

TERMINOLOGY WORK IN VIETNAM

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As one aspect of language planning and language treatment, terminological work in Vietnam¹ has been going on for at least five decades, initially through efforts of individual science teachers and journalists - even when the medium of instruction was still the French language - then later through concerted efforts of educational leaders working around colleges and universities and institutionalised bodies. Even prior to 1945, many political, historical and economic terms used by the press in Vietnam had become current "even among non-specialists". With the development and evolution of political life and the increase in literacy among the masses since that date, new words had to be invented to express new ideas and concepts in textbooks, pamphlets and newspapers and magazines. Teachers at all levels called upon to use their mother tongue as the medium of instruction contributed to the elaboration of an increasingly wealthy jargon for each branch of the social and natural sciences. This paper will focus on the innovative processes by which Vietnamese intellectuals regardless of their political leanings have collectively evolved a scientific and technical terminology.

At the beginning scientists and science teachers advocated different methods in coining new terms in the 1940s. Some wanted to use French words, particularly in chemistry; others suggested the transliteration of those French terms into Vietnamese; still others preferred the use of Sino-Vietnamese loanwords (e.g. lưu nhữợc đưỡnđ thấp for *anhydride sulfureux*). A number of writers advocated the use of vernacular terms used in everyday parlance. There were even those who recommended the reading aloud of international symbols (em-en-ô-hai for MnO^2 , S-hai-uy-K for $S^2U K$), or the coining of a term based on the formula (hiêm siêm át khở hai for $H^2 (SO_4)_2$, or even the use of some pig-Latin-like device (bai for "hạch b(ên) (t)ai" a *ganglion next to the ear*, tác for "t(am) (gi)ác" a *triangle*), suggestive of the Chinese method of fan-chie or Vietnamese nói lái.

The history of terminological work undertaken by Vietnamese educators and scientists goes back to 1942, when Professor Hoàng Xuân-Hãn, mathematician, historian and philologist, published his *Danh-từ khoa-học*, a "collection of terms denoting scientific ideas and based on French" (Hoang 1948:vii). This pioneer work has since been reprinted many times (Saigon 1948, Paris 1951, Saigon 1970). In the 1948 reprint edition, made necessary because the 1946 reprint had been destroyed by fire during the Franco-Vietnamese hostilities in the capital city of Hanoi, Professor Hoàng reproduced a statement he had made in the first issue of the review *Khoa-học* 'Science' in 1941:

The language of every country can become a scientific language, and only necessity is the mother of invention. This review *Khoa-học* will prove that there is no difficult question that cannot be explained in Vietnamese. Whether the explanation

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is clear or not depends on the person doing the explaining. Whether it is understood clearly or not depends on the hearer. This is true of any country and any language.

(as cited in Hoang 1948:viii)

Earlier in a paper entitled *Vocabulaire scientifique en langue annamite* read before the Indochina Council on Scientific Research on 29 October 1941, Professor Hoang explained his objective and methodology as follows:

... mon but est de chercher un mot simple ou composé correspondant à chaque mot scientifique français. Je me suis imposé la règle suivante: utiliser le plus possible les mots de la langue ordinaire; éviter les périphrases pour désigner les idées simples et autant que possible pour les idées composées; garder les mots formés antérieurement et d'un usage courant bien qu'illogique. Quand la formation annamite perd de la concision et de la clarté, j'ai utilisé les racines chinoises.

(1948:v)

In the Paris reprint edition of 1951 of this eminently innovative and ingenious glossary of terms in mathematics, physics, chemistry, mechanics and astronomy, the Introduction (xi-xlix) listed eight requirements for the coining of new terms (xi-xviii), then examined the three methods used (xix-xxiii), previous experiences (xxiv-xxvii), and the principles followed by the author (xxviii-xxxiv), and finally provided the chemical nomenclature (xxxv-xliv).

Of Professor Hoang's eight requirements, which have been repeatedly cited by other terminology workers, the first five pertain to the content and the last three to the form of each newly-coined term.

On the first requirement - that "each idea has to have a term" - he said that it is necessary to use not just monosyllabic words, but also 2-syllable and 3-syllable words to take care of future concepts. The second requirement stated that each term "must refer only to one particular idea", and the third requirement specified that "one idea cannot be expressed by several terms". Indeed the author cautioned teachers against using homonyms or synonyms: he thus proposed two different terms *nguyên-tử* and *đại-nguyên-tử* as corresponding to the two senses of French *atome*, but only a single term *cơ-lo-rua* for both French terms *chlorure* and *chlorhydrate*.

Since according to the fourth requirement, a term "must help us remember its idea easily", the coinage *hình-học* was chosen for geometry (instead of *ky-hà-học*) because it would make one think of shapes (*hình*). The word in everyday language for *to converge* is *tụ*, but since in science this verb involves the idea of an accumulation, the compound *qui-tụ* was offered.

The *solution of an equation* should not be translated as *rễ root*, but *nghiệm-số* since it is "a number which, when substituted for the unknown number of an equation, would prove the latter right" (xiii).

Fifthly, "terms in different fields must form a uniform and interrelated whole". Thus for the equivalent of *reflection*, the term *phan-xạ* was chosen for use in physics as well as in acoustics and mechanics, leaving the better known word *phản-chiếu* for only the former field. Whereas laymen use *khinh-khí*, a Chinese loanword meaning *the light gas*, the scientific term proposed was *hyt-rô*, which would correlate with *hyt-rua*, *hyt-rat*, *hyt-roc-xyt*, *hyt-ric*, etc. denoting '*hydrure, hydrate, hydroxyde, hydrique*', respectively. This last consideration

constituted the most difficult condition in the elaboration of a scientific terminology, according to Professor Hoàng (xiv).

The sixth requirement is also the first criterion regarding form. The compound *thu-sai*, which means *aberration*, to be distinguished from *sai error*, would exist side by side with such compounds as *cầu-sai spherical aberration*, *sắc-sai chromatic aberration*, etc., in which the stem *sai*, clipped from *thu-sai*, is combined with other Chinese-borrowed modifiers, in the determiner-determined order. Precedents for this process of shortening were *cách-trí leçon de choses*, from *cách-vật trí-trí to investigate things and to deepen knowledge*, *danh-giá prestige*, from *danh-tiếng fame, renown*; and *giá-trị value, worth*.

The next criterion pertains to the phonology of a new term, which must sound all right to Vietnamese ears. Thus *cô-níc conic(al)* would be more acceptable than *xi-pi-ra-lở spiral*, which sounds un-Vietnamese. Here Professor Hoàng mentioned a common phenomenon whereby a Sino-Vietnamese syllable is combined with a native lexeme that has the same meaning: *cơ-hội opportunity*, *tùy theo according to*, *thờ-phụng to worship*, *danh-tiếng fame, renown*, *thời giờ time*, etc., resulting in better cadence.

Finally, a scientific term must be invented "in consonance with the history of other ordinary terms in the language". Here Professor Hoàng discussed foreign loanwords in Vietnamese. Those from French have been shortened or adapted to Vietnamese phonotactics: *bơ* from *beurre*, *phô-mát* from *fromage*, *ô-tô* from *auto*, *bù-loong* from *boulon*, etc. As for the Chinese loanwords - usually referred to as *Hán-Việt Sino-Vietnamese* - such as *địa-cầu earth, globe*, *thiên-văn astronomy*, *động-vật animal*, *thiên-tạo natural*, etc., they exist side by side with a host of borrowed elements which have been thoroughly assimilated and integrated in the Vietnamese vocabulary: *sắt iron* from 鐵 *thiết*; *xưa ancient* from 初 *sở*; *xem xét to examine* from 瞻察 *chiêm-sát*, etc.

The author of *Danh-từ khoa-học* then proceeded to analyse the advantages and disadvantages of each of the three methods used in word coinage. First of all, ordinary words in the everyday language cannot be very efficient as scientific terms, even though they may have been thoroughly assimilated, because what is needed is a scientific term, and not a descriptive and explanatory phrase. The word *chảy*, which means *to flow, to melt*, and also *to leak*, would not be adequate as the equivalent of *fusion*. Combinations of free native lexemes, moreover, would result in lengthy phrases. They fulfil only the fourth, seventh and eighth requirements, but not the others.

The second method, transliteration, fails to meet criteria (4), (6), (7) and (8), but will be satisfactory only if not abused (Hoàng 1948:xxiii).

Of the three methods, the last one, using Sino-Vietnamese forms, would fulfil all eight requirements, as shown in the table on page xxiii of *Danh-từ khoa-học*.

Professor Hoàng mentioned the experience of the Japanese, who use numerous transliterations from English and German and also Sino-Japanese terms, and of the Chinese, who by the mid 1930s had already worked out their appropriate scientific terminology (xxvi-xxvii). Vietnam's legal and political terminology had been elaborated in various administrative, penal and criminal codes issued under the French Government-General of Indochina, so it would afford a useful precedent for later workers in other disciplines.

Transliterating requires the addition of new letters to represent phonemes or syllables, such as p- (Vietnamese words not beginning with this voiceless bilabial stop), z- (this initial fricative being represented by a non-barred d in the quốc-ngữ orthography), ce, ci, cê, as well as -ol and -al, to be distinguished from -on and -an, respectively (xxxiii).

Professor Hoàng insisted on the use of hyphens in compounds or transliterated terms. As for the practice of running syllables together, although he did not use it in the earlier edition, calling it "a very useful but very daring device", he later resorted to it in the Paris edition of 1951.

Another highly useful glossary is Đào Văn Tiến's (1945, reprinted in 1950), which contains terms from the natural sciences - biology, physiology, zoology, botany, geology, etc.

Throughout the anti-French resistance war and during the partition of the country, 1954-1975 (into the Democratic Republic of Vietnam in the north, and the Republic of Vietnam south of the 17th parallel), scientists and scholars in both zones continued their terminology work to satisfy the needs of teaching and research.

Seven French-Vietnamese glossaries containing about 40,000 terms in five different disciplines appeared: Bùi Huy Đáp 1948 for agronomy; Trịnh Đình Cung 1951, Lê Khắc Thiển and Phạm Khắc Quang 1951 for medicine; Đào Văn Tiến 1950 for botany; Đỗ Xuân Hợp 1951 for surgery, Đào Trọng Hội 1954 for economics and finance; and Phạm Xuân Thái 1954 for philosophy. Most of the terms in those glossaries, however, were still Chinese loanwords. After the Geneva Agreements of 1954 put an end to French rule, but provided for the partition of the land, some scientists promoted the use of terms that had been internationalised while others said that those should be used only when necessary, and Sino-Vietnamese terms were still widely used (hoà-xa for *railroad*, *train*, giao-động-đồ for *oscillogram*, etc.).

The exciting terminological work contrasted sharply with the situation under the French colonialists' educational system, in which the medium of instruction was French and the exams followed the patterns in metropolitan France. It should be remembered that, prior to 1945, in senior high school classes taught in French, Vietnamese was relegated to the status of a second foreign language after English, German or Spanish (Nguyễn Văn Huyền 1969:46).

Professor Nguyễn Như Kontum, then Rector of the University of Hanoi, in the article "Vietnamese as a medium to teach basic sciences" (1969) provided a comparison between French-trained university teachers like himself and their young students during the early 1940s in terms of preparedness. The former, according to Professor Nguyễn Như Kontum's reminiscences, "often felt at a loss, when using our native tongue to express delicate feelings, and even common ideas, not to speak of complex and abstract notions, having learned French since childhood" (1969:80). By contrast, the latter - their students, particularly in the Lycée du Protectorat, nicknamed Trường Bưởi 'Pomelo School' - in small groups named "Dragon Group", in "Thunder Group", promoted the use of Vietnamese in daily conversation and in serious discussions of scientific topics and the avoidance of 'macaronic' language (Nguyễn Như Kontum 1969:80; Nguyễn Đình-Hoà 1975:44-45).

Professor Trần Hữu Tước, one time Vice-President of the Vietnam Medical Association in Hanoi, also related his experience of giving lectures in Vietnamese, upon his return from France:

Living abroad for fifteen years, I had to learn and teach medicine in French. In 1946, when I came home and received a chair in otorhinolaryngology in the Hanoi Faculty of

Medicine and Pharmacy, I made up my mind to deliver my first lecture in Vietnamese. Though mine was not a fluent Vietnamese, I could at least teach in my mother tongue, and this was an honour for me, a citizen of independent and free Vietnam. (Trần Hữu Tước 1969:96)

In South Vietnam, too, university teachers - with a few exceptions - believed just as their colleagues in the north did that "when teachers and students are Vietnamese, the goal of study is to serve Vietnam for whose population - some dozen million - the common language is Vietnamese, it is natural that their means of expression cannot be any other language than Vietnamese" (Phạm Đông Điện 1969: 103). In the field of linguistics, to take an example from the social sciences taught primarily in the Faculties of Letters of the universities of Saigon, Huế, Dalat and Cần-thơ, the teaching staff of varied backgrounds speedily worked out all the technical terms needed. It is thus not entirely true that, in the south, Vietnamese did not enjoy the status of a vehicular language at the college level. Whatever hesitation there was was primarily due to a regrettable competition between the French-trained and the U.S.-trained scientists and physicians.

After the July 1960 conference convened by Professor Lê Văn Thới, then Dean of the Saigon Faculty of Sciences, terminological work entered its systematic and productive stage in South Vietnam. A Committee on Terminology, composed of eight subcommittees, was charged with the task of standardising new, convenient terms in mathematics, physics, chemistry, geology, zoology, botany, technology and atomic energy. The Committee agreed to give common words (tiếng thông-thường) priority over Sino-Vietnamese (tiếng gốc nho) or transliterations (phiên âm) (Lê Văn Thới 1961).

Some new problems were identified as (1) the systematisation of terms borrowed from Chinese; (2) the vietnamisation of foreign terms; and (3) the setting-up of general principles of transliteration "to respect international terminology and at the same time to be in agreement with modern science" (Lê Văn Thới 1961).

Not all of the eight planned glossaries got published, but the difficulties encountered in botany, for instance, were typical. Professor Phạm Hoàng Hộ, in the Introduction to his *Danh-từ thực-vật Pháp-Việt* (1964:xi), mentioned two earlier works, *Danh-từ thực-vật* by (Lê Văn) Cãn and (Nguyễn Hữu) Quan, which he said "few people unfortunately were able to consult", and *Danh-từ khoa-học (vạn-vật-học)* by Đào Văn Tiên (1945, 1950). These two glossaries, particularly the latter, "provided us with a fairly serious and usable terminological foundation and should have greatly helped in the transitional period in secondary education". But, he continued,

... it is a pity that many of our textbook writers did not know about that book and have hurriedly coined new terms without method or system, thus making technical terms at the high school level chaotic and causing confusion among students at exam time and upon their entrance into the university system. (Phạm Hoàng Hộ 1964:xi)

While discussing the principles he had followed (xi-xvi), botanist Phạm Hoàng Hộ pointed out that in order to have "open-minded" terms to enable us "to have a scientific culture" (xiii), one should rely heavily on "laboratories - the source of science - as the most authoritative creators of terms used in a particular discipline" (xiv).

He adopted Đào Văn Tiến's taxonomic classification:

giới	<i>kingdom</i>	giới phụ	<i>subkingdom</i>
ngành	<i>division</i>	ngành phụ	<i>subdivision</i>
lớp	<i>class</i>	lớp phụ	<i>subclass</i>
mục/bộ	<i>order</i>	bộ phụ	<i>suborder</i>
họ	<i>family</i>	họ phụ or tông	<i>subfamily</i>
giống	<i>genus</i>	loại	<i>species</i>
thứ	<i>variety</i>	(Đào Văn Tiến 1945: Introduction)	

although not in every detail.

Common names of plants were suggested as good substitutes for "complicated Latin names, at least at the secondary level" (Phạm Hoàng Hộ 1964:xv).

Efforts in centralising and systematising scientific terminology are reflected in South Vietnam in the establishment of two bodies:

- a National Committee on Terminology (Ủy-ban Quốc-gia Soạn-thảo Danh-từ Chuyên-môn), set up by Order No.1101-GD-PC-ND of 18 May 1967 and modified by Order No.1985-GD-PC-ND of 30 August 1967; and
- a Committee on Language Codification (Ủy-ban Điện-chế Văn-tự), set up with the task of "defining the principles of translation and transliteration of foreign terms, reviewing existing glossaries, editing the technical jargon for teaching purposes, examining usage, receiving suggestions from teachers, and formalizing new or current terms while dropping old-fashioned terms" (Nội-san Danh-từ Chuyên-môn 1969:vii-xi).

Of the 12 subject areas, several had their own jargon sanctioned by the Education Ministry: 743 terms for physics, 370 terms for fine arts, and 1,253 terms for pharmacy published in 1970; then 1,547 terms for chemistry, 776 terms for botany, and 946 and 405 terms for atomic energy, letters A and B respectively, in 1971.

Parallel endeavours in North Vietnam, since 1969 coordinated by the Institute of Linguistics (Viện Ngôn-ngữ-học), resulted in a set of "Principles of Transliteration of Indo-European Scientific Terms into Vietnamese" (Qui-tắc phiên thuật-ngữ khoa-học nước ngoài ra tiếng Việt) issued by the Social Sciences Commission in 1968 and again in 1977. According to these rules, which in 1965 were recommended for interim use by a committee set up in 1964 and composed of university professors and linguists (such as Tạ Quang Bửu, Nguyễn Thạc Cát, Nguyễn Tài Cẩn, Nguyễn Văn Chiền, Lê Khả Kế, Ngụy Như Kontum, Lưu Văn Lăng, Trương Công Quyền, etc.) the forms, generally speaking, follow their pronunciations in the donor language and at the same time make adjustments to the conventional orthography (quốc-ngữ), most of the time based on the dialect of Hanoi, the capital city. Thus, graphemic substitutions include z- for d-, d- for đ-, j- for gi-, f- for ph-, etc., i for y; -p for -b, -v and -f, -t for -d and -s, -c for -g and -r, -n for -l. Examples: andoza, andolaza; jun, jura; foton, flo; oxi; amip, pecmanganat, sunfua. The digraph gh is dropped for plain g, the grapheme x is used for /s/, as in axit, axetat, and the grapheme s is used for /ʃ/, as in senlac. Initial p- is used as well as the three symbols c, k and q for /k/. Consonant clusters in initial position are introduced as brom, clo, flo, while a final or intervocalic consonant may be dropped: reanga *realgar*, diaba *diabase*, milimet *millimeter* (Ủy-ban Khoa-học xã-hội Việt-nam 1968:12-15).

Lê Khả Kế, the linguist in charge of the Department of Scientific Terminology in the Social Sciences Commission in 1969, discussed at length the role of free and bound morphemes in a system of scientific jargon. The former are used to

denote concrete concepts such as the following in biology, medicine and agriculture:

màng ối	instead of	dưỡng-mô	<i>amnion</i>
thiếu máu		bản-huyết	<i>anaemia</i>
vàng da		hoàng-đản	<i>jaundice</i>
lỗ khí		khí-không	<i>stoma</i>
ống dẫn đái		niệu-đạo	<i>urethra</i>
ống đái		niệu-quản	<i>ureter</i>
màng nhày		niêm-mạc	<i>mucosa</i>
chân giả		giả-túc	<i>pseudopod</i>
động-vật tay cuốn		động-vật uyển-túc	<i>brachiopod</i> (1969:120)

The latter - bound or restricted morphemes - are used to express abstract concepts, mainly in new combinations. Thus, the stem *thức* would yield *đơn-thức monomial*, *nhị-thức binomial*, *tam-thức trinomial*, and *đa-thức polynomial* in mathematics, just as the prefix *đẳng-* would yield *đẳng-nhiệt isothermal*, *đẳng-hướng isotropic*, etc. in physics (121).

Also, a very productive device consists in using normally bound morphemes of Chinese origin as free lexemes in a specialised context of physics and mathematics: *căn root*, *hàm function*, *hệ system*, *lực force*, *phổ spectrum*, *thế potential*, *trường field*, *tuyến line*, etc. (122). In addition to *năng energy*, *nhật heat*, *Nhũ Thanh* also mentioned some terms of traditional (Chinese) medicine: *thủy water*, *hoà fire*, and *phong wind* (*Nhũ Thanh* 1977:19).

Of course, lexical elements that have always been free can each be given a very specialised meaning: *dạng form*, *tâm centre*, *thể body*, or as in linguistics, *cách case*, *ngôi person*, *thời tense*, etc.

Chinese-borrowed morphemes have the great advantage of serving as extremely productive affixes: *đa-* *poly-* or *multi-* recurs in *đa-diện polyhedron*, *đa-giác polygon*, *đa-hướng polytropic*, *đa-vectơ polyvector*, etc. (*Lê Kha Kế* 1969:123).

Terminology workers often face the dilemma of using bound morphemes in the Vietnamese order or in the original Chinese order: *axit hoá* (Chinese order) is found better than *hoá axit* for *acidify*, *môi hoá* better than *hoá môi* for *labialise(d)*, *hợp-pháp-hóa* better than *hoá hợp-pháp* for *legalise(d)*. However, Vietnamese word order is preferred whenever possible, as in: *viêm họng*, found better than the previous coinage *họng viêm* *laryngitis*, *viêm mồm* (instead of *mồm viêm*) for *stomatitis*, *viêm mũi* (instead of *mũi viêm*) for *rhinitis* (*Lê Kha Kế* 1969:124).

Extensive use is made of such nominalisers as *sự action*, *cách method*, *phép method*, *thế status*, etc. prefixed to verbs, or *tính quality*, *độ degree*, etc. prefixed to adjectives, and such verbalisers as *-hoá -ise-*, *-fy*, etc. suffixed to nouns or adjectives: thus, from *axit* are derived *axit hoá acidify*, then *sự axit hoá acidification* (125).

To ensure the precision and the systematic character of terminology, each term is created in relation to other terms expressing related notions: it is important for instance to distinguish and contrast *trạng aspect*, *kiểu type*, *dạng form*, *mẫu model*, *hình morpho-*, *loại -oid*, etc., as well as several medical terms sharing the core meaning of *contraction* or geological terms having in common the idea of *corrosion* (125-126).

Maximum use is made of Vietnamese synonymy: given the words *hai, đôi, điệp, nhị, trung, song* for the idea of *two, twin*, or *bi-* the following linguistic terms have been created: *nguyên-âm đôi diphthong*, *phép điệp redoubling*, *phụ-âm điệp geminate*, *từ song-thức doublet* (127).

Scientists and scholars agree that one should not create technical terms at random or sacrifice a native and popular term just because it is not systematic. A case in point is words denoting disciplines or sciences. All the compounds follow Chinese morphology, with the suffix -học equated with *-ics*, *-logy*: toán-học *mathematics*, sử-học *history*, luật-học *juridical sciences*, địa-chất-học *geology*, etc. When the time came to choose a term for *ophthalmology*, however, the specialists voted for khoa mắt, considered better than nhãn-học or mắt học (128), their colleagues in South Vietnam having long been used to nhãn-khoa.

A linguist in South Vietnam offered some rather ingenious way of using 'national', that is to say, native elements in strict Vietnamese order to call those disciplines: học-ngữ *linguistics*, học-hội-sống *sociology*, học-âm-lời *phonetics*, etc. (Nguyễn Bạt-Tuyết 1959), but this type of innovation has been regarded as "extremist", "too bold", and "unnecessary" (Lưu Văn Lăng 1977:8).

In general, both creativity and flexibility have manifested themselves as the experts try to strike a medium between systematicity and national character in the production of a real plethora of scientific glossaries and dictionaries in both zones: for example, glossaries of physics 1962, chemistry 1962, botany 1964, economics 1974, law and economics 1970, public administration 1971, etc. in South Vietnam, and biology 1960, mathematics 1963, chemistry 1961, technology 1962, geography 1963, music 1969, linguistics 1969, law 1971, etc. in North Vietnam. Duplication was inevitable, and subsequent to the de facto (in 1975), then de jure (in 1976), reunification of the country, cultural and scientific activities have been better coordinated. Terminological work being no exception, on 7 May 1976, a meeting was held at the Institute of Social Sciences of South Vietnam between terminology cadres of the Vietnam Social Sciences Commission and a number of university teachers, cultural workers and newspapermen in the south (Saigon Giải-phóng 9 May 1976).

Criteria for a sound and workable uniform terminology in each field have been tested, and joint efforts on the theoretical level from Hoàng Xuân Hãn's list down have been increasingly utilised and systematised. Indeed three conferences held on 27-28 July 1978 in Hanoi, on 28-30 August 1978 in Huế, and on 8-9 October 1978 in Hồ-Chí-Minh City, were followed by a "Conference on Standardisation of Orthography and Scientific Terminology", sponsored by the Institute of Linguistics and the Textbook Centre of the Ministry of Education, and convened in Hanoi, 5-7 June 1979. Reports presented at the latter were published in a special issue (41 and 42) of *Ngôn-ngữ* (September-December 1979).

The five essential virtues of an effective, modern terminology, as listed by Lưu Văn Lăng, Rapporteur of the 1964 conference, have been repeatedly emphasised: the scientific terminology must be precise, systematic, Vietnamese, compact and easy to understand, to remember, to pronounce, to write and to read (Lưu Văn Lăng 1977:39-68; Lê Khả Kế 1979:32-36). Conditions certainly are ideally ripe now for the formalisation of different technical glossaries and dictionaries. This aspect - lexical modernisation and elaboration - of Vietnam's language policy will provide further and better tools in the dissemination of science and culture.

NOTE

1. This is an updated version of a paper read at the annual meeting of ACTUAL (American Council of Teachers of Uncommonly-taught Asian Languages) in San Francisco on 26 November 1977.

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