

## Art 106 Reading 2

### Natural Born Cyborgs Chapters 3 and 4

Wesley Bower

Chapter 3 - First summarize the major elements of this chapter for yourself, and write them out in essay form.

This chapter was about the different ways that our brain holds knowledge and data. There are different ways of acquiring data, but our brain does an amazing job of storing and recalling the important parts of specific memories. The writer outlines different ways that our brain deals with these things, as well as how the brains of other patients with different circumstances deal with and experience the same thing.

- 1) Try 2 of 3 different experiments on the first couple of pages of chapter 3

Suggestion -- the big nose experiment, and the hammer experiments (use a fist, a ruler, or?)

Please take notes on the experience, did it work on you or not? Give possible reasons as to why it did or did not.

I tried Experiment Two: A Pain in the . . . Desktop? As well as Experiment Three: Sensation in a Dummy Hand. I felt like they worked similarly but not entirely the same. The Pain in the Desktop one required a beginning 'priming' stage of the experiment in which the participant must get acclimated with their hand and the table being sensationally connected. The other experiment on the other hand is purely sight based and an illusion of positioning. They both made me misinterpret my hand and the feeling I was receiving. To do the first one we used a fist, but a hammer would probably be more effective.

- 2) Explain your experiences where your senses have misled you or someone you know.  
Give examples of this (other than 'recreational chemical' means)

When I was a kid sometimes I would say 'ow' before things even touched me so that if it stopped before it touched me I would just still instinctively say 'ow'. I've also felt a phantom phone vibration in my pocket like Kristie said.

- 3) The Ideas of 'meta learning' (page 67) and of constructive learning (page 83) are brought up in this chapter. Please discuss some of the things these 2 ideas have in common in terms of

the process of learning and using information and memory. Also elaborate on how this idea can be helpful in terms of learning strategies in general.

Meta Learning is the idea of knowing strategies of learning and how to most effectively store and call data and information. It is not focused on what is being learned but how it is being learned.

Constructive Learning is all about growing the framework of reference. If you start learning something beginning with the building blocks, your brain will change the information learned in the past if it has since learned something new that has changed the scenario.

These two ideas share similarities in the importance of how we learn and not necessarily what we learn, and also both focus on recalling data and information from memory using methods of memorization or more efficient learning. Constructive learning is kind of like knowing how to adapt and how information can adapt and suddenly mean completely different things with a simple addition of a small bit of knowledge.

Chapter 4 -- First summarize the major elements of this chapter for yourself, and write them out in essay form.

- 1) What are the conceptual and practical things required for telepresence to exist and function properly regardless of the sophistication of the technology?

The user would need to act on the events happening in the distant environment. They would need to be able to be fully immersed in the new place and be able to gather sensory data from it, to use for interaction.

- 2) What form of 'true' telepresence do you think you have experienced, if any?

If you have not. What was missing for it to be not be telepresence?

I think facetime and video calling are pretty close. I've even seen holograms of people replacing the phones as a means to communicate with someone very far away. I feel like these are very one-sided, however and the receiver of the hologram would feel as though the person was present, but the person might not feel that way.

- 3) Speculate on what other forms of telepresence that might be possible, given your understanding of how it works.

I think that being telepresent in another place is a lot different than being on a phone or playing video games. I believe it would actually require a subject to be present as in taking in sensory inputs

from this new area themselves. I think our thoughts can go different places but that doesn't mean the same thing as telepresence.

I think that if we had technology that acted like artificial noses, ears, eyes, a tongue and a way to sense touch or feeling, and we wired all of these devices up to a person's brain in a way that they could interpret and experience these things from a different place, we could extend the wires and have the subject be able to feel how it feels to exist in a different place than their body. The signals would have to be sent and received almost instantaneously, however, or the effect would be dampened.