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Writing for Scholarly Publication in English: The Case of Hong Kong

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With English becoming increasingly dominant as the international language of research and publication, there is a need to empirically investigate the question of international scholarly publication in English on the part of non-native speakers of English. This paper presents the results of a large-scale survey concerning publication in international refereed journals in English by Hong Kong Chinese academics who have Cantonese as their first language. The survey seeks answers to the following questions: What exposure to English have these Hong Kong scholars had? What are their attitudes towards publishing in English? What are their problems? What are their strategies for successful publishing? And what change to the language of publication, if any, do they see accompanying the reversion of sovereignty over Hong Kong from Britain to China?

English has now established itself as a truly world language (Crystal, 1998; Graddol, 1997). It has taken on an increasingly international role in diplomacy, business, the mass media (including the Internet and e-mail), education, academic research, and entertainment. It is used as an international language in both post-colonial territories (where it has remained beyond the departure of the British as a second language linking different indigenous linguistic groups in newly established nation states) and in countries where it has been traditionally viewed as a foreign language (but where it is increasingly spreading into intra- as well as international use). Nigeria, Singapore, and India are examples of the former, while the Western European countries, the countries of the former Soviet Union, and Japan are examples of the latter. On the one hand, the spread of English has been viewed as a positive force by many (Grabe, 1988) in facilitating international understanding, global economic integration and growth, and the modernization of developing countries. By others, on the other hand, it has been seen as a negative impetus, bringing with it cultural imperialism and linguistic hegemony (Pennycook, 1994; Phillipson, 1992). Whether or not one views the spread of English internationally in a positive or negative light, the question arises as to

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whether or not nonnative speakers (NNSs) are at a disadvantage compared to native speakers (NS) in contexts where English is the medium of communication. One such medium of communication is that of scholarly publication, the subject of this study.

ENGLISH AS THE INTERNATIONAL LANGUAGE OF SCHOLARLY PUBLICATION

For many years, English has increasingly come to be accepted as the dominant language for publication of academic research findings. In 1990, reviewing a number of surveys (Arvantis & Chatelin, 1988; Baldauf & Jernudd, 1983; Garfield, 1978; Maher, 1986) concerning the use of English in scholarly publications, Swales (1990) concluded that while there may have been some exaggeration in claims concerning the degree of its preponderance, ". . . there is no doubt that English has become the world's predominant language of research and publication" (p. 99). More recently, Swales (1997a) has described English as "Tyrannosaurus rex": "English as a powerful carnivore gobbling up the other denizens of the academic linguistic grazing grounds" (p. 374).

Most journals included in international data bases such as the *Science Citations Index* (SCI) (which includes over 3,000 journals) are published in English (Gibbs, 1995). For scholars who want their work to be read (and cited) widely by their international peers, publication in such journals is essential. When scientists search the literature for the latest research findings and decide which research to cite in their own papers, they rely on these data bases. On the other hand, failure to cite the latest research disseminated through these data bases in a scholar's own publications is an indication of a lack of awareness of current developments in the field, leading to possible rejection of a manuscript. When scientists are evaluated by their peers, this is often done by counting the number of citations of their work appearing in the data bases. In this era of globalization, to publish in a language other than English is to cut oneself off from the international community of scholars, on the one hand, and to prejudice one's chances of professional advancement, on the other. It is only in the "softer" disciplines of the humanities and social sciences where publication in local or regional journals in the national language(s) may still be regarded as prestigious, and even here the trend is towards international publication in English (Burgess, 1997).

As a measure of the influence of the English language in international scholarly publications, Gibbs (1995) cites the case of a Mexican medical journal, *Archivos de Investigacion Medica*, which was originally published in Spanish. In 1970, in order to be included in the SCI, this Spanish language journal was required to produce English abstracts for all of the articles it published. In 1982, it was dropped from the index because of delays in its publication due to a financial crisis. In order to be cited again in the CSI, it had to stop publishing in Spanish

and switch to English. Not only that, it hired an American editor, who insisted that all authors write in English so as to be sure of no translation errors.

One result of such concentration on English as the language of international publication is that NNSs of English may be at a disadvantage when it comes to publication of the results of their research as compared with NSs (Baldauf & Jernudd, 1983; Canagarajah, 1996; Gibbs, 1995; Swales, 1985; Wood, 1997a). As Canagarajah (1997) puts it, "Because these mostly bilingual/bicultural scholars are influenced by their indigenous communicative conventions, their writing will display peculiarities that are usually treated by Western scholars as ample evidence of their discursive/academic incompetence" (p. 436). A symptom of this problem, perhaps, is the under-representation in the international refereed journals of scholars from countries where English is not the national or official language and whose first language is not English (Baldauf & Jernudd, 1983; Canagarajah, 1996; Gibbs, 1995; Swales, 1985; Wood, 1997a). Canagarajah (1997), who moved to New York in part because of difficulties in participating in mainstream publishing, estimates, for example, that at his former university in Jaffna, Sri Lanka, only about 5% of scholars could be considered to be active in publishing in international journals.[1] Although there is not a great amount of documentation (perhaps because people do not like to dwell on failure), there is strong anecdotal evidence of the difficulties NNSs have in publishing in international scholarly journals.[2] Wood (1997a) cites recent correspondence in *Nature*, for example, that indicates that rejection of research may be due to difficulties with the language (Carter-Sigglow, 1996). Swales (1990) cites Jernudd and Baldauf's (1987) findings concerning Scandinavian researchers in the field of psychology. Even though the Scandinavian researchers studied by Jernudd and Baldauf had all published in English and the Scandinavian countries have successful educational policies that encourage polylingualism, the need to publish in English represented a constant challenge. Attitudes of these Scandinavian researchers are represented by the following statements (Jernudd & Baldauf, 1987: 150, cited in Swales, 1990:190):

- "It is constantly depressing to be confronted by one's shortcomings in (a) foreign language."
- "It is meaningless to publish original research in psychology in Swedish."
- "I regard the language barrier as a central problem for Norwegian researchers in my professional field."
- "One year in England/USA—even as a street sweeper—would likely mean more to a scientific career than half a million crowns in the form of a research grant."
- "It is important for those of us who are non-native speakers to create some understanding among many researchers that English in not their natural (or obvious) language of communication."

Swales (1990) adds two further problems to this list: The need for NNSs to devote time, which could otherwise be devoted to research, in maintaining and im-

proving their English skills and the high rejection rates of scholarly journals, which means increasing pressure on manuscripts with evidence of non-standard English.

Of course, if writing in English is difficult for NNSs, one might think there is always the option of writing in the L1 and then having the work translated into English. Many Hong Kong Chinese academics, however, simply have not been formatively trained to write in Chinese and therefore lack the considerable skills necessary to produce Chinese academic writing. Moreover, the L1 translation possibility is only available to those who write in a language that has an established academic register. Such registers do not exist in many of the world's languages and, because of the growing hegemony of English, even those languages that do have such registers are beginning to lose them. Swales (1997b) cites the case of Swedish, for example, where the last medical journals to accept articles in that language have recently switched to an English-only policy. The only remaining Swedish language publication in the discipline is a newsletter.

Even where there is the possibility of writing in the L1 and using translators, there are impediments. Firstly, the necessary financial resources to pay the translators are required. Secondly, the chances of finding translators who are also knowledgeable in the specialist field are slight. And thirdly, because of differences in rhetorical conventions and patterns across languages and cultures (i.e., generic features such as reader vs. writer responsibility, explicitness vs. implicitness, degree of metadiscoursal marking, role of the "poetic" function, etc., with which the genres of given languages and cultures are characterized), translators will also need to be familiar with the structure and function of research articles in both the L1 and English.[3]

Although Jernudd and Baldauf (1987) have investigated the NNS publishing problem from the perspective of Scandinavian scholars and Canagarajah's article (1996) is grounded in the situation for Sri Lanka, there is no study that systematically investigates in a quantitative survey the question as it relates to any one national group of scholars. The purpose of this paper is to present the results of a survey into the question of publication in international refereed journals conducted among one sub-group of nonnative-speaking scholars, Hong Kong Chinese academics, who have Cantonese as their first language.

Hong Kong represents an interesting case for two reasons. Firstly, it recently became a part of the People's Republic of China after a significant period of British colonial rule; its close ties with Britain (and the English language) are therefore diminishing. Secondly, it is in the middle of a rapid expansion of its university sector, with a heavy emphasis on research and publication; therefore, there is pressure on Hong Kong academics to publish internationally.

Before presenting the results of the survey, this paper first reviews the available literature on the problems and strategies of NNSs in writing for publication in general and then describes the sociolinguistic background prevailing in Hong Kong at the present time.

AREAS OF DIFFICULTY FOR NONNATIVE WRITERS OF SCHOLARLY ARTICLES

Research has identified a number of key areas where NNSs experience difficulty in writing for publication, as follows (summarized from Adams-Smith, 1984; Bazerman, 1988; Dudley-Evans, 1994; Johns, 1993; Mauranen, 1993; St. John, 1987; Swales, 1990):

1. grammar
2. use of citations
3. making reference to the published literature
4. structuring of argument
5. textual organization
6. relating text to audience
7. ways in which to make knowledge claims
8. ways in which to reveal or conceal the point of view of the author
9. use of "hedges" to indicate caution expected by the academic community
10. "interference" of different cultural views regarding the nature of academic processes.

While grammatical difficulty is identified as a consistent feature of nonnative-speaking writers, both second-language writing specialists (Parkhurst, 1990; Fox, 1994) and journal editors and reviewers tend to downplay its seriousness, with the other more abstract features felt to be more problematic. This was borne out in related research where I have interviewed a considerable number of journal editors, all of whom downplayed problems of grammar, which they said copy editors could easily remedy. Again, the other features were considered to be much more problematic and difficult to remedy. In my own work in reviewing academic papers written by NNSs, both in my own field and in the sciences, I have similarly felt the "surface" errors to be less problematic than the more abstract features of these papers.

In addition to these specific problems with academic writing, other factors may inhibit NNS publication in international refereed journals. Just as a majority of articles in international refereed journals are written by NSs, so are the editorial boards dominated by these people. The question arises of possible prejudice against submissions from NNSs that may contain non-standard features (Gibbs, 1995).

STRATEGIES USED BY SUCCESSFUL WRITERS

As well as identifying problems, the literature presents key strategies used by successful native- and nonnative-speaking writers of scholarly articles. The following is a list of these strategies (summarized from Bazerman, 1988; Berken-

kotter et al., 1991; Dudley-Evans, 1994; Johns, 1993; Myers, 1989, 1990; St. John, 1987; Swales, 1990; Samraj, 1994):

1. measuring proposed research against the current conversations in the discipline by interacting with scholars who make up the discourse community of the discipline
2. deciding what is appropriate for publication in an internationally refereed English language journal and what is more appropriate for a local or regional English language journal or indigenous language journal
3. using a native-speaking mentor or colleague as co-author
4. using a NS at various stages of drafting
5. making use of peer help in reviewing writing
6. relating to the anticipated audience, i.e., predicting the knowledge and attitudes the text can assume that readers will have
7. using implicit knowledge of the "move" structure (discourse organization) of the key parts of the academic article
8. structuring the argument appropriately
9. judging the appropriate charge to put upon the reader, i.e., what the author would like the reader to do after being convinced by the article
10. expressing appropriately the author's self, i.e., making the reader aware of the author as an individual statement-maker coming to terms with a distinctive perspective
11. presenting knowledge claims with the caution expected by the academic community
12. using appropriate degrees of persuasive language.

While these strategies are successfully used by both native- and nonnative-speaking writers, it is likely that the acquisition of such strategies is more problematic for NNSs.

Of particular interest for the present study, given the decreasing role of English that is inevitably accompanying the change of sovereignty in Hong Kong, are those strategies that involve the participation of NSs (strategies 1, 3, and 4). Will declining opportunities for collaboration with native-speaking supervisors and colleagues hamper Hong Kong academics in the future, one might ask?

ENGLISH IN HONG KONG

Hong Kong was a British colony for 150 years until it reverted to Chinese sovereignty on July 1, 1997. During the colonial period, English was the official language, and it was only in 1974 that the Chinese language was given official status alongside that of English, in spite of the fact that approximately 98% of the population have Cantonese (the local spoken variety of Chinese) as their mother tongue. Following the transfer of sovereignty, English remains an official language, although in a subsidiary capacity to Chinese (Basic Law, article 9, 1990).

In many post-colonial situations, independence brought with it a switch to the indigenous languages at the expense of English; in Hong Kong, the government has asserted the importance of sustaining English, and considerable resources have been devoted to maintaining and indeed strengthening its position. The reasons for this are primarily economic. The Hong Kong (Special Administrative Region [SAR]) government and the sovereign nation, China, recognize the former British colony's role as a center for international trade and finance and as a conduit for China's burgeoning contacts with the outside world. A work force proficient in English is therefore an important requirement for Hong Kong's continuing viability. In addition, since its establishment, the SAR government has emphasized its desire to promote high-technology research and development (Hong Kong Government, 1997), a field of activity that, again, requires a work force with a high level of proficiency in English.

In spite of the SAR government's desire to promote English, there are a number of factors working against a successful implementation of this policy. For a long time, there has been dissatisfaction with the effectiveness of English as the medium of instruction in secondary schools. For various reasons, including the learning difficulties of pupils required to operate in a second language, a lack of adequate training of teachers able to teach in English, and social pressure for solidarity between Cantonese-speaking pupils and teachers, a pattern of teaching has developed in all but a relatively small number of elite schools that uses a so-called "mixed mode" of instruction. English is the language of the set texts and examinations, but a mixture of Cantonese and English (Cantonese discourse and sentence structure with English content words) is used for actual teaching. Because of the poor results of these so-called English-medium schools both in terms of overall academic performance as well as, ironically, English proficiency, the outgoing colonial government had a policy of promoting mother tongue instruction at the secondary level, a policy that has subsequently received added impetus following the change of sovereignty. While this policy is likely to be beneficial in terms of overall educational achievement, it nevertheless emphasizes the diminishing use of English in the society at large. Under the current policy, between a quarter and a third of schools are being allowed to continue to teach in English; the rest must switch to the mother tongue. The government's overall position is that mother tongue education is better and all schools are encouraged to make the switch away from English. In addition to a declining use of English in the secondary education sector, English is also being rapidly replaced by Cantonese in government and the law, areas in which it was previously dominant.

UNIVERSITY EDUCATION IN HONG KONG

While the place of English is diminishing in the secondary education sector, Hong Kong's six universities are firm in insisting that English will maintain its

place at the tertiary level. The University of Hong Kong was the first university to be established in Hong Kong, in 1911. The medium of instruction was and continues to be English, and most of the staff had been traditionally recruited from Great Britain and the British Commonwealth, although there is now a more equal balance between English-speaking and local or other Chinese staff. The Chinese University of Hong Kong, the colony's second university, was established in 1963 in response to a demand for students who had been educated at the secondary level through the medium of Chinese to have an opportunity to study at university. In spite of its name, the Chinese University has a bilingual policy, and both Chinese and English are accepted as the languages of instruction. Furthermore, many staff members are unable to teach in Chinese.

Until the 1980s, university education catered to a small elite of 2% of the population, while many of those who could not get into Hong Kong universities went overseas. During that decade, however, the government introduced a rapid expansion of university provision, with the result that there are now six universities, catering to approximately 18% of the population. The new universities have adopted either English as the medium of instruction or a bilingual policy of English and Chinese.

Although university heads are united in wishing to maintain English as a (if not *the*) language of instruction, there is strong anecdotal and some research evidence that, where staff are Cantonese speakers, English is increasingly giving way to Cantonese (Walters & Balla, 1992; Flowerdew et al., 1998), in a pattern similar to that of the secondary schools, with English the language of the textbooks and examinations, but with Cantonese as the language of exposition of the material by the teacher.

Because of the relatively limited provision of university education in Hong Kong until the recent expansion, most Cantonese-speaking academics in Hong Kong are likely to have undertaken at least their post-graduate, if not their undergraduate, study overseas, in English-speaking countries. These academics have had the advantage of developing their academic writing skills within an English-speaking community, and they have had access to English-speaking members of the discourse community (Swales, 1990) of their respective disciplines. Both these opportunities are likely to have been of value in helping these academics get published in English.

With the expansion of local tertiary provision and the reversion to Chinese sovereignty, it is likely that more young scholars will embark upon an academic career after studying both at undergraduate and post-graduate levels in Hong Kong. Therefore, they will not have benefited from living in an English-speaking society and will not have had access to native-English-speaking members of their discourse community.

PURPOSE OF THE STUDY

In view of the situation outlined above, research into the case of Hong Kong Cantonese L1 academics who are writing for publication in English is timely. As well

as being of interest to sociolinguists concerned with the use of English as an international language, research that can describe the present situation and identify likely trends with regard to publication in English among Hong Kong Cantonese L1 academics is also of value to the Hong Kong academic community.

The specific purpose of the present study is to determine:

1. to what extent the situation regarding nonnative-speaking academics publishing in English, as described in the above literature review, pertains also to Hong Kong Cantonese L1 academics
2. the attitudes of Hong Kong Cantonese L1 academics towards their situations as NNSs writing for publication in English
3. possible changes in the situation in the light of developments in university education in Hong Kong and the change of sovereignty from Britain to China.

To achieve this purpose, in addition to information concerning the educational and linguistic background of the subjects, survey data were collected in response to the following specific research questions:

1. What exposure had subjects had to English through study and work in English-speaking countries?
2. What is the most important type of publication for Cantonese L1 academics publishing their work?
3. To what extent is English the language of publication of Cantonese L1 academics?
4. How do Cantonese L1 academics feel about writing in English?
5. What are the main problems of Cantonese L1 academics writing for publication in English?
6. How confident are Cantonese L1 academics about writing for publication in English?
7. To what extent do Cantonese L1 academics collaborate with NSs when they write papers in English?
8. What changes, if any, do respondents expect with the change of sovereignty?

PROCEDURE

Based on the literature review and informal interviews with Cantonese L1 academics, a questionnaire was developed to collect demographic data and answer the research questions, as set out above.[4] The questionnaire was piloted and revised several times with small groups of Cantonese L1 academics. A larger pilot study was then conducted with a Hong Kong degree-awarding tertiary institute of learning, which had not achieved university status at the time. The internal telephone directory was used to identify all faculty members. In order to sample only Cantonese mother tongue subjects, non-Cantonese names were deleted from the

list. All those remaining on the list were mailed a questionnaire. Based on the results and feedback from respondents, the questionnaire was further revised.

Following this second large-scale piloting and revision of the questionnaire, the same procedure was followed in the main study for all six of Hong Kong's universities. A total of 2,300 academics were sent a questionnaire. After about two months, those not responding to this first questionnaire were sent a duplicate copy, with a covering letter encouraging them to participate. A total of 717 completed questionnaires were received from these two mailings. This represents a response rate of 31%, which is considered to be good for surveys conducted in Hong Kong with academics (Social Science Research Centre, University of Hong Kong, personal communication, October 1997), especially considering the amount of detailed information requested on the questionnaire. As a small, elite group, Hong Kong academics receive considerable numbers of survey questionnaires, which they are asked to complete, from both professional researchers and students. Although the low return rate means that the results of this study must be interpreted with caution, two factors suggest that the sample may nevertheless be representative. As is reported below, the sample that responded to the questionnaire corresponded closely to the overall profile of the Hong Kong academic community. In addition, the sample of respondents provided a good range in terms of publication success, including both highly successful and less successful or experienced scholars, as measured by publication rate.

In order to screen out those respondents who had Cantonese names, but for whom Cantonese was not the mother tongue, the first question on the survey asked subjects what their mother tongue was. In all, 109 respondents identified themselves as non-Cantonese mother tongue (mostly Putonghua, but with some English and other languages). These respondents were excluded from the reported sample.

SUBJECTS

Table 1 provides information on the gender, age, academic qualifications, current position, discipline/faculty, length of publication experience, and current research planned to lead to publication of the Cantonese L1 academics responding to the survey.

As already suggested, a comparison of the sample with demographic data provided by the governing body of Hong Kong universities concerning all but the last two of these categories (Hong Kong University Grants Council, personal communication, 12 December 1997) confirmed it to be highly representative of the Hong Kong academic community overall.

TABLE 1
Characteristics of Cantonese L1 Survey Respondents

Characteristics	%	Characteristics	%
Gender		Discipline/Faculty	
Males	75	Science	22
Females	25	Engineering	20
Age		Social Sciences	16
<30	4	Medicine	12
31–35	23	Arts/Humanities	12
36–40	28	Business/Administration	12
41–45	22	Education	5
46–50	16	Communication	1
>50	8	Publication Experience	
Academic Qualifications		<5 years	25
Ph.D.	62	6–10 years	35
M.A.	30	11–15 years	22
M.D.	8	>15 years	18
Other	1	Active Research Involvement	94
Current Position			
Chair Professor	2		
Professor	12		
Associate Professor	29		
Assistant Professor	37		
Lecturer	15		
Assistant Lecturer	3		

Note: $N = 585$

RESULTS

Demographic Information

Table 1 shows that male respondents outnumbered females by three to one (448 vs. 137). The breakdown of subjects categorized according to age shows a relatively young academic work force. The numbers belonging to each of the six age categories show a rise up to the age of 40, with a decline thereafter. As far as academic qualifications are concerned, of those surveyed, 62% had a Ph.D., 30% had a M.A. degree (including a minority with MPhil), 8% were M.D.s, and 1% had other educational qualifications. Of the 30% holding M.A. degrees, about a third (36%) were registered for a Ph.D.

In terms of current academic position, 2% of the survey were chair professors, 12% professors, 29% associate professors, 37% assistant professors, 15% lecturers, and 3% assistant lecturers. As regards the breakdown of respondents according to discipline, Science and Engineering were the largest groups, at just under a quarter each (22% and 20%, respectively). They were followed by Social Sciences (16%), Medicine (12%), and Arts/Humanities and Business/Administra-

tion (both at 12%). The smallest groups responding were Education (5%) and Communication (1%).

In terms of publication experience, reflecting the comparatively young age profile of the respondents, a quarter (25%) indicated that they had 5 years or less publication experience; just over a third (35%) (the largest group) had between 6 and 10 years' experience; and about a quarter again (22%) had between 11 and 15 years' experience. Only a relatively small number (18%) had more than 15 years' experience. Nearly all of the respondents (94%) indicated that they were currently involved in a research project for which they planned to produce a publication.

As for research output, in terms of refereed articles published in international journals in English, there was considerable variation. Eight percent of the sample indicated that they had more than 50 such publications; 27% had between 11 and 50 international journal articles in English; and 39% had between 1and 10 journal articles. Twenty-seven percent of the sample had either no publications in international refereed journals in English or failed to answer the question. Overall, those scholars who were most prolific in terms of international refereed journal articles in English were in the sciences (especially Medicine). For example, of the 43 individuals with more than 50 such publications, none were from the Arts/Humanities. Of the 66 individuals in the Arts/Humanities included in the sample, only one had more than 10 international refereed journal articles.

Responses to Research Questions

Turning now to the results obtained with regard to the specific research questions, these are reported individually.

Exposure of Subjects to English Through Study and Work in English-Speaking Countries

Given the importance attached by NNSs to time spent in English-speaking countries as a means of improving their English, on the one hand, and working with English-speaking supervisors and colleagues who might serve as academic mentors, on the other, data were collected regarding this type of experience.

As they go through the various levels of education, the likelihood of Cantonese L1 academics studying overseas—predominantly in English-speaking countries (The United Kingdom [U.K.], Canada, the United States [U.S.], Australia, and Singapore)—increases (see Table 2). None received their primary education in an English-speaking country, and only a few did so at the secondary level (7%). At university level, however, the numbers studying in English-speaking countries increased dramatically, with over a third (36%) having done their undergraduate work in these countries (U.K., 14%; U.S., 12%; Canada, 7%; Australia, 3%), well over half (63%) having obtained their Masters degrees in these

TABLE 2
Cantonese L1 Academics' Study Locations

Location	Primary (%)	Secondary (%)	Undergraduate (%)	M.A. (%)	Ph.D. (%)
Hong Kong, English-Speaking, and Other Countries					
Hong Kong	95	93	61	36	26
English-Speaking Countries	—	4	36	63	72
Other	5	3	3	2	2
Different English-Speaking Countries					
U.K.	—	2	14	25	27
U.S.	—	1	12	26	28
Canada	—	1	7	8	10
Australia	—	—	3	4	7

countries (U.S., 26%; U.K., 25%; Canada, 8%; Australia, 4%), and nearly three quarters (72%) having done their doctoral studies outside Hong Kong. (U.S., 28%; U.K., 27%; Canada, 10%; Australia, 7%).

In addition to study overseas, over half (61%) of the respondents had experience working outside Hong Kong (see Table 3), predominantly in English-speaking countries (U.S., 23%; U.K., 23%; Canada, 12%; Australia, 7%; Singapore, 1%). Of the 7% with overseas work experience in non-English-speaking countries, only two individuals listed Mainland China. On the right-hand side of Table 3, figures are provided for the length of time spent working overseas. The most frequent periods spent working abroad (not shown in Table 3) were one year (36%) and two years (35%); after dropping off after periods of one and two years, a sizeable group reported having spent over 10 years working overseas (11%).

TABLE 3
Cantonese L1 Academics' Working Experience Outside Hong Kong

	% Worked Abroad	% Working 1–10 yrs			
		Yrs 1	2	3–10	>10
English-Speaking Countries					
U.S.	23	23	19	44	14
U.K.	23	37	14	41	7.7
Canada	12	18	7	69	5.6
Australia	7	23	23	48	6.8
Singapore	1	—	—	—	—
Non-English-Speaking Countries	7	41	21	34	4.5
Total	61				

TABLE 4
Most Important Types of Publication for Cantonese L1 Academics

Type of Publication	Audience	Material	Authorship
Refereed 94%	International 84%	Journal Articles 86%	Written Alone 55%
Non-Refereed 6%	Regional 8%	Conference Paper 7%	Written in Collaboration 45%
	Local 8%	Book/Book Chapter 7%	

Type of Publication Important for Cantonese L1 Academics

The overwhelming majority of respondents indicated that refereed (94%), international (84%) journal articles (in English) (86%) were the most important type of publication for them, with only small minorities of respondents indicating books and book chapters (7%) and conference papers (7%) as being most important (see Table 4). Attitudes were divided on whether publications should be single- (55%) or co-authored (45%).

Extent of English As the Language of Publication of Cantonese L1 Academics

A very large majority of respondents indeed (92%) indicated that English was the most important language for them to publish in, with only a very small minority mentioning Chinese (7%) as their primary publishing language (see Table 5). A total of seven individuals (1%) indicated that English and Chinese were equally important. Of the minority claiming Chinese as their most important language of publication, most were in Arts/Humanities (60%), followed by Social Sciences (20%), Education (14%), and Communication (2%). Notably, there

TABLE 5
Most Important Language of Publication of Cantonese L1 Academics

Most Important Chinese Writing by Discipline		Language Most Important to Publish in	%	Most Important Journal			% of Work Published in English
				International (%)	Regional (%)	Local (%)	
Arts/Humanities	60	English	92	57	21	22	all: 55%
Social Sciences	20	Chinese	7	18	45	36	>75: 80%
Education	14	Both	1				<75: 19%
Communication	2						
Business/Administration	—						
Engineering	—						
Science	—						
Medicine	—						

were no respondents from Business/Administration, Engineering, or Science who indicated Chinese as their most important language of publication, and in Medicine, there was only one person (out of 48). The predominance of English is apparent also in terms of actual publication, with over half of the respondents indicating that all of their publication was done in English (55%) and more than three quarters (80%) indicating that more than three quarters of their work was done in that language. Only a relatively small minority (19%) indicated that they completed less than 75% of their work in the English language. Of those publications written in Chinese, the majority were for regional (45%) and local (36%) journals, with only a minority (18%) appearing in international journals. By way of contrast, this compares with a breakdown of 21% regional, 22% local, and 57% international for English publications.

Attitudes of Cantonese L1 Academics Towards Writing in English

Just over two thirds of the Cantonese L1 academics (68%) felt that they were at a disadvantage when writing for publication in English compared to NSs (see Table 6). Perhaps more surprising, however, is that nearly a third (32%) felt they were at *no* disadvantage vis-à-vis NSs.

Main Problems of Cantonese L1 Academics Writing for Publication in English

The response categories listed in Table 6 were those presented to respondents on the survey (along with the category "other"). The categories included were based on a review of the literature, informal interviews, and the pilot survey as referred to in the section entitled "Procedure."

Of those respondents who felt they were at a disadvantage in getting published in English compared with NSs, just over half (51%) indicated that they had technical problems with the language. Organizational factors (14%), innovative think-

TABLE 6
Perceived Disadvantages of Cantonese L1 Academics

Writing Disadvantage	% Yes: 68	% No: 32
Reasons Cited for Disadvantage:		
Technical Problems	51%	
Prejudice	29%	
Organizational Factors	14%	
Innovative Thinking	11%	
Difficulty Incorporating Existing Literature	9%	
Difficulty Weighing Value of Literature	8%	

ing (11%), difficulty in incorporating/reporting the existing literature (9%), and weighing the value of existing literature (8%) were felt to be problems by only a small minority of respondents. However, nearly a third of respondents (29%) felt that there was prejudice by referees and editors, and that publishers placed NNSs at a disadvantage when writing for publication.[5]

Confidence Level of Cantonese L1 Academics About Writing for Publication in English

In spite of their problems, confidence levels in the ability to write a solo paper in English were high, with the great majority of the respondents (87%) indicating that they were confident or very confident to do so (see Table 7). Only a very small minority (4%) indicated a low or very low confidence level.

Notwithstanding potential prejudice on the part of referees, editors, and publishers, as perceived by nearly a third of the Cantonese L1 academics, confidence in getting a solo English paper published (as opposed to writing it) was also strong. Three quarters of respondents (75%) indicated that they were confident or very confident of getting a solo English paper published. Only a small minority (7%) indicated that they were not so confident or not at all confident about this achievement.

In contrast to writing and publishing in English, confidence levels in the ability to either write a solo paper or get one published in Chinese were much lower, with only about half the respondents (49% for writing and 51% for publishing) indicating that they were confident or very confident and between a third and a quarter (31% for writing and 27% for publishing) indicating low or zero confidence in Chinese writing and publishing. (See the section entitled "Summary and Discussion" for an explanation of this lack of confidence.)

There was a significant relationship between confidence levels and having worked abroad. In the case of "confidence in getting a solo English paper published", those who had worked abroad (1.9) were more confident than those who had not (2.3) (where 1 = very confident and 5 = not at all confident). A one-way analysis of variance indicated that there was a significant difference between the confidence levels of these two groups (F (1,560) = 35.52 p = < .001). Interestingly, this effect was reversed when the question considered "confidence in get-

TABLE 7
Confidence Levels of Cantonese L1 Academics

	Write a Solo Paper		Publish a Solo Paper	
	Very Confident	Not So Confident	Very Confident	Not So Confident
English	87%	4%	75%	7%
Chinese	49%	31%	51%	27%

TABLE 8
Cantonese L1 Academics' Collaboration Patterns with Papers Written in English[a]

With Whom Collaborated			
NS	%	NNS	%
A. Doctoral Supervisor	32	A. Peers	35
B. Overseas Colleagues	23	B. Colleagues	9
C. Peers	21	C. Industry Colleagues	6
D. Senior Departmental Colleagues	14		
E. Industry Colleagues	7		

[a]Total collaborations equals 67%; total collaborations with native speakers equals 46%; total collaborations with non-native speakers equals 54%.

Note: NS, native speaker; NNS, non-native speaker.

ting a solo paper published in Chinese", where the mean scores for those who had *not* worked abroad were lower, at 2.4, than those who had, at 2.9 (F (1,560) = 8.59 p = .005).

Extent of Collaboration Between Cantonese L1 Academics and Native Speakers Writing Papers in English

Subjects indicated that two thirds of their published work in refereed journals (67%) was collaborative (see Table 8). Overall, of those who had published a joint paper in English, just over half (54%) worked with a NNS while just under half (46%) collaborated with a NS (i.e., two thirds of papers written by Cantonese L1 academics were collaborative and, within those two thirds, collaboration was fairly equally divided between NSs and NNSs). The most frequent NS collaborations were with former doctoral supervisors (32%) and with overseas colleagues (23%). Subjects also collaborated considerably with native-speaking peers (21%) and senior native-speaking colleagues (14%) (although in total the combined collaboration with nonnative-speaking peers [35%] and nonnative-speaking senior colleagues [9%] was more frequent [44%]). There was also some collaboration with native-speaking colleagues in industry (7%) (as against 6% for NNSs).

Changes Expected with the Change of Sovereignty

Respondents were divided on the issue of possible changes to the language of publication post-1997 (see Table 9). While nearly a third (31%) agreed or strongly agreed with the statement that there would be a change towards more frequent Chinese publication, slightly more, just over a third (34%), disagreed or strongly disagreed with the statement; the remainder (28%) were neutral on this issue. Of those who expected a change, however, only a minority (29%) thought the change would

TABLE 9
Changes Post-1997

Question	Agree	Neutral	Disagree
More Frequent Publication in Chinese	31%	28%	34%
Large Degree of Change Predicted	29%	40%	36%
In Favor of this Change	21%	54%	25%

be great. In addition, only about a fifth of the respondents (21%) indicated that they were in agreement with the change, a quarter (25%) disagreed, and over half (54%) were neutral.

SUMMARY AND DISCUSSION

Let us now summarize the findings of the survey in gauging the attitudes of Hong Kong academics regarding their situation as NNSs writing for publication in English and then evaluate these findings by comparing them to the situation regarding scholarly publication by NNSs in general and by considering to what extent the situation is likely to change in the future, given the change of sovereignty.

First, the summary. Data indicate that Hong Kong Cantonese L1 academics have had considerable exposure to English through study and work in English-speaking countries. Hong Kong academics consider international refereed journal articles to be the most important outlet for publishing the results of their work, and English is de facto by far their predominant language of publication. The small amount of publication in the mother tongue, Chinese, is in the so-called "soft" disciplines and is published primarily in regional and local journals. Just over a third of subjects feel themselves to be at a disadvantage in publishing in English as compared to NSs. The most frequently indicated difficulty in writing for publication is technical problems with the English language. These are viewed as more serious than abstract aspects such as rhetorical patterning, innovative thinking, and literature reporting. The second greatest perceived problem—for about a third of Hong Kong scholars—is prejudice on the part of editors and referees. In spite of the problems indicated by subjects, however, confidence in being able to write a solo paper in English and get it published is high. This contrasts with low confidence levels for writing and publishing a paper in Chinese. There is a positive correlation between confidence in getting a paper published in English and time spent working in an English-speaking country. There is a high level of collaboration in writing for publication, just under half involving NSs, who are former supervisors, overseas colleagues, or local native-speaking colleagues. Subjects feel there will be only a slight change towards more publication in Chinese in the future.

Comparing these results with the situation for academics for whom English is

a second language in general, Hong Kong academics are in agreement with their international colleagues (Jernudd & Baldauf, 1987; Swales, 1990, 1997b) in viewing the internationally refereed journal article in English as the most important vehicle for publishing their research findings. Again in line with their international peers (Burgess, 1997; Jernudd & Baldauf, 1987; Swales, 1990, 1997b), publication in the L1, such as it is, tends to be in the "softer" disciplines of the Humanities and Social Sciences and in local or regional journals. In viewing technical problems of the language as their main obstacle in writing in English, Hong Kong academics again seem to have a similar outlook as their international peers. This is in spite of the fact that, as language experts and editors have noted, they may have serious problems with the more abstract features of academic writing. Notwithstanding this belief, only 11% of Hong Kong Cantonese academics indicated that a lack of innovative thinking had actually disadvantaged their ability to write in English. This finding suggests that for the majority of Cantonese scholars, the source of any writing disadvantage was or could be attributed to both the vagaries of the English language and to such external influences as prejudice and organizational factors, but that it was not perceived as being primarily due to any lack of intellectual creativity.

Where Hong Kong academics differ from other groups of NNSs is perhaps in their confidence in their ability to write for publication in English, which contrasts with the perceptions of other nonnative-speaking writers, such as the Scandinavian scholars reported by Jernudd and Baldauf (cited in Swales, 1990) referred to earlier in this article. This level of confidence is likely due to the greater exposure of Hong Kong academics to English during their English-medium secondary and tertiary education and their study and work abroad in English-speaking countries. Another difference between Hong Kong academics and their international peers is the greater number of opportunities the former group has for collaboration with NSs, opportunities that, again, are not so freely available to other groups of NNSs. On the other hand, because most Hong Kong academics have been educated through the medium of English and have not therefore developed skill in writing Chinese for academic purposes, they do not have the option of writing first in Chinese and then having their work translated.

Turning now to the future, it is very likely that Hong Kong academics will have less overall exposure to the English language. This will make writing in English more problematic. As stated earlier in this paper, the role of English in the society in general is diminishing and, even in the English-medium universities, Chinese is increasingly being used. Hong Kong academics entering the profession will in the future be much more likely to complete their undergraduate and post-graduate study in Hong Kong, where their teachers will more likely be Cantonese speakers themselves and use Cantonese in their teaching. In addition to the decline in exposure to English, because fewer Hong Kong people will be studying overseas and fewer Hong Kong academics will be NSs of English, there will be fewer opportunities for collaboration with NSs, a common route for initi-

ation into publishing in English. As a result of this new situation, Hong Kong academics will feel less confident in writing in English, and it seems quite likely that the number of academics perceiving a prejudice against NNSs on the part of editors and referees will increase. Overall, Hong Kong academics will find themselves in a situation more like that of the Scandinavian scholars reported by Jernudd and Baldauf (cited in Swales, 1990), who were frustrated by their lack of exposure to English and NSs of English, in contrast to the present situation where they are likely to have studied and/or worked in English-speaking countries and have, in Hong Kong, been working in a much more English environment.

Another result of this new situation is that conditions are likely to be more favorable for writing and publishing in Chinese. Although respondents in the survey perceived only a slight shift towards publishing in the national language, it is worth reviewing the factors that are apt to encourage greater use of Chinese. Firstly, because of changes in the educational system, as outlined earlier in this paper, Hong Kong people in general will be more proficient in Chinese; the possibility of writing in Chinese will thus open up. Secondly, given the changed political situation, publication in Chinese may also be viewed more positively by the university authorities. Thirdly, Hong Kong universities are setting up links with universities in the People's Republic of China, and this is likely to encourage publication in Chinese. On the other hand, despite these developments, given the professional prestige attached to publication in the form of international refereed journal articles (in English), the pre-eminence of this genre is unlikely to be challenged. Accordingly, Chinese is more likely to continue to play a secondary role, for less prestigious publications and in the "softer" disciplines.

In conclusion, it can be said that, in the emphasis on international refereed journal articles in English as the most important form of research publication, Hong Kong is in line with global trends in favor of English. This is, in Hong Kong's case, in spite of a reversion of sovereignty from Britain, an English-speaking nation, to China, a non-English-speaking country. The retention of English as the language of publication in such circumstances is a strong indicator of the global influence of the English language as far as scholarly publication is concerned. While the need to publish in English in Hong Kong will be maintained, it is likely, however, that in the new situation the conditions in which English as the language of publication can successfully thrive will become more problematic, given that there will inevitably be less exposure to English for the coming generations of scholars. If they wish to promote the international standing of Hong Kong universities, therefore, university authorities would thus be well advised to monitor the situation and, where necessary, take steps to mitigate these likely problems. This objective could be accomplished through offering improved editorial support, providing training in writing for publication, and creating increased opportunities for international academic exchange.

As a final note, it is worth emphasizing that, in spite of the unique aspects of Hong Kong's situation, many of the tensions felt by Hong Kong academics in

writing in English for publication are likely to be shared by their peers in other countries who are faced with the need to write in their second language, English, if they want their research to have the international impact that it deserves. In this respect, the results of this survey represent a small contribution to developing awareness of the difficulties experienced by nonnative writers, not just in Hong Kong, but worldwide. In bringing the writing problems of nonnative-speaking scholars out into the open through studies such as this, mechanisms for a solution are more likely to be established.

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NOTES

1. Canagarajah (1996) attributes the difficulties of third-world scholars to be partly discursive, but also material, e.g., difficulties in gaining access to up-to-date literature, copies and postage required, quality of paper, procedures for submitting revisions and proofs, and the nature of the interaction between authors and editors.

2. As part of this research, I have attended many sessions at which editors of leading journals conducted panel sessions that offered guidance on how to get published in their journals. Questions and comments from the floor provide plentiful evidence of the difficulties experienced by NNSs.

3. One country that has been successful in this approach is Japan, which has a relatively high publication rate in international refereed scientific journals. Over 8% of all articles, for example, in the Science Citation Index of 1994 emanated from Japan (Gibbs, 1995). This was less than the United States which had 31%, but more than any other country, including the United Kingdom, which had just under 8%. As well as having the necessary financial resources to hire translators, however, Japanese research teams make a habit of including scholars who have worked and studied in English-speaking countries. These researchers are then entrusted with the work of translation or writing in English (Yoshiko Nakano, personal communication, 20 January 1998).

4. In actual fact, the questionnaire covered more ground than reported in the results of this study. This additional data will be reported separately in a later publication.

5. The category "innovative thinking"—which was queried by the editors of the *Journal of Second Language Writing* as not being related to publishing in English—

is included, as both the literature and the informal interviews identified this as problematic for Hong Kong Chinese writers. In traditional Chinese scholarship, value is placed on imitation of the masters rather than innovation, which is highly valued in the West.

REFERENCES

Adams-Smith, D. (1984). Medical discourse: aspects of author's comment. *English for Specific Purposes Journal 3*, 25–36.

Arvantis, R., & Chatelin, Y. (1988). National scientific strategies in tropical soil sciences. *Social Studies of Science 18*, 113–146.

Baldauf, R. B., & Jernudd, B. H. (1983). Language of publications as a variable in scientific communication. *Australian Review of Applied Linguistics 6*, 97–108.

Basic Law. Hong Kong Government 1990.

Bazerman, C. (1988). *Shaping Written Knowledge.* Madison, WI: University of Madison Press.

Berkenkotter, C., Huckin, T. N., & Ackerman, J. (1991). Social context and socially constructed texts. In C. Bazerman & J. Paradis (Eds.), *Textual Dynamics of the Professions* (pp. 191–215). Wisconsin and London: University of Wisconsin Press.

Burgess, S. (1997). Publishing in English in Spain: the case of Spanish English language specialists. Paper presented at International Conference on World Englishes, Singapore, December 19–21.

Canagarajah, A. S. (1996). "Nondiscursive" requirements in academic publishing, material resources of periphery scholars, and the politics of knowledge production. *Written Communication 13*, 435–472.

Carter-Sigglow, J. (1996). Correspondence. *Nature 384*, 764.

Crystal, D. (1998). *English as a Global Language.* Cambridge: Cambridge University Press.

Dudley-Evans, T. (1994). Research in English for specific purposes. In R. Khoo (Ed.). *LSP: Problems and Prospects* (pp. 219–231). Singapore: RELC.

Flowerdew, J., Li, D. C. S., & Miller, L. (1998). Attitudes towards English and Cantonese among Hong Kong university lecturers. *TESOL Quarterly 32*, 201–232.

Fox, H. (1994). *Listening to the World: Cultural Issues in Academic Writing.* Urbana, IL: National Council of Teachers of English.

Garfield, E. (1978). The Science Citation Index as a quality information filter. In K. S. Warren (Ed.), *Coping with the Biomedical Literature Explosion: A Qualitative Approach* (pp. 68–77). New York: Rockefeller Foundation.

Gibbs, W. (1995). Trends in scientific communication: lost science in the third world. *Scientific American*, August, 76–83.

Grabe, W. (1988). English, information access, and technology transfer: a rationale for English as an international language. *World Englishes 7*, 63–72.

Graddol, D. (1997). *The Future of English.* London: British Council.

Hong Kong Government. (1997). Chief Executive's Annual Policy Address, Hong Kong: Government Printer.

Johns, A. (1993). Written argumentation for real audiences: suggestions for teacher research and classroom practice. *TESOL Quarterly 27*, 75–90.

Jernudd, B. H., & Baldauf, R. B. (1987). Planning science communication for human resource development. In B. K. Das (Ed.), *Communicative Language Teaching* (pp. 144–189). Singapore: RELC.

Maher, J. (1986). The development of English as the international language of medicine. *Applied Linguistics 7*, 206–18.

Mauranen, A. (1993). Contrastive ESP rhetoric: metacontext in Finnish-English economics texts. *English for Specific Purposes 12*, 3–22.

Myers, G. (1989). The pragmatics of politeness in scientific articles. *Applied Linguistics 10*, 1–35.

Myers, G. (1990). *Writing Biology: Texts in the Social Construction of Scientific Knowledge.* Madison, WI: University of Wisconsin Press.

Parkhurst, C. (1990). The composition process of science writers. *English for Specific Purposes 9*, 169–180.

Pennycook, A. (1994). *The Cultural Politics of English as an International Language.* London: Longman.

Phillipson, R. (1992). *Linguistic Imperialism.* Oxford: Oxford University Press.

Samraj, B. (1994). Coping with a complex environment: writing in a school of natural resources. In R. Khoo (Ed.), *LSP: Problems and Prospects* (pp. 127–143). Singapore: RELC.

St. John, M. (1987). Writing processes of Spanish scientists publishing in English. *English for Specific Purposes 6*, 113–120.

Swales, J. (1985). English language papers and authors' first language: preliminary explorations. *Scientometrics 8*, 91–101.

Swales, J. (1990). *Genre Analysis: English in Academic and Research Settings.* Cambridge: Cambridge University Press.

Swales, J. (1997a). English as Tyrannosaurus rex. *World Englishes 16*, 373–382.

Swales, J. (1997b). Language, science and scholarship. Public lecture presented at Chinese University of Hong Kong.

Walters, S., & Balla, J. (1992). English medium instruction at City Polytechnic of Hong Kong. Research Report No. 17. English Department: City Polytechnic of Hong Kong.

Wood, A. (1997a). International scientific English: some thoughts on science, language and ownership. *Science Tribune* April, Available at: http://www.tribunes.com/tribune/art97/wooda.htm.