Vehicle 3: Love

* Violence of 2b is no less than the cowardice of 2a, traits that call for improvement.
* Something very crude about the vehicle that can be only excited by the things it smells (or sees or feels or hears) and knows no soothing or relaxing stimuli.
* Introduce some inhibition in the connections between the sensors and the motors, switching the sign of the influence from positive and negative.
* This will let the motor slow down when the corresponding sensor is activated.
* Two variants are possible,
  + One with straight connection
  + One with crossed connection.
* Both will slow down in the presence of a strong stimulus and race where the stimulus is weak. Spends more time in the vicinity of the source than away from it. Will actually comes to rest in the immediate vicinity of the source.
* With this setup, the first with straight connection will orient toward the source, the sensor nearer to the source will slow down the motor on the same side, producing a turn toward that side.
* Vehicle with straight connections will come to rest facing the source.
* Vehicle with cross connections for analogous reasons will come to rest facing away from the source and may not stay there very long way, since a straight perturbation could cause it to drift away from the source.
* These Vehicles LIKE the source, but in a different way.
* Vehicle 3a LOVES it in a permanent way, staying close by in a quiet admiration from the time it spots the source to all future time.
* Vehicle 3b, on the other hand, is an EXPLORER. It likes the nearby source all right, but keeps an eye open for other, perhaps stronger sources, which it will sail to, given a chance, in order to find a more permanent and gratifying appeasement.
* Vehicle 3c, the complete model using all the behavioural traits at our disposal.
* Vehicle 3c is equipped with 4 sensors, tuned to different qualities of the environment, say light, temperature, oxygen concentration and amount of organic matter.
* The first pair of sensors are connected with crossed excitatory connections, as in Vehicle 2a (same side of the motor of the sensor)
* The second pair of sensors are connected with crossed excitatory connections, as in vehicle 2b (opposite side of the motor to the sensor)
* The third and fourth pair of sensors are connected with inhibitory connections, crossed and uncrossed, as in vehicle 3b and 3a.
* Finally, a vehicle with really interesting behaviour. It dislikes high temperature, turns away from hot places, and at the same time seems to dislike light bulbs with greater passion, since its turns towards them and destroys them.
* On the other hand, it definitely seems to prefer a well-oxygenated environment and one containing many organic molecules, since it spends much of its time in such places.
* But it is in the habit of moving elsewhere when the supply of either organic matter or especially oxygen is low.
* You cannot admit that vehicle 3c has a system of VALUES, and come to think of it, KNOWLEDGE, since some of the habits it has, like destroying light bulbs, any look quite knowledgeable, as if the vehicle knows that light bulbs tend to heat up the environment and consequently make it uncomfortable to live in.
* It also knows about the possibility of making energy out of oxygen and organic matter because it prefers places where these two commodities are available.
* But we can say that this is ridiculous because knowledge implies a flow of information from the environment into a living being or at least into something like a living being.
* There was no such transmission of information here as we are just playing some sensors, motors and connections.
* The properties that happened to emerge may look like knowledge but really are not.
* How knowledge may enter a system of connections can be discussed in the later chapters.
* We can consider the enormous wealth of different properties that we may give to Vehicle 3c by choosing various sensors and various combinations of crossed and uncrossed, excitatory and inhibitory, connections.
* If we consider the possibility of strong and weak influences from the sensors to the motors, you realise that the variety becomes even greater.
* The Vehicle may not care much about light but care very much about temperature.
* Its sense of smell may be much keener for organic matter than it is for oxygen or vice versa.
* And there may be much more than just four pairs of sensors and our sensory qualities: The vehicles may be equipped with all sorts of shrewd detectors of energy and of chemicals.
* But this is the best discussed in connection with a new idea incorporated in the vehicles of the next chapter.