

Chapter 28

The social environment

The control of perception in a living creature must operate in some electrochemical circuitry, and that must operate through neurons or simpler electrochemical flows. Similarly, interaction with the environment must operate by means of a physical substratum. Our senses respond to light, sound, pressure, and so on, in the ways that physical things respond to physical energies. Interaction among living individuals proceeds on that same physical substratum.

We cannot act socially without using the nonliving environment to do so. When I talk, my words reach you through patterned compressions and rarefactions in the air. Even if I communicate wordlessly by pressing my cheek against yours, it is not the living quality of my flesh, but the act of pressing that communicates the affection. If you were to close your eyes, you would get the same effect from a warmed-up and partially inflated football.

HOW ORAL COMMUNICATION WORKS

Look at the left half (labeled “Actor 1”) of Figure 28–1. That is a somewhat abbreviated copy of Figure 4–1 in Chapter 4. It represents a person and reminds us of the key features of the feedback loop—itsself the key feature of living things. The new thing about Figure 28–1 is the inclusion of the social environment, symbolized by the right half of the figure (labeled “Actor 2”). If some energy in the environment, occurring independently of the Actor, is to call up an action from the Actor, it must disturb some variable the Actor is controlling. That is, the environmental energy must impinge on the Actor’s loop at the point labeled “Results for input.” The resultant of the opposition between the disturbance and the action output of the Actor is the input that the Actor is controlling.

Now suppose that Actor 1 wants to control some perception by making use of Actor 2. Depending on the perceptual variable Actor 1 wants to control, she might take various actions upon Actor 2—patting him on the head, shooting him dead, or feeding him a spoonful of ice cream. But let us use oral conversation for our example. Suppose Actor 1 says, “Please bring me a drink of water.” Actor 1 is hoping that Actor 2 has a desire to perceive her in a state of satisfied thirst, and she hopes he will perceive her utterance as a disturbance to that desire. She hopes that he will choose to control his perception of her thirst by bringing her a glass of water, seeing her drink some, and hearing her say, “Thanks.”

I have symbolized the oral request of Actor 1 by the dashed line in Figure 28–2. The line is drawn from the action output (the oral request) of Actor 1 to the symbol for disturbances of Actor 2. The control loop for Actor 1 is going to go through Actor 2. I have erased the arrow, which, in Figure 28-1, went from Actor 1’s action output directly to her “Results for input,” because that arrow is now going to be replaced by the series of events going over to Actor 2 and back again. You can see the complete feedback loop in Figure 28–3. That loop is completed when Actor 2 hands Actor 1 a glass of water, Actor 1 grasps the glass, gulps the water, says “Thanks,” and goes on reading her mystery story. Actor 2’s loop is complete when he hears Actor 1 saying “Thanks.” The diagram is asymmetrical, and remains asymmetrical in the next two diagrams, because the interaction is asymmetrical: Actor 1 requests and Actor 2 responds.

I am omitting from my description here all the levels of control that would ordinarily be outside the awareness of the two actors during her request and his delivery of the glass of water. I have omitted, for example, the low-level controls in the muscles of the two. I have also omitted the controls for high-level

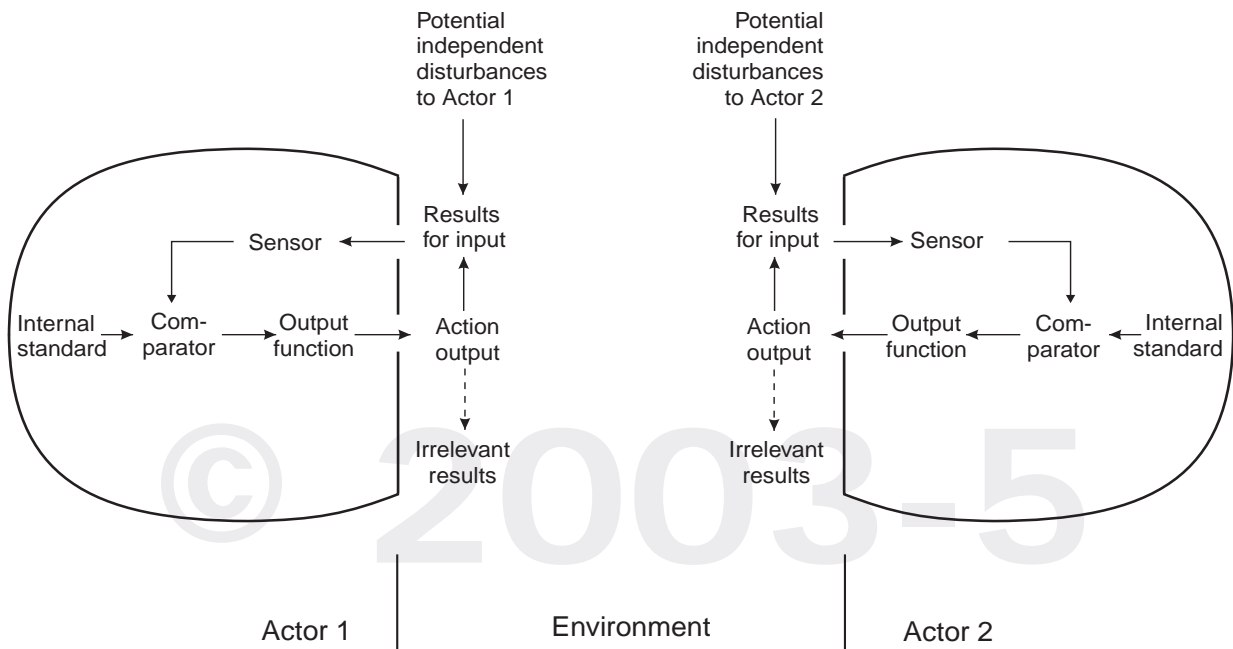


Figure 28-1. *Two persons as simplified control loops.*
Compare Figure 4-1.

perceptions such as courtesy, love, and the structure of society. I am trying to write as simply as I can to illustrate how control can use the social environment.

We are not yet at the end of the necessary diagramming. The disturbances intended by these two persons are not all that are going to affect the interchange. There are also the “irrelevant results”—those, that is, that are unintended by the actor and irrelevant (for that actor) to her or his control of a perception. For example, Actor 2, as he carries the glass of water, might inadvertently dangle his necktie in it, and Actor 1 might delay her drinking while the two of them dry up his necktie so that it won't drip on her mystery book. I have diagrammed those unintended sources of disturbance in Figure 28-4.

I should mention, too, that there are many kinds of events that could occur in an interaction between two people that I am omitting from my little scenario. Here is an example. As Actor 2 hands the glass to Actor 1, he might say, “Here is your water, you lazy good-for-nothing!” That would probably disturb some of Actor 1's controlled variables, and I would have to add an arrow going from Actor 2's action output to Actor 1's disturbances. If I were to draw in all the possibilities in the figures, I would end with an incomprehensible snarl. Nevertheless, within the snarl, there are control loops acting without interfering with the rest of the

control loops. To draw the diagrams for this chapter, I have imagined myself extracting a small independent set of loops from the larger snarl.

For completeness, I must add one more feature to the figure. So far, I have diagrammed disturbances that are independent only of *one* actor. For example, Actor 2 could disturb a perception of Actor 1 independently of what Actor 1 has been doing, but that disturbance is obviously not independent of Actor 2, the person producing it. In Figure 28-5, therefore, I have added a note at each side of the figure to remind us that disturbances independent of both actors are also at work.

Throughout Figures 28-1 through 28-5, I have drawn the interpersonal transmissions as dashed (broken) lines to indicate that what is transmitted is not nearly as reliable as the transmissions inside a person. Internally, transmissions are neural currents. Except under a seriously abnormal condition, a string of pulses sent out from one function arrives substantially undistorted at the next. Transmissions of energies through the external environment, however, are normally subject to the tumultuous uncertainties always there. The rest of this book, indeed, will be devoted to the ways in which, when we seek help from one another in controlling our perceptions, our intended controls can be brought to naught—or worse.