Where in this world is the human soul? Let us see what Chanukah can teach us about this.

Scientists sometimes speak of inherited diseases as “experiments of nature.” Not a nice thought, but an accurate one. We can ask nature to help us take the next step in localizing the soul, carrying out our own “thought experiment,” of a sort.

Consider five different kinds of person. In all five cases the DNA of the person is an equally valid example of the human genome, and in all cases the person is alive.

First, the person who is healthy enough to say blessings (whether or not they choose to do so). The brain is OK, the mind is OK, and the body is OK.

Second, the person who is in a late stage of ALS, Lou Gehrig’s Disease. Portions of the brain have ceased to function properly and as a result there is no communication of brain with body. The mind, though, remains undiminished in its capacity for thought, though totally hampered in all its attempts to communicate through the body.

Recent work has given such minds a way to communicate, by presenting patients — whose eyes may be kept open without discomfort — with a real-time video representation of their own electro-encephalogram waves.

In this situation, some ALS patients learn to modulate their EEG patterns, using a disembodied feedback loop that goes from screen to eye to brain to EEG machine to screen.

In time they learn how to think in such a way as to make the waves rise above a line, or fall below it. And that control over a simple digital code of up-or-down is sufficient to enable them, slowly but surely, to remain in communication with any of the rest of us.

So we have to say that in such a case, the brain is partially there, the mind is OK, but the body is gone.

Third, the person who is in a late stage of Alzheimer’s Disease. Other portions of the brain have ceased to function properly, and as a result there is no memory, no recognition, no communication. My father lived in this state for years.

First, I did not recognize him in a “home” when he still knew me, which was bad enough; but then he did not know me when I did know him, and that was much worse. Today there are no tools to penetrate this loss of mind.
We have to say that in such a case, the brain is partially gone, the body is OK, but the mind is gone.

Fourth, the newborn infant who emerges breathing, but with such severe brain damage that there is no cortical function, that is, no chance for thought or action later in life. Jewish law is quite clear that a person who is breathing on his or her own is alive.

In this case we can be sure that though the body is there — as it is in Alzheimer’s Disease — there is neither mind, nor much brain either.

Fifth, the person who has just suffered a massive cerebral stroke, or a severe accident to the head. Lacking signals from the brain to the diaphragm such a person would be dead, but because of the technology of artificial-breathing, he or she may be maintained for some time in a state which can only be described as well as one in which the body is OK, but both the mind and the brain are gone.

Now the thought-experiment: is there a part of the anatomy of these or any other persons, in which the soul of a living person may be said to reside, based on these five situations?

Not really.

In the first case, of a healthy person, the soul could be in the brain, the body or the mind, or in all three. In the second case, of ALS, it could be in the mind, or in the remaining functional brain, or both. In the third case, of Alzheimer’s Disease, it could be in the body or the remaining functional brain, or both.

In the fourth case, of the newborn baby who lacks a cortical brain, the soul can be only in the body. In the fifth case, of the person with a flat EEG maintained on an artificial breathing machine, though the machine is on, only the body is functional.

To be fair, the soul is in question in the fifth case, with some Rabbinic authorities agreeing that it has already been taken, and others seeing no difference between the fourth and fifth examples.

Adding up these five cases, there is no single place left for the soul to reside. A slightly modified conclusion would be, that there is no anatomical localization of a person’s soul within that person that meets the test of all five of these cases.

But consider what else we know: The DNA of our species carries, and gives to each of us, an inherited, wholly naturalistic, DNA-encoded set of behaviors that include an absolute dependence on other members of our species for emotional and physical support at the beginning and end of life.

That dependence must persist as well throughout one’s life, and therefore we are a species of intrinsically loving, and beloved, individuals.
In this sense, the human soul – a prerequisite of our religion and most if not all others - must be dependent for its existence in part on our DNA-based capacity for teaching and learning; that is, for love and for hope.

In our species – we are a mammal - a rich interaction with a loving adult is as important to an infant as food or water. This need is very old, much older than the hominoid ancestors of our species, older even than the ancestor of the mammals, as many hundreds of millions of years old as the time when the last common ancestor of mammals and birds walked the earth.

Let us suppose that every one of us does have a soul, and that while we are alive it has a natural location somewhere in this mortal world. We’ve already established that the soul of any of us is hard to find in any part of our DNA-encoded, experience-modulated minds, bodies or brains.

If we simply connect these ideas an unexpected answer emerges, one based on the history of our species. The location of the soul of any one of us need not necessarily be entirely in our minds or bodies or brains.

Instead, it could be in the minds, bodies and brains of each of the people whom we have nurtured, and the minds, bodies and brains of those who have nurtured and loved us.

I am arguing, simply, that these souls within us need not be individually ours alone. I hold in me a set of emotional and narrative memories of a number of people.

Some people have impressed themselves deeply on me, and I know I will never forget them. Others once made me laugh or cry, but I can hardly remember why.

Above and beyond any other people, Amy, our daughter, and her family live inside of me with sharpness and intensity unrivalled by the memories of anyone else.

From what I have said about our natural origins, it should be clear that the special intensity of these memories is not an accident, but rather that it is the predictable outcome of a strategy for the survival of our species, that has worked for it and for its ancestors as well, for millions of years.

All that I am saying that might be new, is that this special set of memories and feelings I hold for these people represents an aspect — maybe no more than a reflection, but maybe no less than a portion or even the entirety — of each of their souls.

Now let me make that symmetric. I will assume — it is no great immodesty — that a sense and a memory of me is as strong in each of them. In that sense they hold an aspect, or a portion, of my soul.

And in each case, with full symmetry, it is that portion or aspect of our souls that can, without mystery or miracle, and while restricted entirely to this mortal world, survive death.
In terms of the five persons we’ve already discussed, this notion clears away all awkward anatomical paradoxes, and restates the problem in a simple and telling way. Each of these people has a soul, but we cannot tell much about that soul until we know more about the people closest to each of them.

If they are loved and cared for, then of course their soul is well no mat- ter how ragged their mind, or brain, or body.

And if they are abandoned, mocked, written off as if already dead, then their soul must be in the Other World already, even though their body, or their brain, or their mind may still be present.

The notion of a distributed soul restates the question so as to avoid localization in any one part of even any one person, and to substitute for that expectation, it offers a fuller recognition of the essentially distributed nature of one’s humanity.

For persons lucky enough to share the fate of my first example, the symmetry of relationships assures that the distributed soul is not only in others, but in oneself. But surely for the infant born without a cerebral cortex, the soul has little apparent place to be, except in those who love it.

What about the souls of those people who are the victims of false memories or bad experiences? These must suffer, but by this argument their souls may be rescued by kindly and loving people, even despite their victimhood.

Nor is the distributed nature of necessary love restricted to ancestry, except the impulses to love and to care. Parents should love and care for their children, and children for their parents, but the soul of a child neglected by living parents is far more at risk than the soul of an orphan adopted by loving strangers.

Similarly, to be known by others as a cynic or to think of others with a cynical regard for self-advantage, are strategies that must risk one’s distributed soul.

Without the capacity to both give and take love, no aspect of your soul can find a proper home in someone else. I have tried to avoid the World to Come in this talk, but I can turn to King Solomon for a brief elaboration of the eschatological implications of the idea of a distributed Soul:

“For love is fierce as death,  
Passion as mighty as Sheol; Its darts are darts of fire,  
A blazing flame.  
Vast floods cannot quench love, Nor rivers drown it. …”
I am a scientist; no poet, and surely no King. This is how I now understand these lines from *Song of Songs*:

When the fact of love is elevated to the status of a religious obligation, it becomes a statement about *Olam Haba*, the World to Come. Even so, love need not, nor should it, lose any of its biological, evolutionary, DNA-based specificity.

Without the capacity to give love, you cannot leave with anyone the best aspect of your own soul and so it is likely to wither within you; and without the capacity to receive love, you cannot properly remember anyone else’s soul either, and so you deprive them of some hope for the future, as well.

Now think again about those candles we will soon begin to light, for eight days. We say there was no oil to keep them lit, but they burned anyway.

To me, this is just a way of saying that in Chanukah we celebrate the persistence of the souls of those we loved, souls still in us while we are here: their oil was used up, but we make sure their light still shines.