7. Conclusions and possible implications

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Conclusions and possible implications

The last three chapters have tried to sketch a picture of the way our understanding of reality is changing. The authors have invited you to sit in on their conversations, so that you can make up your own mind about the ideas being discussed. As you can see, there is some consensus between the contributors to the dialogues on the form this understanding is taking. This final chapter briefly sketches this new paradigm by way of summary and then talks (even more briefly) about what some of the implications of viewing our reality this way might be.

In Chapter 4, we heard that reality may be a process that does not take on a classical, physical form before an observation is made. The participants marvelled at the puzzle of how making an observation can ever cause a possibility to take on a concrete form (Erik said about this: ‘When the students ask, we tell them to stop asking questions and to just do the math.’), an issue that is not resolved by realising that probabilities do not actually come in the form of a wave. This raises the question of whether an active role needs to be reserved for a conscious observer. Some of the contributors went on to speculate that the underlying structure of reality may be something like quantum information, a sea of possibilities in motion which all aspects of reality (objects, consciousness, meaning) form out of and revert back to. This conceptualisation is similar to some yogic teachings that stress that we are part of a larger whole. To name but one example, the Indian yogi and mystic Sadhguru has pointed out that we would be less inclined to cut down our forests if we considered trees to

80 This idea discussed with Alex is heavily based on the work by David Bohm and described in his 1980 book *Wholeness and the implicate order.*
be a necessary part of our breathing apparatus, responsible for producing the oxygen our lungs absorb. 81 & 82

In Chapter 5, the participants reflected on quantum entanglement and whether it may play a role in the synchronous coincidences we sometimes experience in our daily lives. While there is no direct evidence for this, we learn that it seems safe to assume that entanglement is a much bigger part of our (physical) universe than we realise. The authors also note that such synchronous experiences often feel meaningful to us, and may even be useful to guide us towards the right path, as the expression ‘being in sync’ suggests.

In Chapter 6, the contributors noted that the process of reality seems to be stable and to have the (teleological) tendency to evolve toward more complexity, possibly because we focus our observations on the tail end of a Gaussian distribution. If it didn't have such a tendency, reality would be random. They then went on to speculate that awareness may be an inherent feature of reality. Our reality may then be formed by a dual-aspect Zeno-continuum binding together flashes of awareness on the one hand and physical reality on the other.

They went on to reflect on the nature of brain function, and the fact that our senses filter information, limiting the amount of information we have access to rather than maximising it. This realisation makes it tempting to speculate that the way we perceive the world around us is a simplification. It could also be taken to suggest that our (narrow) sense of self, individual consciousness, may be the result of this filtering. One speculative consequence of that may be that our individual consciousness is in fact a subset of a greater (even universal) consciousness that may form the dual aspect expression of our complex physical

81 In an interview with Anette Dixon, Vice President of the World Bank, https://www.youtube.com/watch?v=Qunpw46qxxk
82 You may notice that the authors have drawn some parallels between the dialogues and teachings from other philosophies. This is not coincidental. They believe it could be beneficial to our understanding of reality to reflect on the limits of our own framework by contrasting it with others.
reality. We note the similarity of this idea to some ancient religions and the ideas of some contemporary philosophers-of-mind.

Clearly the ideas discussed in this book are not well worked out, and in no way scientifically proven. The idea was not to provide a rigorous scientific model. Indeed, the authors feel it is too early for that. Rather, they wanted to sketch the changes that are taking place in the way we view reality. Such thinking is not yet widespread in science and the implications will only really become clear when these ideas have been further developed. As such, it may be too early to suggest implications. However, Sarah & Ton could not resist entirely, so here are a few early thoughts from the conversations:

Physics: Some of the implications from quantum physics seem to be that the reality we perceive around us is not so absolute and classical as we are used to thinking. The physicists we spoke to both indicated that the point of view of the observer, or the question asked by the observer matters. Furthermore, there is a lower bound to the level observations of external reality can be made at, as the energy that is necessary to make a measurement comes in minimal packages (quanta). However, Erik suggested that although we can’t directly measure the underlying structure of reality (information) because of the observer effect, there may be ways to probe it, similar to the way Einstein deduced the existence of molecules.

Psychiatry and psychotherapy: One idea in this book is that there is an inherent tendency in nature to acquire more complexity, including in human beings. This would imply that people have a natural inclination to want to fulfil their potential and give meaning to their lives. This is something that can and should be capitalised on in psychotherapy and psychiatry, where it may be helpful to place less emphasis on diagnostic labelling and more on helping individuals identify their blockades and use their own capabilities to work around them. Ton has started using this in his psychotherapies and plans to write a paper on his professional experiences.
International relations: Alex said the following about implications for his field:

In my field, International Relations, the Newtonian picture of individual atomised states, conflict is the default mode. You just assume there is going to be conflict. And then the puzzle is, well how come states cooperate sometimes? In the quantum view, it is the opposite: Cooperation becomes the norm and conflict would then be the deviation. And so it comes down to a reversal of the burden of proof or what is taken for granted. I think if you take for granted that we are going to cooperate most of the time, if that is your starting point of the theory, it is going to lead to very different kinds of theorising.

The more quantum-oriented constructivist view is more social, more ideational. The dominant metaphor of the realists is billiard balls smashing each other, countries banging up against each other. Whereas for the constructivists, it is all about ideas and meaning.

Tipping point: One thing that was also discussed a lot was what is necessary for these ideas to penetrate further. Herman said the following:

That is where the tipping-point theory comes in. I often use that in lectures if somebody gets up and says: ‘It’s a great story you have, Herman, but it’s never going to happen.’ I say: ‘It is going to happen, and let me tell you why.’ And then I explain the tipping-point theory. I start with the physical world. For example, when water turns to ice, there is a tipping point where so many water molecules have aligned into a crystal structure that the rest follows. And then there is the story of the algae in the lakes in the Veluwe:83 the lakes were clear, and suddenly they clouded in a single event. What happened was that nutrients from agriculture were leaking into the water and causing the algae to grow. When they reduced the nutrient supply, the lakes transitioned back to being clear in a single event again.

83 A national park in the Netherlands.
Ton: So, there is no gradual transition?
Herman: No. The work that you do with people individually in psychotherapy and the work that I try to do, mostly through lectures, is to try to ‘recharge’ people. We are trying to recharge the individual particles in society, so that they will view their realities from a different perspective. When enough people have achieved that, we will have reached tipping point and our common perception of reality will shift.

To conclude, Sarah and Ton feel that they have embarked on a wondrous journey exploring the limits of our (scientific) understanding and they wanted to share some of the wonderful conversations they had with you, the reader. Far from being able to present hard conclusions from these dialogues, they feel the reshaping of our paradigm has only just begun and are excited to see what direction our understanding of reality will take. Perhaps the most important conclusion they have drawn from these meetings is that we, as humans, have a great responsibility for the reality we inhabit. As Henry put it:

Ultimately, it’s about us...