LOGICAL LOOSENESS ON INTERLINGUAS

by
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This Report* serves a useful function in listing M.T. units and providing some idea of the scope of their work. It is less successful in the difficult task of assessing the present research situation. This is largely because it attempts to adjudicate on particular research programmes in the light of a set of preconceived, quasi-logical criteria. These criteria, moreover, are not such as would be generally accepted by other logicians, but are heavily connected to the personal views of the author which, indeed, intrude too frequently in what purports to be a disinterested survey. Even were the logical criteria beyond cavil, this level of discussion is too remote from the concrete realities of M.T. research work. What is wanted, and not obtained, is some indication of the successfulness and generality of existing procedures. Fundamental problems of current controversy between active research workers, such as the relative importance and interrelating of the syntactic and semantic components of M.T. schedules, are not really faced.

With regard to the special problem of interlingual translation, Bar-Hillel falls into the common failing of so many pure logicians in accepting a refutable refutation. Booth, et al, correctly stated that, should a natural language be usable as a mediate stage in a two-step translation programme, the numbers of M.T. schedules could be drastically reduced.

Extreme logical looseness, incidentally, is shown by Bar-Hillel, on page 33 of his report, in arguing against the feasibility of translating between natural languages via an interlingua. Bar-Hillel concedes that the use of an interlingua would effect an economy since for n languages, only 2n programmes would be required instead of n(n-l). "The fallaciousness of this argument is immediately obvious, however", he continues, "as soon as one realises that using one, any one, of the original n languages as a mediating

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* The State of Machine Translation in the United States and Great Britain, by Y.Bar-Hillel, February 1959.

language would reduce the number of programmes even more, namely to 2(n-1)"•

This is a complete non sequitur. A parallel argument would be, "It is argued that an economy could be effected by feeding stock on grass instead of hay. The fallaciousness of this argument is immediately obvious, however, as soon as one realises that a greater economy would be effected by feeding them on household scraps". Now, however, having first, by a non sequitur, established the "necessity" of any language used intermediately in translation being a natural language, it is easy for Bar-Hillel, as for any others advocating the use of such a natural language, to refute the shadow argument for using it which they themselves have without any reasoning put up. For any human translator will point out promptly the fallaciousness of the supposition given above. What language, one might enquire, would act as a suitable mediating language in translating both between Chinese to Japanese and Latin to Greek.

Further logical looseness is also apparent on page 34 of Bar-Hillel's report. Bar-Hillel asserts that translation into a "logical" language is more difficult than translation into a natural language. This statement is meaningless unless it is made clear to whom or what is more difficult. It may be true for a logically disinterested general linguist acquainted with the target language, or for Bar-Hillel personally. It may be true for particular "logical" languages of the Russell or Carnap sort. It has not been shown to be true, and can be shown to be untrue, for some M.T. programmes involving several commonly encountered linguistic situations and for some "logical" languages under development for this special purpose.

Bar-Hillel also creates confusion when he implies a logical distinction between natural and "logical" languages, and when he talks of "translating" into a "language system". There are empirical methods of characterising overall differences between natural and "logical" languages - the latter, for instance, are possessed of certain degrees of

regularity absent in the latter - but there is no unique logical discriminant. No one in his senses attempts to express the sense of a natural source language in a "logical language system" which presumably is a meta-language of one or more "logical" languages. It is, however, possible and practical to render passages in numerous base languages into a suitable "logical" language, and to use the latter for performing the semantic analytic operations necessary in all translation.

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