

time the clicker sounds quicker and the tensing appears more forceful but the arm does not move.

The scientist says:

"So, now the neurons fire as forceful movements are attempted even though no movement actually occurs. The quicker the firing, the more force is exerted."

- In the final sequence, the arm neuron again quivers and the clicker sounds just before the arm moves straight out from the side of the body. A pause before the arm is moved backwards without any clicking sound. Then the clicker sounds again just before the arm moves in the same direction as the first time, ie. out from the side of the body. Then the arm is moved forwards without any clicker sound. Finally, the clicker sounds before the arm moves out from the side of the body.

The scientist says:

"So only when the arm moves in a certain direction does this particular neuron fire. Other neurons that I don't hear, fire before the arm moves in other directions. Ummm... If that is so, I wonder what would happen if I tickle these neurons with a little electricity?"

- The scientist then lowers the end until it touches the arm neuron.

"Let's see what happens when I tickle this neuron with a little electricity."

- The end of the antenna lights up with a bright light rapidly flashing in time with the sound of crackling electricity. A strobe light would be ideal. The arm neuron smiles and stands on his or her toes, obviously enjoying the tickle with electricity. The child on the center area moves the right arm out from the body beginning just after the light and sound starts. The arm returns to her side as the flashing stops. This sequence is repeated with faster flashing and the arm moves more quickly. Then the scientist moves the antenna tip to the leg neuron and the sequence is repeated twice as before.

The scientist says:

"So, by tickling the neurons with electricity, movements can be made to happen. I can move all over this place and tickle all sorts of neurons provoking all sorts of movements. [Diagram 9 comes on showing the areas mapped out.] I can make a map of the different neurons both by tickling them and by listening to them.

"These neurons are very important for moving. If they are