ACKNOWLEDGEMENT

The researcher acknowledges with gratitude the invaluable help extended to him by the following:

The Asia Foundation and the Philippine Normal College-Language Study Center, for the scholarship grants for his doctoral studies;

Dr. Bonifacio P. Sibayan, President of the Philippine Normal College, for having reposed utmost faith and trust in the researcher, giving him every opportunity to realize his academic obsession in life. Dr. Sibayan was responsible for the introduction of the researcher into the field of linguistics which, without doubt, has broadened his outlook on and deepened his insights into language, more especially Filipino. To him, the researcher offers this work as a humble tribute;

Dr. Fe T. Otanes, Director of the PNC Language Study Center and Co-Director of the LSC-EDPITAF Textbook Development Project in Communication Arts, for her diligence in guiding the researcher in his study; for having gone over the draft of the study painstakingly in spite of her very tight schedule. The researcher benefited enormously from her suggestions;

Dr. Andrew B. Gonzalez, FSC, President of De La Salle University, for his abiding and undiminished interest in helping the researcher during the formative stage of the study; for patiently prodding him to go on, setting deadlines for him to meet, showering him with encouraging words that inspired him a great deal. Brother Andrew's scholarly suggestions and criticisms were taken into account in this study;

Dr. Jesus A. Ochave, EDPITAF Consultant on Statistics and PNC Graduate School professor of Statistics, for meticulously going over the statistical aspect of the study and giving suggestions for its improvement.

Prof. Twila G. Punsalan, PNC professor of Statistics, who so kindly and obligingly helped him in finding the appropriate statistical treatment for the survey data, a problem that for a time snagged the progress of the research;

Prof. Lorna Z. Segovia, Head, Research Department, and Chairman, Measurement and Evaluation, for giving him some important ideas on sampling and data-gathering techniques during the planning stage of the study;

Dr. Consuelo P. Ledesma, Dean of the PNC Graduate School, for inspiring the researcher to go on and for offering the help of her statistician which thereby led to the early completion of this study;
Prof. Rita R. Madlansacay, PNC Dean of Student Affairs and professor of Spanish, Dr. Teodora S. Collantes, Chairman of the PNC Spanish Department, and Prof. Milagros J. Santiago, PNC professor of Spanish, for helping the researcher with the Spanish options in the study;

The members of the examining panel for their helpful comments and suggestions;

Atty. Ponciano B. P. Pineda, Director of the Institute of National Language, for his continuing interest in the result of the study and for giving his sanction to the brand of Pilipino that the researcher used in his questionnaires; and

Atty. Benjamin M. Pascual, writer of note and PNC Graduate School professor, not only for his careful editing but also for his insightful comments and suggestions which have greatly enhanced the expository merits the work may have.

For their gifts of assistance and expertise, the researcher is most sincerely grateful. It may be added that none of them is in any way responsible for the errors and weaknesses that remain in this study, as these are the researcher's sole responsibility.

The researcher is also indebted to the following:

Dr. Alejandrino Q. Perez, Chairman, Language and Literature Stream, PNC Graduate School, for the moral support and financial assistance given by the Pambansang Samahan sa Lingguistikang Pilipino, Ink. of which he is the president;

The Philippine Social Science Council, Inc., for the discretionary research award which made possible the reproduction of sixty copies of the study;

The administrators, professors, and students concerned of the following schools, for the splendid cooperation they extended to the researcher: the University of the Philippines, University of Santo Tomas, Mapua Institute of Technology, Adamson University, Far Eastern University, De La Salle University, and Ateneo de Manila University;

Miss A. Colette Condon, Assistant Dean of the Graduate School and College of Arts and Sciences, and Dr. Gloria Chan-Yap, Chairman of the Linguistics Department, both of the Ateneo de Manila University, for their deep concern for and compassionate attitude toward graduating students like the researcher;
The researcher's colleagues and friends, for the varied help they extended to him when most needed; his students in the Graduate Schools of the Philippine Normal College and the University of Santo Tomas, for helping him in the data-gathering;

His wife and children, for their inspiration, and for their understanding and patience in the course of this work;

And most of all, the researcher thanks the Almighty God for listening to his prayers to sustain him throughout the duration of conducting the research and writing the results into what is now this work.

— A. O. S.
ABSTRACT

This study sought to find out how the intended users of Pilipino (Pil) would react to the different possibilities in the development of its scientific lexicon.

The different lexical elaboration possibilities assumed in this study, aside from the natural way of getting the exact or near equivalent of the English (Eng) term from Current Tagalog (CT), were as follows: (1) borrowing direct from Eng in the following manner: (a) without spelling alteration, coded E-1, and (b) with spelling alteration, to conform to the Abakada, coded E-2; (2) borrowing via Spanish (Spa) also in the following manner: (a) without spelling alteration, coded S-1, and (b) with spelling alteration, coded S-2; and (3) National Science Development Board's 'Maugnayin' way, coded M, characterized by borrowing from the vernaculars, coded V, coining or deriving, coded CD, or retrieval of archaic terms, especially from Tagalog, coded AT.

A survey of preferences on the above-specified lexical elaboration possibilities was conducted in the disciplines or fields of medicine (MED), biology (BIO), chemistry (CHE), physics (PHY), and mathematics (MAT), involving 100 college students (STUD), 100 professors (PROF), and 100 practitioners (PRAC) within the Greater Manila Area, making a total of 300 Ss who were classified into two linguistic groups -- Tagalog (TAG) and non-Tagalog (NTG).

The survey questionnaires were prepared in two versions (Eng and Pil) with randomized distribution of the versions among the respondents as a safeguard from possible context-sensitivity. The set of questionnaires for each of the five disciplines contained 20 technical terms, thus making a total of 100 terms.

The data gathered reveal that next to CT, both S-2 and E-1 are the two competing 'most preferred' options, with the former slightly favored over the latter. The phenomenal rise in rank of E-1 forms in this study as compared to the results of the Philippine Normal College-Language Study Center, Rivero-Labigan, and Sumayo studies, may mean that preference for these forms gets stronger as one goes higher in any sphere of knowledge.

The 'least preferred' options are M, E-2, and S-1, ranked downward in that order. It would seem that what was rejected in the E-2 and S-1 options was the spelling, considering that S-2 and E-1 came out as the two 'most preferred' options. On the other hand, what appear to have been unfavorable in the M options were the unnecessary coining and retrieval of archaic words, and the arbitrary manner of borrowing from the vernaculars.

The data also show that euphemism is still an important mode of language behavior in Filipino culture, especially on matters pertaining to sex, considering that the Ss rejected taboo terms in favor of euphemistic terms.
Finally, the preferences of the different types of Ss in each of the following groups show identical patterns, the trend being similar to what has already been discussed earlier: (1) STUD, PROF, and PRAC, (2) MED, BIO, CHE, PHY, and MAT, (3) TAG and NTG. The differences in the preferences of the groups in (1) and (2) are statistically significant, while that in (3) is not. The significance in (1) may have been due to the difference in the preferences of the STUD group as against the PROF and PRAC groups -- the STUD group opting more favorably for E-1 options and both the PROF and PRAC groups opting more favorably for S-2. On the other hand, the significance in (2) appears to have been due mainly to the MED group opting more favorably for CT terms.

The study culminates in a suggested general procedure to be followed in the development of a Pilipino scientific lexicon.

— A. O. S.
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CHAPTER 1

INTRODUCTION

1.0 In 1974, when Pilipino was officially prescribed as one of the two principal media of instruction in Philippine schools — the other being English — (vide Department of Education and Culture Order No. 25, s.1974), one of the serious problems that inevitably came up was the lack of technical terms in the language. It became quite obvious then that Pilipino would have to be intellectualized or modernized if it was to be a language capable of expressing the scientific and technological thinking of the Filipinos in the modern world. A major component of such modernization is the development of the lexicon, especially in the spheres of science and technology.

1.1 Development of a Pilipino Scientific Lexicon: Major Possibilities

The following are major possibilities or techniques that can be availed of in the elaboration of a Pilipino scientific lexicon:

1.1.1 Borrowing from English in the following styles:

1.1.1.1 No change in spelling of the borrowed term (E-1); e.g. chemistry.

1.1.1.2 Borrowed term respelled to conform to the Abakada or Pilipino alphabet (E-2); e.g. kemistri.

1.1.2 Borrowing via Spanish in the following styles:

1.1.2.1 The Spanish equivalent of the English term is taken with no change in spelling (S-1); e.g. quimica.

1.1.2.2 The Spanish equivalent of the English term is taken and respelled to conform to the Abakada (S-2); e.g. kimika.

1.1.3 Borrowing from the Philippine vernaculars (V); e.g. butod for nucleus, a Visayan word borrowed by the 'Lupon sa Agham' ('Lupon') of the National Science Development Board (NSDB).

1.1.4 Retrieving of archaic Tagalog terms (AT) from disuse; e.g. siha, meaning angle, as retrieved by the 'Lupon'.

1.1.5 Coining or deriving (CD); e.g. kapnayan, meaning chemistry, derived by the 'Lupon' from sangkap and hanayan.
1.2 The Problem

This study is chiefly concerned with ascertaining how the intended users of Pilipino would react to the above-mentioned possibilities in the elaboration of the scientific lexicon of Pilipino.

To be able to realize the objective, the following specific questions will have to be answered.

1.2.1 Which of the possibilities for lexical elaboration are most or least preferred by the intended users?

1.2.2 Confronted with an English technical term, which of the four borrowing styles — E-1, E-2, S-1, and S-2 — will the intended users prefer?

1.2.3 Aside from directly borrowing English terms and indirectly borrowing English terms via Spanish, how will the intended users react to the following other possibilities for lexical elaboration?

1.2.3.1 Getting the equivalent or near equivalent of the English term from the following sources:

   1.2.3.1.1 Current Tagalog
   1.2.3.1.2 Archaic Tagalog
   1.2.3.1.3 Vernaculars
   1.2.3.2 Coining or deriving
   1.2.3.3 Euphemisms for taboo terms on sex

1.2.4 Will there be differences in the preferences of each of the following groups with regard to the different possibilities of developing a Pilipino technical lexicon?

   1.2.4.1 Students, professors, practitioners
   1.2.4.2 Medicine, biology, chemistry, physics, mathematics
   1.2.4.3 Tagalog, non-Tagalog

1.2.5 What guidelines can be formulated in the development of a Pilipino scientific lexicon?

1.3 Importance of the Study

The present bilingual education policy of the Philippine Government (vide Department of Education and Culture Order No.25, s.1974, and its supplement, Department Order No.50, s.1975), allocates separate and specific functions to English and to Pilipino as media of instruction.
Thus, the subjects which are considered technical and nonculture-loaded are to be taught in English, whereas the subjects which are considered nontechnical and culture-loaded are to be taught in Pilipino.

The rationale for allocating specific functions to the two languages was clearly expressed by Sibayan et al. (1975), thus:

Domains having to do with family, social, and national life as well as everyday living, and domains having to do with the elements of Philippine culture will be articulated in Pilipino. Domains having to do with the international body of knowledge in science and technology will be articulated in English... The policy, if properly implemented, will ensure the continuing use of English as a language of wider communication and as a language of technology and the development and standardization of Pilipino as a means of articulating the ideals of the future.

This dichotomous allocation for Pilipino and English, as this researcher sees it, seems to be the most practical policy that any well-meaning language planner could conceive for the present needs of Philippine education. Historical determinism has acted upon the lives of Filipinos such that they cannot do away with either one of the two languages in their educational program and still expect optimal results.

The present bilingual policy, however, is not without merit and demerit. While the advantages expected to accrue from the use of both languages by reason of the policy are quite apparent (Sibayan, supra, p.4), some disadvantages which may still be undiscerned for the present could surface later on. That is, the restrictive application of English to technical and nonculture-loaded subjects could yet hasten its alienation from the masses, eventually limiting its use to only a thin upper class stratum of Philippine society (Myrdal 1968:81-2). A foreseeable consequence of this policy is that English would be relegated to a status not different from the other languages being taught in the schools only as a foreign language, a consequence which is not in accord with the rationale of the bilingual education policy cited above.

Conversely, the present bilingual setup could develop a nontechnical Pilipino language, a kind of language which would not be truly functional because limiting its use to nontechnical matters would deter its intellectualization. Generally, a typical Filipino does not express his acquired knowledge in capsules or even modules. In other words, he usually transcends various domains, mixing technical and nontechnical words, to express his ideas during a communication process.

The present policy should, therefore, be regarded only as an intermediate or transitional step towards developing Pilipino as at once a language of culture and of science and technology. In fact, a vision on the development of Pilipino was expressed by no less than Minister Gerardo P. Sicat of the National Economic and Development Authority (Sicat 1976:7) who said:
Bilingualism...appeals to me as a temporary dichotomy that must be integrated in some way. I do not mean mixing English and Pilipino in some form of pidgin, but developing Pilipino so that it becomes a language of both authority and convenience, perhaps to displace English in its future acceptability. I am certain that the new Pilipino (language) will develop in its own uniqueness and aesthetic appeal to those of us who may feel ill at ease with the transition.

The formal use of Pilipino as a medium of instruction in the schools would no doubt accelerate its development, although in the meantime it may not yet serve as a language for science and technology. Such an arrangement would give Pilipino a chance to gradually become capable of handling science and technology courses in the schools.

As stated earlier, Pilipino can not yet effectively handle science and technology because it still lacks the needed technical vocabulary for the purpose. The problem, therefore, that besets Pilipino today is with respect to how the technical lexicon can be developed and elaborated in order to hasten its intellectualization; hence, this study.

In case, however, Pilipino would not displace English as a medium of instruction for science and technology within the foreseeable future, this study could nonetheless be of help to writers of instructional materials in Pilipino who are usually befuddled by the problem of how to borrow English words into Pilipino.

Moreover, this study could be of help to translators from English to Pilipino, an activity which has acquired momentum with the implementation of the bilingual education policy.

**1.4 Scope and Delimitation of the Study**

This study merely attempts to ascertain the preferences of college students, professors, and practitioners with regard to the different possibilities of developing a technical lexicon of Pilipino in the spheres of medicine, biology, chemistry, physics, and mathematics. It does not go further into inquiring from the respondents their reasons for liking or disliking certain terms.

The respondents' reactions to the items used in the survey are to be interpreted, therefore, as mere indications of the directions that the intended users favor or disfavor with regard to the enrichment of the technical vocabulary of Pilipino.

Some quarters could claim that not all of the items used in the survey could be considered technical; that terms which are more technical or more current should have been used in the survey instead. This, admittedly, is a limitation of the study because of the following constraints that had to be considered in the selection of every item:
Firstly, the term, for obvious reasons, should be spelled differently in each of the following option-types: E-1, E-2, S-1, and S-2. The medical terms carditis and meningitis, for instance, could not be included because they would be spelled the same in both E-1 and S-1; likewise so with the term adrenalin which would be spelled the same in both E-1 and E-2.

Secondly, the term or its equivalent should be found in the 'Maugnayin' book. The chemistry term stoichiometry, for instance, is apparently highly technical and may be considered suitable insofar as E-1, E-2, S-1*, and S-2 are concerned because it would be spelled differently in each of these four option-types. But the term is not listed in 'Maugnayin' so that it had to be discarded.

Thirdly, as many formatives as possible (see Appendix G) should be included in the 100 English scientific terms used in the survey to find out, as a peripheral study, if a pattern could be established in the manner of assimilating English formatives into Pilipino. An item could thus be considered suitable yet nonetheless have to be excluded because another item or items with the same formatives had already been included.

Fourthly, the eleven 'foreign' letters — c, f, j, ñ, q, v, x, z, ch, ll, rr — should as much as possible be included and spread among the items also to find out if they would be accepted by the respondents for scientific technical terms. In this study, only the Spanish letter ñ was not included because no scientific term containing that letter could be found by this researcher. (A sample of usages of the foreign letters is shown in Appendix H.)

Fifthly, there could of course be other possible sources in the elaboration of a Pilipino lexicon, like borrowing from other more developed languages of other nations, such as German, French, Russian, Japanese, etc. However, they were not considered as the study would have become unwieldy. Besides, if technical words from international languages are ever borrowed into Pilipino, they are borrowed through the English language.

1.5 Definition of Terms

The following terms are defined conformably with their use in this study:

1.5.1 Language modernization. One of the three dimensions for measuring 'language development' (the other two being graphization and standardization) that deals with the development of vocabulary and forms of discourse (Ferguson 1968:27).

1.5.2 Language standardization. The process whereby one variety of a language becomes widely accepted throughout the speech community as a supradialectal norm — the 'best' form of the language — rated above regional and social dialects (Ferguson 1968:31).
1.5.3 Intellectualization. The requirement of increasing accuracy along an ascending scale of functional dialects from conversational to scientific (Garvin in Hymes 1964:521). This may have some similarities with Haugen’s elaboration of function (1966:249-52) and also with Ferguson’s modernization (in Fishman 1968:27) which includes expansion of the lexicon and development of new styles and forms of discourse.

1.5.4 Tagalog. A term used to refer to either the language or the people: the Philippine language variety that was made the basis of the national language (now called Pilipino), or a Filipino citizen whose first language is any of the Tagalog varieties, such as Manila Tagalog, Bulacan Tagalog, Batangas Tagalog, Nueva Ecija Tagalog, etc.

1.5.5 Non-Tagalog. A Filipino citizen whose first language is not Tagalog -- it may be English, Spanish, Ilocano, Cebuano, Chavacano, Chinese, etc.; he can, however, also communicate in Tagalog.

1.5.6 Consistent orthography. A spelling system having a 'one-to-one correspondence between each phoneme and the symbolization of that phoneme'; i.e., there is a 'separate symbol to each unit proved to be phonemically distinct' (Pike 1964:208). Pilipino has a consistent spelling system because every phoneme in this language (with the exception of the glottal stop - ed.) is regularly represented by only one symbol; e.g. kamay, siko, batok.

1.5.7 Inconsistent orthography. A spelling system wherein a single phoneme in a language can be represented by more than one symbol (Gelb 1963:225, Bloomfield 1956:501). English has an inconsistent orthography because the phoneme /k/, for instance, can be represented by more than one symbol, such as in kit, car, squatter, cholera, chick, burlesque, etc.

1.5.8 Technical or Scientific term. An English term that when read or heard in isolation is recognized to belong to a particular sphere of knowledge. This terminology is loosely used in this study in the sense that some of the terms employed in the survey questionnaires may not strictly belong to one specific discipline or sphere of knowledge.

1.5.9 Current Tagalog. A term strictly used in this study to refer to terms that do not have traces of foreign markedness. Medisina, for example, is not considered CT for purposes of this study because it is recognizable to Filipinos as a Spanish loanword; also matematisyan as an English loanword.

1.5.10 Intended users. A term used in this study synonymously with 'target population'. Specifically, it refers to a group of people who are identified as having specialized or are still specializing in a particular discipline or sphere of knowledge, such as a medical student, a mathematics professor, or a chemist (chemical practitioner).

1.5.11 Random sampling. The selection of cases from the population in such a manner that every individual in the population has an equal chance of being chosen (Guilford 1973:122).
1.5.12 Purposive sampling. A sampling technique wherein a sample is 'expressly chosen because...it mirrors some larger group with reference to a given characteristic' (Garret 1967:207). For instance, 'newspaper editors are believed to reflect accurately public opinion upon various social and economic questions in their sections of the country'. In this study, the responses of the sample of 'practitioners' are taken to mean that they 'mirror' the preferences of a larger group in their respective areas of specialization.

1.5.13 Pilipino. This is the Tagalog-based national language. The 1935 Philippine Constitution provides that 'the National Assembly shall take steps toward the development and adoption of a common national language based on one of the existing native languages'. Tagalog was made the basis in 1939. In 1959, the department of education ordered that the national language shall be called Pilipino 'to impress upon the national language the indelible character of our nationhood' and presumably to erase the regional connotation of the term Tagalog as the basis of the national language.

1.5.14 Filipino. This is the envisioned national language in the 1973 Revised Philippine Constitution, a 'much more liberalized, more flexible and more representative language', a further development of Pilipino as the national language (Marcos 1974:31).

NOTES

*There is no Spanish dictionary for chemistry available to this researcher. A Spanish-sounding term, however, could easily be derived from the English term, such as stoichiometria since the English combining form -metry usually corresponds with the Spanish -metria.
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by Alfonso O. Santiago; Fe T. Otanes, series ed.
CHAPTER 2

BACKGROUND OF THE STUDY

2.0 Introduction

This chapter attempts to present a capsule history of the development of Pilipino, highlighting the aspects that pertain to the type of national language being developed, specifically those that deal with purism, spelling, the Abakada, borrowing, and other issues related to the present study.1

This chapter also seeks to show that the manner of development of a lexicon for the national language has been a perennial problem, triggered by the publication of the 'puristic' Balarila ng Wikang Pambansa for use in the elementary and high schools as early as 1939, two years after Tagalog had been officially adopted as the basis of the national language.

This researcher believes that the subject of intellectualization of Pilipino can be better appreciated if viewed against the backdrop of the lexical development in the national language. It may be stated that the study is in no way concerned with the national language controversy, as its purpose is chiefly to throw light on the development of the technical lexicon of Pilipino as a language. This researcher merely seeks to present herein the opposing views held by authorities and specialists.

This chapter culminates with a resumé of issues on the lexical development of Pilipino as this researcher sees them from a distance.

2.1 The Contact Situation

The Philippines is a developing country in Southeast Asia which was successively dominated by at least three foreign countries — Spain, the United States, and Japan. For many hundreds of years it underwent not only political but also cultural and economic colonization.

The two countries, however, that have left indelible imprints of colonization in the lives of the Filipinos are Spain and the United States (Panganiban 1970:21).

The extent of the Filipinos' contacts with Spain and the United States is mirrored in the indigenous Philippine languages.2 In fact, to an ordinary Spanish or American listener, Pilipino, the Tagalog-based national language, will not sound altogether foreign because he will be able to retrieve a medley of Spanish or English words woven into its intricate system of affixation. He may even suspect that Pilipino is an Indo-European language, belonging to the same family of which Spanish and English are part (Goulet 1971:1-2).
A little knowledge of Philippine history, however, will make one understand that the Spanish and English words interspersed in Filipino utterances are merely loan words from the two foreign languages; that such is the result of the contacts of Tagalog with Spanish for almost four centuries and subsequently with English for more than half a century.

Theoretically, the longer the period of contact, the greater would be the linguistic influence of the colonizer's language on that of the colonized. During the almost four centuries of Spanish rule in the Philippines, the colonizer's language could have completely nativized and replaced the native languages. This, however, did not take place. Frake (in Hymes 1972:223), in tracing the origins of the Spanish creoles in the Philippines, says:

In the Philippines, in spite of the rapid Spanish conquest, almost total conversion to Christianity, and over three hundred years of occupation, the Spanish language failed to establish itself. Spanish replaced no indigenous Philippine language, and its role as an auxiliary language was sufficiently tenuous that it was quickly supplanted by English after the American occupation. Today, apart from the many Spanish loan words in Philippine languages and few speakers of Spanish in the upper echelons of society, the linguistic legacy of Spain in the Philippines is limited to the existence of several communities that speak a Spanish creole language as their mother tongue.

The extent of influence of Spanish on the indigenous Philippine languages is in sharp contrast with that of English 'which became more widespread even after only two decades of American rule in the Philippines' (Forbes 1928:1:416). In a relatively short period, English became the medium of communication. English-speaking Filipino teachers gradually replaced American educators. And after a quarter of a century of American occupation, the Philippines produced a good crop of Filipino writers and speakers of English, which was fast becoming the common tongue from Aparri to Jolo (Kiunisala 1963:58).

The differences between the Spanish and the American colonial philosophies, in general, and educational and language policies, in particular, may perhaps account for the difference in impact of the two languages on the Filipinos. The Spanish era in the Philippines may be characterized simply as one of 'raising the cross and thrusting with the sword' and preserving Spanish as an aristocratic language available only to the few elite and not to the 'Indios'. On the other hand, one of the first acts of the Americans when they colonized the Philippines was to provide education to the Filipinos and in so doing teach them the English language side by side with the principles of democracy on a massive scale (Forbes, 49:395:II, Appendix VII).

There were, to be sure, other factors that characterized the nature of Spanish and American colonization in the Philippines, besides their differences in policies and attitudes toward language. One of them was the nature of contact itself, i.e., the incentive to learn, where the impact of the English language and American culture was greater. Another factor was
the quantity of instructional reading materials; there was a dearth of such materials in Spanish, whereas there was a deluge in English (Phelan 1959:132).

Presently, after only slightly more than half a century of contact with English, and in spite of the fact that the Philippines is no longer under American domination, English remains as the principal medium of instruction in the Philippines. This may be attributed to the fact that English continues to be an international language—the language of education, science and technology, diplomacy and foreign relations—serving as the Filipinos' link with the outside world. Moreover, unlike the Spaniards, the Americans left no legacy of hate among the Filipinos. Hence, the Filipinos continue to look to the English language as a source of knowledge and means of advancement. This has been confirmed in a study conducted by Tucker (1968:16-7) among sophomore students of the Philippine Normal College who associated the acquisition of skills in English with success and advancement in life, showing that a Filipino who is 'not skilled in English would be unable to enter such professions as teacher, doctor, secretary, etc.' Tucker further states that in the Philippines, 'social mobility depends upon the acquisition of skill in English. Higher education, better employment opportunities, and travel abroad are easily accessible only to those who possess the necessary skills in English'.

Other solid proofs that English still holds a premier status in the Philippines are as follows: 1) all Presidential Decrees, as well as statutes, have been promulgated in English; 2) the 1973 Philippine Constitution was originally written in English although it was officially promulgated in English and in Pilipino; it provides that 'in case of conflict, the English text shall prevail'; 3) in the convention of the Batasang Bayan (held at Malacañang Heroes Hall, October 29-30, 1977), English was the language used by the delegates who represented the different ethnic groups or regions of the country; and 4) most deliberations and all measures presented at the Batasang Pambansa in its sessions in 1978 were in English, although the assemblymen had been exhorted to learn to speak Pilipino. These are clear illustrations that Pilipino as a national language has not yet taken over the political functions of English.

2.2 The Development of Pilipino

The need for having a common language dawned upon the Filipinos toward the end of the 19th century when communication among the 'insurrectos' or freedom fighters of the Ilocos, the Visayas, and the Tagalog provinces was possible only with the help of interpreters (Kiunisala 1963:2). Apparently, the multiplicity of languages spoken by the different ethnic groups was one of the major stumbling blocks to the Filipinos' efforts to liberate their countrymen from Spanish domination. Under the circumstances, the Filipino leaders were obliged to employ Spanish in most of the laws of the first Philippine Republic, and to use Tagalog in some decrees.
Then the United States supplanted Spain in the colonization of the Philippines. Through legal means, the Filipinos worked for their independence. After a transition period of ten years, known as the Commonwealth Period, the Filipinos gained their independence in 1946. The opportunity to develop a national language could now be realized. In fact, the framers of the 1935 Philippine Constitution, imbued with the vision of their forebears, mandated the Commonwealth National Assembly (Article XIV, Section 3) to 'take steps toward the development and adoption of a common national language based on one of the existing native languages'.

A year later, in consonance with the constitutional provision, Commonwealth Act No. 184 was passed, establishing the National Language Institute (NLI — later changed to Institute of National Language (INL) — and giving it the authority to study and analyse the principal Philippine languages and to choose therefrom the basis of the Philippine national language.

Another year later, in 1937, the seven members of the Board of the INL, six of whom were non-Tagalogs, recommended Tagalog as the basis of the national language. The INL Board believed that Tagalog best fitted the requirements stipulated by law as regards structure, mechanics, literature and number of speakers.

The decision of the INL Board, apparently, was not tainted by regionalism, although President Quezon’s advocacy of Tagalog might have influenced it.

2.2.1 Puristic Balarila: Precursor of Language Controversy. Two years later, the INL, in conformity with Commonwealth Act 184, published a grammar book titled Balarila ng Wikang Pambansa and a Tagalog-English Vocabulary. The two books were to be used in the schools. This was the beginning of the long drawn-out language controversy because a puristic tendency was very evident in the first two products of the INL. The term balarila in the title of the book itself, for example, was derived from bala 'bullet' and dila 'tongue' (Panganiban 1970:14). As an alternative, the Spanish word gramatica (gramatika) could have been borrowed.

That the book was really puristic is further evidenced by pages 13 and 14 where even the proper names were respelled according to the 20-letter Abakada in spite of the provision in Commonwealth Act 184 that ‘... spelling of family names of foreign origin and form used by Filipinos shall be preserved in order not to render the identification of persons difficult’. Examples: Huse instead of Jose, Suwan instead of Juan, Kintin instead of Quintin, Maksimo instead of Maximo, Kalisto instead of Calixto, etc.

In fact, it is common knowledge among Filipino language scholars that when a copy of the Balarila was brought by the members of the INL Board to Malacañang and shown to President Quezon, he angrily blurted out his favorite curse word in Spanish and almost threw the book in the Pasig River. That was after his vain efforts to pronounce the word balarila correctly and after briefly thumbing through the pages of the book and
occasionally lip-reading a passage here and there with knitted eyebrows. President Quezon was furious because if he, a Tagalog, could not understand the book, how much more could the rest of the Filipinos, especially the non-Tagalogs, understand it?

Meantime the stipulated date for the publication of a grammar book for the national language would soon lapse and to write another one was already impossible. Actually, the Balarila did not even have a section on syntax.

Sibayan (in Fishman 1974:224), however, has this to say about the Balarila:

Under the able leadership of Lope K. Santos, one of the Philippines' best Tagalog scholars at the time, ... a grammar titled Ang Balarila ng Wikang Pambansa (was produced) ... Given the state of the art of grammar writing at the time and the speed required to comply with the Presidential directive, the grammar was an excellent product, though having it officially accepted has made it difficult to introduce improvements as better grammars have become available.6

At any rate, the Balarila and the Vocabulary were used in teaching the national language in the schools. But as the years went by, it became obvious that the 'national language being taught in the schools was puristic --- neither Tagalog-based (i.e., the national language should incorporate many loans from other Philippine languages and also from foreign languages) nor Tagalog as spoken and understood by the Tagalogs' (Sibayan 1967:136, esp. footnote).

Yet the INL should not be held solely blameworthy for this manifest attitude regarding the manner of development of the national language. Its actuations must have been dictated by what had been provided in Section 8 of Commonwealth Act 184, which reads as follows:

Special attention shall be given to the purification and enrichment of the National Language in accordance with the following procedures:

(2) To purify the vocabulary of the national language, the National Language Institute shall safeguard the proper meaning and use of the words and expressions of the national language and shall cleanse the same of unnecessary foreign terms, words, and constructions. (Underscoring supplied.)

To the Filipinos who had been dominated by foreigners for so long a time, any planning on language would naturally be tainted with nationalistic undertones, usually a manifestation of the subconscious among freedom-hungry minds. This merely confirms what Fishman (1972:66) says, that 'nationalistic language planning reveals a pervasive abhorrence of foreign influence'. Foremost in the minds of the language planners and implementors during those times must have been (to borrow a term from Fishman again) the 'authentication' of the national language; that is, if a
national language had to be developed, it had to be one that was recognizably indigenous, free from admixture and adulteration. And this is clearly evident in what INL Director Jaime C. De Veyra stated in the foreword of the Balarila:

Ang may-akda (referring to Lope K. Santos) ay napilitang gumanit ng mga bagong salita, upang tayo'y mahiyalet man lamang kahit sa diwa, sa pagkalipin ng mga balarilang banyaga. Ang balarila ... palasurian, palasugnayan, palabigkasan, at palakitikan ay maipalalagay na mga bagong salita, palibhasa sa wikang katutubo ay wala tayo ng gangganyang mga bigkasin. Lalo kayang tumapak na gamitin ang mga salita na ring pinalalaganap ng mga mangangastila at mang-ingles? Hintayin nating mga pangayari na rin ang magpapasiya.

De Veyra had hoped that the terms used by Lope K. Santos would survive. Indeed at present, the following terms together with most of the so-called puristic terms of Santoa, are already commonly used: pantig (syllable), pang-angkop (ligature), pantukoy (article), pangngalan (noun), pang-uri (adjective), panghalip (pronoun), pandiwa (verb), pang-abay (adverb), pangatnign (conjunction), pang-ukol (preposition), etc.

At any rate, it might be said that the Balarila of Santos is a good example of what Fishman (1974:22-3) says in summing up the 'social trouble and travail' that accompany language planning processes:

Every one of the system-building or revising triumphs of language planning has been carefully cloaked in sentiment, has appealed to authenticity rationales, has claimed indigenousness. Obviously, a speech community wants its language to be more than neat and trim and handy. It also wants its language to be theirs, i.e., like them in some way, reflective of their individuality in some way, protective of their history in some way.

The 'authentication' efforts, however, appeared to have been carried too far by the INL; they were interpreted as leaning towards 'purism' and were thus repudiated by even the simon-pure Tagalogs themselves.

For instance, former Senator Francisco Rodrigo, a Tagalog writer and radio commentator who has translated Cyrano de Bergerac into Tagalog, vehemently berated the schools for propagating a national language which was so puristic that, much to his embarrassment, he could not help his son with the latter's homework because of so many strange words which he could not comprehend, such as tuldok, kwit, tuldukuwit, parirala, panaklong, etc. Senator Rodrigo wrote (1963:3):

Was my face red when I saw the lessons! I could not get a passing mark if I were to take a test on it. To be more honest, I would not rate even 40 percent. In fact, I could not even understand the words which I read... I felt quite embarrassed.
There I was, supposed to teach Tagalog grammar to my son, and I ended up by asking him what those queer-sounding words meant.

Ex-Senator Rodrigo claims that the basic philosophy behind the establishment of a national language is to have a common medium of expression that is easily understood, learned and used by all segments of the population. It is for this reason, he further asserts, that the First Constitution uses the words 'development and adoption' of a common national language and not the words 'invention and imposition'. This is also one of the reasons, he says, why the framers of the 1935 Constitution deemed it advisable to provide that the national language be 'based on one of the existing native languages'.

The former Senator believes that the teaching and learning of the national language would be much easier if the people were to use words already well known to them, like gramatika instead of balarila, diksyunaryo instead of talatinigan, koma instead of kuwit, kolon and semikolon instead of tutuldok and tudukuwit, etc. He even radically proposes that 'we should follow what President Quezon wanted to do from the very beginning: Throw the Balarila ng Wikang Pambansa into the Pasig River and start all over again with an entirely new approach'. The Balarila, he concludes, will forever be an obstacle instead of a help to the propagation and development of the Pilipino language. Unless we change it radically and basically, we shall forever be chained to a 'shortsighted, isolationist and jingoistic policy which renders the study of our language not only difficult but repulsive to our own people'.

Even before 1963 when former Senator Rodrigo expressed his views in the Philippines Free Press, Secretary of Education Jose E. Romero, evidently aware of the raging national language controversy, had already issued Department Order No.19, s.1959, to the effect that henceforth the national language would be called Pilipino 'to impress upon the national language the indelible character of our nationhood'. It would seem, however, that the change had been designed to erase the issue that the language being developed by the INL and the schools was puristic and presumably to eliminate the regional connotation of the term Tagalog (Sibayan 1974:225).

The terminological shift did not pacify the critics. Soon they raised another issue: Pilipino should be Filipino — another way of saying that Pilipino is still Tagalog.

By then it became obvious that the issue on purism was being beclouded by ethnic loyalty and colonial mentality on the part of some educated Filipinos. With a touch of sarcasm, they claimed that after having been liberated from three colonial masters — Spain, the United States, and Japan — here came another colonizer: the Tagalogs. They deeply resented some Tagalistas who, they claimed, behaved as if they were the self-anointed and God-sent proprietors of the national language, Tagalogs who equated nationalism with fluency in Pilipino.
Their undisguised vehemence in condemning the Tagalogs, however, was interpreted by those on the opposite camp as a mere cathartic outburst of emotions, for in reality, as products of an alienating system of education, they were advocating nothing but English — the language that had moulded them into what they were.

Even in a very recent survey, Silliman (1977) says that a number of her respondents expressed the view that a national language need not be one that is indigenous to the Philippines, implying that English should be the national language. Also, during the national conference on 'Language Planning and Development in the Philippines' Casilda Luzares, a native of Cebu who was one of the panelists, claimed that when she was in the Visayas recently she was asked if there is any law in the Philippines which prohibits the adoption of a foreign language as the national language. This is reminiscent of an erstwhile movement which quickly fizzled out, that the Philippines be ceded or federated as one of the states of the United States, like Hawaii.

Regarding ethnic loyalty, Sibayan (1974:250-1), in assessing the thoughts and sentiments expressed by the 1972 Constitutional Convention delegates in terms of the worldwide search for identity by peoples of emerging or developing countries, of which the Philippines is one, has this to say:

It is clear that while they identify themselves with their ethnic languages, languages they have intimate ties with, they have not yet identified themselves with a language that is based on a 'rival' Philippine language. It is not unfair to say that it is this jealousy of the 'advantages' that they feel are given to Tagalog speakers that made them reject the language ... The search for identity with symbols like language carries with it so many emotional involvements that even the educated human mind cannot seem to transcend ethnic or parochial attachments.

2.2.2 Language Issue, a Full-Scale Controversy. The years during the sixties saw the surge of resistance becoming stronger against the brand of national language being propagated by the INL and the schools. On February 8, 1963 (Constitution Day), less than a month after the Free Press' special issue on language, Congressman Inocencio V. Ferrer, a Visayan, filed a case in court with the following as respondents: Jose Villa Panganiban, Director of the Institute of National Language; Alejandro R. Rocos, Secretary of Education; Emmanuel Palaez, Secretary of Foreign Affairs; and Carlos P. Romulo, President of the University of the Philippines. The complaint in effect stated that the language which the respondents were propagating was pure Tagalog; that this was also what they called 'Pilipino'; and that the respondents were cheating the people in thus developing and propagating Tagalog as the national language when Tagalog was only intended to be the basis.
The case, however, was dismissed (by Judge Gregorio T. Lantin, Court of First Instance, Manila) in a decision, the dispositive part of which was that the respondents' position in the development of the national language was in accordance with law and the history of the development of other languages of the world, hence they were not culpable (Pineda 1965:3-4).

The agitation, however, did not ebb in spite of the Court's decision upholding the position of the INL. A concrete manifestation of the undiminished resistance against puristic Pilipino was the experiment conducted by the Taliba newspaper sometime in 1967.

The Taliba, one of the oldest vernacular dailies that used to conform with the spelling rules of the Balarila was part of a newspaper chain owned by the Manila Times Publishing Company. Its average daily circulation in 1967 was no more than 28,000 in spite of an estimated more than two million Tagalog readers in the metropolitan area alone. The publisher, Joaquin Roces, surmised that the reason for its comparatively low circulation was that it was failing to communicate with its readers owing to its use of pure, formal Tagalog.

Accordingly, publisher Roces launched an experiment by adopting a mixture of easy Tagalog and foreign words in their original spelling which had entered the language through frequent and popular usage. The experiment was so successful that the circulation of Taliba soared by 30 percent (Roces 1967:5).

Then on March 6, 1967, Congressman Aguedo F. Agbayani, Chairman of the Committee on Education of the House of Representatives, delivered a speech imputing failure to the INL in the development of a national language as prescribed by law. Agbayani said in part:

The Institute of National Language, after these past 30 years, has not truly developed a national language ... the Institute having accepted a very insignificant number of words from the other native dialects and has insistently refused to revise the 20-letter alphabet, the Abakada, in order to accommodate foreign words.

Agbayani, like Rodrigo, accused the 'purists' of developing a language which was not understandable even to the Tagalogs themselves. The Congressman cited the rise in circulation of Taliba from 19,000 to more than 65,000 in less than ten months after the newspaper switched to functional Pilipino from the puristic, classical Tagalog. The rise in circulation, Agbayani contended, was an eloquent proof that purism had no place in the development of Pilipino.

Agbayani's speech which subsequently appeared in the Manila Times (March 10, 1967) prompted the Committee on Education and the Committee on National Language of the House of Representatives to conduct joint hearings to reexamine the procedures used in the development of Pilipino.
Dr. Jose Villa Panganiban, who was then the INL Director, testified before the Joint Committee that everything being done by the INL was in accordance with the provisions of law. Carlos P. Romulo, as President of the University of the Philippines and concurrently Secretary of Education, also testified and proposed a four-point program for the development of the national language: 1) conduct an authoritative inventory of borrowed foreign words and present corresponding linguistic rules of borrowing at the end of each five or ten-year period; 2) for the duration of each subsequent period, allow the process of natural selection of new words to be borrowed and conduct a debate among scholars, linguistic societies, and experts; 3) compile and publish as soon as possible a comprehensive dictionary of Pilipino to ensure a continuous and orderly growth, and to record such growth, of the national language; and 4) authorize the use of the national language as medium of instruction at the elementary, secondary, and collegiate levels (Romulo 1967 as summarized by Sibayan 1974:234-5).

The speech of Congressman Agbayani must have been inspired by the running feud between Kataas Editor Lacuesta and INL Director Panganiban, as may be gleaned from the editorial of that journal (August 1971 issue). The editorial says in part:

From 1961 to 1963, Kataas was under the influence of the Institute of National Language and so its language was puristic abakada Tagalog. In its June 1964 issue, however, Kataas raised the banner of revolt against the Institute of National Language standard and began to write in the Manila Lingua Franca. The Kataas lead was followed by the other mass media, including the Taliba dailies. Soon, this mixed Manila language which we call 'Filipino' as distinguished from the INL's 'Pilipino' (puristic abakada Tagalog) was in a state of riotous bloom. The mass media threw into the Paspas River the 'Balarila ng Wikang Pambansa' of Lope K. Santos, doing exactly what Quezon wanted many years ago when the first copy was presented to him for approval.

Some years after the speech of Congressman Agbayani and after subsequent hearings conducted on language, a bill (H. B. No. 11367) was filed in Congress providing among other things the abolition of the INL and its replacement by another body to be called Akademya ng Wikang Pambansa. The bill also provided the addition of the following letters to the 20-letter Abakada: c, ch, f, g, j, l, n, q, rr, v, x, and z (Polotan 1966:7).

It was very obvious at that time that much opposition had been built up against the INL. Yabes (1974:4), who was an English professor at the University of the Philippines, likewise claimed that the development of the national language would have been more rapid, steady, and harmonious if the leaders of the movement, especially those whose native language was Tagalog, had not been suffering from shortsightedness. At best, Yabes claimed, they were insular in mentality; at worst they were provincial or parochial.
2.2.3 The INL's and the Purists' Side of the Issue. The INL and individuals identified by the 'antipurists' as 'Tagalistas', on the other hand, did not take the invectives and accusations of their critics without raising a hand. Thus, the late Jose Villa Panganiban, who was then INL Director, answered his critics on the issues raised against the Institute. On the issue of purism, he explained that there was no pure language being spoken by any civilized people in the world, and that Tagalog, with all the influences of factors traceable to the eleventh century, could not possibly remain pure. Of course, Panganiban pointed out, Pilipino, being Tagalog-based, would sound like Tagalog but it would not be so all the time as Filipinos would develop it naturally through borrowings from other languages, be they indigenous or foreign, and through other known processes in language development (Panganiban 1970:182).

As to the issue of spelling and the 20-letter alphabet (invariably called by the anti-purists the 'Tagalog Abakada' or 'atavistic Abakada'), Panganiban explained that its composition was in itself a recent product of the fluctuating development of the Pilipino system of writing after it had passed through modifications and changes brought about by easily traceable historical, educational, literary, and linguistic influences since the seventeenth century.

Panganiban pointed out that the actual composition of the current Pilipino writing consisted of two parts:

First, the Romanized Abakada consisting of 20 letters: a, b, k, d, e, g, h, i, l, m, n, ng, o, p, r, s, t, u, w, y. These letters are used to spell common words, be they indigenous or assimilated loan words.

Second, borrowed letters from English and Spanish writing systems, composed of 11 letters: c, ch, f, j, ll, n, q, rr, v, x, z. These letters are used in unassimilable borrowed proper and technical terms mainly from Spanish and English.

Panganiban explained further that the Pilipino writing system is consistent in the sense that it follows the simple rule of one letter, one sound. In other words, there is a one-to-one correspondence between the significant sound or phonemic unit of the language and the symbol or letter. It is different from the inconsistent English writing system wherein a letter or symbol can represent multiple sounds.

The respelling of borrowed common words to conform to the Abakada, according to Panganiban, was mistakenly interpreted by some people as puristic and/or atavistic. Every language, according to him should have its own system of rules on spelling to follow in borrowing loan words, especially from languages that do not use the Romanized system of spelling.

Paraluman Santos-Aspillera, daughter of Lope K. Santos himself, the author of the puristic Balarila, had the following to say on the so-called 'puristic abakada' which is virtually in accord with Panganiban's statement:
The Institute of National Language Board in 1939 decided to adopt /c, ch, f, j, ll, n, q, rr, v, x, z/ from Spanish and English alphabets to be used particularly in the names of persons and geographical places. The writing system of Pilipino, therefore, had from the very beginning consisted of the original romanized abakada and eleven (11) characters adopted from Spanish and English. There has been no exclusion as the Philippine romanized writing system (not the alphabet) consists of thirty-one (31) characters, twenty (20) of which are based on native phonology and eleven (11) taken from influencing cultures (Aspillera 1968:8-9).

One serious problem that besets the Filipinos with regard to orthography, as this researcher sees it, is how to treat borrowed words, especially those from English. The problem does not surface in the oral or spoken phase of the language. The moment, however, when what one says orally is written down, the problem suddenly presents itself. Should one retain the spelling of borrowed words or write them according to the Balarila rules on spelling — that is, if the words themselves are not rejected and replaced with other words by the user?

This phenomenon confirms what Fishman, Ferguson, Das Gupta (1968:29f) said: '... the use of writing adds another variety of language to the community's repertory'. They further wrote:

'Linguists like to point out that speech is primary and writing secondary and that written language is always in some sense a representation of speech. Although this is true in a general way, ... the fact is that writing almost never reflects speech in an exact way — written language frequently develops characteristics not found in the corresponding spoken language, and it may change along lines quite different from changes in the spoken language. After the spread of writing, varieties of the spoken language can no longer be described in vacuo; they will interact with the written form to a greater or lesser degree.

The foregoing observation is true in the case of Pilipino. Spoken Pilipino has some degree of difference from written Pilipino, i.e., borrowed words which are normally acceptable to an ordinary Filipino in spoken form will be rejected by the same individual when shown to him in written form. In a simple study conducted by this researcher involving 40 students at the University of the Philippines and another 40 students at the Philippine Normal College, words like Iprinopos, pagdebelop, madiskas, inaprub, adapsyon, etc. were rejected by the same students who used them in their oral speech (Santiago 1976:96-7).

This brings us to the point where some of the critics of Pilipino might have been referring to the spoken rather than the written variety of the language.
Ponciano B. P. Pineda (1970:14;28-30), current INL Director, in his own fashion classified the critics of the national language into three groups:

2.2.3.1 'Salumpuwit' and 'Salipawpaw' Critics. This group, according to Pineda, is also known as the 'antipurists'. They claim that the people summarily reject 'puristic Tagalog', citing half in jest salumpuwit and salipawpaw as ready examples. They are the same group of people who contend that the national language should be an amalgamation of all the indigenous Philippine languages and the influencing foreign languages like English and Spanish; and that the national language should first be developed before it is taught in the schools. This group advocates artificial mixing of languages, similar to the invented Esperanto, Volapuk and El Mondo languages which, of course, have not survived.

2.2.3.2 Prophets of Darkness. This group is largely composed of writers and professors in English, and of some linguists. They claim that Pilipino is not yet developed as to be capable of handling intellectual subjects, especially those that are highly technical and scientific, considering that there is not even an encyclopedia in Pilipino. They further claim, according to Pineda, that the Filipinos will be cut off from the mainstream of modernization, since the world's knowledge accumulated through the years is available to Filipinos only through English. And to translate the world's knowledge into Pilipino will be impractical, expensive, and time-consuming. Inadequacy, Pineda pointed out, is not in the language per se, but in the user. Moreover, the national language that is developing now is not for the present only but for succeeding generations.

2.2.3.3 Regionalists. These are the non-Tagalog ethnic loyalists, Pineda stated. Educated as they are, they cannot shed off their ethnicity such as to accept Pilipino as a national language over and above their first and/or regional languages, claiming that their own languages are just as good if not better than Tagalog. This group, according to Pineda, reasons this way: It is better not to have an indigenous national language at all than to allow the Tagalogs to enjoy an advantageous position over non-Tagalogs. It is better to have English so that everybody is on equal footing, Tagalogs and non-Tagalogs alike.

Gonsalo del Rosario, Vice-President of the Pamantasan ng Takarang Araneta (Araneta Foundation University), proponent of 'Technical Pilipino' as epitomized in the NSDB's Maugnaying Talasalitaan book, and identified by his critics as one of the avid 'Tagalistas', also contended that 'no one in his right mind should accept the word 'purism' in any language, most of all the Tagalog language'. He bewailed the fact that although Tagalog showed great facility in having borrowed words from Sanskrit, Arabic, Malay, and Chinese in the past, and from Spanish, English and other modern languages at present, the myth of purism is hard to eradicate. Some people, according to him, have seized upon this pseudo-issue to wage a 'holy war' against certain Pilipino writers. Del Rosario (1967:5-6) said further:
The virulence of their criticism reminds us of the harsh persecution during the times of the Spanish Inquisition, of the witch hunts at certain periods of American politics. In all these cases, there were emotional symbols which certain types of people did not care to understand; they merely reacted with the unreasonableness of the mob. "Purism vs. anti-purism" is a false controversy and that, the real confrontation should be between 'consistency' and 'inconsistency' in the use of Pilipino. Those of us who are falsely called 'purists' are really consistent, and our detractors are not 'anti-purists' but inconsistent.

Consistency, Del Rosario (1968:6-7) explained, is 'agreement or harmony of all parts of a complex system among themselves, or of the same system at different times'. Extending this definition to language, he explained that a living language has the inherent power of assimilating those elements that can be made consistent, and of rejecting those elements that cannot be made to conform with its fundamental organization and structure. And these things happen, according to him, even without the conscious knowledge of the users of the language.

This position of Del Rosario is in line with that of Sapir (1921:210-15):

The borrowing of foreign words always entails their phonetic modification. There are sure to be foreign sounds or accentual peculiarities that do not fit the native phonetic habits ... (but) the highly significant thing about such phonetic inter-influencing is the strong tendency of each language to keep its phonetic pattern intact.

It also conforms with the claim of Bloomfield (1933:453) that 'a loanword is usually subjected to the system of the borrowing language', subsequently reaffirmed by Haugen (1959:217) who stated that:

... loanwords ... incorporated into the utterances of a new language, must be fitted into its grammatical structure. This means that they must be assigned by the borrower to the various grammatical classes which are distinguished by his own language.

True enough, Tagalog has maintained its morphological system and has imposed its patterns on the donor languages; even after the almost four centuries of contact, for instance, with Spanish (Goulet 1971:91).

2.2.4 The Provisions on Language of the 1973 Constitution. The national language controversy in the late sixties became even more acute during the Constitutional Convention (ConCon) in 1971-1972. Sibayan (in Fishman 1974:245-51) vividly describes and objectively diagnoses what transpired in the ConCon regarding language. He writes:
No event in Philippine history has brought to a sharper focus the problems and difficulties, the emotional ties involved with language among Filipinos than the ConCon. When the ConCon started to work it promptly got snagged on the subject of what language to use in its deliberations and what language the Constitution was to be written in.

Sibayan states that the controversy was aggravated by the "over-eager" advocates of Pilipino who irritated the non-native speakers of Tagalog (who themselves composed the majority) by stubbornly speaking and debating in Pilipino. The Committee on National Language of the ConCon conducted hearings on the language problem for several weeks. As if to spite the Tagalistas, the ConCon voted that the language of deliberations would be English. And to illustrate further their seeming resentment of the actuations of the Tagalog partisans, a majority of the delegates voted in favor of a resolution which did not recognize the existence of a national language.

Sibayan further writes:

...the deliberations and actions of the members of the ConCon on language ... show that it is difficult even for men who are educated and are supposed to be the leaders of the country to shed their regional attachments and language and get into the mainstream of Philippine life through a national language based on one of the Philippine languages. One inescapable conclusion is that Pilipino is not yet a mark of identity with the majority of the Filipinos.

When the smoke of battle had vanished, as it were, and tempers and emotions had subsided, the following language provisions were finally incorporated in the 1973 Constitution (Article XV, Section 3):

Par. 1. This Constitution shall be officially promulgated in English and in Pilipino, and translated into each dialect spoken by over fifty thousand people, and into Spanish and Arabic. In case of conflict, the English text shall prevail.

Par. 2. The National Assembly shall take steps towards the development and formal adoption of a common national language to be known as Filipino.

Par. 3. Until otherwise provided by law, English and Pilipino shall be the official languages.11

Only those conversant with the language problems in the Philippines could fathom the rationale or wisdom behind each provision. Note that the new Constitution no longer carries the phrase 'based on one of the existing native languages' -- the phrase in the 1935 Constitution that triggered animosity immediately after Tagalog was chosen as basis.
The carefully worded language provision appears to have appeased the non-Tagalogs who took a partisan stand on the language problem. Ethnic loyalty among the Filipinos is so strong that they react negatively to any mention of favoring one language, e.g. Tagalog. Moreover, the eventual changing of Pilipino to Filipino may be interpreted to mean that a puristic national language as reflected in the 20-letter Abakada should be discouraged, and that the national language to be developed and formally adopted would have to be truly representative of the various linguistic groups of the country today; it would be a language which is multi-based and, therefore, less provocative of regional jealousies and animosities (Constantino in Yabes 1973:134).

Perhaps the above-cited language provisions can be better understood through the following statements made by no less than the President of the Philippines in his paper read during the Second Conference on Asian Languages held in Manila on December 16, 1974:

The Philippine Constitution of 1935 committed the nation in favor of a national language based on one of the native languages. This basis, of course, had to be Tagalog — the language of the primate city. Unfortunately, the absolute reign of the purists and the orthodox priests of this language further curtailed the development and acceptability of the national language. The new Constitution re-asserts the country's commitment to the adoption of a national language, but on the basis of a much more liberalized, more flexible and probably more representative language.

2.2.5 Resume of Issues. There appear to be two contradicting opinions as to which sources should be given priority in enriching the vocabulary of Pilipino: indigenous or foreign languages. One group believes that the indigenous sources — Tagalog and the other Philippine vernaculars — should first be exhausted before attempting to adopt foreign words. 'Extremists' in this group even opt for a massive coining of words and a reviving of 'dead' Tagalog words, such as to signify that they put the foreign terms last in their preference list. This group claims that the Tagalog-based Pilipino is inherently rich in roots and affixes. To the advocates, it is only a matter of extensively availing of such riches in order for the users to be able to produce, derive, or coin the needed terms.

The other group, on the other hand, espouses the opposite view: that words may be adopted irrespective of whatever sources they come from, whether they are borrowed or not, as long as the words will fill the need for effective communication. And because the influence of English on Pilipino is so strong, this group appears to be favoring words borrowed from English. 'Extremists' in this group support a 'Filipino' language that is apparently very generous with the use of English terms, notwithstanding the availability of indigenous words that are synonymous with the foreign terms they seek to use.
The real issue, therefore, regarding the development of a lexicon for Pilipino is that one group gives much concern for the preservation of the 'authenticity' of the language, whereas the other group subscribes to 'dynamism' in language.

It would seem on close analysis, that all the other controversies on language, such as 'antipurism' versus 'purism', the expanded 31-letter alphabet as against the 'atavistic' 20-letter Abakada, could be interpreted as mere pseudo-issues. People accused of trying to propagate a puristic national language through the 20-letter Abakada, actually, are only motivated by the desire to preserve the 'authenticity' of the national language. On the other hand, the proponents of 'antipurism' and of the expanded Abakada are merely opting for a language that in their opinion is functional, virile, and dynamic.

NOTES

1 For a more comprehensive account of the historical development of Pilipino, see Frei 1959, Sibayan (in Fishman 1974) and Bernabe 1978.

2 In this study, no attempt is made to trace the etymology of words to their original forms. Words which are ordinarily recognizable as not having foreign elements from the influencing languages of early times, such as Sanskrit, Chinese, Malay, etc. are considered indigenous.

3 Frake, incidentally, theorizes that Philippine Creole Spanish (popularly known as Chavacano) is 'not simply a Philippine language with unusually heavy Spanish lexical influence, nor is it Spanish with a large number of Philippine loan words'. Rather, he claims it is a distinct language that is easily distinguishable from both its Romance and its Austronesian progenitors. It 'shares enough in common with the classic creoles of the Caribbean', implying that it could possibly have been brought to the Philippines by some settlers perhaps from the island of Ternate of the Spice Islands. (See also Riego de Dios 1976 which essentially says the same thing.)

4 Cecilio Lopez was the only Tagalog (representing that language) on the Board. The Chairman was Jaime C. de Veyra, a Visayan (representing Samar-Leyte). Two other members were also Visayans: Filemon Sotto (representing Cebuano) and Felix S. Rodriguez (representing Hiligaynon). The remaining three were Santiago Fonacier, representing Ilocano; Casimiro F. Perfecto, representing Bicol; and Jadji Butu, a Muslim, representing the minority dialects of the Philippines.

5 The incident was narrated by Cecilio Lopez, INL Executive Secretary at the time, during the presentation of a Festschrift to Msgr. Santiago Fonacier, Ilocano representative to the INL Board, at the Philippine Normal College, May 21, 1977, sponsored by the Linguistic Society of the Philippines; see also Rodrigo in Philippines Free Press 1963:LVII:2:3.
Seven years earlier, Sibayan (1967:134) said essentially the same thing about the Balarila: 'Without in any way discrediting the contributions of Lope K. Santos and the other members of the INL, which were certainly valuable and needed, it may be said that these early works should have remained only tentative studies. However, they were soon almost 'canonized' and accepted as dogma, which has made it almost impossible to modify them even when more sophisticated studies have since become available'.

Senator Rodrigo's article appeared in a special issue on language of the Philippines Free Press, January 12, 1963, the cover page of which depicted the language problem in the Philippines, with the headlines THE PHILIPPINE LANGUAGE CONFUSION and A BABEL OF TONGUES. On page 1 was an editorial by T. M. Locsin with a cartoon titled CONFUSION OF LANGUAGES, showing the Filipinos speaking different languages. The other major articles on language were PILIPINO FOR FILIPINOS by Edward R. Kiinsala, subtitled 'Teaching of Pilipino, English, Spanish and Local Dialects Creates Utter Linguistic Confusion', and former Senator Rodrigo's LET'S START ALL OVER AGAIN, subtitled 'Get Rid of the Purists — the Main Obstacles to the Learning of Pilipino'.

The conference, which was jointly sponsored by the Linguistic Society of the Philippines, Surian ng Wikang Pambansa, Philippine Social Science Council, and Fund Assistance for Private Education, was held at De La Salle University, Manila, October 20-22, 1977. Leading Filipino language scholars with differing linguistic persuasions were invited to speak, among them being Dr. Bonifacio P. Sibayan of the Philippine Normal College, Dr. Ernesto Constantino and Dr. Leopoldo Y. Yabes of the University of the Philippines, Engr. Gonsalo del Rosario of the Araneta Foundation University, Atty. Geruncio Lacuesta, editor of the defunct KATAS magazine, etc.

This monthly journal was approved by the Bureau of Private Schools on April 24, 1961 as general reading for teachers and students in elementary, secondary, collegiate and university levels of all private schools in the Philippines; and by the Bureau of Public Schools on August 11, 1961 as general reading in public intermediate and secondary schools. On October 27, 1964, however, the journal was banned from the public schools by Acting Director Rufino Alejandro of the Bureau of Public Schools 'due to its departure from the linguistic standard of the Institute of National Language as determined by Director Jose Villa Panganiban' (Katas: IX-1, August 21, 1971).

One would find it very difficult, however, to reconcile this claim of Aspillera (that as early as 1939 the INL Board had decided to adopt the letters c, ch, f, j, ll, h, g, rr, v, x, z) with her father's puristic Balarila which was written that same year. Furthermore, such adoption should have been reiterated in Department of Education and Culture Order No.194, s.1976 - Mga Tuntunin ng Ortograpiyang Pilipino - so as not to make the INL appear inconsistent in its edicts.
Spanish was eliminated as an official language in the 1973 Constitution but was restored as an official language through Presidential Decree No.155, promulgated on March 15, 1973.
3.0 Introduction

The first guidelines on lexical elaboration in the Philippines are embodied in Commonwealth Act No.184, Section 8, Paragraph 2, which reads as follows:

To enrich said vocabulary of the national language, the Institute shall:

1. Use as a source primarily the Philippine tongues (Cebuano, Ilocano, Hiligaynon, Bicolano, Pampango, Waray, Pangasinan, etc.),

2. and then if necessary, the Spanish and English, adopting from these languages such terms as are already familiar to Philippine tongues, and

3. whenever it shall be indispensable to form new words, these shall be taken principally from the classical languages, such as Greek and Latin, especially for scientific, literary and technical uses.

Foreign words thus newly formed shall be assimilated to the Philippine phonetics and orthography; Provided, however, that the current spelling of family names of foreign origin and form used by Filipinos shall be preserved in order not to render the identification of persons difficult.

The above vocabulary enrichment procedure was formulated for the guidance of the newly constituted National Language Institute. Note, however, that the first step was not faithfully followed by the Institute as manifested in its first output — the Balarila ng Wikang Pambansa. Except for cognates which of course were not the ones meant in the Act, not even a single word taken from other indigenous Philippine languages can be found in the book. It is not fanciful to speculate that 'purism' might not have been an issue had the Institute included, even arbitrarily, some words taken especially from the principal native tongues.

3.1 Some Practices in the Elaboration of a Pilipino Lexicon

Aside from the Institute of National Language which periodically publishes a compilation of terminologies for various subjects, like agriculture, economics, mathematics, education, etc., the following entities have also contributed to the development of a Pilipino lexicon:
3.1.1 Lupon sa Agham of the UNESCO Philippines. The first massive attempt to develop a Pilipino scientific lexicon was the one undertaken by the Lupon sa Agham (henceforth Lupon), a committee created by the Linangan ng Wikang Pilipino (Academy of the Pilipino Language) which was itself established in 1964 by the UNESCO National Commission of the Philippines. The Lupon prepared a book titled Maugnaying Talasalitaang Pang-agham: Ingles - Pilipino (henceforth Maugneyin), containing an 'Integrating vocabulary of basic scientific and technical words and expressions in the five fields of the mathematical sciences, physics, chemistry, biology and the social sciences adequate for modern living but consistent with the morphological stock of Tagalog' (Del Rosario 1968:8-9). The book, which created quite a stir among language scholars, was claimed to have been prepared cooperatively by 60 volunteer scientists, professors and engineers from universities, government offices and professional and scientific societies.

Most of the words and expressions contained in the book are generally contentives arbitrarily divided into two general classes: names and terms. Names, as explained by Del Rosario, are those words and expressions denoting materials, equipment, instruments, stars, planets, countries, animals, plants, and other concrete things that can be felt and seen. Terms, on the other hand, are those words and expressions consisting of more than one morpheme each, whose meanings are deducible from their structures, and are constant from one occurrence to another.

In translating the scientific and technical names, the Lupon used the following sources in their numerical order of priority: (1) current Tagalog words, e.g. Kambing for Capricornus; (2) old Tagalog words, e.g. tinggaputi for tin; (3) words from the other principal dialects in the Philippines, e.g. duta, Visayan for earth as a planet; (4) Spanish and English words, e.g. sentigrado for centigrade, asid for acid; (5) words from the other world languages, which are very rarely used if ever.

In translating the scientific and technical terms, the Lupon rigorously applied the theory that terms should be derived from rootwords already existing and current in the Tagalog language, by using the rules of affixation, combination and reduplication recognized by the balarila or grammar of Pilipino.

Terms, according to Del Rosario, express complex scientific concepts and relationships, and such abstractions are best conveyed by words having a consistent and rational morphology. This theory, according to him, makes the terms self-explanatory even to children in the grade schools who may be meeting them for the first time. For instance, the term alkali which, Del Rosario says, the Lupon borrowed in the shortened form alka, can prove very prolific since all the other derivatives of this word can be easily formed from the root alka and the affixes of Pilipino. Alkalinity, for example, becomes kaalkahan, formed with the help of the discontinuous affix ka-...-han which denotes the abstraction of the meaning carried by the rootword.
On the other hand, if the English derivation alkalinity were to be borrowed in its original form or in the assimilated form alkaliniti, Del Rosario says we would either have to treat it as a single unwieldy morpheme or have in our hands a stray morpheme, -ity or -iti, which has no meaning in Pilipino and, therefore, would merely make the affixal system of Pilipino chaotic and confusing.

To this researcher, the strengths of Maugnayin may be summarized as follows:

1. Espousal of the theory of 'internal consistency' of Pilipino puts restraints on widespread borrowing from English which, if unchecked, could result in the loss of authenticity of Pilipino, a phenomenon that signals the incipience of creolization;

2. Euphemism and indirection are dictated upon us by our culture, especially in respect to those words that have something to do with sex. We have, for example, terms for sex organs and sexual acts but they are taboo and, therefore, should not be used in sex or population education so as not to offend society. Most of the derivations of the Lupon in the area of sex prove acceptable. Punlay (punla ng buhay), for example, meaning sperm or semen, is now a popular term in the literature of family planning. (Note that punl and ay are not even morphemes in Pilipino.) Tamod, the taboo term for it, is never used.

3. The Lupon's strategy of borrowing from the indigenous Philippine languages is psychologically sound. Although the terms arbitrarily borrowed have uncertain chances of being accepted, the Lupon's borrowing may serve to appease the non-Tagalog who claim that Pilipino is Tagalog, in truth and in fact.

The weaknesses of the Maugnayin, on the other hand, may be summarized as follows:

1. The meaning of most of the derived scientific terms in the book are not easily retrievable (in spite of the claim of the authors to the contrary) inasmuch as the remaining portions of the combined words are not recurring partials. This negates their contention that they coin words in order to make the formation of science concepts easy for the learner. The English -logy is a recurring partial and, therefore a morpheme. On the other hand, consider for instance, ag- (agham), balni- (balani), dagi- (dagitab), ul- (ulnong), etc. These are meaningless to Filipinos because they are not morphemes in any of the indigenous Philippine languages. The burden of memorizing the meanings assigned to them will be far more difficult than the concept formation itself.

2. Many derived words are rather kilometric, odd, meaningless, and tongue-twisting. Example is pahaylikhayaning mabilos na suga (biophysically active light), from Tagalog pabuhay + likas + hanayan + -ing + Visayan mabilos na suga.
3. There is arbitrary and deliberate borrowing from the indigenous Philippine languages despite the existence of terms in common use and thereby more acceptable. Examples are as follows:

paslip (Ilocano) for steel instead of asero;
dagsin (Ilocano) for gravity instead of bigat;
antangan (Maranao) for design instead of disenyo;
kusog (Hiligaynon) for energy instead of enerhiya or lakas;
patigayon (Hiligaynon) for strategy instead of istratehiya.

4. Words are still coined or derived in spite of the fact that there are already existing terms commonly used. Examples are as follows:

binhisipan for seminar instead of seminar;
hatidwad for telegram instead of telegrama;
hatinig for telephone instead of telepono;
agsika~ for engineer instead of inhinyero.

These kind of coinages are now being associated with salumpuwit for chair and salipawpaw for airplane by the critics of the language.

5. The order of preferences in the expansion of Pilipino scientific lexicon (1. current Tagalog words; 2. old Tagalog words; 3. principal Philippine dialects; 4. Spanish and English words; 5. other world languages) is impractical. Preference No.1 is all right. Preferences Nos.2 and 3, however, should not be given priority over No.4. In fact, subsequent studies which will also be discussed in this chapter show a different order of preferences.

The Maugnayin was submitted to the Institute of National Language for approval in accordance with the provisions of law. Following is what INL Director Pineda said of the book (Pineda 1970:143-4):

It can't be denied that this is the first solid attempt of a professional group to contribute to the development of the National Language. The Lupon has devoted much of its time to the coining of words to match foreign equivalents. Meanwhile there is a raging debate about the so-called puristic tendencies of the Lupon. But coining, as a process of language development, should not be dismissed as totally irrelevant. Even world languages have not escaped this phenomenon in their lifetime. However, in the instant Maugnayin case the system seems to have gone too far. Even native forms with established meanings have been replaced with strange lexical fabrications. Words taken from other Philippine languages have been assigned significations beyond the pale of their language origins.
The INL did not stamp its approval on the book. Director Pineda said:

The Institute of National Language reserves the right to approve the book as to linguistic matters involved therein until after a thorough rediscussion and reevaluation as herein suggested. Let it be understood, however, that the Lupon sa Agham may continue to circulate the book without official sanction. In this way, the newly coined scientific and technical terms will be given a fair chance to get themselves 'accepted in the competition of the market'. Suffice it to say that while the Institute appreciates in its totality the sincere endeavors of the Lupon sa Agham, the former asserts that the Lupon's language model for the most part is at war with the language model of the Institute of National Language.

3.1.2 LSC-PNC Survey on Science Terminology

In 1972, the Language Study Center of the Philippine Normal College undertook a survey on translation preferences of educators in connection with a project of translating into Pilipino certain science materials (teachers' and pupils' guides for the elementary grades) being produced by the Science Education Center of the University of the Philippines (Otanes, Santiago, and Baylon 1974:31-43).

The following types of respondents were used in the survey: (1) public and private school teachers from four types of areas; namely, urban Tagalog (Manila), urban non-Tagalog (Baguio City), rural Tagalog (Paete, Laguna), and rural non-Tagalog (Irosin, Sorsogon); (2) school administrators from the same four types of areas; (3) college instructors/professors in Pilipino, science, and education from public and private schools; and (4) senior students pursuing the B.S.E. and B.S.E.Ed curricula in public and private teacher-training institutions.

The survey aimed to get the respondents' most preferred choices from among the following alternative ways to express scientific and technical concepts in Pilipino: (1) English term with no respelling (E-1), e.g., liquid; (2) respelled English term (E-2), e.g., likwid; (3) Spanish term with no respelling (S-1), e.g., liquido; (4) respelled Spanish term (S-2), e.g., likido; and (5) indigenous term (I), i.e. use of current Tagalog term, e.g. katangian for characteristic; use of archaic Tagalog words, e.g., balisunsong for funnel; borrowing from one of the native languages of the Philippines, e.g., kusog (Visayan) for energy; coining, e.g., miksipat (mikmik + sipat) for telescope; and sometimes combining either a Tagalog root and an affix from one of the vernaculars, e.g., aghamanon (agham + -(a)non [Visayan suffix denoting expert]). The fifth approach (I) is essentially that of the Lupon sa Agham of the NSDB; the terms used in the survey were taken from the Maugnayin book developed by that body.
Two survey instruments were developed: (1) a questionnaire containing twenty English sentences, each containing a science term, and (2) a translation of an English scientific passage into five different versions of Pilipino. In the first instrument, every English sentence was followed by a translation in Pilipino, with the space for the equivalent of the science term in the sentence left blank. Below the Pilipino translation were options representing the five alternatives and also, in some cases, well known Tagalog words that matched the English terms.

In the second instrument, the respondents were to choose from the five versions which represented the possible alternative for translating from English to Pilipino and which were coded E-1, E-2, S-1, S-2, and I. Innocuous labels such as Salin C, Salin X, Salin F, etc., were used instead of more descriptive labels in order not to prejudice respondents for or against any version from factors other than the form of the translation itself.

The results of the survey revealed the following: (1) none of the most preferred choices was spelled in any letter outside the Abakada; (2) Spanish was preferred to English as a source of borrowing; (3) there was a relatively large number of indigenous terms chosen, but all of these terms were also part of current Pilipino vocabulary; and (4) in each of three coined terms in alternative 'I', a stem could be isolated which was also part of current Pilipino vocabulary, e.g., haba, sukat, sulok, in parihaba, parisukat, and tatsulok, respectively.

Moreover, it was inferred from the responses on the isolated sentences (first instrument) that (1) borrowing from either English or Spanish with no respelling was not acceptable except for words which were regularly spelled, like solido or solid; (2) borrowing from English, even with (3) respelling, was not a highly preferred alternative; and using indigenous terms which were not part of the current Pilipino vocabulary was likewise an unpopular alternative.

The findings with respect to the continuous passage (second instrument) confirmed those in the first instrument, i.e., the version which received the greatest acceptance in terms of number of respondents was one that (1) only used the 20-letter Abakada for common words; (2) used respelled Spanish more than English as a source of borrowing; and (3) did not contain examples of coined words, words from other Philippine languages, or old Tagalog words which were not in current usage in Pilipino.

It was further revealed that the variety of Pilipino that the schools and the Institute of National Language had been teaching received widespread acceptance as the variety to be used in writing.

Based on the results of the survey, the following guidelines were set for the translation project:
1. Continue to use the 20 letters of the **Abakada** for common terms;

2. Use letters from the English and Spanish alphabets not included in the **Abakada** only in proper nouns and in technical terms only when number 1 is inapplicable;

3. As much as possible, use terms from the current Pilipino vocabulary;

4. Borrow from Spanish in preference to English, except when the English term (respelled or as is) is already in common use in Pilipino;

5. Word-coining is not to be resorted to except when absolutely necessary, i.e., when alternatives 1-4 cannot for some reason be applied. Where coining is used, (a) one of the constituents of the term must be a root word in common use in Pilipino; (b) the other constituents, whether affixes or parts of words, must give a clue to the meaning of the term; and

6. Borrowing unfamiliar words from any language whether indigenous or foreign is to be employed only where alternatives 1-5 cannot for some reason be applied.

The above study focused only on how the science materials for the elementary grades could be translated into Pilipino in a manner that would be acceptable to the users. Science concepts at this level are as yet comparatively simple so that most of them can still be handled adequately by Pilipino without posing serious problems of borrowing and coining. Hence, the results of the survey showed the popularity of indigenous terms over those from Spanish and English.

However, a replication of the survey at the secondary or tertiary levels might yield different results, especially if more technical terms to be included will be drawn from branches of science like medicine, biology, chemistry, physics, and mathematics which also use technical terms.

### 3.1.3 LSC/PNC-EDPITAF Criteria on Word Selection

The EDPITAF (Educational Development Projects Implementing Task Force) was created by Presidential Decree No.6-A as part of the Ministry of Education and Culture. Its main objective is to produce all essential textbooks both in Pilipino and in English with the goal of providing at least one book for every two elementary or secondary pupils. With a sizable sum borrowed from the World Bank, the EDPITAF is now in the process of preparing the needed materials, e.g. textbooks and teachers' manuals. The nature of materials to be prepared was classified. Those pertaining to Communication Arts were given to the Language Study Center of the Philippine Normal College which had been designated as National Curriculum Development Center for Communication Arts.
Right from the start, the staff of the LSC/PNC-EDPITAF Textbook Development Project realized that the following would be the likeliest problems in the writing of instructional materials in Pilipino: lack of vocabulary, borrowing, and spelling. Commenting on the problem, Dr. Bonifacio P. Sibayan, co-director of the project, said (Sibayan 1977:23):

We found out early that the spelling of Pilipino was not as easy as it was first thought. A conference was called between the Director of the INL and the co-directors of the Center. A number of points in the spelling mainly of borrowed words were clarified and agreed upon. The alphabet finally agreed upon was the 26-letter of English alphabet plus the Spanish character ñ.

Sibayan was referring to the borrowed words from English, the same problem encountered by the LSC-PNC in 1971 in translating into Pilipino the science materials written in English by the Science Education Center of the University of the Philippines. (The translation project was discontinued after the announcement of the 1974 bilingual policy that science and mathematics were to be taught in English.)

Given below are the criteria followed by the LSC/PNC-EDPITAF in the selection of words for Pilipino (Sibayan 1977):

1. Words that can be easily understood by the children when written in their original form are not changed, like:
   - silver dust
   - water lily
   - ferris wheel
   - water color
   - nylon
   - party-line
   - chewing gum
   - ash tray
   - fountain
   - seesaw
   - soft drinks
   - open house
   - zebra
   - puka shells
   - softball

2. Some loanwords are spelled to conform to the Pilipino system of writing. This is usually done in the texts for the lower grades so that the pupils will not be confused when they start to learn to read. For example, familiar terms like Krismas tri, krismas kard, karoling, sirko (for circus), moske (for mosque), rises (for recess), bleyd (for blade), isport (for sport), istro (for straw), traysikel (for tricycle), plastik (for plastic).

   In Beginning Reading letters in English like ch, g, ck, and clusters like que, str, cyc, sp, and phonemic sounds which are different from the forms like c for s and k, a pronounced as ey as in bleyd are not taught, so that if the spelling of these words is not changed, pupils will find them difficult to read.

   In the higher grades where students are already familiar with such words, the original spelling can also be used.
3. Words not native but which have been used for quite some time are preferred if the meaning of such words appears to be more precise than that of the translation. Spelling of these words is made to conform to the Pilipino system: pitser instead of tagahagis ng bola, gwantes instead of gomang pambalot or isinusuot sa kamay, bakante (more general meaning than walang nakaupo, walang nakatira, etc.), restawran (kainan), eksibit (nakatanghal), bakasyon (araw ng pahinga).

4. Loanwords (from Spanish) that are more generally used than Tagalog words and which are also used in other regions are preferred. Examples are: aginaldo, banyo, boises, kotse.

5. Foreign words which when translated will have more than one meaning or will require more words are preferred but modified in spelling like:

<table>
<thead>
<tr>
<th>Preferred</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>project (plano, ginagawa, balak, etc.)</td>
<td>proyekto</td>
</tr>
<tr>
<td>complete (tapos, buong pagkain)</td>
<td>kumpleto</td>
</tr>
<tr>
<td>uniform (dress, pareho, magkatulad)</td>
<td>uniporme</td>
</tr>
<tr>
<td>manager (puno, boss, nama-nahala, etc.)</td>
<td>manedyer</td>
</tr>
<tr>
<td>policeman (alagad ng batas)</td>
<td>pulis</td>
</tr>
<tr>
<td>leader (puno, nangunguna)</td>
<td>lider</td>
</tr>
</tbody>
</table>

6. In Grade I most of the verbs used are formed by the simple affixes mag-, -um-, -an, and -in. The adjectives are those formed with the prefix ma- like mahusay, mabait, malinis. Comparative degree uses the mas form and the superlative prefix napaka- as in mas maganda, napakaganda. In some other Philippine languages the same forms are used.

   The types of verbal affixes, nominal affixes and adjectival affixes increase in number as the grade level increases.

7. When there is more than one word that can be used, the more familiar or common ones are used in the lower grades. The other forms are introduced in the higher grades but are unlocked or taught in the vocabulary study.
Example of words used in the lower grades:

magdrowing instead of gumuhit  
gawain for tungkulin or hanapbuhay  
ipinanganak for isinilang  
sulatan ng pangalan for lagdaan or permahan  
dekorasyon for palamuti  
tingnan for obserbahan

8. Names of offices, laws, educational terms like Dare Foundation, Price Stabilization Law, Outreach Program Centers, Continuous Progression Scheme which can be more clearly and easily understood in their original form are not translated nor modified in spelling.

In general the words selected are determined (aside from those given) by the subject matter (about the family, the school, the government, etc.), the type of literary form (prose, poem, folk tale, games, etc.), the vocabulary and structures specified in the language objectives, and the decisions of editors, consultants and feedback from the tryout teachers and coordinators.

As regards words from other Philippine languages that are not used in Tagalog areas like kanyaw (a ceremony performed by the Igorots as a ritual for the dead) these are defined along with the other terms before the story is taken up. Other words introduced are: gangsa (gong), ay-yeng (song), chisig (a plate of food for the spirit), fayas (wine from sugar cane), and ta-pei (wine from rice). Other words (First Year text) introduced in connection with baptism among the Muslims are: pagislam (covers 3 stages of baptizing a Muslim), imam (a woman who performs the first stage in the baptism), panday (this is the term for midwife or the woman who assists in the delivery of the child).

It is evident that the above criteria are generally in accord with the guidelines established by Commonwealth Act No.184 (supra, page 48), except that the use of Philippine tongues as primary sources for words not available in Tagalog has not been strictly observed. The LSC/PNC-EDPITAF staff must have realized that it is impractical to give priority to Philippine tongues as sources in word borrowing. In other words, they have not concerned themselves with the ordering of sources in word borrowing but rather with the readability of words used in a textbook whatever sources they come from. One thing, however, is clearly evident in the criteria: the instructional materials being developed by the LSC/PNC-EDPITAF are not puristic, as can be seen from the samples cited.

Furthermore, the criteria must have been the result of the accumulated experience of the members of the staff in the field testing or tryout of prototype materials that they had developed.
Moreover, step number three in Commonwealth Act 184 has not been availed of for the obvious reason that the nature of the materials being developed is nontechnical.

3.1.4 Some INL Publications on Pilipino Lexical Development

Following are two of the latest publications of the Institute of National Language which relate to the present study:

3.1.4.1 *Mga Katawagan sa Edukasyong Bilingwal* (Surian ng Wikang Pambansa 1977). The Institute of National Language, as the highest body officially entrusted by the National Government with the development and propagation of Pilipino, published in 1975 an experimental edition of a book containing terminologies needed in the implementation of the bilingual education policy. Revised and expanded twice during the years 1976 and 1977, the latest edition of the book contains terminologies in the following areas: social studies, economics, geography, home economics, athletics, social science, work education, character education, health education, physical education, and pedagogical terms.

In the preface, the INL states that it published the book in order to help in the effective implementation of the bilingual policy of the Department (now Ministry) of Education and Culture and also to answer the needs of teachers, school administrators, language researchers and students of language. It states further that the primary aim in the publication of the book was to achieve uniformity in the use of the terminologies in each subject area.

A scrutiny of the Pilipino translations of the English terminologies in the different areas reveals that (1) the 11 letters added to the Pilipino orthography were very rarely used, being only found in highly technical terms like *status quo*, *laissez faire*; (2) indigenous terms were given preference, e.g., *pagsasaka* for agriculture instead of *agrikultura*, *panagot* for surety instead of *garantiya* or *piyansa*; (3) the Spanish equivalents spelled according to the Abakada, if necessary, were used where there were no indigenous terms, e.g., *suplete* for blow torch, *silinyador* for accelerator (4) the English terms were borrowed and assimilated according to the phonetic and spelling system of Pilipino, e.g., *episyensi* for efficiency, *impitsment* for impeachment; (5) borrowing from other Philippine indigenous languages was rarely availed of, if ever.

The book, in general, disproves the charge of some apparently misinformed critics that the INL is puristic in policy. This researcher, however, entertains the possibility that not a few of the recommended terminologies would be frowned upon by the users. Nowhere in the book can one find the guidelines followed by the INL in its preferences. The equivalent given, for example, for foul ball is *bolang lumalabas sa dayamon sa pagpalo*. One cannot but wonder how this undeniably long equivalent (in fact, definition) will be spoken by an umpire in a ball game.
3.1.4.2 Patnubay sa Korespondensiya Opisyal (Surian ng Wikang Pambansa 1977). Another book published by the Institute of National Language is a guide on official correspondence for those who wish to write their letters in the national language. In his preface, Secretary (now Minister) of Foreign Affairs Carlos P. Romulo says of the book in part:

Ang paglulunsad sa Patnubay sa Korespondensiya Opisyal ay isang makabuluhang hakbang sa pagsasaalang-alang sa ating Wikang Pambansa — ang Pilipino. Ang proyektong ito ay naaakma sa panahon ng sapat na sanggunian sa pasulat na pakikipagtalastasan sa ating sariling wika. Ito'y napakalaking tulong sa mga pinuno at kawani ng lahat ng kagawaran, kawanihan, tanggapan o ahensiya ng pamahalaan, at ng mga korporasyong ari o kontrolado ng pamahalaan, lalung-lalo na sa kanilang pasulat ng korespondensiya sa Pilipino.

Twenty-four samples of different kinds of letters are presented in the book which is intended to serve as a guide for officials and employees in the various ministries, bureaus, offices and agencies of the government, and in government-owned or controlled corporations as well.

The other significant portions of the book are the following: (1) Terms and Expressions Commonly Used in Official Correspondence, (2) Government Forms, (3) Names of Government Offices, (4) Public Administration and Parliamentary Terms and Usages, and (5) Rules for Barangay Meetings.

The Korespondensiya Opisyal is one of the important accomplishments of the INL that is likely to contribute to the development and propagation of Pilipino. Like the previous book, Mga Katawagan, however, this manual does not mention the guidelines followed by the INL. These could be helpful to a user especially when the terms he wants to translate are not found in the book.

Furthermore, while very few printing errors crept in (*esrkibano, p.113; *kinikilangan, p.117), some inconsistencies in spelling are discernible. There is no doubt that the INL adhered strictly to the one-to-one correspondence between the phoneme and the symbol — as pronounced, so spelled — which is an asset of the Pilipino spelling system that should be preserved. Consider, however, the following spellings: aytema?, (itemize, p.124) as against obertap (overtime, p.129); autoridad (authority, p.110) as against awtpost (outpost, p.129); to cite a few.

Moreover, declusterization, a rule followed when the 1939 Balarila was written because the Tagalogs in those days could hardly pronounce clusters, appears to have some traces in the book still. Consider korespondensiya in the title itself; it can easily be written as korespondensya. Consider further other entries like aksiyon, aplikasiyon, etc.
Perhaps the following guidelines published in one of the monographs of the INL could be of some help to a user had they been incorporated into the two above-mentioned books (Pineda 1977:52):

Ang Surian ng Wikang Pambansa ay may mga pamamaraang (P) sinusunod, viz.:

P₁ -- tanggapin ang mga katawagang pangmatematika, pang-agham at panteknolohiya sa Ingles at batakin ang mga ito sa himig mala-Kastila at anyong Pilipino.

P₂ -- isalin nang buuan sa Pilipino ang mga katawagang pangmatematika, pang-agham, at panteknolohiya sa Ingles.

P₃ -- isalin nang bahagian ang mga pariralang katawagang pangmatematika, pang-agham, at panteknolohiya sa Ingles.

P₄ -- tanggapin ang mga katawagang pangmatematika, pang-agham at panteknolohiya sa orihinal na tunog at anyo sa Ingles.

May isang pangkalahatang simulaing kailangang iginagal sa mga pamamaraang inilahad. Ito: Ipaloob sa lcayariang Pilipino ang mga katawagang pangmatematika, pang-agham at panteknolohiya sa Ingles.

It is not clear in the article whether P₁, P₂, P₃, and P₄ should be necessarily applied in that same order in usage. This researcher, however, assumes that it is so, considering that borrowing via Spanish with the term respelled to conform to the Abakada is labelled as P₁ and borrowing the English term without any change in spelling is labelled as P₄, a procedure which is very common these days, as the results of the studies that are to be discussed shortly will show.

Note, however, that the use of the vernaculars and also of the classical languages (as prescribed in C. A. 184) as sources of terms is not mentioned in the INL guidelines.

Moreover, the INL guidelines are intended for mathematics, science and technology. Nevertheless, they can be modified to suit other areas, technical or nontechnical, in the development of a Pilipino lexicon.

3.1.5 Glossary of Medical Terms (Recio 1975)

In medicine, a pocketbook (97 pages) with the above title was prepared in 1975 by a group of resident physicians in the Department of Surgery, Philippine General Hospital, under the leadership of Dr. Porfirio M. Recio, who was the department chairman. The glossary is a list of 277 terms specifically referring to parts of the body, senses, relations, symptoms and signs (urinary disturbances, bowel disturbances, gastrointestinal tract, respiratory tract, nervous system, gynecological diseases), foods, numbers, color, time, and various common diseases.
For ease of reference, the listing is made in the following manner: On the left-hand side is the English term, and on the right-hand side, the Tagalog equivalent. Immediately below on the same page are listed the equivalent of the medical term in each of the following sixteen representative Philippine languages: Sugbuanon, Iloko, Pangasinan, Kapampangan, Bikol, Ilongo, Waray, Aklanon, Zambal, Ibanag, Ibatan, Apayao, Ibaloy, Ifugao, Kalinga, Kankana-ey, Gaddang, and Maranaw. Equivalent terms are also given in Chavacano, Malay, Indonesian, Chinese, Spanish, French, and German.

Actually, the book is designed to serve as a companion volume to Recio's earlier publication titled 'Questions You Have Wanted To Ask Your Patient (But Could Not Because He Spoke Another Dialect)'.

Dr. Recio, in his foreword, explains that the language barrier prevents effective communication between physician and patient; that the 'communication gap among our polyglot population must be bridged if there is to be rapport and understanding between the Filipino physician and his kababayan patient'.

No principles followed in the choice of the Tagalog equivalents were given. Nevertheless, it is noticeable that the terms used are common among Tagalogs. Some examples are as follows:

<table>
<thead>
<tr>
<th>English</th>
<th>Tagalog</th>
</tr>
</thead>
<tbody>
<tr>
<td>esophagus</td>
<td>lalaugan</td>
</tr>
<tr>
<td>clavicle</td>
<td>balagat</td>
</tr>
<tr>
<td>large intestine</td>
<td>isaw</td>
</tr>
<tr>
<td>pancreas</td>
<td>lapay</td>
</tr>
<tr>
<td>abortion</td>
<td>pagpapaagas</td>
</tr>
</tbody>
</table>

A simple survey, however, will likely reveal that the above Tagalog terms are no longer known among the younger Tagalog generations.

3.1.6 De La Salle University Survey on Population Terms (Ongoing)

At this time of writing, an ongoing study is being conducted by Bro. Andrew Gonzalez and Tomasita Jimenez of De La Salle University. With the use of various sectoral samples in the Greater Manila Area, the study aims to determine the terms used in population education which would be most acceptable to the community and therefore most likely to be given widespread dissemination.
The instrument being used in the survey is a translation into Pilipino of some passages in a pamphlet on population education printed by the National Media Production Center. The terms are first given in English, then are followed by other possible options taken from sources like publications of the Institute of National Language, the Population Commission, and the Maugnayin for the respondents to choose from.

Although the study is limited only to terms in population education, this researcher believes that it would contribute immensely to the elaboration of a Pilipino lexicon, considering that people engaged in information dissemination regarding population education find it very difficult to communicate with the masses because of the lack of acceptable terms in Pilipino. It is, of course, common knowledge that Pilipino is very rich in terms pertaining to sex. Some of them are exact equivalents of the English terms but they are taboo and therefore unacceptable to 'cultured' Philippine society. Consider titi for penis and puke for vulva. Philippine society prefers the use of euphemistic terms which do exist in Pilipino but are ambiguous and inexact. Consider kabahagi or ari which can only be specific if followed by ng babae or ng lalaki.

3.1.7 Scientific Dictionary: English-Pilipino (Sytangco 1977). The title page of the book bears the following in Pilipino: 'PROGRESIBONG MAUNLARING BOKABULARYONG TALASALITAANG PANG-AGHAM: Ing(g)les-Pilipino, Jose Reyes Sytangco, M.D., Pamantasan ng Santo Tomas. Inihanda sa ilalim ng pagtangkilik ng Lunduyan ng Pananaliksik (Research Center) ng U. S. T.'

The book can be said to be puristic in intent and in form. Consider the following paragraph, for example, as quoted from its prefatorial page:

Kung magkaroon ng panagisi ang bunga ng pagod ng mga nauna, iya'y hambo ng pangangailangan, gawa ng kagipitan. Hindi ang kaganyakan, imbot o panlilibawa, di ang pagtitilalay ang itinuring nating pakay ng isa't isa, kundi ang paghihinang ng damdami't kaloban ng lahat, ang pinaka-tugatog ng layon sa natatayang kapakaran ng Wika at kagalingan ng Inang Bayan.

A line on the title page of the book states that it is an amendment ('sumog') to the NSDB's 'Maugnayinng Talasalitaan'. The following are some samples of the amendments made by Sytangco:

<table>
<thead>
<tr>
<th>'Maugnayin'</th>
<th>Sytangco</th>
</tr>
</thead>
<tbody>
<tr>
<td>agsikap</td>
<td>'engineer'</td>
</tr>
<tr>
<td>aghimuan</td>
<td>'technology'</td>
</tr>
<tr>
<td>kublupon</td>
<td>'subcommittee'</td>
</tr>
<tr>
<td></td>
<td>adlikhanon</td>
</tr>
<tr>
<td></td>
<td>aghinsarsan, agparaan</td>
</tr>
<tr>
<td></td>
<td>kasalong lupon</td>
</tr>
</tbody>
</table>
The author did not mention in his book any rules or procedures which he had followed in expanding the Pilipino scientific lexicon. It is most evident, however, that like the Maugnayin, the Talahuluganang Pang-agham of Sytangco is another attempt to exploit the richness in vocabulary of Tagalog and other indigenous languages.

True, in many cases, he gives the reasons for his dislike of the 'Maugnayin' terms as well as the reasons behind his preferences for certain terms. His suggested terms, however, are equally puristic, as can be seen from the samples above.

It would be premature to say that the book is another embodiment of the apparently futile attempt towards purism. As its author states, 'Ito'y isang akdang pandarating na mga salinlahi, kung kailan ang ating pambansang wika ay makakatugma ng ating kaisipan at lunggatiing nangasa-ubod ng ating kaluluwa.' (English translation: 'This is a piece of work intended for the future generations, when our national language is already in harmony with our minds and aspirations which are in the seat of our souls.')

### 3.2 Some Theses on the Elaboration of Pilipino Lexicon

The process of modernization or intellectualization of any language, according to Fishman, Ferguson, and Das Gupta (1968:29), has two aspects: 1) the expansion of the lexicon of the language by the adoption of new words and expressions, and 2) the development of new styles and forms of discourse. The authors explain that lexical expansion is required in order to treat new topics.

The present need of Pilipino is principally with regard to the first aspect: expansion of its lexicon. In fact, concentration of efforts toward this aspect during the past several years has been very apparent, as discussed in Chapter 2 and in this Chapter. At present, the second aspect -- the development of new styles and forms of discourse -- still has to gain greater impetus; perhaps efforts toward that end may be pursued vigorously later.

It should be pointed out, however, that most of the guidelines on lexical elaboration discussed in the preceding section, even including the ones embodied in C. A. 184, were not research-based. This confirms what Fishman (1974:23) said on lexical elaboration practices as part of language planning, as follows:
Certainly the lion's share of popular awareness of language planning is in conjunction with lexical elaboration as conducted by language academies or other official and semi-official agencies ... Nevertheless, ... process oriented research and theoretically guided research, particularly as related to the differential success of planned neologisms among various target populations, is almost entirely lacking ... Above all, we lack usage studies which are sensitive to the basic sociolinguistic reality of contextual variation. Some members of some target populations doubtlessly adopt academy-produced and academy-sponsored neologisms and use them exclusively thereafter for particular referents: others reject all such creations with particular glee and steadfastness ... This, indeed, is an area of much needed empirical and theoretical attention because it is basic to any efforts to expand the appropriateness definitions that, consciously or not, underlie the usage readiness or opposition of speech-network members vis-a-vis 'academise' at the lexical level.

The following studies may be considered as incipient yet pioneering attempts that may lead subsequent language scholars towards conducting more sophisticated 'process oriented or theoretically guided research' on lexical elaboration:

3.2.1 Cervantes Study, PNC 1971. Some two years after the publication of Maugnayin, Cervantes conducted a study on the preferences of translators in rendering English science terminology for the elementary grades into four versions of Pilipino.

Two types of questionnaire, the Semantic Differential Scales and the Attitude Scales, were administered to three groups of respondents to assess their pattern of responses (or stereotypes as used by the researcher) and attitudes toward the four methods of Pilipino translations of science terminologies. The groups of respondents were composed of students, teachers, and other professionals. The four methods assessed by the respondents were Maugnayin (NSDB), e.g. sipnayan; Impluwensyang Kastila (Spanish Influence), e.g. matematika; Himig Ingles, Baybay Pilipino (English pronunciation but respelled to conform to the Abakada), e.g. matematiks; and Himig Ingles, Walang Pagbabago (English pronunciation, no respelling), e.g. mathematics.

The results of the study revealed that there were very few significant observations on the clarity of the respondents' stereotypes toward the four methods in the Semantic Differential Scales. However, in the Attitude Scales, the respondents showed significant differences in their attitudes toward the four methods. The teachers and other professionals greatly favored Impluwensyang Kastila. The students preferred Ingles, Walang Pagbabago but their preference did not show any significant difference over the other methods. With regard to Maugnayin, the students were more positive in their attitudes than the other groups. The Himig
Ingles, Baybay Pilipino was the second preference of all three groups, although there was no significant difference in their reactions.

Cervantes' study clearly shows a different order of preferences as compared to that followed by the Lupon in Maugnayin (supra, pp.50-1). The respondents in this study greatly favored the borrowing of English science terms via Spanish, labelled in the study as Impluwensyang Kastila.

This finding of Cervantes is understandable for two reasons: (1) the period of contact between Spanish and Tagalog (basis of Pilipino) was very long, extending to a little over four centuries, as compared to that between English and Tagalog which has not yet reached the century mark, and (2) the relative ease of borrowing from Spanish because of the compatibility of the orthographic systems of Spanish and Tagalog, since both are generally classified as being consistent.

Cervantes, however, did not formulate specific guidelines to be followed by translators of science materials.

3.2.2 Rivero-Labigan Study, PNC 1974. The Cervantes study in 1971 was followed in 1972 by the LSC-PNC study (supra, pp.56-61), a more comprehensive survey on translation preferences in terms of the geographic spread of respondents covered and the respondents used. Two years later, Rivero and Labigan conducted a follow-up of the LSC-PNC study.

A questionnaire involving 100 science terms was used in the survey, 20 of which were the same terms used in the LSC-PNC study. The format of the questionnaire was patterned after the first questionnaire used in the LSC-PNC study.

The survey population included 300 respondents from the province of Bulacan (representing the Tagalog group) and another 300 from the province of Negros Occidental (representing the non-Tagalog group). The respondents in each group were classified into five categories: school administrators, science teachers, Pilipino teachers, laymen, and elementary school pupils.

The results of the study did not show any significant difference from those of the LSC-PNC study. In effect, the Rivero-Labigan study confirmed the findings in the LSC-PNC study. No formal statistics were used, but it was very apparent that there was no significant difference between the preferences of the Tagalog samples and that of the non-Tagalog.

The guidelines formulated by Rivero and Labigan on the translation of English science terms into Pilipino were essentially similar to those formulated in the LSC-PNC study.
3.2.3 Sumayo Study, De La Salle. The primary aim of the study was to appraise the representative translation preference of 300 college freshmen of the University of the East, Metro Manila, in an attempt to 'formulate a tentative criterion for translation of science and technical terms in English to Pilipino'. The second purpose was to 'devise a rating scale which, to some degree, may measure the adequacy of the Pilipino translation of English terms in science and technology'.

Specifically, the study attempted to answer the following questions:

1. What translation preferences are the most favored or the least favored by the college freshmen?

2. What similarities or dissimilarities do the translation preferences specified in the study have with those in the LSC-PNC study?

The following survey instruments were utilized in the study: (1) a questionnaire posing translations in six versions of Pilipino of an English paragraph (an adaptation of the original testing instrument used in the LSC-PNC study; (2) a questionnaire consisting of twenty isolated sentences, each with a set of translation alternatives for selection in science and mathematics; and (3) a questionnaire presenting all the translation alternatives used in the second questionnaire in four categorized columns. Below the columns were posed four questions for the respondents to answer regarding the comprehensibility, readability, familiarity, and facility in spelling of the alternatives.

Sumayo's study differed from the LSC-PNC study in the sense that a rating scale was employed to measure the adequacy of translations in Pilipino in terms of meaning, source language, and form.

The findings in the Sumayo study do not show any significant difference from those of the LSC-PNC and Rivero-Labigan studies.
The elaboration of a technical lexicon of Pilipino 248 pp.

by Alfonso O. Santiago; Fe T. Otanes, series ed.

Methodology 46

Sample Citation Format
CHAPTER 4

METHODOLOGY

4.0 Introduction

The present study is generally similar to the other studies discussed in Chapter 3—Cervantes, LSC-PNC, Rivero-Labigan, Sumayo, and De La Salle—in the sense that it also attempts to determine how the sample respondents would react to the various possibilities in the elaboration or intellectualization of the lexicon of Pilipino.

This study, however, differs from the other studies in the following manner:

1. It covers five science disciplines or fields—medicine, biology, chemistry, physics, and mathematics. The Cervantes, LSC-PNC, and Rivero-Labigan studies covered general science only; the Sumayo study, general science and mathematics; and the De La Salle study, population education.

2. Its respondents are exclusively students and teachers at the tertiary level and practitioners in their own areas of specialization. The Cervantes study used pupils and teachers in the elementary grades and some professionals; the LSC-PNC study, mostly public and private elementary school teachers and administrators, and some college professors and students; the Rivero-Labigan study, almost exclusively public elementary school pupils, teachers, and administrators, with the exception of some laymen; the Sumayo study, freshman college students taken from one institution only, and the De La Salle study, various sectoral samples in the Metropolitan Manila area (the actual composition of which is not yet known to this researcher at this time of writing).

3. It intends to formally compare the reactions of the students, professors, and practitioners across the five disciplines. Among the other studies, only the Cervantes study did the same.

4. It also intends to formally compare the reactions of the different groups—medicine, biology, chemistry, physics, and mathematics respondents. This was not done in the other studies since all of them (with the exception of the Sumayo study which included some words in mathematics) concentrated only on one discipline.

5. It also intends to formally compare the reactions of the Tagalog and non-Tagalog groups. In the other studies, only the Rivero-Labigan study did the same.
4.1 Population/Respondents

The target population of this study consisted of senior college students, college professors, and practitioners in five spheres of science: medicine, biology, chemistry, physics, and mathematics (henceforth MED, BIO, CHE, PHY, MAT, respectively). This population represents a large group scattered practically all over the Philippines.

Since it would have been prohibitively expensive to draw the sample respondents from the total target population, they were drawn merely from the portion of the intended total population accessible to this researcher; that is, most of the sample respondents were drawn from the accessible partial population within the Metropolitan Manila area. The sample respondents for students and professors were taken from leading tertiary institutions in this area. The non-Tagalog sample respondents were also principally drawn from the accessible population within the same area. They were non-native speakers of Tagalog who came from the different linguistic sectors of the country either as transients (as in the case of most of the students) or as migrants now permanently residing within the Metropolitan Manila area (as in the case of the professors and practitioners).

During the process of selecting the prospective respondents, this researcher made it a point to get a good spread of the vernaculars from the accessible non-Tagalog population.

At the same time, this researcher, through his graduate students, was also able to get a number of respondents from a few of the non-Tagalog areas, such as the province of Cagayan, Ifugao, and Romblon, and Cagayan de Oro City. The responses of these two kinds of non-Tagalog respondents were compared and the data revealed that there was no significant difference in their preferences (see Appendix J).

Strictly speaking, therefore, the findings in this study may be generalizable only in respect to the accessible population, although such findings may also be broadly generalized to be applicable to the target population.

The respondents in this study were classified as follows: 100 senior college students, 100 college professors, and 100 practitioners in the aforementioned five spheres of science, making a total of 300 respondents.

The decision to have an equal number of respondents among the three groups was arbitrarily arrived at on the basis of the following considerations: There were no available data with which this researcher could determine the exact proportion of one group to the other groups. The group of professors, of course, were few in number as compared to the combined groups of students and practitioners. They were nonetheless allotted the same number of respondents, considering the fact that as mentors of students and practitioners, their preferences exert considerable influence in the lexical development of Pilipino.
Each of the five spheres of science involved 60 respondents, subclassified into three groups: students, 20; professors, 20; and practitioners, 20. Each subgroup was further subclassified into two: Tagalogs (Tag), 10; and non-Tagalogs (NTg), 10.

The following chart shows the distribution of the respondents:

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4.1.2 BIO

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</tbody>
</table>
Questionnaire A | Questionnaire B
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Prof | 20
Tag | 5 | 5
NTg | 5 | 5
Prac | 20
Tag | 5 | 5
NTg | 5 | 5

Total Ss ........ 300

4.2 Sampling Procedure

The following sampling procedure was generally observed in each of the institutions mentioned below which were included in the survey:

4.2.1 A letter of request addressed to a key official (usually the president or rector, as the case may be) of the institution to be surveyed was secured from Dr. Bonifacio P. Sibayan, President of the Philippine Normal College, the home institution of this researcher. (A sample of the letter is found in Appendix F.) This was done to solicit the unstinted cooperation of the institutions concerned.

The following school officials cordially and favorably responded to the request, for which a 'Thank-You' letter was correspondingly sent by President Sibayan to each of them after the survey (a sample of the letter is found in Appendix F):

Dr. Florentino Herrera
Dean, College of Medicine
University of the Philippines
Dr. Pedro Gil Street, Ermita, Manila

Dr. Amado C. Dizon
Vice President
Far Eastern University
Quezon Boulevard, Manila

Rev. Fr. Frederick Fermin
Rector
University of Santo Tomas
España Boulevard, Manila
Atty. Marcos Herras  
Vice President  
Adamson University  
San Marcelino Street, Manila

Dr. Bienvenido F. Nebres, S.J.  
Dean, School of Arts and Sciences  
Ateneo de Manila University  
Loyola Heights, Quezon City

Mr. Oscar B. Mapua  
President  
Mapua Institute of Technology  
Muralla Street, Manila

Dr. Andrew B. Gonzalez, fsc  
Academic Vice President  
De La Salle University  
Taft Avenue, Manila

Every letter of request was handed personally by this researcher to each of the above addressees. After some probing questions, the school head either called up or wrote a note to the department head of the area to be surveyed, usually with the request that all necessary assistance by accorded this researcher.

4.2.2 This researcher, with the note from the school head, then proceeded to meet the department chairman concerned, explained his purpose, and requested that he be furnished the following: (1) a list of professors in the department, and (2) the number of classes that could possibly be used for the survey.

With the help of the department chairman and his secretary, this researcher classified the list of professors into two groups: Tagalogs and Non-Tagalogs. The name of each professor in every group was written on a small sheet of paper, which was placed in a receptacle. From the receptacle were then drawn the desired number of respondents.

This procedure, however, was not exactly followed in selecting the samples from the University of the Philippines because the total number of medical professors listed was more than 230. Instead, this researcher, following the suggestion of Dr. Gerardo V. de Leon, Secretary and Associate Dean of the College of Medicine, picked out at random two respondents (one Tagalog and one Non-Tagalog) from each of the following specializations: pharmacology, anatomy, pathology, obstetrics, gynecology, and microbiology. Anticipating that some professors might not be readily available, the number of prospective respondents picked out was a little more than the desired number.
The same procedure was essentially followed in selecting the student samples. The class used in the survey was selected by drawing of lots, except of course in cases where there was only one class available and qualified for the survey.

Students who were in their senior year were chosen, as it was assumed that they were more knowledgeable in their respective areas of specialization than, say, freshmen students. In the cases, however, where the senior students proved to be very difficult to meet, as for instance when the medical senior students were out on internship, students in their junior year were used instead.

With regard to the practitioners, the sampling procedure employed was merely purposive for the simple reason that a comprehensive list of practitioners in each of the five disciplines of science was not available to this researcher. And even if such a list could have been obtained, to select only 20 respondents therefrom would have been impractical. Moreover, unlike the college students and professors, the practitioners selected from such a list would have been very difficult to reach, considering their working hours and the financial limitations of the study.

The most practical way, then, was to get the number of needed respondents through purposive sampling; that is, prospective respondents were selected according to some criteria.

The selection of practitioner-respondents was done in the following manner: The students of this researcher in the Philippine Normal College Graduate School, especially those teaching in schools run by religious orders, such as Maryknoll and Saint Paul, were requested to assist by finding from their school records who among the parents of their pupils could qualify as respondents — that is, as physicians, biologists, chemists, physicists, and mathematicians. The last two categories were generally composed of engineers (civil, mechanical, electrical, etc.). Their places of works and whether they were Tagalogs or Non-Tagalogs were ascertained from the school records. Then out of the list given to this researcher, the desired respondents were randomly chosen.

Questionnaires were then given to this researcher's students who in turn sent them to the selected parent-respondents, through their respective pupils.

And in order to be able to get sample respondents from outside Metropolitan Manila, students of this researcher who went home to the Visayas and Mindanao during the 1977 Christmas vacation were also requested to assist in the data-gathering.

The number of questionnaires filled out, however, exceeded the number of desired respondents (20 only from each of the five disciplines). The excess numbers were randomly picked out from the file and discarded.
4.3 Survey Instruments Used

Two sets of questionnaires were used for each of the five disciplines, or a total of ten questionnaires (see samples in Appendix A).

The first set of questionnaires was purely in English. Every questionnaire in each of the five disciplines contained 20 technical terms, thus making a total of 100 items. The format of the English questionnaire was such that an English technical term was given, and alongside, its corresponding dictionary definition. Immediately below this item were options for the respondent to choose from by encircling the letter corresponding to his preference, as alternative for the defined term.

Five options were regularly given for each item, the sixth being a blank space in case a respondent would prefer a term other than any of those listed.

The following were the types of options that a respondent could choose from:

1. Unchanged English term (coded E-1) - i.e., the same English term with no change in spelling; e.g. biology.
2. Respelled English term (coded E-2) - i.e., the same English term respelled to conform to the Abakada; e.g. bayolodyi.
3. Unchanged Spanish term (coded S-1) - i.e., the Spanish translation equivalent of the English term, with no change in spelling; e.g. biologia.
4. Respelled Spanish term (coded S-2) - i.e., the same Spanish translation equivalent, respelled to conform to the Abakada; e.g. biyolohiya.
5. Maugnayin term (coded M) - i.e., the term listed in the book Maugnayin Talasalitaang Pang-agham by the Lupon sa Agham of the NSDB; e.g. kapnayan. Maugnayin terms may be characterized as follows: (a) Current Tagalog, e.g. pampamuuo 'coagulant'; (b) Archaic Tagalog, e.g. isig 'force'; (c) Philippine vernacular other than Tagalog, e.g. butod 'nucleus' (from Hiligaynon); (d) Coined or derived, e.g. sipnayanon 'mathematician' (isip + hanayan) + Visayan suffix -(n)on; and (e) Borrowed from influencing foreign languages, e.g. karbad 'carbide'.

In MED, however, the fifth option was assigned a different label, CT (Current Tagalog), because the indigenous terms used, except for numbers 17, 18, and 19, were not Maugnayin but mainly Current Tagalog which had been taken by this researcher from his own lexical repertoire or included on the basis of suggestions of the respondents during the tryout. The Maugnayin sexual terms tunod, punlay, and kaluban were included among the options for numbers 17, 18, and 19, respectively, to find out how the respondents would react to them as against the taboo and euphemistic terms.
The second set of questionnaires (Questionnaire B) contained the same 100 technical terms used in the first set (Questionnaire A). The only differences were that (1) the set for Questionnaire B was in Pilipino while the set for Questionnaire A was in English, and (2) the technical terms in Questionnaire B were used in context instead of merely having them defined.

Two sets of questionnaires — one in English and another in Pilipino — were developed because any one set used could possibly be context-sensitive. If Questionnaires A (English text), for instance, would be the only instrument used, the text might lopsidedly influence the group of respondents to choose the English options. Furthermore, there was the likelihood that the respondents might not be able to experience the feeling that their preferences really appealed to them or reflected their true choice inasmuch as the terms were not used in context.

On the other hand, the set for Questionnaire B (Pilipino text) might also influence the choice of the other group of respondents, the text being in Pilipino. Thus it was anticipated that should there be no significant difference between the preferences of respondents who answered the set for Questionnaire A as against the preferences of respondents who answered the set for Questionnaire B, it would only prove that the supposed context-sensitivity of the two sets of questionnaires did not really exist. On the other hand, if the difference would be significant, it would be interpreted to mean that each set of questionnaires served to cancel out context-sensitivity of the other set. (See pages 87-9 for procedure of the sampling method.)

As regards the brand of Pilipino used in both sets of questionnaires, this researcher sought to remove any misgiving on his part by inquiring from the Institute of National Language if it was the same brand being propagated by that entity. The answer was in the affirmative. (See Appendix F.)

4.4 Tryout

A dry run of the survey instrument that had been developed was conducted with the following goals: (1) to spot weaknesses in the mechanics of the instruments, and (2) to find out if there were other better options that should have been used, especially in the indigenous terms.

Six respondents were used in each questionnaire, or a total of 60 respondents.

After the tryout, the following weaknesses were discovered and subsequently corrected:

(1) Some items had more than five options. Example (MED, Item No.15):
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Parami nang parami ang tao sa Pilipinas, kaya't kailangan ang (PAGBABALAK-ANGKAN, FAMILY PLANNING, PAMILI PLANING, PLANIFICACION DE FAMILIA, PLANIKASTON DE PAMILYA, PAGPASALO NG PAMILYA, __________________).

The problem that arose here was how to classify Pagpaplano ng pamilya. Should it be classified as S-2 or CT? If classified as S-2 because of the roots plano and pamilya, there would be two options for Spanish respelled terms. If classified as CT because of the affix pagpa- and the preposition ng, what would happen with pagbabalak-angkan? Pagpaplano ng pamilya, therefore, had to be excluded even if this researcher had the strong feeling that it is part of Current Tagalog. Significantly, this term came out to be the most preferred choice of the respondents (see Appendix B) in spite of the fact that it was not included among the five options.

(2) Some items had less than five options.
Example: (MED, Item No.10):

**cardiograph** - apparatus for making a graph of heart cycle.

a. kardyograp  

b. cardiografo  

c. kardyograpo  

d. cardiograph  

e. ____________

This happened because this researcher could not find a CT term for cardiograph. This was also the case with other medical terms, such as osteopathy, cephalalgia, contraceptive, etc. This researcher thus had to come up with terms in order to fill the slot for CT. And so the following terms were thought up: larawan-pintig for 'cardiograph', sakit-buto for 'osteopathy', sakit-ulo for 'cephalalgia', panlaban sa pagbubuntis for 'contraceptive'.

(3) One item — algebra — having the same spelling in E-1 and S-1 was differentiated through the use of the primary stress mark during the tryout. It was discovered, however, that the mark was not enough to enable the respondents to distinguish one form from the other, so the phrases 'Spanish pronunciation' and 'English pronunciation' were added to the corresponding words, thus:

**algebra** - mathematical system used to generalize certain arithmetic operations by permitting letters or other symbols to stand for numbers.

a. algebra (Spanish pronunciation)  

b. alhebra  

c. panandaan  

d. algebra (English pronunciation)  

e. aldyebra  

f. ____________
(4) Some options were replaced with better ones as shown in the respondents' responses. For example, the option balik-sintomas (MED, Item No.7) was replaced with binat because more than one-half of the respondents wrote this word as their preferred term for 'recrudescence'.

4.5 Data Gathering/Analysis

The time spent in gathering data for this study covered roughly five months, commencing from the opening, and terminating at the close, of the second semester of the academic year 1977-78 (see dates of letters of PNC President to the different institutions involved in the study, Appendix F).

The collating and analysis of the data gathered were done during the summer period.

Since the study simply calls for comparing the respondents' choices, the chi-square test and Z-test were used with respect to its statistical treatment.