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*“Machines that make autonomous decisions are functionally equivalent to humans and other sentient beings.”*

Immediately, we must assert that “autonomous” is a very vague word, as well as define the word “functionally”. In any case I believe this statement was said by a very eager and optimistic individual in the field of artificial intelligence. Humans, and indeed, all sentient beings, make all of their autonomous decisions based on pure emotion. This isn’t a philosophical debate but a statement of fact.

For example, needs; “I must eat to survive and I enjoy food. I want to survive so that I can keep on enjoying things including but not limited to food.” And wants; “I want these new clothes because I like the way I look in them and I think I’ll feel better about myself if other people also like the way I look in them. I want to keep on feeling good and will do things like buy things including but not limited to clothes in order to do so.” And so on and so forth. See I can make statements too, and perhaps you noticed something these two statements had in common?

While they can be abstracted to similarities in animals, humanity in particular is a very emotional species but also very capable of ignoring our “programming”. We do things like study, which makes us miserable, all in order to have a better life and feel good down the line. While this can be expanded into a very philosophical argument with questions such as “What is the meaning of life?”, let’s get back to the machines.

An AI is just programming that makes decisions based on some data it has access to. An even baser term is “a regressions analyzer”. But if these decisions are based entirely on data and programming, we cannot really call them “autonomous”. Or at the very least, *I* would not refer to them as such, with *my* definition of autonomy based on emotion. Let’s assume that the original statement does indeed use my definition, and now that we have done so, we can discuss the word “functionally”.

Humans feel pain in addition to pleasure. Pain is a negative, undesirable emotion, although technically it is a type of physical stimulation as well. Let’s assume we can define pain as a function of a certain type of nerve stimulation, and create a non-physical state of pain with this function for our AI. Non-physical because we are trying to create super AI, and not a new biological race of super humans. If all these things are possible, and if the individual who said the original statement was indeed using my definition of the word “autonomous”, then ultimately, I cannot refute said statement.

I can, however, continue to call him optimistic in assuming that such a thing is even possible. I mean sure, the philosophy paper does a very good of discussing functionalism and how it relates to AI, and it is inevitable that we create “intelligent” AI in the future, but I don’t believe we are ultimately capable of giving an AI emotions (in order to make them truly “autonomous”) with programming alone and no physical (biological or equivalent synthetic) component. While we could “fake” emotion by giving the AI a “need” to perform a certain function and cause an emotional state, how would we give it the “want”? It’s at this point that we should step back a bit and acknowledge that autonomy implies an AI be able to ignore both its programming and its users. Of course, I must also concede that things like emotions can simply be “faked” until they’re indistinguishable from the real thing, but that is another philosophical debate, with the word “essentially” instead of “functionally”.

//Trevor Yovaish

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law

Isaac Asimov’s laws of robotics have provided a solid basis for how future advanced robots should behave since the 1942 classic “I, Robot” introduced them to the world. I believe these laws still hold true to this day. Despite advances in robotics in the recent years, I don’t think AI will ever reach the potential of humans. Even if they achieve the ability to make autonomous decisions and achieve functional equality, human emotions and experiences cannot be replicated. Functionalists argue that humans are little more than biological machines whose reactions only matter on a surface level. I think experiences can not teach an AI in the same way we learn from our mistakes. I believe that our emotions give us creativity that could never be reproduced in a machine. Computers and machines were created by us in order to make work easier and the purpose of advanced artificial intelligence remains to serve humanity, not to replace it.

//Keanu Kerr

From a functionalists point of view, the thing that separates humans and machines is their outward behavior. Once AI has reached a state of autonomous functional equivalency with humans, many questions will need to be answered regarding the machine’s place in the world. Traditionalists may argue that humans are special in the way we function due to the emotions that drive our decisions and make us so unique. However, a functionalist may respond with the argument that emotions are simply surface level behaviors that can be replicated. As humans, we only observe each other’s surface level reactions to the world around us. It is entirely plausible to have an AI as a friend or even to fall in love with one. The inner workings of humans and machines does not change what they mean to us as people. After all, human brains could be viewed as little more than nature’s carbon-based processors for our bodies. Does it really matter if silicon-based machines lives alongside us as equals? I don’t think it would.

The Stanford Encyclopedia of Philosophy’s article mentions that we can observe that pain is correlated with C-fiber stimulation. The same correlation may not hold true for potential alien lifeforms that are not carbon-based. Functionalists argue that “pain can be realized by different types of physical states in different kinds of creatures, or multiply realized.” It would be arrogant of us to decide what constitutes “true” feelings, emotions, and experiences. For all we know, we could be simulations living in a computer. If that were the case, we would just be machines ourselves. Would the knowledge that we live in a simulation change how “real” our feelings and emotions are? The world we live in would still be the same, but we would be aware that we are also powered by a machine. It would not change how valid our experiences are, but we would need to reevaluate what constitutes a real experience. With no proof that humans are really more than nature’s computers, I find myself agreeing with functionalists in the belief that machines who are autonomous are functionally equivalent to humans and other sentient beings.

//John Parry

“I think, therefore I am.” -Rene Descartes

The essential philosophical question in general artificial intelligences is whether or not they should be considered “living” beings once a “singularity” is reached where the AI is no longer just a set of instructions, but essentially becomes functionally identical to that of a human. I think that this problem is often viewed from the wrong point of view. The idea of machines coming to life is frightening to most because it threatens the idea of what it means to be human: to think, to speak, to reason, and to feel purposeful. The existence of another being with these qualities essentially eliminates man’s “uniqueness”. But what other viewpoint is there other than this? This viewpoint in a way portrays machines as the next step in evolution, that machines will be the next “humans”, which is a completely flawed ideology. It is true that general AI may in fact end up being physically and/or mentally superior to humans purely because of their anatomy, but at their roots, all things about AI that threaten the “uniqueness” about humanity are in fact just a reflection of our own functionality. In nearly every area of engineering, bio-mimicry is found in some form or fashion both intentionally and not. Mankind has always used the genius in nature and in his own anatomical functions to create new and more impressive technology. In AI’s, that genius led to artificial neural networks and machine learning. As “God created mankind in his own image”, so also does mankind create machine in his. Therefore, I believe it is a mistake to see machines as a threat to human uniqueness, but instead as a reflection and testament to the genius of our own design and ingenuity. Even as functional humans, they will always be the product of the human design and therefore should not pose a philosophical threat to mankind.