

Causality and the Human Condition

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INTRODUCTION

In this essay I will look at different ways in which psychology, social context and evolution shape human cognition, influence our outlook and inform our notions of causality in the world.

I

The notion that our thoughts and feelings have a direct and unmediated agentive and causal effect on the world outside of our bodies is persistent in our thinking. We can see this line of reasoning in biblical proverbs (*“faith can move mountains”*¹), it is a fundamental tenet of various new age thought systems² and it appears as an explanation for improbable co-occurrences in

¹ Matthew 20:17

²A S. Berger; J Berger, (1991). *The Encyclopedia of Parapsychology and Psychical Research* (1st ed.). New York: Paragon House. p. 341. ISBN 1-55778-043-9. “Psychokinesis (PK). The response of objects such as dice or the environment to a person's wishes is commonly labelled 'mind over matter'.”

every day life (“*just as I was thinking about traffic accidents my aunt called and said she’d been in a car crash*”). We constantly have to remind ourselves of the subjective nature of taste and values and it’s an open question whether we ever truly internalise the insight that our feelings and preferences lack any external validity. Most of us learn to accept that people have different taste in food and music but when it comes to more important issues, like politics or ethics, we have a hard time reconciling ourselves with the fact that people might genuinely have different preferences. The stronger the emotional component of a particular point of view, the harder it is to tolerate deviations from what we perceive as the right way of seeing things. From the inside, it feels like our emotional state is a direct and inevitable function of what happens around us and that our preferences and reactions are merely the obvious and natural way to respond to the way the world is. When confronted with other people who feel and respond differently to us in similar circumstances, their behaviour requires an explanation. A common way of resolving this conundrum is by reference to some quirk or peculiarity in their personality³. Thus, we have a strong tendency to view our behaviour as externally caused and the behaviour of others as driven by internal traits. The same pattern emerges when it comes to our convictions. We believe what we do because our beliefs are true, otherwise we wouldn’t hold them. This feeling of having mostly correct beliefs about the world seems relatively constant, regardless of how often we change our minds about specific propositions. And the more strongly we hold our beliefs—be they ideological, religious or ethical—the more they appear to be given by the nature of things. As to those other people who have views that are incompatible with ours, well... they must surely be either ignorant, mistaken or insincere.

³ E E Jones, V A Harris. “The attribution of attitudes”, *Journal of Experimental Social Psychology*, Volume 3, Issue 1, January 1967, Pages 1–24

The infant is presumably incapable of telling external events apart from the internal experience. Experiments into phenomena such as object permanence ⁴ and the other minds problem ⁵ clearly indicate that the distinction between internal and external phenomena is not innate but rather something we have to learn from experience. While it is tempting to assume that these problems are effectively solved once and for all as we mature, it is likely that they are a permanent facet of our thinking; a default pattern of cognition that we fall back on even as adults when our higher cognitive function fail us, such as under stress or when the emotional or social stakes are high enough.

Egocentric biases are part and parcel of human cognition and they influence our conception of causality. As an example, look at the train of thought: *“I never used to get any response when I was flirting, but then I started to believe I was attractive and all of a sudden people started paying attention to me”*. This is a perfectly acceptable construction for most intents and purposes, as long as we treat it as a metaphor or a description of our subjective experience. But there is reason to believe that we tend to take this type of account rather too literally, leading to a causative model of the following kind: *In my initial state I desired some good X. This good was unavailable to me at the time. I then acquired belief Y after which good X became attainable. Therefore it was the presence of belief Y that caused good X to become possible*. The error in this line of reasoning is not immediately apparent as it does take into account the relevant data and provides a causal explanation for the new opportunities that arose in this simple situation, but taken at face value and

⁴ J W Santrock. (2008). A topical approach to life-span development (4 ed.). New York City: McGraw-Hill. ISBN 978-0-07-3133768.

⁵ S. Baron-Cohen. (1991). Precursors to a theory of mind: Understanding attention in others. In A. Whiten (Ed.), Natural theories of mind: Evolution, development and simulation of everyday mindreading (pp. 233-251). Oxford: Basil Blackwell.

extrapolated further it leads to ideas and conceptions like the evil eye, thinking yourself rich or the paranoid delusions about causing accidents to happen in the world by merely thinking about them which sometimes occur in sufferers of OCD⁶. The above example is of course a case of the post hoc fallacy and a more plausible explanation for the chain of events is that it was the (unstated) previous belief that we couldn't find a mate that made us behave in such a way that we didn't get any attention. So, rather than the new, positive belief in our ability directly creating previously non-existent opportunities, it was our original negative belief that led to behaviour that denied us access to a number of opportunities that were always available in principle.

It has been argued that the human mind developed in a context where social relations were the primary currency of cognition ⁷. Our current understanding is that the prefrontal cortex evolved largely to handle the cognitive load caused by managing the increasingly complex social interactions in tribal society ⁸. A substantial part of this added capacity is devoted to our language faculties, without which culture as we know it would likely not have come about. Language also facilitated, if not outright enabled, rational thought, abstract reasoning and the ability to construct intricate analytical models which helped give humans an advantage in the

⁶ J. Thompson-Hollands, T J Farchione, and D H. Barlow, "Thought-action fusion across anxiety disorder diagnoses: Specificity and treatment effects", *J Nerv Ment Dis.* 2013 May; 201(5): 407–413.

⁷ R. I. M Dunbar. (1998). "The social brain hypothesis". *Evolutionary Anthropology: Issues, News, and Reviews* 6 (5): 562–72.

⁸ T Grossmann, 'The role of medial prefrontal cortex in early social cognition'. *Front Hum Neurosci.* 2013; 7: 340

pleistocene⁹. But our default understanding of the world stems from interactions with people: we use concepts like intent, volition, agency and will to make sense of phenomena we observe. These are very useful heuristics when it comes to explaining and predicting human affairs. But this mode of explanation falls flat when it comes to non-human objects and systems. A good illustration of our anthropocentric bias is our vastly different reactions to harmful events caused by people, such as terrorist attacks, as opposed to impersonal processes, such as malaria and starvation. While we empathise with the victims in both cases, only dangers caused by the direct actions of other human beings trigger the massive kind of global response we saw after the 9/11 attacks, even though, over time, the adverse impact on human well-being caused by infectious disease and poverty massively outweigh the direct consequences of all global terrorism in history. We generally seem to pay more attention to cases where we can identify other people as culpable for a disaster or catastrophe than to harmful events where the immediate cause is an inanimate process, even if a utilitarian or consequentialist analysis would compel us to direct our efforts and resources toward preventing or mitigating the harms of events of the latter type. Compared to explanations based on the complex interactions of non-volitional processes, stories involving humans or other moral agents seem to have a special appeal to our moral intuitions. If it is indeed the case that we have an innate bias in favour of explanations where the principal actors are humans, that would go a long way toward explaining the popularity of conspiracy theories.

⁹ I V. Chernikova, 'Evolutionary Approach to Understanding Language and Thinking'. *Procedia - Social and Behavioral Sciences*, Volume 200, 22 August 2015, Pages 101-106

II

Looking back at recorded history we note that the earliest stories that purport to explain the world almost invariably do so by extrapolating human characteristics and experiences onto the physical world. Thus, the reason why the ship sank was that the ocean deity was angry with the sailors; the infected leg got worse because the tree spirit that lives in the tree bearing the medicinal leaves had not been given the right offerings, and the explanation for lightning must surely be that there is a very large man up in the sky hitting a very large anvil with a very large hammer. After all, the only way of producing sparks we know of is slamming solid objects into each other. And as below, so above. The cosmogony of the Judeo-Christian bible is the story of a supernatural being who wills the world into existence and uses words to create its basic elements; he is jealous, vengeful and desires praise. This entity, especially in the earlier books of the bible, seems obviously modelled on a bronze-age king, blown up to fantastic proportions. Our understanding of the physical universe took a giant leap when we collectively managed to lift ourselves from the view that everything starts with us. To a mind that knew only people, people would not only be the measure of all things but the default template with which we would seek to understand the world around us. And so, as we began to see the world as a set of complex interacting inanimate systems, we moved from an evil spirit model of disease via cardinal humours to germ theory, we replaced the geocentric world view of antiquity with heliocentrism, and the bronze age-king theism gave way to the deism of Enlightenment which in turn paved the way for modern atheistic or agnostic descriptions of nature.

At this point in history our explanatory models of the universe have become so technically complex and so far removed from our day-to-day modes of thinking that they no longer make intuitive sense to us. We trust physicists because they are authorities and we trust engineers

because their contraptions work, not because we have a deep understanding of why they believe the things they do. This circumstance is reflected in certain post-modern takes on the philosophy of science and various sociological descriptions of the world ¹⁰ where science and rationalism are construed as “just another point of view”, no more or less epistemically valid than any other type of account. While there are certainly merits to analysing the activities of scientists and the scientific world view from a social perspective, and while it is beyond doubt that much of what makes up our reality is socially constructed (institutions, traditions, culture, language, etc...) it seems equally indubitable that the hard-line rejection of universal truths and objective reality in some schools of thought is a testament to our tendency to place ourselves at the centre of creation and a telltale sign of our relatively poor **intuitions about** non-human phenomena. We simply do not understand the world of inanimate stuff very well and we default to explaining phenomena in terms of beliefs, intent, will and agency; all of which are eminently useful concepts when analysing social interactions but are more often than not woefully inadequate for understanding non-social systems.

CONCLUSION

Our conception of causality is heavily influenced by various fallacies and biases arising from the limitations of our perceptual system and the strong social focus of our cognitive apparatus. Since the human mind evolved in a setting where the affairs of other people were the primary

¹⁰ H. M Collins. (1981). "Stages in the Empirical Program of Relativism - Introduction". *Social Studies of Science* 11 (1): 3.

concern, our intuitions sometimes cause us to make mistakes when we interact with complex inanimate, non-volitional processes, and our understanding of the world around us draws heavily on anthropocentric notions such as will, intent and agency which do not necessarily play an important part in the workings of the universe at large. In spite of the massive amounts of knowledge we have accumulated as a species and the increasingly precise rational models we have developed since the scientific revolution, to a large extent, we still have the minds of hunter-gatherers adapted to life in the pleistocene, with all that entails.

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