, think, make choices (inspiration can be found in the work of Vincianne Despret). And, to add to the complexity, humans do have many intelligences (memory, for example, is not one). Neuropsychologist point out to the many ways to train memory a child has. The metaphor sometimes used is that memory is not *a* muscle to be trained, but is formed by a myriad of different muscles, thus, many different ways for memory acquisition and *storage*. Fascinating complexities worth our attention.

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REFERENCES

Bal, Roland & Femke Mastboom (2007). Engaging with Technologies in Practice: Travelling the Northwest Passage. *Science as Culture*, 16 (3): 253-266, DOI: 10.1080/09505430701568651

Brooks, Rodney A. (1990). Elephants don't play chess. *Robotics and autonomous systems*, 6 (1-2): 3-15.

Despret, Vincianne (2016). *What would animals say if we asked the right questions?* Minneapolis: University of Minnesota Press.

Zuiderent-Jerak, Teun (2010). Embodied Interventions—Interventions on Bodies: Experiments in Practices of Science and Technology Studies and Hemophilia Care. *Science, Technology, & Human Values,* 35 (5): 677–710. https://doi.org/10.1177/0162243909337119