Sir.—Ploughing through the article about attempts to mechanise the translation of languages ("Frames for machine translation", 22 29 December. p 802), I am struck by the intellectual futility of it all. Someone called Yehoshua Bar-Hillel is quoted, in the sixth paragraph, as saying that "machine translation is ... theoretically impossible". He is utterly right for the simplest of reasons, and I fail to see what purpose is served by a further 24 paragraphs of elaboration, with yet another article promised.

Any student of theoretical linguistics worth his salt must surely have learnt by now that each human language encapsulates a whole human culture: indeed it is the very essence of that culture, as Welsh and even Cornish Nationalists are so quick to acknowledge. Dialects and common roots encapsulate the gradations and bridges between cultures. The truths of all this, profound truths, have been recognised for hundreds of generations.

Moreover it follows that the perfect human translator, if he exists, is someone who is totally and equally immersed in two cultures at least—arguably an impossibility. So what price the "programmer" of a machine which is ever going to be, even remotely, a substitute?

As illustration of the depths of wisdom involved at even the simplest stage of translation, may I offer the example, a personal favourite, taught by philosophers? It concerns the English word "love" and its supposed French translation "amour". The English word encapsulates a spiritual concept: thus it is reasonable to speak of a "love of truth" or a "love of beauty"; a "love of passion" (say in a sloppy film director) or even a "love of war". Try translating any of them into reasonable French using "amour" and see how far you get. The French word encapsulates a physical concept related to the goings-on around Piccadilly Circus.

Just in case that has already begun to open anyone's eyes to the naivety of mechanised translation, consider this: classical Sanskrit reportedly contains upwards of six entirely distinct words which we lump together as "love" (and thus there are upwards of six distinct concepts recognised amongst, and respected by, men sharing that culture) which must make the present-day French, or English cultures look positively bestial by comparison.

Try some more genuine translator's fun: what cross-Channel cultural differences are revealed by the subtle variation between "understand" and "comprendre"? The English word really does mean "stand under"—think about it! The French word by comparison means "possess"... and so it goes on and on right through from A to Z in the Oxford Dictionary.

I doubt there is much to be gained by hiding from simple words and saying that it is easier to translate mechanically if one concentrates on "scientific" words like "hydrocarbon" or whatever. Quite apart from the inanity of language written or spoken solely in such jargon (anyone ever listened to those poor saps of American spacemen, or to Monty Python's send-up of wartime RAF banter, or read Private Eye's Ongoing Situations column?) it is essentially parasitic anyway. As soon as it breaks down, which it quickly does into total non-communication, it is then necessary to define its terms in the "simple" language mentioned atop this paragraph.

It is surely a matter of simple definition, not even of investigation, that if ever a machine capable of translating human languages existed, it would need to know as much if not more about human culture as does a human being—a tall order indeed! The order promptly becomes far taller still if one reflects momentarily on the depths of the word "knowledge"—a problem down the ages if ever there was.

I trust that none of my taxes will be squandered on this Philosopher's Stone pursuit for half-educated technicians. Should some funds-distributing council or other ever be confronted with requests for resources to buy an even larger, more sophisticated, more impressive looking computer, I trust they will have the wisdom to give it a rapid thumbs-down and devote the loot to something much more sensible, like seeking a means of repealing the Law of Gravity.

Christopher Meakin
26 Desenfais Road London SE21