

Introductory Remarks to Essay 4

Brian Silverman

British entertainer Stephen Fry has a great theory about *Star Trek*. He believes that Kirk is caught between Apollonian Spock (who is rational, logical, ordered, controlled) and the Dionysian McCoy (who is emotional, instinctive, passionate). Similarly, on the surface, Marvin's writing sounds very logical and ordered. You just have to scratch that surface, however, to see Marvin talking about emotion and passion. He discusses thinking about feeling as a complement to thinking about thinking.

Here are some quotes taken from across the decades in which Marvin addresses parts of thinking about thinking that lean away from the purely rational and logical.

Seymour Loved Those Gears

In essay 1, "The Infinite Construction Kit," Marvin says, "You can't blame teachers for trying to make numbers interesting. But—let's face it—numbers by themselves don't have much character. That's why mathematicians like them so much! They find something magical about things that have no interesting qualities at all."

It's a challenge to explain how to see the magic in something with no interesting qualities at all. This challenge is at the core of

math education and is one that both Marvin and Seymour Papert stepped up to. In the introduction to *Mindstorms*, Seymour talks about a similar kind of magic in his relationship with gears: “I remember that there was feeling, love, as well as understanding in my relationship with gears.”¹

Seymour speculated that a way of sharing the magic was to encourage kids to build personally meaningful artifacts—to build interesting projects out of things that may have few interesting properties. He invented Logo to try to capture this. Marvin was part of the development of Logo from the beginning, adding motion, music, and magic to the system during its early years.

Who Would Its Mother Be?

Many years ago I asked Marvin the following question: “If we built a truly functional AI, who would its mother be?” He answered by saying that I should look up attachment figures in his book *The Society of Mind*.

In “Learning from Role Models, Mentors, and Imprimers,” he elaborates on the notion of attachment figures by talking about mentors and imprimers: “When you meet someone whose work you admire, you might want to acquire their skills—but in the case of an imprinter, you may also want to acquire their values, and more generally, to want to become more like that person!”

For Marvin, an important part of intelligence is having a reasonable model for yourself. That model has to come from somewhere. He suggests that it comes in part from people we want to emulate, to imitate, people who exhibit values that we want to share. Marvin says he even occasionally had conversations with the internalized copies of his imprimers. He did admit, however, that those

internalized copies were rarely able to tell him something that he didn't already know.

How wonderful for Marvin to have defined the notion of imprinter when he acted as one for so many of us!

Earth, Air, Fire, Water

In "Music, Mind, and Meaning," Marvin says, "The old distinctions among emotion, reason, and aesthetics are like the earth, air, and fire of an ancient alchemy. We will need much better concepts than these for a working psychic chemistry."² I think this is at the core of some of his thinking in his book *The Emotion Machine*. It even starts to explain how you can put the word *emotion* together with the word *machine*. They don't seem to have a lot of overlap, but that could simply be a consequence of the old alchemy. Reason, aesthetics, and emotion are all products of the same society of mind.³ The difference is that the agents that deal with emotions never operate close enough to the surface for us to really see how they do what they do.

When reading these essays look not only for Marvin's advice on thinking about thinking but for his advice on thinking about feeling, and also on magic and passion.

