Switching on 'Trilingual Competence' without learning languages!

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The proposed trilingual vision for Sri Lanka, hopes to make every citizen acquire at least a good working knowledge of English, Sinhala and Tamil. This is the opposite of the Indian model where, e.g., in Tamil Nadu, Tamil is the only language recognized by the state, even with substantial non-Tamil minorities. One justification for trilingualism is the view that language Politics caused communal strife and Eelam violence in post-independent Sri Lanka. There were other, deep systemic reasons for the strife. However, this essay examines the issue of trilingualism and how it can be cheaply and rapidly implement via a technological solution by accepting the fact that most people will not learn three, or even two languages. We argue the following: (i) A form of trilingualism can be provided rapidly and cheaply via available information technology without everyone learning the other two languages. (ii) Attempts at trilingual competency using an educational system already burdened by private tuition would not succeed. (iii) Even in Canada, after four decades of effort at bilingualism, 80% of the people are unilingual. (iv) Sri Lankas effort should be directed to creating interest in the other linguistic and cultural heritage of the land. (v) The incorporation of automatic translation at the level of business and social interactions into cell-phone conversations or text-messages is eminently feasible and opens up the language barrier.

Thus individuals conducts their communications in their most comfortable language, while the technology provides an instant translated text or voice interface. Such algorithms can be further developed and used for local government, courts and commerce in multi-lingual societies.

I. LANGUAGE AND POLITICS.

The Presidential Secretariat has invited the public to send their comments and suggestions to be considered for inclusion in the Draft 10-year National Plan for a Trilingual Sri Lanka (2012-2021). This will be launched by President Mahinda Rajapaksa later in the year [1]. We learnt about this from a news item on the 9th of October. It also stated that the closing date for receiving suggestions is 12th October!

Although the "Sinhala Only Bill" is often cited by superficial observers as the "cause" of communal strife in Sri Lanka, historians have been skeptical. For instance, the British historian Dr. Jane Russell has examined communal politics in the Donoughmore Era, and she documents details about the first Sinhala-Tamil riot which took place in 1939. The riot was rapidly squashed by the British administration although it spread from Nawalapitiya to many other towns [2, 3]. The *Ilankai Thamil Arasu Kadchi* (ITAK) was formed in 1949 and the Manifesto already contained the doctrine of "exclusive Tamil homelands". The details of the rise of Tamil nationalism and land claims have been discussed by Roberts [4], Gerald Peries [5] and others. The Tamil publications of the ITAK seem to have called for driving out the Sinhalese and Muslims ('invaders') from these 'homelands' [6], long before the 'Sinhala Only' bill of 1956. Thus an extremely militant Tamil Nationalism already existed prior to the 2nd World War and crystallized into the ITAK.

Some politically perceptive writers, e.g., Sebastian Rasalingam [7], Gunadheera [8], Ladduwahetty [9] and Thomas Johnpulle [10] have discussed the issue of caste and land ownership in this context. It is argued that a deep reason for the Tamil-Nationalist separatist movement, beginning from 1929 onwards, was tied to the interests of the land-owning upper-caste Tamils who lived in Colombo. Today they control the Diaspora. They regarded the North as their private fief, sought to maintain their hold on land, and retain the use of the virtually free services of the lower castes that they had traditionally enjoyed. Within this view, Federalism (or devolution) is, at best a mere milepost to separation. Thus it is claimed that the upper castes sought to cement the caste system into the constitution, opposed universal franchise, opposed modernization of roads, causeways, education, socialism, and all reforms that weakened the hierarchical society of the North. While this may be putting too much weight into one argument, such factors cannot be ignored in understanding the origin of racist strife in Sri Lanka, just as one-sided explanations based purely on linguistic chauvinism have no solid basis.

Be that it may, the 1956 "Sinhala Only" bill did provide the spark for the ITAK to launch civil disobedience movements and fire Tamil militancy. The violent response of influential sections of the Southern Polity and 'tit for tat politics' led to a series of riots, escalating into Eelam wars supported by a wealthy diaspora.

The thesis that 'if the Sinhalese spoke Tamil, and if the Tamils spoke Sinhala, there would be no strife' is not supported by history. The Southern Irish (Catholic) and the Northern Irish (Protestants) both speak English, and both groups are Christians. The battle for Kashmir is fought between peoples who have common languages. Most wars are between sibling nations shar-

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FIG. 1: An example of a free translation facility available on-line, on the Internet, for translating English to French. Such automatic browser facilities are not yet available for South-Asian languages.

ing the same lands and language groups. The battles between Parakramabahu in the Rajarata against the Ruhuna Aristocrats (who also spoke Sinhala !) are well known from the *Chulavamsa*. The JVP uprising was a confrontation among Sinhalese, while the LTTE has killed more Tamils than the army! Thus there is little hope that multi-lingualism would remove the likelihood of communal strife.

After all, immigrants, even Tamils who refuse to learn Sinhala in Sri Lanka, succeed in working in Finnish, Polish or Norwegian in a very short time! This shows that the problem is not using Sinhala, spoken by nearly 80% of the population. Language was merely the bone of contention within a situation that already existed, even prior to World War II. It is like the proverbial 'coconut tree on a property boundary' over which two villagers would litigate and fight all the way to the supreme court, while destroying each other in the process. If the coconut tree (language chauvinism) is removed, there is something else to fight for *unless their common interests converge*.

Already in the 1950s, the Buddhist Theosophical-Society schools like Ananda and Nalanda taught Tamil to the Sinhala students in their middle-school. This was given up when the politics became too hot. By then, the ITAK went about *discouraging Tamils* from learning Sinhala, and by the late 1970s this involved the use of threats and force in many instances. Such discouragement was a logical component of separatist or even devolutionist politics based on the Indian model, or the 13th amendment.

Communal strife is diminished when people develop commercial and social links among one another. Thus, the government's policy of opening up highways in the North and East, and opening the 'cajan curtain' of isolation is *the technologically necessary step* for the unification of Sri Lanka and the elimination of strife. In regard to language, knowing a client's tongue is essential for success in trade. The 60 million potential clients in Tamil Nadu give the Sinhalese a valuable reason for learning Tamil, while the Tamils need Sinhala for trading with the Sinhalese and living in the south, as they increasingly do. A new language is an additional window to one's mind, and hence its cultural value is immense.

II. LEARNING LANGUAGES

Leaving politics aside, learning one's mother tongue and the two foster languages is to one's advantage. In an earlier era Sri Lankan students objected to learning English, claiming that to be a *kaduva*, i.e., an offensive weapon against the rural kid. During my period as the

President of the Vidyodaya University in the mid 1970s, the Marxist student leaders demanded Russian instead of English! Today everyone accepts the need for English. Hence we can assume that there is indeed a strong, built-in *incentive* for English. Indeed, many students pay to learn English from private academies.

However, the same cannot be said regarding a Sinhalese learning Tamil, or a Tamil learning Sinhala. Parents show no interest in their children studying the 'other language'. In fact, the schools have failed to deal with even the core subjects and private tuition thrives. These programs completely saturate the time of students who are whisked away immediately after school into tuition classes. Successfully studying Tamil by Sinhala students, or *vice versa* under such an ambiance is unlikely.

One can enforce the study of the 'other language by making it mandatory at a scholarship examination at intermediate level, or making it mandatory for administrative jobs. However, the minority children would excel in learning the majority language (as found in Canada), and accusations of favouritism and infiltration arise. The program would do the very opposite of improving ethnic goodwill.

Canada is a rich country that has attempted to enforce bilingualism (since the Elliot Trudeau era) as an answer to separatism. And yet, after two decades of French immersion and bilingualism, the separatists nearly split Canada during the Jean Chretien Era. Even after massive bilingual bonuses and study programs to public servants, most English public servants stay at the *bonjour* stage and consider the policy of bilingualism a painful punishment. Even with varied immersion programs in schools, English-Canadian are basically unilingual *unless their parents spoke both languages at home.* On the other hand, French Canadians have greater competency in English. It is a world language and they acquire it. Thus the Quebecers, a minority that has become *more bilingual* than the majority occupy a majority of key positions in the Federal government! This causes much resentment among English Canadians!

However, even the bilingualism of French Canadians is nothing much to crow about. While more than 90% Quebecers speak French, only about 45% speak English. Furthermore, taken overall, nearly 80% of the Canadians remain unilingual after four decades of very expensive bilingual incentives!

Of course, you easily learn what you enjoy and like. Some people easily learn all the hit songs in several languages, while being totally uninterested in the languages themselves. Tour guides learn several languages rapidly, but only at a very limited level as *the guides have a need for it* to do his or her job. I. A. Richards, the famous Oxford linguist pointed out that only about a thousand words in a foreign language are needed in practical situations. Nevertheless, the vast majority of people seem to not make the necessary effort, and remain unilingual.

The cost of educating in three languages, where the two foster languages reach an intermediate standard can be estimated using school-entry and leaving models, together with available cost figures for uni-lingual education as well as supplementary-language education. It is necessary to train teachers for second-language methods, provide texts, language labs, test and grade students etc. Assuming a current GDP of about $42 billion, and the current education expenditure of approximately 5-6% of the GDP on education, an additional outlay of at least $ 0.3 billion per annum at the start would be needed. The program has to run for at least two decades. The costs will increase as our population and service costs increase with time. The program would thus cost upwards of $10 billion. The money will create some jobs, but it will unfortunately not achieve the trilingual vision. Just like in Canada, 80% of the citizens would still remain unilingual!

Indeed, given the experience of Canada, where French is a substantial minority, much bigger than the size of the Tamil minority in Sri Lanka, there is little chance that even a moderately 'trilingual Lanka' will come into being, in spite of the best efforts of those who are working for it. However, introducing Tamil into Sinhala schools, and Sinhala into Tamil schools up to the middle school level may be regarded as good politics, and enabling mutual inter-cultural understanding.

However, we need to do business with each other in the other's language, and keep tack of each other politics in *the respective* language. After all, we saw how the ITAK manifestos written in Tamil differed vastly from those written in English for the 'Federal party'. Similarly, the Sinhala press in isolation could be more insensitive than its sister publication in English. So language barriers need to be opened up.

How do we do that?

III.   THE TECHNOLOGICAL SOLUTION

In this section we argue that the "Language Problem" has an inexpensive and very practical technological solution which done not ruffle any political sensitivities. Language as needed for business and social transactions is simple and unambiguous. The vast majority of people use language in that practical manner. As I. A. Richards showed, this requires a mastery of a mere thousand words or so in each language, and the sentence structure of that language. We are dealing with Sinhalese and Tamil, and these have essentially the same sentence structure. Further more, they have many common words and idioms. Thus the machine translation of ordinary sentences between Sinhala and Tamil is simpler than from, say, Sinhala to English. In fact, the circuity and memory capacity in a hand-held device like a cellphone (mobile) is sufficient to achieve the needed linguistic capability

Consider a Tamil person, 'Jega', in Vavniya (Vannimava) speaking to his Sinhala collegue, 'Chula', in Colombo. Jega dials Chula on his cellphone and asks in Tamil, '*Kolompu pooheiradtham eththanei manikku* '?

Chula has set his cell phone to render output in Sinhala. Even if the processor in the cell phone were designed to do a word to word replacement from Tamil to Sinhala, he would hear '*Kolomba dhumriya keeyatadha?* ', i.e., in English, 'At what time is the Colombo train' ? In fact, most Sinhala ↔ Tamil translations are quite adequately handled by simply plugging in the Tamil words for the Sinhala words, and *vice versa*, as long as we are not translating poetry! Chula replies into his cell phone in Sinhala, '*Udei dahayata dhumriyak thiyenava* ', and Jega in Vavniya hears on his cellphone '*Kaalai paththu manikku oru pooheiradtha erukku*'. Only a modest dictionary of about 1000 words in each language is all that is needed for such bilingual communications where each person only uses his own language, but instantly understands the other.

We have illustrated in the above examples a very elementary translation process where a dictionary look-up is used by the computer in the cell phone to do the translation. Such translation schemes need to take precautions against blunders like translating '*release the hydraulic ram*' as '*release the water goat*'! However, modern information technology is more sophisticated than that. Modern translation algorithms use computer codes known as "neural networks". Such codes in the computer accept inputs in one language, and output them in the client's desired language (Fig. 1), taking account of context. Most western languages and Japanese are now freely translatable at an acceptable level. Similarly, local languages (e.g., Sinhala, Tamil, Hindi) could be provided on a Sri Lankan cell phone as options on a touch pad.

Neural-network algorithms are self-learning and acquire more vocabulary and context with continued use of the facility. In fact, such modules have to be developed by a computer-science laboratory and loaded into computers or cellphones as software. Computer science departments in the universities of Sri Lanka , or the Infor-

mation and Communication Technology Agency (ICTA) in Colombo would be eminently competent to develop such codes for use in cell phones, Internet browsers and other applications. Once it is developed, distribution is very easy as any one interested can down load it on-line for a minimal fee, or indeed free of charge. The cost of such a project, where the Tamil-Sinhala language barrier is opened up is negligible, and achieving the objectives in a very short time is well assured. Such algorithms can be developed beyond the level of simple transactions, and can be invaluable for local government, courts. or commerce.

The translation from Sinhala to English is more difficult because of the difference in sentence structure in the two languages. A neural-network algorithm is essential for such translations. As for Tamil↔ English translations, such codes are being developed for the Internet in South Indian institutions.

IV. CONCLUSION

We have argued that the naive identification of "language Chauvinism" as the cause of the post-independent civil strife in Sri Lanka is just not true. In any case, even if it were true, the highly laudable objective of making Sri Lanka 'trilingual' is quixotic and unattainable within even several decades, as seen from the four decades of futile attempts made by Canada to become bilingual. A practical alternative immediately available from technology is the implementation of online Sinhala ↔ Tamil translation. Cell-phone communications mostly involve simple social and business communications easily translated and electronically spoken in the desired language. Thus, a unilingual individual can communicate with colleagues who are competent in some other local language. The required technological know-how is eminently available in Sri Lanka's computer-science institutions.

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