

# If There Is Something It Is Like to Be Alive, What Is It?

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## Extended Abstract

In the field of consciousness studies, the phrase ‘Is there something it is like to be X?’, derived from Nagel’s ‘What is it like to be a bat?’ (Nagel 1974), has become an acceptable way of asking whether X is conscious. It is my contention that this is a question that should be asked in the context of artificial organisms of the type studied in Alife, and especially of physically embodied organisms; the fact that it has so rarely been asked within Alife is perhaps a legacy of the influence of behavior based ideas, which have emptied most such entities of internal representations and processes just as behaviorism banished them from psychology for the best part of a century. However, the question of whether and how some forms of consciousness can be produced in artefacts is the province of the new discipline of machine consciousness, which emerged from outside Alife, and is proceeding independently of it. I wish to bring the two together, and to do so I will ask and answer a slightly different question: if an Alife organism did have a form of consciousness, what would it be like? One of the advantages of asking this particular question is that we can answer objections that certain abilities are impossible (e.g. building and maintaining a world model) by pointing to current work in robotics and AI that demonstrates those abilities.

So what would such a consciousness be like? My claim is that, if it had developed through artificial evolution, it would be very like our own, and in particular it would have many of the same defects, deficiencies, and peculiarities. One problem with making this claim to an audience unfamiliar with the current state of consciousness research is that most people are blissfully unaware of the differences between objective reality and what our consciousness represents to us. I will briefly review the current state of knowledge in respect of this, and I will then show how distortions of time, memory, perception, and voluntary capacity may be the inevitable consequences of the evolution of progressively more capable entities, whether natural or artificial. This will entail a description of how and why world-models and self-models must arise, and of how and to what purpose they might interact.

An enduring problem in the study of consciousness is the explanatory gap – our continuing inability to account for the mental in terms of the physical (Levine 1983). I will not engage directly with this issue, but will instead avoid it by proposing what I call the representational principle of experience: in a system capable of conscious experience, what is experienced must be represented within the system, but not everything represented within the system will or can be experienced (Holland and Marques 2010). One attractive and much discussed possibility is that conscious experience is in some way centered around a model of the physical self. Using the principle, I will present evidence from both robotics and psychology that this, regrettably, is probably not the case.

## References

- Holland, O. (2007). A Strongly Embodied Approach to Machine Consciousness. *Journal of Consciousness Studies*, Vol. 14, No. 7.  
Holland, O. E. and Marques, H. G. (in press). Functional Embodied Imagination and Episodic Memory. To appear in the *International Journal of Machine Consciousness*.  
Levine, J. (1983). Materialism and qualia: the explanatory gap. *Pacific Philosophical Quarterly*, 64: 354-361.  
Nagel, T. (1974). What Is It Like to Be a Bat?. *Philosophical Review*, 435-50.