

Edith and John are in the common room, drinking peppermint tea.

Edith speaks. "Did you have a chance to look at that email from the artist who wants to produce an art installation somewhat like a short section from a long wall, to illustrate localizable sentences as tunnelling through the language barrier?"

"... Yes."

"And ... ?"

"Well, ... well it won't work. It is all very unfortunate as I like the general idea of people in an art gallery being able to look at a sentence in one language displayed on one side of the structure - the structure looking like part of an infinitely wide and infinitely high language barrier, about five metres wide and three metres high with a flat base along the floor and then a smoothed jagged edge around the rest of it so that it looks like a cut away section - then go round to the opposite side of it and look at the same sentence in another language, and on the journey round to look inside the structure that represents the language barrier to observe thin rods representing the tunnels, one for each localizable sentence in a sort of counterchange display effect where the solid material of the wall is replaced by air and the air in the tunnels is replaced by solid material. Yet it won't work because of a sort of mirror-imaging effect."

"How so?" asks Edith.

"Well, for example, suppose that on the one side of the piece of wall there is a hole to indicate a tunnel for, say, the sentence 'It is spring,' labelled in English."

"Yes."

"Now suppose one walks around the sculpture, observing the tunnel going through the wall ..."

"Yes."

"... then from the far side of the wall observing a hole labelled in French."

"Yes."

"Well, it is alright with one tunnel, but suppose that from the English side of the wall one adds a tunnel a short distance to the right of the first tunnel, a tunnel for, say, 'It is sunny,' labelled in English."

"... Yes."

"Now, walking round the sculpture, yes, the rod representing the tunnel is there, but when one gets to the other side of the wall, facing the wall, the hole where the tunnel comes out is to the left of the first hole."

"... Does that matter?"

"Well, yes, because suppose that the sculpture were such that it is modular, so that the panel labelled in French were moved away and then one in, say, German, were put in its place. Then, yes, it would work in the same manner as the one in French. ... Yet suppose

now that one tries to set the sculpture up to go from French to German, that is where the problem would arise.”

“Ah, yes, I understand what you mean. The artist might be very disappointed if we say that it will not work properly.”

“Well, yes, but our opinion was sought. However, there is an alternative which we could suggest. It would not be a vertical wall, but it could still be a sizeable structure that could look good as a sculpture in an art gallery. Indeed it could be better as it could involve three languages simultaneously and it could be modular so that languages can be swapped about.”

“Ah.”

“Imagine a circular table, of whatever diameter it is chosen to be. Suppose that around the edge of the surface of the table there are placed three annulus sectors, each annulus sector being of ninety degrees. - the three annulus sectors being equally spaced around the edge of the surface - located in place yet removable so that they can be swapped with other such annulus sectors from time to time as desired . Onto the middle of the table is placed a disc - a central hub, fixed permanently in place.”

“Yes”

“Then each such annulus sector has sentences in a particular language, and for each sentence the coding sequence and maybe a glyph design if there is one for that sentence.

Then the rods which in the original design suggested by the artist were each parallel with each other would then in this design lead from the annulus sectors to the central hub, radially. Thus each of the removable annulus sectors would be set out with the sentences in the same places as for all of the other annulus sectors. Thus they would be interchangeable and three languages at a time would be used.”

“Ah.” says Edith, looking thoughtful.

There is a pause.

Edith speaks. “I suppose that the design could have more than three sectors at a time though that would make the sectors smaller unless the table were bigger. I wonder if five languages at any one time might make a good design.”

“Well, it would highlight the idea of localization to many languages being possible.”

A pause.

Edith speaks. “So shall we suggest that then? Could you draft a reply as if it is from me please, saying that I have consulted an expert, and then explaining the problem and then saying that we have discussed it and recommend the following and offering further advice if required.”

“Yes, certainly.” says John.

“Good good.” says Edith.