PCT is Reverse Engineering

All the physical sciences can be thought of as reverse engineering

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Can't look inside: Speculate

Think of people as complex devices. They sometimes behave in ways we expect, sometimes not. No-one has been able to open them up, take a look inside and figure out how they work, but speculative, plausible-sounding "theories" abound, are widely accepted and have become engrained in our language.

Work out a way: Reverse engineer

Suppose you manufacture encapsulated products and your competitor has just introduced a very capable product of unknown design. It is difficult to figure out how the new device is designed and what is going on, because the product is made up of a great many components and you cannot take it apart without destroying it. To "reverse-engineer" it you:

1) describe what the device does (how it behaves) in some detail, and
2) suggest physical explanations. Based on these, you design and test circuits and mechanisms that perform just like the unknown product.

When your reverse-engineered design can be plugged in as a replacement for the unknown device, you can claim that you understand at least one way the unknown device might work—and you are probably quite certain of many ways it cannot work.

PCT reverse engineers living organisms. You can test the PCT model by letting it behave *by itself*, and compare the result with the behavior of the real thing—people. Since it is ourselves we reverse-engineer, we naturally require that the explanation and model we come up with feels right; that it intuitively makes sense to us when we consider how we might actually work. Simulations, experiments where the PCT model replaces people, and personal experience indicate that PCT is a valid model. PCT appears to be the first approach to explaining human behavior that holds up to critical scientific scrutiny and is worth refining.

Understanding purposeful behavior

Perceptual Control Theory (PCT) gives an intuitively satisfying explanation for purposeful human behavior, were purposeful behavior is also known as control. PCT calls our attention to the pervasive phenomenon of perceptual control and provides a summary explanation that can be presented as a single control system.

Hierarchical PCT (HPCT) outlines a hierarchical arrangement of multiple control systems—a more detailed elaboration of PCT that allows for the complexity of our experience. The distinction between PCT and HPCT is most often glossed over and the whole scheme called PCT.

PCT focuses on how we look at and experience things, and the way these perceptions are compared with experiences we want. PCT explains how thoughts become actions and feelings and why stimuli *appear* to cause responses.

PCT improves our understanding of human interpersonal behavior, including conflict, cooperation and leadership in families, education, business and society.

Applying PCT

To drive a car, it is important to know how the controls work, but it is not necessary to understand how the controls are designed in detail—you can leave that to the automotive engineers.

To apply PCT in daily life, it is important to understand the basic concept—but it is not necessary to understand all the technical details—you can leave that to the PCT engineers.

When you understand the basic concept of PCT, you will observe yourself and others and at the same time visualize the internal mechanism in action. Your understanding of the internal mechanism will give you greater ability to enjoy your ride through life and to help others enjoy theirs, too.