1 Thought on Responsability

1.1 Observation 1

For some deterministic systems (more specifically *chaotic systems*, a small change in initial condition can alter the long-term behaviour of the system very strongly. In the inverse sense, it is very diffucult to determine correctly the initial condition from a given long-term behaviour. This observation is the basis for some system in cryptography (i.e. easy in one way, very difficult for an attacker without the knowledge of how encryption worked in the other way).

1.2 Observations 1 applied to causal responsability

In a causal sense, there is always someone responsible. However, based upon Observation 1, correctly tracing back who exactly is causally responsible for certain actions can be very hard. For example, who is responsible for the studies that student X undertakes with great honours (his/her parents, school teacher...). One may then assign partial responsabilities.

1.3 Open questions

The questions that are bothering my mind are the following:

1. What's the precise difference between attributive and causal responsability? Maybe causal responsability does not lead to attributive responsability in cases where an action happened by chance (without intention) or by lack of knowledge.

2. Does the reasoning from Section 1.2 also hold for attributive responsability? This question is also concerned with the question to what extent attributive responsability is necessary/wishable in every-day life. Here one example comes to my mind. After the 2019 fire in Paris' Notre Dame, people filed a complaint to unknowns (news article [1]). This shows that, in some sense, responsability is expected in society. It is very hard to trace back who could be held responsible for 'not warning for lead intoxication'.

3. Is Einstein responsible for the death of people? Maybe he could have known that people can use his inventions maleficiently? More generally, this question addresses the ethics of (pure) sciences.

   This question also deals with the definition of the frontier (if there even is a frontier) of a designer's responsability when he designs a system. One could perhaps argue that a designer who cannot predict the behaviour of his designed product in all possible circumstances, should not be allowed to produce that product, as he is then unable to control his product's actions. The production of such a product is then reprehensible for the same reason why it is reprehensible to loose a lion on the streets (one is not completely sure if the lion will act agressively or not). Here enters a possible connection with killer robots.

References

[1] Bert De Vroey, "Klacht tegen onbekenden na brand in Notre-Dame: "Men had moeten waarschuwen voor loodvergiftiging"" *VRT Nieuws*, July 30, 2019, `https://www.vrt.be/vrtnws/nl/2019/07/30/klacht-tegen-onbekenden-na-brand-in-notre-dame-de-overheid-had/`.