Minnesota Teachers of English to Speakers of Other Languages

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Information for contributors to the *MinneTESOL Journal*

- **Editorial policy**

The *MinneTESOL Journal* seeks to publish articles of importance to the profession of English as a second language in the state of Minnesota. Articles in the following areas are considered for publication: instructional methods, techniques, and materials; research with implications for ESL; and issues in curriculum and program design. Book reviews and review articles are also welcome.

- **Manuscripts**

Manuscripts should conform to the style book followed by TESOL (Teachers of English to Speakers of Other Languages), the *Publication Manual of the American Psychological Association.*

Submit six copies of each manuscript, along with six copies of an abstract of not more than 200 words. Submission of a computer diskette is also encouraged.

Contributions to volume 8 should be submitted to the editor:

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In this volume

Readers of the previous five volumes of the *MinneTESOL Journal* will notice a marked change in perspective in this current volume. In the past, articles have tended toward praxis, providing ideas and suggestions for immediate application in the classroom. With this volume, the journal staff has sought to select articles that would provide a more global and theoretical perspective for ESL in Minnesota. One look at the table of contents will quickly reveal the diversity of the articles that make up this issue. However, we feel this diversity is united by an underlying theme, namely the Freirean belief that instruction must be student-centered in order for it to be successful, focusing on who the students are and what it is they *really* need to learn.

How this student-centered focus may be manifested in practice is the question at hand. One approach suggested by these articles is that we need to look beyond the immediate classroom life and develop a macro-level perspective on our students and those "outside" factors that influence their abilities to learn. Our students are greatly affected by things over which teachers have no control, and we need to be aware of these. A second approach suggested by these articles is one of collaboration - with students, with colleagues, with theory. Every professional who works in ESL and wrestles with what it means to be an effective teacher has gained useful knowledge and experience. Our profession can only benefit as people step forward with their ideas and share with us their successes, their failures, their theories, and their dreams. All too often the ESL professional tries quixotically to stand alone, but it is only in collaboration that our profession will move forward.

To lead off this volume, we as a committee have selected two articles whose focus is not directly on the ESL classroom *per se*, but the students who inhabit these classrooms - in this case, Chinese students. We feel it is critical for ESL professionals in Minnesota to know the students with whom they work - not just who they are, but also what they believe and how they view life. We have also chosen these timely articles as a statement of our concern for and remorse over the recent events that have transpired in the People's Republic of China. Our commitment as educators is directed toward the development of the individual student, and events such as those which occurred in Tiananmen Square serve only to defeat and destroy the individual uniqueness and importance of the students we serve. While these first two articles deal specifically with Chinese students and scholars, they exemplify the understanding that needs to be gained on each student population we work with.

In the lead article, "Chinese students, American universities, and cultural confrontation," Thomas Upton provides an interdisciplinary framework for appreciating the difficulties that Chinese students must face when attending American universities. Upton looks beyond the "language" problem that Chinese ESL students have and outlines some of the philosophical, social, educational, and interpersonal issues that each student must deal with on an individual basis while living and studying in the United States. The underlying assumption is that as we become more familiar with the students we teach, we are better able to develop our instruction to meet their individual, culturally molded needs and expectations.

Lynne Ackerberg provides an interesting switch in perspective in her article "Why aren't Third World scholars going home? Focus on adjustments in China's overseas policies." Despite the difficulties Chinese students have in adjusting to the American educational and social culture, many are finding it more appealing to remain in the United States rather than return to their home country. Ackerberg looks at some of the reasons why and outlines several suggestions that have been offered to encourage these educated professionals to repatriate. A key question raised by this article is how seriously do we consider the ultimate goals of our international students once they finish their training. What can we as teachers do to make their education in Minnesota more meaningful once they return to their native countries?

The next two articles, one by Elaine Tarone and the other by Irene Prendergast, elaborate on the theme of student-centered instruction. While the first two articles look more closely at students as cultural beings, these next two articles emphasize the importance of instruction that is designed to meet classroom and individual level needs. Tarone's article, "Teacher-executed needs assessment: Some suggestions for teachers and program administrators," argues for the importance of student needs assessments performed at the local, classroom level. Her thesis is that ESL instruction must be authentic and relevant to the students in order for it to be successful. She offers several suggestions and examples of how teachers can conduct their own classroom needs assessments and she outlines ways program administrators can encourage teachers in this task. Her use of papers written by three MA students at the University of Minnesota well illustrate the rewards that can be reaped from collaboration

Irene Prendergast, in her article "Toward collaboration as a viaduct for student/teacher interaction," provides an excellent illustration of how a local needs assessment can be successfully accomplished through collaboration with individual students. She struggles with the issue of how to use authentic language in its natural capacity as a tool for communication and expression rather than as a subject for study. In this narrative, Prendergast invites us to observe how one teacher strives to provide a meaningful, learner-centered atmosphere that encourages not only language facility but intellectual and personal growth.

We have chosen William R. Sims' paper, "Fossilization and learning strategies in second language acquisition," to round out this volume as an illustration of one person's attempt to use learning theory to seek solutions to a common language learning problem. Sims proposes that the existence of language "fossilization" could be a function of the individual learning strategies employed by the second language learner. His hypothesis is that language fossilization can occur because individuals choose inappropriate learning strategies for learning particular language forms and functions. He suggests that if erroneous or misapplied strategies could be identified and remediated, fossilization may not be, "terminal" as has been previously suggested. Sims once again reminds us that the key to success in language instruction is a student-centered approach whereby specific, individual issues are evaluated and acted upon with the interest of the student in mind.

As a final note, the journal committee would like to point out that, except for Tarone, none of the authors who are published in this volume are recognized "names" in the professional realm of ESL. We see this as important as there are innumerable people working in ESL who could contribute significantly to our collective understanding of second language learning if they would but take the time to put pen to paper. As we can see by reading the pieces in this volume, an article need not be empirical or quantitative in order to be powerful. It is our hope that you will find this encouraging and take the opportunity to use the *MinneTESOL Journal* as the collaborative voice it is meant to be.

T.A.U.

Chinese students, American universities and cultural confrontation

Thomas A. Upton*
University of Minnesota

This paper attempts to look at some of the issues of cultural adjustment that Chinese students studying at American universities must face. This is done by comparing and contrasting the educational philosophies and the educational organizations of both countries as well as the expectations and cultural norms of the Chinese and the American students and teachers. How the differences in each of these areas are often manifested in the lives of the Chinese students studying in the United States is also discussed.

For thousands of years China had little or no contact with Western countries and long considered itself the center of the world, hence its Chinese name--"The Middle Kingdom." A more ethnocentric, culturally arrogant country would be difficult to find than the China of only two hundred years ago. The rulers and emperors of China believed China to be the most advanced and civilized people in the world, all outsiders being, de facto, "barbarians." But contact with militarily superior Western nations beginning in the 1800s forced China--rather harshly--to look at itself as but another nation in a world of nations. In opening up to Western countries, China has had to humble itself, a totally reprehensible thought even as recently as the turn of this century.

Since its founding in 1949 international exchanges with foreign countries in education, science, and culture have been an integral part of the national policy of the People's Republic of China (Huang, 1986). Unfortunately, these exchanges, like most international exchange programs, have fluctuated with the changing political winds. From 1949 to 1966, China, a fledgling socialist country all but at war with the United States and feeling humiliated at its treatment historically at the hands of Western countries, largely limited its educational exchanges to other socialist countries--mainly the Soviet Union. During this fifteen year period, China sent over 10,000 students to its socialist allies (about 8,500 to the U.S.S.R.

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alone), but less than 380 to the West--and none to West Germany, Canada, Japan, or the United States.[1]

In the 1960s, China's political relationship with the U.S.S.R. began to deteriorate, which inevitably affected its educational exchanges with both the Soviet Union and the other socialist East-bloc countries. From 1961 to 1965 fewer than 210 Chinese students were sent to study in the Soviet Union, as compared to more than 4,000 during the previous five years. Most Chinese during this period were forced to restrict their education to Chinese institutions as study abroad opportunities were carefully controlled. But even the limited avenues that were available for international educational exchanges were adversely affected by the decade-long upheaval in China known as the Cultural Revolution, which lasted from 1966 to 1976. In fact, for five years (1966-1971) China suspended all educational exchanges with foreign countries, virtually closing China off from any contact with the rest of the world.

Beginning in 1976 with the normalization of relations with the United States, the end of China's Cultural Revolution, and the rise to power of the pragmatist Deng Xiaoping, a new political atmosphere began to emerge. This change in political thinking was quickly seen in the field of education when, in 1978, a radical new approach to educational interaction with foreign countries was established by the Chinese government. From this period onwards, China again started to send students abroad on a large scale, with over 12,000 government sponsored students sent to the United States alone between 1978 and 1984 (Huang, 1986). Today, with the leadership of China emphasizing economic reform and modernization, students and scientists are being sent to the United States and elsewhere to study and bring back the latest theories and developments in the realms of science and technology. As a result of this new desire to reach out beyond its borders, the Chinese have encountered a very sensitive problem: cultural confrontation. Before 1978, China had had only limited contact with Western educational systems, and many of these foreign-trained students either fled China in 1949 or were purged from positions of authority and humiliated during the Cultural Revolution because of their "evil" Western influences. Now, for the first time in China's history, tens of thousands of students are pursuing Western educations and, as a result, are encountering cultures totally alien to them, among them our American culture. Unfortunately, the encounters with these non-Asian cultures have not been as easy as most Chinese expected.

A culture has many different dimensions including a "society's system of values, ideology, and social code of behavior; its productive technologies and modes of consumption; its religious dogmas, myths, and taboos; its

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[1]Unless noted otherwise, all statistics in this section are taken from *Achievement of Education in China 1949-1983* , 126-129.

social structure, political system, and decision-making processes" (Coombs, 1985). Whenever two or more different cultures meet there is cultural contact. Because cultures differ to a greater or lesser extent on each of these dimensions, cultural contacts typically are quite dynamic. There is a confrontation, a cultural confrontation, and it can occur on one or more of three different levels: international, institutional, or interpersonal (Chen, 1985).

One typical confrontation between cultures revolves around education. Education is a cultural universal; it is common to all cultures. Yet, like any other dimension of a culture (such as music and food), it is intimately entwined with the culture. Education, with language, is the key to a culture's identity and, thus, to its ultimate survival. Historically, it has been the role of education to conserve, protect, and pass on the idiosyncrasies of a culture; because of this relationship it is impossible to separate education from culture. Students do not gain knowledge in a vacuum. They also learn an educational philosophy; they learn what their roles as students are, what they can expect from a teacher, and what their places in society are. But these definitions of what education is, what students and teachers are, are not universal. Each culture has its own definitions.

The stage for conflict is set when a student from one culture enters a second culture's educational system. Chinese students studying in America are at the vanguard of a cultural confrontation in education. They are being forced to live and learn in ways that are often totally alien to them. What these Chinese scholars are finding out is that learning in a foreign country involves more than just reading new material in a second language. There is a whole underlying realm of culture intimately bound up in an educational system and this culture has to be learned (but not necessarily accepted) before a person can function successfully and comfortably. To gain the education they want so badly, the Chinese must learn the American philosophy of education, they must deal with the different roles that students in America have, and they must come to grips with the expectations that American society and institutions place on students.

Having briefly looked at the historical setting of China's contact with the United States, I want to explore in this paper some of the issues of cultural confrontation in the realm of education faced by Chinese students studying at American universities. What are the fundamental differences in the educational philosophies of China and the United States? How do these differences manifest themselves in the educational institutions and in the lives of students and teachers operating in these different cultures? In short, what are the most salient cultural issues that Chinese students are going to have to confront and come to terms with while living and studying at an American university?[2]

CONTRASTS IN EDUCATIONAL PHILOSOPHY

> *My lessons with Teacher Wei had come to involve more than reading and writing assignments. She was a teacher in the Chinese tradition, taking responsibility not only for my academic progress but for my development as a person. She had advice for me concerning my family and friends, my diet, my clothing, my study and exercise habits, and my attitude toward life. At times I got impatient with her and explained that in America, children leave for college and like to make decisions for themselves after that. She was appalled. "Don't your parents and teachers care about you?"*
>
> *"Of course they do, but--"*
>
> *"Then how can they leave you stranded when you are only a child?"*
>
> *"Well, we--"*
>
> *"And how can you possibly think you understand everything? You are only twenty-two years old! You are so far away from home, and I am your teacher; if I don't care about you, won't you be lonely?"*
>
> *She pointed out that the close relationship between teacher and student has existed in China since before the time of Confucius and should not be underestimated--besides, she was older than me and knew better. I couldn't help respecting her conviction, and she seemed to get such pleasure out of trying to figure and then straighten me out that I stopped resisting and let her educate me* (Salzman, 1986).

This exchange between an American college student and a Chinese teacher beautifully exemplifies the different perspectives that must be navigated when East meets West.

In order to better appreciate China's perspective on education, it might be helpful to look briefly at Mao Ze-dong's understanding of the purpose of education. Mao, the founder of socialism in China, had a lot to say about education and much of his thought is still considered relevant in China today. He was a firm believer in the Marxist-Leninist ideology that sees education as a part of the whole superstructure of society, intimately

[2] My assumption throughout this paper is that the reader is familiar with the American educational system. As a result, my efforts are directed mainly toward examining the Chinese system.

connected to a country's economic and political system, and a direct outgrowth of them. In 1940, Mao wrote:

> *A national culture with a socialist content will necessarily be the reflection of a socialist politics and and a socialist economy. There are socialist elements in our politics and our economy, hence these socialist elements are reflected in our national culture; but taking our society as a whole, we do not have a socialist politics and socialist economy yet* (Mao, 1977).

The key word in this quote is "yet." Mao's ambition, in essence, was to change China's culture. He was acutely aware that it is education that transmits culture and that the socialist national culture he wanted to impart would only come with the training of the masses. Education is the foundation--education that will teach the values and ideas necessary to build China's new Communist culture. However, in recognizing the significance of education, Mao played down its inherent qualities. He saw it as being used as a tool, not studied for its own sake. In fact, Mao saw education, reason, and logic as merely instruments (though important ones) for spreading and indoctrinating political ideology (Chu, 1980). In short, education, as viewed by Mao and now by China today, is very much moral-political. It is used to promote the moral, intellectual, and physical characteristics of the Chinese people as well as to ensure their development of socialist consciousness and character (Shi, 1984).

This moral-political nature of Chinese education, however, is not a Communist innovation. Since Confucius (351-479 B.C.) it has been a part of China's culture. In Confucius' day the perfection of society was seen to come through cultivation of proper moral and ethical principles. With this in mind, Confucius presented the image of what the superior man should be like: "He was to be upright, righteous, loyal, forgiving and tolerant, cultured, a follower of the rites, and, above all, humane" (Rodzinski, 1984). Education was to be the tool used for refining these qualities. *The Book of Rites,* a description of the ceremonies and rites observed in the political and social life of ancient China, asks rhetorically, "When the ruler wishes to transform the people and to perfect their manners and customs must he not start from lessons in the school?" (Shi, 1984). Education's purpose was to produce gentlemen with virtue and wisdom for service to the state (Yeh, 1969).

From China's earliest dynasties education has been a political and moral tool of the emperor to help in the reign of the country. The belief that man possesses an innate goodness, which can be nurtured by the proper education in order to achieve his full potential, is among the most ancient in Chinese thought (Hook, 1982). This innate "goodness," however, has in practice always been defined as what is deemed most desirable for the maintenance of the existing social order. The Communists have merely carried on this educational tradition with their policies, for even today education is meant to serve the ruling class--the Communists.

Ideological indoctrination has been an ever-present feature of educational life in China, particularly from 1949, when the Communists took power, until the death of Mao in 1976. During the Cultural Revolution years of 1965-1976, 'politics' dominated the curriculum in China in an unprecedented manner. Foreign language students, for example, had to use texts that consisted of nothing but translations of Mao's quotations. "To 'remold' their thought, [intellectuals and students] were also made to study prescribed Marxist texts and to participate in 'criticism, self-criticism' sessions, which usually involved a measure of public humiliation" (Hook, 1982).* Although this era of indoctrination as the main purpose of education has passed, the ancient notion that the state shall teach its citizens what to think is still the prevailing philosophy in China today. Recent events at Tianamen Square are only the most obvious examples.

American educational philosophy, on the other hand, is far less politically and morally oriented. Though reflecting the moral and political values of American culture, education in the United States is much less overt in its manifestation of them. Chinese often find the apparent lack of moral involvement by American teachers with their students disturbing. For the Chinese, good teachers, like Teacher Wei in the anecdote quoted at the beginning of this section, take an interest in the all-round development of their students. One visiting group of Chinese scholars observed the American school system for a few weeks and came away with the following conclusion:

> *Chinese teachers approach their students with a broader feeling of personal responsibility and more genuine caring and concern than do American educators. Chinese teachers tend to feel an* overall *accountability for the welfare of their students. They see themselves--and are seen by others--as mentors, concerned about not only their proteges' academic progress but also their moral, social, political, and physical development* (Grove, 1984).

American educational philosophy is probably more accurately described as a strictly academic philosophy. The central aim of an academic philosophy of education is to promote academic learning. Education is

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* Editor's note: Ideological indoctrination is still in practice today. ABC News, August, 1989, noted that PRC government officials are requiring that all incoming Freshmen at Beijing University attend one year of military training and indoctrination before beginning their course work. The *New York Times* (Sunday, September 3, 1989), reports that university graduates will also now be required to spend two years working in the contryside before beginning white-collar jobs or graduate school.

equated with schools and must involve classroom teaching and the study of books. Success or failure of the school is based on the level of knowledge acquired by its students. Standards must be maintained or elevated and research is considered a school's lifeblood (Chen, 1981). America, with its paranoia for keeping the church and state separate, has in many respects denuded the public school system of any moral role in society. Recent Supreme Court rulings limiting what teachers can teach and how they are permitted to discipline are indicative of this. Where in China it is a teacher's responsibility to teach people to be moral and to do so by example, there are few such overt expectations placed on American teachers, except possibly in the area of educational ethics (e.g., plagiarism).

For many Americans, education is seen as a means to personal achievement, an opportunity to gain an edge in the competitive world of a market-oriented economy. The idea of education as a government tool in the political and moral transformation of society is alien and often reprehensible to the American, while to the Chinese it is an accepted fact of life. For the Chinese, education does not aim at forming an intellectual class, it is not an end in itself; education is seen as a means of making the students, the inheritors of the Communist Party's dream of a future Communist culture, more conscious of their role in society.

MANIFESTATION OF CONTRASTS IN EDUCATIONAL PHILOSOPHY

These differences in educational philosophy can be quite unsettling to the unsuspecting Chinese who comes to the United States to go to college. Most of the cultural conflict in this area revolves around the moral-political nature of Chinese education and the apparent lack of it in the U.S. educational system[3]. One of the first impressions that some of the Chinese students I interviewed had about the University of Minnesota was that University students have rather "loose" sexual morals.

It is not hard to see why many Chinese students are surprised at some aspects of American university lifestyle when one realizes that, in China, students are generally not allowed to even date, much less have a boyfriend or girlfriend.[4] Dating is seen as a distraction and a temptation, and students are expected to devote all their energies to their studies. They may only date after they graduate.

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[3]Since May 1986, as a result of a National Conference on Study Abroad that was convened by the State Education Commission, the moral quality of Chinese students seeking permission to study abroad is, in fact, given major consideration when deciding who will be permitted to take part in educational exchanges (Huang, 1986).

[4]Changes are occurring rapidly here, too, however. As Chinese youths are becoming more exposed to western culture, their views on dating and marriage are beginning to change as well (See Zhao, 1988).

Physical interaction between students of the opposite sex is also rare in China. One American professor teaching English at a Chinese university noted, "I don't think I ever saw a boy and girl hold hands on campus. I never saw anyone kiss..., although I once saw it in Tiananmen Square in Peking" (Jochnovitz, 1986). Since dating on campuses is not allowed, obviously no couple would want to be seen holding hands or kissing. But even if dating were permitted, Chinese cultural mores do not allow for the public showing of affection toward people of the opposite gender--even one's spouse. More than one Chinese male living in America has been shocked by a casual female friend innocently greeting him with a hug or some other display of affection.[5] In China, though colleges are coeducational, there are usually no physical displays of friendship between sexes. Women generally do things with women, men with men. Although Chinese do not see anything wrong with dating, physical displays of affection are not culturally accepted. It is through these moral glasses that most Chinese view Americans, and few American college students meet the levels of morality dictated by both Chinese tradition and Communist culture.

On a different plane, Chinese students often state that they are more hard-working and serious (as well as more puritanical) than their American counterparts. Professor Shi Mingde, a teacher from Jiao Tong University in Xian, gives two explanations for this (Shi, 1984). The first is a political motivation. He says that China is a developing country and its students realize the importance of education toward the fulfillment of China's Four Modernizations.[6] Education is indispensable for attaining this goal and the students, who want very much to see their country modernize, are devoting their every effort toward these ends. While this patriotic drive to gain expertise for the development of the motherland seems suspect to Americans, one needs to appreciate the deep love that the Chinese truly have for their country. Patriotism is instilled in them at an early age through their educational system and their culture, and many Chinese honestly exert much time and effort for the betterment of their country. It has not been uncommon for Chinese to give up high-paying and influential positions in Western countries to return to China in an effort to help bring about its modernization. While many university students may not strongly support the commu-

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[5]One Chinese author, Liu Zongren, notes this aspect of Chinese culture when he writes of his first encounter with the family he would be staying with while living in Chicago for a few days: "Mrs. McKnight, a heavyset woman in her fifties, opened the door to greet me. She came forward and embraced me. I must have appeared very awkward to her when she did this; she was the first woman who had ever put her arms around me in front of others. Fengyun [his wife] had never even touched my hand in public" (Liu, 1984).

[6]The "Four Modernizations" is a term used to denote China's pursuit to modernize the agricultural, economic, scientific and technological, and military sectors of its society.

nist government currently in power, they do love and support their country. Many students even see themselves as agents of change.

The second explanation is a more personal one. Education is a scarce commodity in China and those who are able to further their education are those who work the hardest. Supporting institutions and the Chinese government are only willing to support the best students at overseas universities, and the ones who are the most academically successful are the ones chosen to go overseas. These are usually the students who place all other goals secondary to their education.

In either case, the Chinese students who end up at American universities are usually very diligent. Several of the Chinese I talked with expressed the fact that they see themselves at a disadvantage in that they are not native speakers of English. But every one of them was proud of the fact that they have been able to compete with Americans in their school systems and do just as well as, if not better than, the average American student. In fact, a few of the Chinese I talked with made statements along the lines that they were surprised to see that many American students often did not adequately prepare for class, were terrible procrastinators, and spent too much time doing things other than school work. Althen comments on this phenomenon in a handbook designed for foreign teaching assistants. He writes:

> *University students in many countries have studied and worked very hard to get into the university. They have learned a great deal, and they are usually very interested in learning more. That is not necessarily true of all university students in the U.S. While many students are quite interested in their studies and want to do well in their courses, many U.S. students are not particularly interested in their studies...Some freshmen enter a university not because they truly want to be students and learn more, but for some other reason or reasons. For example, they may have been unable to find a job...Perhaps their parents wanted them to go to a university, or some of their friends were going and they thought they should go too* (Althen, 1981).

This attitude is difficult for Chinese students to understand. Only through hard work have they been able to obtain their goals. They find it hard to relate to the laissez-faire attitude that many American students have toward education.

CONTRASTS IN EDUCATIONAL ORGANIZATION

Because of the different philosophies on the purpose and function of education in China and the United States, there is also a marked difference in the organization of the educational structures of the respective countries. China's political system is infamous for creating bureaucracy. It has a centralized government that rules over nearly every aspect of the country. In the field of education, the Chinese government has established the National Education Commission, which is responsible for every element of education. This National Education Commission is a department of the State Council and is equal in rank with China's State Planning Commission and State Economic Commission (Swanson and Zhang, 1987). Because of this high standing in the national government, "the commission can give direction to all educational programs in all ministries in every province" (Swanson and Zhang, 1987). There are no private or religiously-affiliated schools, all schools are government owned and operated.[7] At the secondary levels, textbooks, curriculum, teaching materials, even class scheduling are generally unified across the country. A person studying a course at one school will be studying the same text at the same time in basically the same manner as a student in another school in another city. The government is the final authority on what texts may or may not be used at each level of education and in what manner the texts can be taught. According to Communist ideology and Chinese tradition, it is the right of the ruling party to edit learning materials for its political purposes.

In the United States there is no centralized ministry of education. A "public" school falls under the jurisdiction of a district or, at the highest level, of a state. Each state, each district, often each school is essentially autonomous in most aspects of the day-to-day affairs of education. They can independently decide what curriculum, what methods, what subjects they want to teach. In addition to the public schools there are private schools of all different types: technical, liberal arts, specialized, and so on. There is no government arm that unites them or has jurisdiction over them all (except in certain specific areas where laws like equal access, affirmative action, etc. govern all institutions and businesses).

In fact, while China may have one of the most centralized educational systems in the world, the United States' system is definitely among the most decentralized (Donovan, 1981). As a result, the American educational system is much more flexible than the Chinese. People can choose what type of an education they want, and if there is a market or a need for an addition to a school's curriculum, this can be done relatively quickly and easily. Schools, or school districts, individually decide on teaching plans and curriculum; programs for research and social involvement are decided upon by individual institutions; and decisions for expansion and/or improvement are also both institutional decisions.

However, there are advantages to the Chinese system. While their centralized system is often rigid and onerous, it is reasonably equitable (though this may begin to change with the new reforms scheduled to be

[7]There are seminaries, monastic schools, and other schools of religion in China, but all of these are government owned and operated.

implemented) (Swanson and Zhang, 1987). China has been able to make reasonably good education accessible not only to regions of wealth and strong academic tradition but also to regions of poverty with leaders uncommitted to education, mainly because of the active involvement of the national government. Since the government maintains the right to assign students jobs when they graduate from college, it is relatively easy for good students to be sent to teach at schools that would otherwise be unable to attract them.[8] In the United States there can be an extreme imbalance of available funds and qualified teachers from one school to the next--say between an inner-city school and a suburban one, or between an Ivy League school and a community college--with no national bureaucratic arm to exert a leveling influence. The inequality of minority and low-income community schools, for example, has long been a major issue of school systems in the United States. While some schools in China are much better endowed than others, this is a result of a conscious decision by the National Education Commission, not a result of "market" forces.

Another drawback to the extreme decentralization of American universities and schools is the inability to achieve any sort of national standardization of education. Where Chinese universities operate on nationally established and monitored guidelines, American universities are left to independently monitor and maintain their own standards (although many do subscribe to an accrediting board, this is not required). Of course China has its "top" universities as the United States does, but the key point is that they are established and supported by the government.

MANIFESTATION OF CONTRAST IN EDUCATIONAL ORGANIZATION

These organizational differences can be fraught with difficulties for the Chinese student. The advantage of a centrally-controlled school system is that every course of study is mapped out by the authorities. The curriculum is generally very rigid and does not give the students many opportunities to express their personal preference in classes. Each major has a certain sequence of courses and each person in each class generally takes the same courses at the same time during their four years at school. One American teacher in China remarked that, at his college, "The English majors all know each other very well. Their roommates are also their sectionmates. They take almost identical programs. There are almost no electives, although the students may choose French, Russian, or Japanese as their second foreign language" (Jochnovitz, 1986). There are few decisions to be made once students have started their work, and it is next to impossi-

[8]Two of my former students in China had to take teaching positions in an "undesirable" town because the provincial government refused to give them jobs in their home towns. From my discussion with friends in China, this is not uncommon.

ble to change their major once they have started a program. For Chinese students to come to an American university and suddenly find themselves responsible for which courses they will take, when they will take them, which professor to choose, whether to take an extension class from another school, etc., can all be very overwhelming. Most Chinese have had only minimal control over the course of their education, and to be forced suddenly to make all these decisions is often a traumatic experience. Colleges in China provide a number of services and have certain measures of control over students that have no counterparts in the United States. "It is perfectly natural for a PRC student or scholar to assume that the American institution's "Bureau of Foreign Affairs" will monitor his or her progress, help solve personal problems and mediate between the individual and the school. It is also natural to assume that the school will provide housing and will specify precisely what courses are to be taken--because that is what happens in China" (Donovan, 1981). What we consider to be an enviable trait, i.e., the flexibility of the American school system, demands a lot of responsibility, initiative and independence on the part of the student; for people who come from a culture where independent thinking and acting are often discouraged, or are at least not encouraged, this is not an easily acquired trait.

Many Chinese students at the University of Minnesota have quickly learned how to ease this period of adaptation to the individual demands of the American school system by tapping into an amazing network of information and help offered by the Chinese students already situated on campus. While American students studying abroad may get some assistance from other Americans studying at the same school, they would not generally expect much help from their fellow nationals. Chinese, on the other hand, take great pride in taking care of their own. One Chinese woman I talked with had, within 24 hours of arriving in the United States, a low-rent apartment close to campus, clothes appropriate for winter, and a list of phone numbers and names to call for help with various things, all provided for her by Chinese compatriots that only a day before she did not even know. This same network provides Chinese students with information on which classes to take, which professors are most helpful to international students, which advisers to try to get, as well as where to buy certain items at the cheapest prices. While the American educational system can be bewildering to Chinese students, they have found ways to successfully navigate these potentially troubling waters. Lacking a bureaucratic structure to tell them what to do, they often look to their compatriots for direction.

STUDENTS AND TEACHERS IN CHINA

To understand the perspective of students from China today it helps to appreciate some of China's past traditions which still influence their thought in education. From Confucius' time until the 1800s, education was seen as the key to advancement, but it was only undertaken by those willing to devote their whole lives to that pursuit. By the time an advanced student was able to pass all the exams necessary to be appointed as one of the educated and ruling elites of the country, he (the students were always men) was usually well over twenty years old and often in his thirties. For over two thousand years the texts of study were always the same: the ancient classics. They had to be memorized verbatim, from cover to cover, and fully understood. The civil service exams for hundreds of years were to a large extent a test of a student's ability to memorize and internalize tremendous amounts of material. Discipline and self-development were considered critical to a good education (Yeh, 1969). Students were not expected to interact with, give their opinions on, evaluate, or discuss the classics; they were expected only to memorize them. Even the slightest deviation in thinking from established orthodox thought was likely to result in failure (Ebrey, 1981). Mencius (371-289 B.C.), one of China's great scholars and interpreter of Confucianism, said, "I have transmitted what was taught to me without making up anything of my own. I have been faithful to and loved the Ancients" (Waley, 1977). His was an example to emulate--learn, but don't alter.

Today there is a certain irony in the resemblance of China's modern Communist education to this traditional, "feudalistic" view of education. This resemblance manifests itself in several ways. First is this concept of unquestioned allegiance to the themes of instruction, as exemplified by Mencius. The Communists have defined their own truth and to question its validity is not generally considered wise. The underlying assumption that both the Confucians held and the Communists now hold is that they have a corner on truth and "education" is the teaching and learning of this truth--and this does not include looking for ways to improve it. A good example of this is modern history. The Chinese school system must teach a government-approved version of recent historical events and any alternatives or "corrections" may only be presented through government initiative. Competing views that permit examining different sides of an event or issue are not considered desirable, nor is it politically wise for an individual to support them. This view implies a rather passive role on the part of the learner, who is seen as a receptacle into which knowledge is poured for safekeeping. This prevalent view of students in modern China is well illustrated in the following excerpt from a Chinese student's description of a good student: "A Chinese student comes to the classroom *to take in* knowledge, to learn everything he doesn't know yet. He is ready *to receive* whatever his teacher is going to offer. He will listen to the lecture carefully, *write down* everything from the blackboard [into] his notebook, and *follow* the instructor's chain of thought...So long as he can *take in* everything, comprehension is not of the primary concern. Usually he will spend hours after a lecture [going] over his notes and [digesting] the information he took [down]" (Chen, 1985. Italics added).

The resemblances of the Communist educational perspective to that of the Confucian is also seen when comparing the perceived position of the teachers in society. Both the Confucians and the Communists highly respect the teacher's role. Ancient Chinese philosophers had many things to say about the student's relationship to the teacher. Among them, the student was instructed that

Nothing is better than establishing rapport with the teacher;
Nothing keeps progress better than intimacy with one's teacher;
Nothing quickens progress more than affection for one's teacher (Shi, 1984).

As Teacher Wei pointed out in the anecdote quoted earlier, there has been a close relationship between teacher and student in China since the time of Confucius, and this manifested itself in many ways in the day-to-day interactions of ancient China. Teachers traditionally enjoyed a very high status in society, coming in fifth behind heaven, earth, emperor, and parents. A maxim from antiquity notes that one should "Respect the teacher; Cherish the student." Education in old China was always looked upon with much respect.

Modern China carries on this tradition in its own way. Although the teachers in recent years suffered great persecution and humiliation under the Communist rule, this was due more to the fact that they were perceived as ideologically maleficent rather than occupationally suspect. Today in China teachers are accorded much respect as they are seen through Communist ideology as the "engineers" of the soul and, as mentioned earlier, mentors concerned with the student's all-round development. There is in fact an active campaign which is attempting to restore both the status of teachers and the respect accorded them that was lost during the Cultural Revolution.

Teachers of "old" and "new" China share other similarities. In Confucian China, teachers had disciples who studied under them and learned the "correct" interpretations of the classics required as part of their education. What the teachers taught was considered absolute truth and one did not disagree with them. To do so would be to place oneself in a position of authority over one's teacher, which was unthinkable. In comparison, in the modern Chinese classroom, instruction is teacher-centered--almost always a lecture. The class will always be serious with little room for jokes or light-hearted discussion with students. Teachers are seen as authorities in their field and what they say is also accepted as truth. One Chinese student I talked with said: "In one word, [a teacher] should be perfect...It would be fatal if he showed any lack of knowledge in front of his students. He would rather give a wrong answer than admit 'I don't know.'"

A third area of resemblance between education in traditional China and modern China is with the students themselves. While this has been touched on in the above paragraphs, it is helpful to look at these characteristics a little more closely. As has been noted, both traditional and modern China consider the quiet, passive person the ideal student. Students are not expected to talk in class unless called upon, and they are not encouraged to ask questions during the class period. For both old and new China, the classroom is a serious place and students are expected to be attentive, which includes sitting up straight in their chairs, and being polite and respectful to both teachers and classmates. No student would think of coming late to class and none would dare to get up and leave class early without prior permission, as this would be terribly disrespectful. Chinese students have always been diligent and today, as in years past, will often spend incredible lengths of time attempting to master new material. A good modern example is the way Chinese graduate students bound for the USA study for the TOEFL exam. Typically they will spend weeks memorizing grammatical patterns from old TOEFL tests in the hope that this will aid them on the actual test--with apparent success.

AMERICAN STUDENTS AND TEACHERS: THE CONFLICT

Of all the aspects of education, the behavior of American students is probably the most noticeable area of contrast with the Chinese. Education in America has had a very different (and much shorter) history. Probably the most significant difference has been the accessibility of education to the average person. Education, at least primary and secondary education, has been almost an assumption for most children growing up in the United States over the past century. In China, on the other hand, before the 1950s approximately 90 percent of the population were considered functionally illiterate. Today, at the collegiate level, most Americans who want to go to college can, and many schools are even looking for ways to increase their enrollment. In China, there is harsh competition for the few available places in a handful of colleges.

Since education is not seen as such a precious commodity in the United States students do not tend to have the same amount of respect for it nor take it as seriously. American students think nothing of dividing their interests while in school; for example, taking on a job or having a boyfriend or girlfriend--things Chinese students rarely do. American students also do not have two thousand years of tradition influencing their behavior. Education in America in many respects is seen and treated as a product that is bought and sold. The student has paid for the opportunity to sit in on a class and if he does not want to listen, or wants to come in late or leave early, it does not matter. He has paid his money; he can do whatever he wants as long as it does not disrupt the class. On the other hand, since students have paid money to be in a class, many want to get as much out of it as they can. They will ask questions, argue with a professor, even accuse a teacher of being wrong. Few would criticize a student for stating his opinion and most teachers encourage it.

Education in the American school system is not seen as information to be memorized, but a process and a way of thinking and exploring that is to be developed (Chen, 1981). As a result, American education is usually considered to promote active learning, where the students are very much involved in and often responsible for much of the learning that takes place. The ideal student is considered to be creative, inquisitive, resourceful, and-to some respect--skeptical.

Chinese students often have a negative reaction toward student behavior at American universities. The first comments are almost always about the "lack of respect" that American students have for their teachers. As noted earlier, coming into class late, interrupting a teacher with questions, making a joke in class, *et cetera*, is considered to be terribly rude and disrespectful. It is an honor to be able to study under an educated person and to treat her disrespectfully is a disgrace.

The whole competitive atmosphere at American universities is also looked at negatively by the Chinese. Chen, quoted earlier, made the following observation about American students:

> *One of my deepest impressions about American college students is their self-centeredness. They come to the classroom as individuals, study whatever subjects they are really interested in, and do not care much what other people think of them. After class, they would never mind what their fellow students are going to do. When I saw many ads posted in the library and various teaching buildings offering or asking for tutors, I realized that co-operative learning was non-existent here. Students regard the knowledge they acquired as their own possession, as merchandise they have paid for, and thus do not at all feel uneasy to sell it. The competition in class is a reflection of the competitive nature of the [American] society* (Chen, 1985).

America also differs in its traditions that define the roles of the teacher. Generally the teaching profession is not looked upon with as great respect as in Asian countries, though teachers are seen to be authorities in their field of study. The biggest cultural difference, however, is probably teaching styles. Where Chinese professors are serious and generally stick to lectures, American teachers often use humor and varied, informal instructional methods--even taking students outside on nice days. Compared to the Chinese, American college students in general have a much more casual relationship with their teachers, and it is not uncommon for a playful rapport to develop between the teacher and the class. No moral mentor relationship usually exists. For example, if students want to come late or skip a day, that is their prerogative. The teacher's only responsibility is to teach the class, though he may well consider class attendance a requisite for a good grade. In China, truancy is not tolerated. There are other differences, too. A Chinese teacher would never sit on a desk in front of the class, but many American professors feel no impropriety in this. American teachers often do not feel reluctant to admit their ignorance on a topic, nor will they be angered or embarrassed by challenging questions, in contrast to Chinese teachers. American teachers usually do not look at themselves as founts of knowledge but as facilitators of learning. Americans will probe for questions, encourage discussion, praise creative thinking and daring ideas; but often they will not give direct answers. They do not feel constrained to follow the syllabus, nor do they worry about getting sidetracked onto some tangential topic in the middle of a lecture.

Classrooms in America, in contrast to China, are not governed by rules of formality. The classroom itself often seems disorganized and even chaotic. Chairs are spread out around the classroom, students sit wherever they want to, and they even eat and drink during class. Chinese students find this distracting, interfering with their concentration. They have come to class waiting to be told a prescribed amount of material in an organized, precise manner. To be in a classroom where "disrespectful" students and a teacher spend a whole class period arguing the different views of an issue seems a waste of time. "Why doesn't the teacher just say what the correct view is and go on to the next point?" is not an uncommon reaction for Chinese students in classes like those. Most Chinese students are completely handicapped in classes where discussion is the main mode of instruction, and few feel comfortable participating--that is not the traditional role of a student, in their view.

For a student used to point-by-point lectures with outlines put on a blackboard, the anecdotal meandering of many college professors is very confusing. American university lectures and discussions tend to be broad and extensive, while in China they usually are intensive, very narrow, and detailed. One Chinese student I interviewed said she felt frustrated because she was not always sure what exactly the teachers wanted her to know. When she asked a teacher to help her out, his response of "You don't have to understand everything" *really* confused her. Chinese students like to come away from a class with detailed notes, which are hard to get in discussion oriented classes. When they fail to acquire what they had expected from a class, they tend to come to the conclusion that American teachers are not as resourceful and responsible as their teachers back in China. In reality, the teacher is probably just expecting the student to do a lot of the information-finding on his own outside of class.

It is precisely in this area (i.e., classroom expectations) that Chinese students often encounter the greatest difficulty in adjusting to American colleges. It is here that they have placed their highest hopes for gaining the education they crave; but the discontinuities between American instructional methods and the customary learning interaction styles of the Chinese create formidable obstacles (Tharp, 1987).

CONCLUSION:

Roland Tharp points out that

> *Social organizations willy-nilly emphasize different interaction styles--competition or cooperation, individualization or group linking, personal or impersonal teacher relationships, formality or informality of teaching style, peer-peer or student-teacher relationships--which in turn, implicate cultural norms* (Tharp, 1987).

In this paper I have tried to show how American and Chinese cultures are at opposite ends of the continuum for each of these interaction styles. It is hardly surprising that Chinese students find their tenure at American universities to be a very stressful experience. To find two educational systems which stand in greater opposition to each other than the American and Chinese would be a difficult task. The cultural confrontation is blatant, though its causes may be subtle, and Chinese students are always immediately aware that there are differences that they are going to have to contend with while they live in the United States. There is a whole new realm of cultural norms they must learn in order to succeed.

Unfortunately, most of the stress of this cultural confrontation falls on the student. Many problems which develop are due to misunderstandings between pupil and teacher arising from different culturally-based assumptions, but it is usually left to the student to make the adjustment necessary for success. It is my hope that, by providing some historical, social, and philosophical reasons why Chinese students will often face problems when adjusting to American school systems, this will make the adjustment process for both the Chinese student and the American teacher much easier as they *both* negotiate a mutually comfortable learning atmosphere.

What the Chinese want from American education is knowledge; but both the knowledge and the educational process are encapsulated within a cultural context, obscuring the knowledge and hindering the learning. Only when the cultural assumptions of learning are understood to the point where the Chinese can work within them is there relatively free access to the information and the education they seek. If Chinese students coming to the United States realize that they will be entering a university system whose whole underlying philosophy of education is different, whose expectations for students and teachers are different, whose whole organizational structure is different, they will have gained a powerful tool to aid them in their quest for knowledge. But more than this, they will have also gained confidence through successful interaction within another culture, turning their struggles with cultural confrontation into a positive experience. If the American teachers and schools interacting with Chinese students also understand the different assumptions and expectations that these students will have, it can only help to facilitate the difficult cultural adjustments that must be made.

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Why aren't Third-World scholars going home? Focus on adjustments in China's overseas policies

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Using China as a case study, this article examines the continuing problem of "brain drain"--the departure of skilled professionals and students from their own country. This article explains Chinese attempts to adjust their overseas study policies in view of the "brain drain" and then looks behind these policies in order to identify the reasons students and scholars from China, and other Third-World countries, often do not return home. Suggestions are offered which might encourage students and scholars to repatriate.

Upon completion of my studies in the United States, I will return to my home country to share the valuable experience of studying in a foreign university. I plan to become acquainted, then, with the technological industry in my country and be able to contribute with [sic] the development and exploration of human and technical resources.

Statement by an applicant to Macalester College. January, 1988.

The statement quoted above was written by a student applying for admission to Macalester College in 1988. He is from a Third-World country to which he clearly intends to return after he completes his studies, since, as he states, he is committed to contributing to his country's development.

Such intentions are commonly expressed by international students who consider the study abroad experience an opportunity to improve their skills in order to serve their countries at some future time. However, in the course of their studies, changes occur in their thinking and many of them do not return home. This "brain drain"--the flow of skilled professionals and students from their home countries--is a continuing problem, especially for developing countries which cannot afford to lose skilled professionals. Most recently, it has been a topic of concern among Chinese officials. This concern is stated succinctly by Dr. Han Suyin, a Chinese born physician and au-

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thor: "How is the country going to advance if the best of its students are going to remain abroad?" ("Young Chinese," 1987).

Reacting to fears that Chinese students studying abroad are not returning home, the Chinese government recently issued regulations to promote their return. This paper will explain the current Chinese adjustments in overseas study policies and then look behind them to 1) identify the reasons students and scholars from China and other Third-World countries do not return home and 2) to offer suggestions from various sources which would encourage students and scholars to return home.

CHINESE OVERSEAS EDUCATION

Since the Qing dynasty in the 1870s, the Chinese have been sending students abroad for advanced training. Throughout, authorities have recognized the danger of sending their talented students to study in countries whose political systems and standard of living have differed from China's. They feared that along with the technical skills they would require, students might be "contaminated" by foreign political and social ideas (Finger & Reed, 1982).

Nonetheless, the need for technical skills outweighed Chinese fears and between 1900 and 1950 several thousand Chinese graduate students studied abroad.[1] Throughout the past several decades, the number of Chinese students overseas has peaked and plummeted depending on China's political relations with the countries to which students were sent. In the 1950s, for example, 40,000 students were sent to the Soviet Union and to Eastern Europe to acquire skills and to become familiar with Soviet models of development. However, the flow of students slowed in the 1960s as a result of political dissension between the Soviet Union and China and the isolationism of the Cultural Revolution. In the late 1960s, the number of Chinese students overseas increased slightly, most participating in exchanges to other Third-World countries. After the death of Mao ZeDong and the purge of the Gang of Four, Chinese leaders realized that in order for China to modernize quickly, Chinese scholars needed extensive contact with scholars in advanced industrial states. Since then China has been sending large numbers of students to Western Europe, Japan, and the U.S. for training emphasizing science and technology.

Between 1978 and 1988, more than 50,000 Chinese students have studied overseas in 70 countries.[2] Of this number, approximately 40,000 are government-sponsored students. Ten thousand are privately sponsored by relatives abroad. Of the 40,000 government-sponsored students, only 20,000 have returned home. Most of these returnees were visiting scholars who had finished their projects and returned quickly. Few of the

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[1] All statistics in this paragraph are taken from Finger and Reed (1982).

[2] All statistics in this paragraph are taken from Pepper, 1988.

privately sponsored students have returned; however, the government does not appear to be concerned about this group since none of the proposed regulation changes apply to them. Of particular concern are the approximately 12,000 young government-sponsored scholars that have been sent abroad, of whom only 200-300 have returned. The new regulations are aimed at these students, most of whom are Ph.D. students who did not go overseas until after 1982. However, since many of these students have not fully completed their studies yet, it is too early to know just what percentage will actually decide to remain abroad and not return to China.

In the spring of 1988, much confusion took place among Chinese scholars in the U.S. and their American sponsors as a result of reports of the Chinese government's intention to drastically reduce the number of students permitted to study abroad. Although in one breath Chinese officials publicly denied any such change in policy, in another they confirmed it. For example, Huang Xinbai, a member of the State Education Commission, in an interview with the *Beijing Review* insisted, "Sending students to study abroad is China's long standing policy which remains unchanged and will never change" (*"China reaffirms"*, 1988). In what appears to be a contradictory statement, Huang Xinbai later explained, "In light of our internal situation, it is only normal to make necessary adjustments in our Policy on state-funded students studying abroad" (*"China reaffirms"*, 1988).*

A U. S. government source recently explained that such confusion is not uncommon in U.S./China relations. According to this source, the confusion stems from the fact that Chinese policy is not yet set; rather it is still being debated. He explained, "China often has trouble helping outsiders distinguish between definitive policy change and less conclusive or evolving modifications" (Pepper, 1988).

In any case, Chinese leaders want to ensure that overseas Chinese students and scholars return home after completing their studies. Their concern has increased within the past few years as scholars and students have increasingly requested extensions in their time studying abroad.

As a result, China has begun to publicly question its study abroad policies. Recognizing the continued need for overseas training, Chinese leaders are not decreasing the numbers of students overseas. Rather, they are proposing controls on who goes abroad, where they go, what they study, and for how long.

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*Editor's note: The *New York Times* (Sunday, August 13, 1989) reported that China has announced again its intention to significantly reduce the number of students it will send abroad, concentrating instead on improving its own doctorate programs.

PROPOSED CHANGES IN CHINA'S OVERSEAS STUDY POLICIES

According to the Chinese State Education Commission, overseas study abroad will remain an important feature in China's development; however, the commission is proposing several "adjustments" in policy (Pepper, 1988). The first adjustment is in choice of major. Students will be encouraged to focus on applied fields, particularly those needed for industrial development. Second, more scholars already holding Ph.D.s will be sent abroad and the number pursuing master's degrees will be decreased. Undergraduates will not be sent abroad at all, since they can receive appropriate eduction in China. Third, more students will be sent to Europe where few have gone thus far.*

How do these adjustments ensure that scholars will return to China after a sojourn overseas? The relationship is not always obvious. For example, the first adjustment, a change in majors, does not appear to relate at all. However, the second adjustment, sending older scholars overseas instead of undergraduates or master's degree students is more obviously related, since older scholars are likely to have strong ties to their families and their country and are therefore more likely to return home. The third adjustment, sending more scholars to Europe, may indeed result in increased numbers returning home. Since unemployment rates are high among professionals in Europe, Chinese professionals would have a difficult time finding employment there (Wang, 1988).

CONDITIONS WHICH DISCOURAGE STUDENTS AND SCHOLARS FROM RETURNING HOME

The conditions in China that discourage scholars from returning home are similar to those identified by scholars from other Third-World countries who have returned home after studying overseas. In their books, *Fondness and Frustration* (1983), and *Decline and Renewal* (1986), Crauford Goodwin and Michael Nacht report on studies they conducted of overseas scholars who returned to their home countries, Brazil, Mexico, Turkey, and Indonesia. The authors found much frustration among these returned scholars who complained that the skills and competencies which they had acquired at great expense and effort had decayed upon return home.

The frustrations Goodwin and Nacht and other sources have found include economic, bureaucratic, professional, interpersonal, intellectual, and emotional. The following are some of the more common:

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* Editor's note: According to David Seager in the September 3, 1989 *New York Times*, Chinese leadership has recently renewed its efforts to implement these policy changes in attempt to stifle the democracy movement and the impact of Western influence on Chinese students.

1. Inadequate academic infrastructures.

Scholars complain about the inconveniences of working as scholars or researchers in institutions where the academic infrastructures are inadequate. For example, they regret the obsolete or inadequate laboratory equipment and computers, poor libraries, and inefficient telephone systems which limit or slow down their work.

2. Poor, inequitable salaries

Another frustration expressed by returning scholars is their poor salaries. Some poorly paid professionals find that they have to find supplementary employment and are thus distracted form their research by the need for additional income. As one unhappy Mexican scholar complained, "My kids can't eat books and papers" (Goodwin and Nacht, 1986).

A Brazilian graduate student studying Public Health at the University of Minnesota explained that, in Brazil, professionals keep three or four jobs just to pay the rent. This condition prevents them from excelling at any of their jobs (Rudd, 1988).

One Chinese scholar complained about the lack of equity of salaries in China. "The People who are creating economic profit are not earning what they deserve. China needs to increase income for intellectuals who contribute the most." He added angrily, "the man who sells second-hand clothes earns a higher salary than most professors or researchers (Wang 1988).

3. Inappropriate use of scholars' skills because of inefficient bureaucracies

Scholars also report that their skills are not used properly by their institutions when they return home. One Chinese scholar explained why he does not plan to return home after finishing his U.S. degree:

> *The problem is what I can do after returning. What I am learning now will definitely be wasted if I go back to my old employer in China.*

When asked if he could switch jobs he replied:

> *You know how hard it is to switch jobs in China. By the time I have made it through all the red tape, my training will be outdated. And even if I could get a transfer, there will be just as much bureaucracy in the new place. In China, the whole system is like that--some people achieve, while others make obstacles to achievement. Altogether, there is no efficiency* (Wang, 1988).

Some scholars and researchers returning form abroad do not even work in the professions in which they were trained. Goodwin and Nacht explain that this is common in decolonized countries which have a shortage of high level bureaucrats.

> *Abrupt decolonization creates one-time demands for middle-level and high-level bureaucrats and executives that tend to drain the rest of the system. During this period, pressures on the professions and disciplines are intense as the administrative temptress lures away their best.* (Goodwin and Nacht, 1986)

A Chinese scholar complained that some skilled professionals have been unable to get jobs using their skills because they do not have the right connections. "Whom you know or who your father is often becomes more important than what you've learned" (Groat, 1988).

4. Authoritarian political and social environments

Authoritarian political and social environments are another cause of discontent among scholars and researchers who are sometimes prohibited from pursuing interesting projects disapproved of by the authorities. Goodwin and Nacht explain:

> *One aspect of life in an authoritarian environment is that scientists and intellectuals may be constrained or prohibited, often frivolously, from applying their skills to problems that they perceive to be either of highest national priority or of exceptional scientific interest but that those in authority judge to be inimical to their interests. These problems may range from humanistic topics, such as questions of historical interpretation, to topics in the physical sciences that impinge on national security.* (Goodwin and Nacht, 1983).

5. Intellectual decay

Scholars regret the lack of a support system for innovative scholarship when they return home. The result is a decay of their intellectual skills. For example, a Turkish sociologist explained that publication in international journals was seen as demeaning and threatening to her colleagues at home. Such publications were seen as showing off. She was discouraged from publishing her scholarship internationally because in Turkey, according to her, "to love is more important than to achieve" (Goodwin and Nacht, 1983).

A Mexican scientist explained regretfully that, as time passed, he lost confidence in his ability to write and publish in English and consequently lost contact with the international community of scholars in his field (Goodwin and Nacht, 1983).

6. Resentment from other faculty members

Another source of difficulty for scholars who return home is resentment on the part of faculty members who had not studied abroad toward those who had the advantage of an American Ph.D. The result is sometimes a loss of power by the newcomers (Coleman, 1989).

7. The opportunity to stay in the U.S.

A prominent reason why scholars choose to stay in the U.S. rather than return home is the increasing demand for skilled workers in the U.S. Josef Mestenhauser, Director of the Office of International Education at the University of Minnesota, explains that the U.S., fearful of the spread of communism, first began educating students from underdeveloped countries after World War II. At this time, the U.S. and the foreign governments assumed that students would return home. More recently, foreign students have been filling open positions in the U.S., especially in engineering and health-related fields, and it is predicted that the demand for skilled workers in these fields will increase in the future (Rudd, 1988).

SUGGESTIONS FOR ENCOURAGING STUDENTS AND SCHOLARS TO RETURN HOME

What can home countries and host countries do to insure that scholars return home after studying abroad?

Home countries

A suggestion offered by Mestenhauser is for home countries to take more responsibility for encouraging students to return home. According to Mestenhauser, some countries neglect their students who study in other countries. "Sometimes, students are just dumped in the U.S. and they never get a response from home" (Rudd, 1988).

Other countries do nothing to encourage students to return except to instill feelings of guilt at not returning. In Mestenhauser's view, countries must help maintain the students' loyalty to their country by, for example, paying for annual visits home.

Countries must also make returning home an attractive option by providing reasonable salaries and attractive employment opportunities for scholars and by providing adequate reference materials and libraries.

One example of a successful program is the cooperative arrangement between the University of Mahidol in Thailand and the Rockefeller Foundation, which proved successful in attracting home Thai scholars who had studied in the United States (Coleman, 1984). The University and the Foundation provided positions for the scholars returning home and offered salary supplements for good teaching and research. In addition, they provided funds for scientific equipment, libraries, and support services.

Other cooperative arrangements exist between the U.S. and foreign companies, the U.S. and foreign colleges and universities, and the U.S. and foreign governments. The purpose of all these cooperative projects is to provide on-going training for U.S. trained students and scholars. The hope is that such training will help provide an attractive work climate for returned students and scholars. Examples include the Citicorp/Indonesia Training Project sponsored by Citicorp bank, which provides advanced training in banking, and the Instituto Panamericano de Alta Direccion de Empressa, which is a graduate school of business cooperating with the Harvard University Graduate School of Business Administration (Goodwin and Nacht, 1983).

Home countries must also provide intellectuals and professionals with opportunities to respond creatively to the home nations needs. One Turkish economist complained that he was never asked for advice by his own government, only by international organizations. He believed that by being involved in the national development of Turkey he would "become part of Turkey" (Goodwin and Nacht, 1983). Such involvement strengthens returning professionals and scholars' ties to their home countries.

Home countries can also help strengthen returnees' ties at home by creating institutions for professional and intellectual communities such as the National Academies of Science, and by supporting their conferences and periodicals. In this way governments can facilitate activities upon which intellectual life depends (Goodwin and Nacht, 1983).

Host countries

Not only do home countries have responsibilities toward their students and scholars, so do educational institutions in the the host countries.

Host countries can assist returning professionals and scholars by 1) providing opportunities for their alumni to return to the host campus for continuing education, 2) dispatching faculty for lecture tours abroad, and 3) donating funds for the improvement of academic infrastructures in developing countries (Goodwin and Nacht, 1983).

Host universities can make efforts to provide Third-World students with an education relevant to their needs. In so doing, universities would better prepare students for returning to their home countries rather than for the U.S. job market. A study of an engineering department at a large U.S. university revealed "a definite mismatch between the needs of Third-World students and the institutional culture as embodied in department programs" (Lansdale 1984). For example, it was found that faculty did not use materials relevant to Third-World countries.

Faculty in U. S. institutions of higher education might provide a better transition to the job market at home by providing readings and assignments which explicitly require students to think about and apply what they have learned to situations at home (Rudd, 1988). Paige (1987), strongly argues that foreign students in U. S. universities must learn to critically assess Western technologies and learn to analyze whether Western technology is applicable or inapplicable in the context of their societies. He envisions seminars in which both U.S. and foreign students "assess the applicability of specific approaches from their disciplines . . . and examine the cultural value orientations which underlie specific technologies and problem-solving practices in their disciplines" (Paige, 1987). He argues that such seminars would enrich the educational experiences of both U.S. and foreign students and increase their understanding of global problems and of development.

Han Suyin offers one final suggestion to the problem of Chinese professionals and scholars who remain abroad. She says, "If outstanding Chinese scholars want higher eduction in the United States, let them first spend five or ten years working in China so they will know their own country" ("Young Chinese," 1987).

China is responding to the problem of scholars and professionals who remain abroad by restricting who is permitted to leave China, where they go, and how long they can remain abroad. This response will be ineffective unless it also improves the work climate for those returning home. Those students trained abroad must believe that their hard earned education will be put to good use when they return in order that they may contribute to the modernization of Chinese society. As a Chinese student at Macalester College explains:

> *The best way to improve the situation in China and make China a stronger country is to go home. . . .China really needs to change the way people are thinking and to change the way some systems are working. Those who have been overseas, who have seen the pros and cons of different systems are really the people that should go back* ("Great," 1988).

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Teacher-executed needs assessment: Some suggestions for teachers and program administrators*

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In this paper, it is suggested that the best approach to identifying the needs of ESL learners is at the local level: a local approach for identifying local needs. Specific suggestions are made for classroom teachers, drawing upon research techniques in second language acquisition and English for special purposes, and examples are provided. A list of suggestions for program administrators who wish to encourage their faculty to use this approach is also included.

In designing a syllabus for any ESL class, the teacher needs to determine at the very least two basic things: (a) what the learners know (and do not know) already, and (b) what they need to learn (that is, what language is used in the specific contexts in which they will need to function). Language proficiency tests will measure what the learners of the language know already, and the classroom teacher will continue to assess her students' knowledge informally on a day-to-day basis. But this paper will discuss the sort of needs analysis which focuses upon the second area: what the students need to learn. In this paper I will make two assumptions, both of which are relatively uncontroversial. First, I assume that English language forms and functions vary in relation to different social contexts in which they are used. All aspects of the social setting have an influence upon language use: the identity of the interlocutors (level of education, gender, role, degree of familiarity, etc.), the interlocutors' purpose in the

* This paper was presented at the national conference of the National Association of Foreign Student Advisors, in Minneapolis, Minnesota in May 1989. The approach which I describe here was developed in collaboration with Dr. George Yule (now at Louisiana State University), and is described in more detail in our book, *Focus on the Language Learner.* In that book, we advocate a local approach to local needs -- that is, needs assessment done by the classroom teacher, focusing upon the needs of each unique language class. We feel that such needs assessment is central to the operation of any successful ESL class, and that such teacher-executed needs assessments need not be *ad hoc* or uninteresting, but rather can proceed in a principled manner, drawing heavily upon tools used by researchers in related areas.

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exchange (to sell products, make friends, obtain medical aid), the physical location (university classroom, factory, restaurant), the discipline (medicine, engineering, the arts, automotive mechanics, food science). Not only will vocabulary vary in relation to these different social contexts, but so also will the degree of use of grammatical forms and the functions which those forms mark. To learn to function in a given social context is at least in part to learn the language of that social context. A second assumption I make is that no learner will need to use English in all possible social contexts of American society--any more than any group of native speakers of English will. As we move into new social contexts, we need to master the language which is appropriate to that context. This is true for native and non-native speakers alike. It is possible, given the goals and objectives of any individual, to identify those contexts in which that person is most likely to operate. For a university student, for example, one can identify typical university contexts: the registration line, the dorm room, the cafeteria, the classroom (and more specifically, the introduction to physics class, the calculus class) and so on.

Given, then, that as ESL educators we must select certain language forms and functions to be taught in a certain order (since in the interest of time and money we cannot teach everything), and given that we can select those forms and functions at least in part in relation to those social contexts in which the learners will be functioning, we come down to the bottom line, the very basic question: Who is going to do all this needs analysis? And how much work will be involved?

My answer is that, while many people may participate in this process, in the end this needs analysis will be done by the classroom teacher, at the local level of each individual class. System-wide needs analysis--by the administrator, textbook writer, professional curriculum developer--does of course have a role to play in setting the broad parameters. In general terms, it is possible to identify the goals of the average student population and to set course goals accordingly--in general terms. One would not expect the average university student, for example, to need to know the English language forms and functions typical of the welfare office, the race-track--or the halls of the U.S. Senate, for that matter. General parameters can be set at the system-wide level. *But* we must remember that it is always the classroom teacher who implements any curriculum, in light of her perception of *local* student needs--that is, the needs of *this* unique group of learners. And no two classes of learners are exactly alike. It is this mismatch between the general, system-wide needs analysis of the specialists and the very specific, essentially local needs analysis of the classroom teacher which always sends good ESL teachers to the copy room, adapting and changing textbook chapters, developing handouts, and so on.

I can give a very specific, if somewhat extreme, example of this dynamic based on a paper written a few years back by one of the (then) graduate students in our program at the University of Minnesota, Karen Sorensen (1982). Sorensen was an ESL teacher at the University, assigned to teach an English class to science students. While this course previoualy had always consisted of a variety of science majors, this quarter it was made up almost exclusively of agriculture students. The textbook which had been chosen (at a system level) for the course had always been appropriate before--but this time it was not. Three weeks into the course, Sorensen was told by her students that the book was not helping them with their classes; in their classes, the students said, they were having a great deal of difficulty with writing assignments. The assigned book *did* contain exercises on writing--but primarily sentence-level grammar exercises; the most extensive writing required was the description of a few simple experiments. The students said the book did not help them with their coursework. Sorensen--having a general liberal arts background--had no idea what language skills and writing abilities were needed in the students' agriculture classes at the University.

Now, what is a teacher to do in such a situation? One possibility might have been to ignore the students and plow on with the textbook. This is not a good choice, however. The students had expressed their discontent with the textbook and their motivation could be predicted to drop with any attempt to continue using it. Another possibility might have been to just patch in some more complex writing assignments from a higher-level class ("Want more writing? OK, here's more writing"). But this would surely have been a chewing gum and baling wire approach, possibly useful to *appease* the students, but quite unlikely to meet their real writing needs in their agriculture classes. What Sorensen did is what any good ESL teacher would do: she conducted a global needs analysis on the spot, and went to the duplicating room to adapt her syllabus.

Sorensen began by re-examining the set of questionnaires she had routinely collected from her students on the first day of class. She discovered that most of her students were enrolled in one or more of five classes, each representing a core requirement in the College of Agriculture. She obtained a copy of the syllabus from each of these classes, and spoke with each instructor about the writing requirements for the class. She found that all the writing requirements shared in common the solution of a 'problem.' She also found that international students typically had difficulty with writing assignments involving the analysis of a problem and the proposal of an appropriate solution. Finally, when she examined some corrected pieces of student writing from these courses, she found that the instructors' comments almost never related to grammatical correctness; rather, they focused upon the writer's effectiveness in communicating information. Sorensen concluded that her students' writing problems related not to difficulties with grammatical correctness, but to their inability to set forth a logical argument in 'problem-solution' type papers--specifically, their failure to express the relationship between facts and to form accurate generalizations in English. It was then, of course, clear why the ESL textbook was not helpful; it focused only upon sentence-level grammatically and not upon the ability to present clear argumentation in support of a conclusion. Sorensen developed some writing activities which provided practice in selecting and organizing data, posing problems and drawing conclusions--thereby moving her syllabus closer to meeting her specific students' real needs.

Of course, Sorensen's example is extreme. Most of the time, a teacher finds that the course goals and materials are more appropriate to a given class's needs than this. Usually, the teacher is mostly fine-tuning the needs assessment. But Sorensen's example does illustrate at least two basic points. First, teachers are always conducting needs analysis at the local level; they must do this in order to decide what to teach next. Second, a teacher-executed needs analysis does not need to be *ad hoc* or sloppy. The fact that it is essentially local, useful only for one group of students, and not necessarily generalizable to a wider population, does not mean that this needs analysis is either sloppy or even uninteresting to other practitioners--quite the contrary. I would argue for the essential centrality of local needs analysis by trained ESL teachers. Here I will offer one or two guidelines and tools, gleaned from the research literature, which may be usable at the local classroom level by the teacher, and I will make some suggestions as to what program administrators might do to facilitate this sort of local-level needs assessment.

Some guidelines for teachers seem clear from the Sorensen example. First, we should always expect there to be *some* mismatch between the outcome of a system-level needs assessment and a local-level needs assessment; we expect this because there is always a difference between the 'normal' class and the actual class. An alert teacher will expect such a mismatch and plan to deal with it from the beginning. Minimally, a teacher ought to begin every class by obtaining information on the makeup of each different group of students: their learning backgrounds, goals and objectives. A questionnaire like the one Sorensen used is a good examle of how this could be done.

Second, if it becomes necessary for the teacher to depart substantially from the syllabus which was based on a system-wide needs assessment, it will be very important to gather real-world information in the actual situations in which these particular students will be using the language. It is too easy for language teachers, relying only on their intuitions as native speakers of English, to make false assumptions. For example, it is easy to assume that grammatical correctness is essential to student success in writing course papers at the University. It is also easy for any native speaker, using the armchair approach, to miss things--as, in this situation, the fact that the rhetorical organization of problem-solution writing is important and may be problematic for non-native speakers. The only way to overcome these difficulties is to get out of the ESL classroom and obtain real-world information from the situations in which these particular language learners are, or will be, functioning.

A third, and related, point to remember here is that the textbook which is being used in the class may be presenting inaccurate information about the language which is used in the situations where these students are headed. This will be so for two reasons: first, most textbooks present information about "general English," not the specialized English used, say, for writing lab reports in graduate-level chemistry classes; and, second, the authors of most textbooks do not themselves gather real-life information on language use by native speakers, relying instead on their own armchair intuitions. And those intuitions are often wrong. We know this is so on the basis of at least two studies. The first was done at the University of Minnesota by Amy Burkhalter, a graduate student in ESL at the time. Burkhalter (1986) was teaching oral discussion skills in an advanced level ESL speaking class; she found five textbooks that presented the language which ought to be used in oral discussions. *But* these five texts taught very different sets of functions for use in discussion. Even where the functions taught were the same, the books did not agree on the linguistic forms which should be used to realize those functions. For example, four of the books said that 'expressing an opinion' was a function used in oral discussion, but those books did not agree as to what language ought to be used in English to 'express an opinion.' Fifty-six different phrases were taught as appropriate to this function, but of these only *five* were taught by more than one author, and only *one* was taught by all four. All of these authors seemed to be relying on their own intuitions in presenting this information. Burkhalter decided to gather some data observing a discussion among native speakers of English who were students at the University and noting what expressions *they* used to 'express an opinion'. Of the fifty-six expressions which the ESL authors had suggested for use in 'expressing an opinion,' only *three* were actually used by these native speakers--and *one* of these was used almost to the exclusion of the others. These textbook authors, by relying on their own intuitions instead of basing their recommendations on observations of actual language use by native speakers, were presenting students with inaccurate information and in some sense creating extra and unnecessary work for them.

Burkhalter is not alone in noticing this inaccuracy in textbook presentations. Williams (1988) observed the language actually used by fluent speakers of English in business meetings in Hong Kong and compared it to the language taught in EFL textbooks in Hong Kong. Of the seventeen functions taught in the EFL textbooks as appropriate for business meetings, only ten actually occurred in real meetings. And, out of the 135 different linguistic expressions presented in the EFL books to realize the functions presented, only seven were actually used in the business meetings in three hours of talk.

These findings suggest that ESL teachers should not rely on their textbooks for information about the frequency with which language forms are used in the real world, or about the usefulness of those forms in particular target situations. If target situations can be identified which are relevant to a particular group of students, then some real-world data ought to be gathered from those situations.

To reinforce these second and third points, I would like to describe another case in which real-world data from the target situation might be useful. Imagine a situation in which an ESL teacher is working with a group of adult refugee students living in St. Paul. She has been assigned a textbook organized along the lines of a situational syllabus: each chapter deals with a different situation in which these learners might need to use English--the grocery store, the post office, the bank, and so on. In order to decide which chapters she needs to cover and in what order, she tries to determine the situations in which her particular students need to function. Almost all of her students say that they need to visit the welfare office frequently, and that they have difficulty communicating in that context. Now there is a problem: the textbook does not cover that situation, and the teacher has never set foot in a welfare office. The teacher can do one of at least three things: ignore her needs analysis, and just teach what is in the book. Or, she can use the armchair approach, and try to imagine what sort of language might be used in welfare offices. Or, she can try to obtain some direct information on language use in the local welfare office. Using this third approach would provide helpful information for the ESL teacher to use in planning a syllabus--and would also provide real-world, relevant language data for the class to analyze in any learner-centered, problem-oriented classroom approach, such as that proposed by Shirley Brice-Heath (1986).

"But," asks an overburdened ESL teacher, "who has time for this sort of data-gathering? I barely have time to teach what's in the book, without having to, in essence, write my own textbook, going off-campus to gather language data." As both a teacher and a researcher, I acknowledge the difficulties involved. In response to this overburdened teacher, I would say: "You do not have to write a new textbook." There is a whole continuum of actions that can be taken, ranging from the minimally time-consuming to the most time-consuming, but all of them actions which will provide helpful and accurate information on language use by native speakers in the situations into which the students are moving .

Think back and consider the teacher I just described--the one who needed information about language use in the welfare office. There are a variety of things she can do, some more time-consuming than others.

1. She has already used the least time-consuming tactic: developing and distributing a language use questionnaire on the first day of class.

Her purpose was to determine learner aims and to identify those situations in which her students needed to use the language.

Ideally, her questionnaire would also ask for information about language-related activities which take place in those target situations. Armed with this information alone, the teacher could identify areas where her textbook does not meet the needs of her students.

2. Her second step now might be to organize a student-executed needs assessment, as proposed by Hanges (1982), and which I will describe in more detail below. Minimally, she can ask her students for more information on language use in the welfare office (the target situation), for details on the communication problems they have had there, and for copies of written materials they have to read and/or fill out. Written materials can be used for classroom exercises. Discussion of communication problems may enable the teacher to identify language functions and forms which learners need work on.

3. If she has more time, she may be able to make direct contact (possibly by phone or mail) with someone who works in the welfare office, asking about communication problems which have arisen with refugee clients.

4. She might ask a willing student to tape-record his or her own interactions in the welfare office; this tape, or parts of it, could profitably be used, with the student's permission, for later class discussion. The students might be asked to discuss the following: What questions does the native speaker on this tape ask? What language forms are used? What is the speaker's intention in asking this question? What are possible ways the learner might have answered? What would be the implications of answering one way as opposed to another? In this kind of discussion, the student who taped the interaction becomes the "expert" on what happened and what might have happened, and the teacher becomes a supporting resource on language use. (See Brice-Heath 1986 for more on this sort of learner-centered problem-oriented classroom approach.)

5. The most time-consuming thing (but possibly the most rewarding) the teacher could do would be to actually go to the welfare office with one of the students and observe the sorts of interactions which take place and the difficulties which arise. But, as we all know, few teachers have the time to do this. (Program administrators, on the other hand, might find it useful to free one or two teachers for a period every year to do this sort of on-site needs assessment in situations which have been identified as central targets for large numbers of students over the years.)

The best alternative for data-gathering (for the language teacher with no time to spare) is the learner-executed needs assessment, proposed by Hanges (1982). Hanges argues that there are sound educational and philosophical reasons (propounded by people like Freire, 1970, and Jenks, 1981) for having the students tell the teacher what they need to learn in their own target situations. Hanges argues that learners themselves can, with guidance, provide the teacher with valuable information about those precise situations in which they need (or will need) to use the language. She developed a student assignment (reproduced in Tarone and Yule, 1989) which sent her university-bound students out into their respective departments to gather information on language use within a common framework which they had all previously worked out together. The students then reported the results of their research to their teacher and to one another. In this case, the data represented information on the kinds of writing assigned in required courses in their fields, the amount of each kind of writing required, and examples of writing assignments from different courses. Such learner-executed needs assessments have a number of advantages for the ESL teacher: they save the teacher a tremendous amount of time, they permit the learners to become the 'experts' on their own language needs (thereby improving learner motivation in the ESL classroom), they provide the teacher with data which might otherwise be hard to get (for example, quizzes and corrected pieces of student writing), and they allow for insights the teacher might not have planned on--as, for example, that agriculture teachers do not mark student essays down for grammatical inaccuracy. There are, of course, also disadvantages to the student-executed needs assessment. There is the possibility that students may not be accurate or thorough in their reports. While this disadvantage may be most serious in the short run, it seems to me that it can be remedied in the long run; as the teacher gathers information from more and more students on the language used in Department A, she will be increasingly able to weed out the inaccuracies and fill in the gaps. The program administrator may have a role to play here, too, in creating and maintaining a system for filing information of this sort.

This, of course, brings me to a final consideration. What can the program administrator do in a situation where the classroom teacher is the key to local-level needs assessment? I have a number of suggestions.

First, the system-level needs assessment is still needed in order to set the general parameters for the individual classes. The 'normal' student should be identified, and the needs of that 'normal' student identified as well. The better this system-level needs assessment is done, the less work there will be at the local level for the classroom teacher.

Second, the administrator should recognize that, no matter how well the system-level needs assessment is done, there will always, NECESSARILY, still be a mismatch with the needs of any particular class--a mismatch which the classroom teacher will need to identify and move to handle. After all, the norm is only the norm--each group of students is unique, and the classroom teacher has the task of identifying the precise needs of each unique group of learners. The administrator should not therefore insist that classroom teachers adhere unquestioningly to program-wide goals and objectives defined on the basis of a system-wide needs assessment.

Third, the administrator can support the classroom teacher in her attempts to conduct local-level needs assessment in a variety of ways. I have already hinted at some of these ways.

(a) The administrator can make it a matter of program policy that classroom teachers should administer a language needs questionnaire at the beginning of each class. A model of such a questionnaire could be provided to all language teachers. Results of questionnaires from previous classes could be saved and tabulated for the information of the classroom teacher.

(b) The program administrator could free one or two teachers every year to spend a few weeks going out into some of those situations identified as targets by large numbers of program students in order to obtain first-hand data on language use in those situations. Tapes of authentic interactions between native speakers in those situations, authentic written materials gleaned from those situations--all would be useful, both for the teacher's use in developing a syllabus and for classroom use in a learner-centered problem-oriented approach.

(c) The program administrator could arrange for the establishment and maintenance of a file of information on language use in target situations: tapes and transcriptions of tapes with marginal comments by the participants who were involved, authentic written materials, interviews with native speakers in those situations, course syllabi, and so on.

(d) The program administrator could arrange for the establishment and maintenance of a file of teaching materials, organized in terms of language function and forms used to realize those functions, and cross-classified in terms of situations in which those functions have been identified as useful. Since the outcome of local-level needs assessment usually involves the adaptation of the textbook by the classroom teacher, such a file of teaching materials would be very helpful indeed.

To summarize, in this paper I have (drawing heavily upon Tarone and Yule, 1989) argued that local-level needs assessment, executed and organized by the classroom teacher, is central to successful instruction in the ESL classroom. I have outlined some guidelines which the classroom teacher ought to follow in conducting a local-level needs assessment, and suggested a continuum of data-gathering techniques which might be used, ranged from least time-consuming to most time-consuming. Finally, I have suggested some concrete actions which program administrators might take to facilitate the work of classroom teachers in conducting local-level needs assessments.

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Toward collaboration as a viaduct for student/teacher interaction

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Independent School District No. 284

Using a case history approach, this paper describes one teacher's attempt to integrate theory and practice in an elementary English as a Second Language (ESL) classroom. Paulo Freire's problem-posing educational model (cited in Crawford-Lange, 1981) is viewed in its capacity to effectively incorporate the following theoretical premises: Language and culture form an inseparable unit; language learning may not equal language acquisition; language acquisition necessitates message-focused "comprehensible input" in a suitable affective environment (Krashen, 1984). A narrative of in-class experiences traces the development of teacher and learner in a collaborative decision-making process which juxtaposes features of behavioral and problem-posing curricular approaches, including those that are communicative, functional-notional, grammar-based, and content-based. Positive learner outcomes can include self-worth, critical thinking, full literacy, language acquisition, and learner autonomy, and potential positive teacher outcomes include fuller understanding of students and the collaborative nature of learning.

Despite a growing consciousness of the benefits to be reaped from an interactive learning environment, many of us have still to meet the challenge of integration into our own classroom situations. Apparently "fixed in an operational 'rut,' [we are unsure] just how to bridge that chasm, as it so often seems, between theory and practice" (Prendergast, 1987).

During a recent sabbatical leave of absence, I found myself particularly engaged by the idea of a problem-posing approach to education. I was deeply impressed by the humanism and potential of its dialogical, horizontal, and participatory orientation, as described in Crawford-Lange (1981). A problem-posing approach provides an insightful differentiation between the "act of knowing" and knowledge. The "act of knowing" is seen as the acquisition of information, skills, and knowledge with education being the "product" of creative proplem-solving on the part of learners and teachers, while knowledge is generally seen as a "pre-existing body of facts for consumption" (Crawford-Lange, 1981). By extension, cornerstones of this idea

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must be the development of responsible learner initiative and critical thinking, the practical application of which is thus delineated by Wallerstein (1983): "The problem-posing process directs students to name the problem, understand how it applies to them, determine the causes of the problem, generalize to others, and finally, suggest alternatives or solutions to the problem."

Defined thus, I found excitingly evident its inherent capability for practically translating my own theoretical persuasion that language and culture are inseparable in any real communicative event (where culture is seen as the expression of that peculiar and shared gestalt of a people, deriving from the dynamics of interacting beliefs, values, and behaviors). The explicit focus on real, meaningful, learner-relevant dialogue and material was also readily congruent with a theory of second language acquisition with which I had already experimented very successfully, via application of Terrell's *Natural Approach* and Asher's *Total Physical Response* in French and Spanish classrooms. The basic instructional emphases are summarized by Terrell (1982) as 1) providing comprehensible input; 2) lowering anxieties; and 3) creating opportunities to convey messages.

In discussing second language acquisition, Krashen (1984) has proposed that "acquisition is a far more powerful and central process than . . . conscious learning [which] serves only as an editor or monitor, making changes in the form of output under certain, very limited conditions." Acquisition itself results from *comprehensible input* (i.e., language which is significant for the learner as input, but just beyond the learner's reach as output) and attention to the message being conveyed versus its language conveyor. Hence language may be acquired most efficiently when the acquirer 'forgets' that he is listening to or reading another language entailing, of course, the concomitant existence of an affective environment capable of nurturing such an anxiety-free response on the part of the learner (Krashen, 1984). In other words, full access to another language would seem to be most effectively accomplished within its authentic role as a *tool* for communication and expression rather than as a *subject* for study; the latter may indeed produce knowledge, but does not automatically produce functional ability in the medium.

A stimulating year of study and reflection at an end, return to the classroom was to be more abrupt and bewildering than expected, and unaccountably, the old "chasm" still yawned! How to, where to, how much to, when to begin that "bridge?" With endless other demands, the task seemed nothing short of overwhelming. Pacifying myself rather unsatisfactorily with existing materials in my foreign language classrooms, I finally determined to fully commit to the challenge of creating new materials in at least one of my ESL classrooms. Indeed, as a student teacher fulfilling certification requirements in ESL, I was very fortunate to be afforded the opportunity, besides unstinting encouragement and support from both advisor and supervising teacher.

I began in early January, with assignments at the junior high and elementary school levels. Years of second language teaching notwithstanding, I found myself very apprehensive, particularly with regard to the elementary assignments. This would be a novel experience, not only in its unaccustomed curricular approach and instructional strategies, but also in terms of its group dynamics. I had never taught or even considered teaching below the seventh grade age range, and had never taught, except at the junior college level, to class groups of less than 15-20 (more commonly, 30-35) students.

My account will focus on a class of one; a 10-year-old, fifth grade girl from Central America, for considerations of privacy, to be referred to simply as "M."

The situation could not have been any more different from what I expected! Desperately grateful for a 2-week observation period to master clamant impulses to retreat to "safer" ground, I uneasily reported for duty minus the comfortable, well-used crutches of carefully-structured lesson outlines complete with preplanned exercises and activities, sufficing instead with a review of my own professional goals: to guide and help students (a) to value themselves and their potential contributions; (b) to develop their own capacities for critical thinking; (c) to accomplish full literacy; (d) to acquire an additional (not replacement) language-cum-culture so as to permit access to, as well as fruitful functioning and interaction within, the larger community and its various sub-groups (school, neighborhood, church, etc.); and (e) to command the requisite "access routes" to enable and accelerate learner autonomy. Calmed considerably in this redirection of focus away from myself, I bent to the task of intent, non-prejudicial "listening." What were M's goals, aspirations, interests, frustrations . . .?

However, two industrious weeks of observation only served to augment the quandary. I had, in fact, been witness to the undeniable and proud successes of an avid, highly intelligent pupil. She was happily functioning in a sensitively caring and anxiety-free environment within an exemplary systems-behavioral design. Fortuitously, in retrospect, there seemed no alternative but to begin work within this framework. It permitted me the interchange necessary to more accurately determine M's linguistic ability, preferred learning strategies, and degree of flexibility in exploring alternatives, while allowing much needed time for adaptation to a new teacher and development of a comfortable relationship between us.*

The next couple of weeks evidenced more time spent in progressively less-structured oral dialogue, with M's own interests and preoccupations increasingly pivotal in generating comprehensible input and output activities,

* See article in this issue by William Sims

which was rather effortlessly to lead to more shared decision-making as regards lesson content and form, and simultaneously less predetermination by linguistically-sequenced objectives. We gradually shifted classwork from the correspondingly organized texts--initially to independent homework assignments supported by in-class correction, and then eventually to discretionary, independent work, which would intrude on classtime only as requested by M (rather infrequently) for clarification of comments or corrections on returned worksheets.

Paralleling this process, we also tried the gradual implementation of a functional-notional approach, which was very useful in contextualizing M's superb linguistic ability. Conveying a sense of purpose-appropriate language versus a merely syntactically-driven lexicon, it would concomitantly reveal the inextricable weave of culture in such negotiation. In her chapter on "Curricular Alternatives for Second Language Learning," Crawford-Lange (1987) quotes the following questions proffered by Munby toward determination of functions and notions (content) for the learner: "Who is communicating with whom, why, where, when, how, at what level, about what, and in what way?" Clearly, answers to these questions must also embrace the cultural parameter.

An interesting dividend in our particular situation as we worked through such communicative intents as greetings and introductions, asking and answering information questions, making requests and excuses, *et cetera*, was the sometimes bicultural (yet monolingual) input available due to the American and English/West Indian backgrounds of supervising and student teachers, respectively. Of course, M's own cultural heritage and expertise were also recognized and valued, and again fortuitously, we were able to exploit my own experiences in acquisition of "Spanish as a Second Language," experiences of daily life within a related cultural context (South America), and experiences in the teaching of Spanish as a foreign language in the neighboring junior high school. Such oral dialogues would naturally find written expression and further exploration in M's weekly journal, as she compared, contrasted, and expressed her own opinions with regard to holidays, schools, home-life, and so forth.

At this point, she also looked back to her first month at School "X," recapturing some of the feelings and impressions for us. Before describing our first completely learner-engendered venture together and indeed what proved to be the beginning of a true "partnership" as co-learners and explorers, I should like to reproduce an unedited portion of this composition, illustrative of M's competence and written performance.

> *The first day of school was hard, strange, happy, pretty, boring and unhappy.*

It was hard because I couldn't understand any word what they were saying, strange because I never had been with a teacher (boy) never, happy because I was in another school of other country, pretty because always I loved when the first day started, boring because I couldn't do anything of the work, and I try to see what was doing my next to me, but I didn't understand anything, unhappy because I fell incomplete like somebody was mising en my school and house. . . .Now I fell that I can talk a lot more and understand better than before. I'm so happy. (Anonymous, personal communication, February, 1988)

It should probably also be mentioned that much of M's reading by this time (apart from a couple of exploratory library sessions together) was essentially unfettered and pursued independently for her own pleasure. An enthusiastic reader, she was reading copiously and across a wide range of subjects (biographies, detective mysteries, "Choose Your Own Adventure" stories, etc.), some of which she would voluntarily report on or discuss.

THE BEGINNING OF OUR COLLABORATION

Our collaborative venture was launched quite unexpectedly when pursuant to some activities centered around giving and asking directions, we extended our map work to a cursory review of the world map, locating major bodies of land and water. M was very disturbed by the continental divisions of North and South America, feeling quite sure that Central America had also been named as a continent by her teacher. I was somewhat slow to grasp how important this was to her, but she persistently returned to the topic, proffering one argument after another in refutation of my rather perfunctory and inadequate responses. Reluctantly and quite uncomprehendingly, I was forced to acknowledge M's distress, which seemed to encompass feelings of affront, alienation, and injustice. Chagrined at my own limitations and obtuseness, I promised to further investigate the issue with our science department at the junior high school, and directed myself more assiduously to my commitment as co-learner/explorer and listener.

Admitting that I might be on uncertain ground, I raised the question of whether the seven accepted continental divisions might not in fact be somewhat archaic, and asked whether she had ever heard of the theory of plate tectonics. Unsurprisingly, she had not. I attempted an explanation, at first rather tentatively, feeling a bit ridiculous, but rapidly warming to a subject I had always found very exciting. The end of our session together found me completely amazed. The turmoil had subsided for us both, supplanted by mutual excitement at the prospect of further delving into this fascinating area.

I immediately repaired to the school libraries (elementary and junior high), gathering as many books as I could find on the topic, irrespective of reading level. However, the most exciting source proved to be the junior high school science department, which, thanks to an accommodating earth science teacher, yielded not only excellent printed materials, but also a videocassette of the telecourse entitled "Planet Earth" (Metropolitan Pittsburgh Public Broadcasting & the National Academy of Sciences, 1986). Unbeknownst to us, we were about to embark on a 6-week project.

Reviewing our materials, we roughly separated the books and magazines into those which M and I would read outside of class and those which we would explore together in class. We began right away with pertinent articles in the January, 1973 issue of *National Geographic* (Camby, 1973; Matthews, 1973), utilizing the excellent pictures and illustrations to seed development of adequate schemata and an essential lexicon prior to viewing of the videotape. Reading also developed naturally in this way, as we supplemented pictures, captions, and the oral dialogue generated with relevant portions of text, sometimes silently, sometimes with one or other of us reading aloud. And as time progressed, this would extend to tangential excursions through a variety of other sources (see Appendix for some of the most frequently consulted).

The foregoing process thus preceded, occasionally interrupted, and succeeded our videotape viewing, which itself spanned a period of 2 to 3 weeks. We were to make full use of the advantages of a cassette recording during this time: frequently pausing for discussion, backing up and reviewing, or discontinuing to consult other sources, be it for supplementation, clarification, or simply to roam down a contingent pathway. We were fortunate, too, to have access to a large topographical globe, indeed one of our favorite and most fruitful resources.

Concurrent with our own undertaking, M had been hard at work on a research project in her regular classroom. On the day of her formal oral presentation in class, she reported breathlessly and was a bundle of nerves. On the one hand she was elated that the presentation had gone well, that she had been able to incorporate some of what she had learned about volcanoes in our investigations, and that her classroom teacher had been really very pleased; on the other hand, she was anxious that she was still speaking too quickly and afraid that her classmates might not always have been able to understand her. She determined then to include a more controlled rate of speech as one of the primary objectives for her oral report at the conclusion of our own project. The latter had been conceived in the very early stages of our inquiry, when our supervising teacher (Mrs. "X")--and a very special person for M--had warmly responded to our proposal; confiding to M how little she herself knew about the subject of plate tectonics, and in fact how interested she would be to learn more about it. Indeed, this anticipated outcome considerably informed our undertaking, as it became an added incentive for M not only to comprehend for her own information, but to also be able to communicate this new understanding to someone else.

THE FINAL REPORT

Concluding our joint excursion with some reluctance, M excitedly reviewed and prepared for her oral summation. It was a formidable task, as M was eager to convey it all: Earth's origins, evidence for plates and plate tectonics, boundary types and their relationship to earthquake belts, volcanic activity, and mountain formation, as well as anomalies of hot spots and mid-plate quakes. Armed with charts and globe, she nevertheless did a commendable job of both presenting and discussing in response to questions asked.

At this juncture, M would also decide to complete the project for herself with a formal written report. This resulted from her own initiative and despite our protest and clarification, due to her then heavy workload, that this need not be an outcome; but proud of her accomplishment, she apparently wanted to document it accordingly. This would likewise be entirely her own enterprise, completed out of class and submitted to Mrs. X less than a week later.

The report was limited to three aspects, divided into chapters correspondingly: "Plates Together," "The Hot Spot," and "Subduction." Unedited excerpts follow:

> *200 million years ago all the continents were join together. It was like a supercontinent. That supercontinent was called Pangea. It means all "land together." . . . .*
>
> *The hot spot is the middle of the world. . . . A very interesting thing, but, we're floating in the hot spot. We float because the hot spot is that hot that came liquid. . . .*
>
> *Subduction is when two plates go under. Like when two plates crush to each other and one goes under* (Anonymous, personal comunication, April, 1988).

Subsequent discussion and review of M's oral (taped) and written reports would again culminate in little anticipated expeditions in our learning partnership. Feeling much better at a marked reduction in her rate of speech, we were nevertheless to specify three objectives for continued improvement: rate reduction, distinct word boundaries, and final consonant emphasis. These would be charted daily according to her own awareness and effort, and in response to her own weekly goals (e.g., word boundaries and consonant emphasis: 25% awareness). Similarly, review of her written report would produce a written language objective for increased accuracy in past tense use entailing the *ed* inflection.

Thus we were to embark upon a course of lessons and activities, the very hub of which would now be language "the tool." With very little time remaining prior to M's return home and the end of the school year, she was anxious to exploit it to the fullest extent possible. Besides galloping through texts and workbooks, she continued to amaze me with her ready and fired responses to my often unsuspectingly casual enquiries. For example, after a routine journal review and discussion of (a) content, (b) organization, (c) past tense usage, I asked M whether there was anything else that she wanted me to look at or comment on. She was very quick to tell me there was: word order. She wanted to have feedback on this aspect of her language use as her own wording was too frequently rearranged by her American cousins. On another occasion: "Yes, we've been wondering for a long time about when you use *may* and when you use *can,* for example, . . ." Yet again, "I don't know if I really understand about imperatives," and so forth (Anonymous, personal communication, May, 1988).

However, despite the stated emphasis and pursuit of a number of specifically "language" oriented objectives, we were by no means limited to these. As M became increasingly at ease in co-directing her own educational process, we were to spontaneously devote several meetings to discussion of "problems" of significant issues for her. Unable, of course, to be more specific for reasons of privacy, these ranged across psychological, legal, political, and cultural questions, and were thus to naturally yield legitimate forums for applied language use in a variety of content (sometimes culturally-contrasting) areas.

There cannot reasonably be any direct inference of benefits of a *sine qua non* nature in attempting to qualify this particular educational experience for M. Certainly, M was tremendously successful in her ESL acquisition during her 7 months of school life, but just as certainly there were many factors, experiences, and people inextricably contributing to this overall result. However, I should like to summarize the positive benefits of a collaborative approach such as ours in terms of those aspects which seemed to enhance accomplishment of the following (previous amplified) educational goals:

1. Self-worth: the markedly greater opportunities afforded for responsible self-direction and collaboration in determining one's educational process. M may have been expressing this in her own way when she wrote in a farewell note, "I like being your friend. Besides all the fun we had it gives me a little status" (Anonymous, personal communication, June 3, 1988).

2. Critical thinking: implicit in the ongoing co-learner negotiation and evaluation essential to this approach.

3. & 4. Full literacy and second language acquisition: Accepting a definition proffered by Enright (1986) of communicative competence and full literacy as "one's capacity to construct and to communicate meaning across all of the settings one encounters and for all of the purposes one wishes to achieve," there are indeed several bonuses inherent in the collaborative process itself. Since a collaborative process involves ". . . intentionality, interest, and motivation on the part of the learner" (Winograd & Greenlee, 1986) it therefore increases the likelihood of a fertile affective environment. Its intrinsic flexibility also lends itself more readily to "meaningful" exploration of a wider range of contexts, including support of content area specific concepts and uses of language.

5. Learner autonomy: Acceleration toward this end also informs the process, with its emphasis on learner responsibility and initiative.

In looking back at my own response to our educational partnership, I too could echo M's sentiments, "I like being your friend. Besides all the fun we had it gives me a little status."

Once past the initial morass of panic, uncertainly, and discomfort--I did like it, it was "fun"! In fact, such was the unaccustomed aura that it was not long in provoking a precipitation of guilt. Surely I couldn't be doing my job, a serious business of the well-planned, well-controlled dispensation of knowledge to its variously interested or disinterested recipients. Indeed, I was doing my job, by far a more demanding and challenging one for my profession!

As never before, the teacher must be prepared, not just for execution of Lesson 4, Unit II, but also for using a fully functioning knowledge of one's subject matter, its available resources, and supporting resources in order to apply authentic language in the construction and communication of meaning. The task of communicating meaning or comprehensible input (as earlier defined, would for me constantly demand the fullest employment of my linguistic expertise and powers of perception. This alertness and acuity had also to be harnessed in sustaining an appropriate environment. Such an environment defies specification. It is dynamically capable of promoting discovery and learning, flexibly assessing, adjusting (deleting, incorporating, deviating, circumventing), and reassessing in response to student input; it is amenable to the uncertainties of exploration, its successes and defeats; it is capable of nurturing critical thinkers in an "evolutionary process" of the "act of knowing" (Crawford-Lange, 1981).

Indeed this *job*, with its requisite of professional competence does give me *a little status*, the status of constructive autonomy versus that of passive automaton. It gives the impetus for development and improvement, previously superfluous. It underlines the dialectical interaction between teacher and learner.

The intent of this discourse has not been to provide a blueprint for a particular curricular approach or method of instruction. Rather, as entitled, the paper points toward collaboration as a viaduct for teacher/student interaction in management of the teaching/learning processes, thereby enabling us "to teach from learners rather than at them" (Bernhardt, 1986), and learners to access positive, task-oriented strategies as opposed to "strategies aimed at avoiding failure" (Winograd and Greenlee, 1986).

My own experience has led me to appreciate the validity of Paulo Freire's observation that "experiments cannot be transplanted, they must be reinvented" (cited in Wallerstein, 1983): reinvented by each uniquely-composed unit of teacher(s) and student(s). An interactive operational matrix, in its ability to specifically account for the who, where, when, why, and what of the situation, could provide a viable mechanism for determination of the *how*. By definition, it also has the capacity to register and respond to the *evolutionary* nature of the process, progressively complementing, eliminating, reinstating from among the array of alternatives (curricular or instructional) as appropriate and functional for the individual unit. Indeed, ESL teachers might find exploitation of such a framework particularly useful in addressing the dilemma of multi-level and frequently fluctuating student populations.

The purpose of this article will be served should others also be motivated to "bridge the gap" toward the establishment of a fertile learning environment, resulting from teachers and students working together in pursuit of a common goal.

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APPENDIX

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Fossilization and learning strategies in second language acquisition*

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In interlanguage, the transitional state reaching from one's native language to a given target language, phonological, morphological, syntactic, lexical, socio-cultural, or psycholinguistic errors may be generated and systematized by the process of fossilization. Depending on the amount of time needed for remediation, fossilized features may be considered either "hard" or "soft." Fossilization may arise from the application of false learner hypotheses, or it may have neuro-linguistic, socio-affective, or instructional origins. Language learning strategies are devices which are employed to process incoming target language data in instructional situations, and which are thought to facilitate deep cognitive processing, hence more thorough learning. Such strategies may be metacognitive (involving reflection on the learning process, planning for learning, monitoring the learning task, and evaluating performance), cognitive (involving mental or physical interaction with the material to be learned, or the application of a specific technique to a given learning task), or socio-affective (interaction with another person or the use of affective controls to facilitate a learning task). Proceeding from a sampling of the literature, links between fossilization and language learning strategies are suggested, as are implications for pedagogical praxis and an agenda for further research.

FOSSILIZATION

According to psycholinguist John Schumann, a major difference between the processes of first and second language acquisition is that all normal human beings achieve proficiency in their native language, yet exhibit great variation in the degree to which they acquire second languages (Schumann, 1975). This variation among second language learners has been studied from varied perspectives. One especially rewarding line of inquiry is enunciated in Corder's "The Significance of Learners' Errors" (1967), in which the author suggests that a central task of a second-language learner is to test the following hypotheses: "Are the systems of the new language the same or different from those of the language I know?"

* In this discussion, the terms "second language learning" and "second language acquisition" will be used interchangeably.
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and "(I)f different, what is their nature?". Further, Corder maintains that a deeper understanding of hypothesis testing in the second language acquisition process could be gained from analysis of the systematic errors committed by learners (as opposed to random "mistakes" made by speakers of any language) along the continuum from their native language to a given target language.

Proceeding from Corder (among others), Selinker (1972) has developed the concept of "interlanguage" (IL) to more clearly describe the learner's transition from native language (NL) to target language (TL). In his description of interlanguage, Selinker addresses the problem of nonrandom learner errors which tend to recur in one's IL, despite attempts at eradication. The process by which such persistent, systematic interlingual errors are generated is called "fossilization," around which topic the present discussion will revolve.

Definitions and perspectives

In general terms (see Selinker, 1972), fossilizable phenomena are language features, rules, or subsystems (phonological, morphological, syntactic, lexical, socio-cultural, or psycholinguistic in nature) which speakers of a given NL tend to preserve in their interlanguage *en route* to a particular TL. One might suggest two disparate perspectives concerning the relative permanence of fossilized features. A "hard" perspective would see fossilized features as being, for all practical purposes, irremediable. No amount of explanation or instruction in the TL would appear to make much difference. On the other hand, a "soft" perspective might represent fossilization in terms of learning plateaus, where development of given TL features is simply "arrested" or "inhibited" for shorter or longer periods of time, depending on changes in instruction or learner attitude/motivation (as suggested by Canale, 1987).

In the face of such a distinction however, there is much intuitive appeal in the broader notion that the "hard" and "soft" views of fossilization really represent varying degrees of the same thing. At one end of the spectrum, fossilized features would seem but moderately tenacious, whereas at the other end, such features would appear resistant to most every sort of remedial effort. The key to "hardness" or "softness" in this broader view of fossilization seems to be *time* . In other words, degree of fossilization may be described in terms of the relative amount of time necessary for remediation of systematic errors in interlingual development. If a systematized IL error requires more remediation time than is practically available, it could be considered an example of "hard fossilization." Conversely, if a systematized error requires relatively less time to be eradicated, it could be considered an example of "soft fossilization." Whether fossilization is perceived as soft, hard, or immutable, it might prove useful to turn to an assortment of general perspectives.

Beginning with Corder (1967), much attention has been paid to the notion that second language learning consists mainly in the testing of learner hypotheses. If in fact hypothesis testing is one of the most central processes in second language acquisition, where might the fossilization concept be applied? Recall Corder's suggestion that learner hypotheses are chiefly concerned with the degree of similarity or difference between a learner's NL and the TL in question. One might argue then, that if a given learner has formed an incorrect hypothesis during interlingual development (that is, if one has perceived a similarity between NL and TL which is not really there), the potential for systematic error is immediately introduced. If the same learner attempts to apply such an ill-conceived hypothesis, an error of production will result in that learner's IL. Further, if the incorrect hypothesis is not replaced with one which is more nearly in line with the TL norm, the attendant production error will fossilize, that is, be systematized in the learner's IL.

There are other perspectives, of course. According to a number of scholars (among them Jakobovits, 1970; Selinker & Lamendella, 1978; Walsh & Diller, 1981), neurolinguistic factors may play a role in the fossilizability of features in IL. As learners grow older, it is argued, there may be a "loss of plasticity" in the brain, which could well ensure that numerous TL norms will never be achieved. This notion might account, by way of example, for the familiar "foreign accent" phenomenon (fossilization of IL phonological features) in most adult second language learners.

Attitude and motivation are widely considered critical factors in second language acquisition. A number of recent studies have linked these two factors (either explicitly or implicitly) with fossilization. For example, in her discussion of second language learners and risk-taking behavior, Beebe (1983) maintains that as a result of risk-taking situations where learners perceive high risk/low gain, IL structures can fossilize. That is, learners experience a *motivational crisis* because they adjudge a certain kind of situation to be a poor gamble; hence they will not attempt TL features of which they are unsure. Consequently, learning (with regard to these uncertain features) stops at a certain point in IL. Beebe notes a related phenomenon among learners living temporarily abroad, such as missionaries or Peace Corps volunteers, who tend to master the minimal TL corpus requisite for comfortable existence in their impermanent surroundings. Once mastery of this minimal corpus is complete, acquisition effectively stops. Beebe suggests that this sort of fossilization may be related to learners' unwillingness to take further risks. In a related study of competitiveness and anxiety, Bailey (1983) opines that IL development may be inhibited (i.e., features may fossilize) by high levels of stress stemming from the need to function in a second language at a performance level higher than one is really able to maintain. Consequently, learning can be drastically impeded, or may even cease.

On the other hand, such a cessation of learning (resulting in fossilized IL features) may not necessarily involve risk-taking or stress at all. Selinker (1972) refers to what has been called a "strategy of communication." According to Selinker, the suggestion proceeds from Chomsky's notion of "linguistic competence" (one's language capability, as distinguished from "linguistic performance," one's actual language output): When a second language learner determines that no more TL need be acquired for communication, learning stops. Similarly, Terrell (1988) has formulated a "communicative needs hypothesis," which "claims that the degree of communicative need determines the level of attainment in the target language," that is, "those who fossilize at low levels (in their IL) have fewer and less complex communicative demands than those who . . . acquire a richer and more expressive version of the target language."

In a fairly broad survey of affective factors involved in second language learning, Schumann (1975) stresses the importance of one's incipient relationship with the target language and its culture. In natural settings (and possibly in certain classroom settings) a language learner (as "alien") must undergo a process of "dealienation" or "redomestication." During the process, the learner will suffer three types of disorientation: *language shock*, *culture shock*, and *culture stress*. Language shock involves problems of correctly identifying referents, dealing with dissimilarities between NL and TL visual images, and general feelings of shame or inadequacy. Culture shock is, quite simply, the anxiety inherent in a learner's dealings with a new culture. Culture stress centers around long-term questions of personal identity. Any one of these disorientations might engender negative attitudes toward oneself and the target language and culture, inhibit the processes of language learning and acculturation, and ultimately result in fossilized linguistic and socio-cultural features.

Culture is also the prime factor in Terrell's (1988) "target language group identification (TLGI) hypothesis," in which a learner wishing to reap all the benefits of membership in a new culture must desire to become an indistinguishable member of the TL social group. Since, for numerous reasons, most adult second language learners would not tend to fit this category, the TLGI hypothesis predicts that in general, adult learners will fossilize far short of targeted (linguistic and cultural) norms.

Fossilization can play a role in the consideration of second language teaching methodologies, as well. In their article "The Push Toward Communication," Higgs and Clifford (1982) discuss fossilization with regard to those learners at Government language schools who appear to be hopelessly stranded on various sorts of developmental plateaus. Higgs and Clifford have designated such learner types "terminal" cases, attributing this phenomenon to linguistic "proactive interference," where the prior learning of language task A interferes with the subsequent learning of language task B. They note further that, in their experience, the terminal profile is typically "high vocabulary/low grammar," suggesting that these learners have been affected by prior language experience of some informal nature (language task A), such as "street" learning in the target culture, which then inhibits their progress in formal classroom instruction (language task B). Further, Higgs and Clifford suggest that proactive interference might also be a factor in contemporary approaches to second language teaching which place a premium on communication, often at the expense of accuracy. They reason that, under such methodologies, learners will tend to fossilize at relatively low levels, because systematic errors in their IL will usually go unremediated.

Another aspect of the fossilization question is suggested by recent discussions in the second language literature focussing upon "language learning strategies." Their possible relationship with fossilization (see III. below) will be explored subsequent to a brief consideration of the learning strategies concept itself.

LEARNING STRATEGIES

To facilitate second language acquisition in a classroom situation, learners employ numerous devices, frequently called "language learning strategies." The primary function of such strategies is to enable learner comprehension, memory, and use of new language information and skills (Cohen, 1988; Chamot & Küpper, 1989; Oxford, Lavine, & Crookall, 1989).

The concept of learning strategies has appeared under sundry guises. By way of example: Corder (1967) uses the phrase "strategies of learning" to refer to the process of hypothesis testing which learners carry out with regard to the nature of their first and second languages. Tarone (1983) regards learning strategies as one's attempts to develop TL linguistic and sociolinguistic competences which may then be incorporated into one's IL. In her Freirean, problem-posing approach to language curriculum, Crawford-Lange (1981, 1987) addresses learning strategies as devices which arise from the dialogical relationship between teacher and student. Through these and an array of other perspectives (e.g., Beebe,1983; Bialystok, 1979, 1983; Chaudron, 1988; Færch, 1985; Seliger, 1983; Selinker, 1972; Wenden, 1986; Wesche, 1979), there runs a common thread: the manner in which learners think and behave in order to deal with incoming TL data in instructional situations.

Research suggests that learning strategies operate on several levels (Oxford, 1986; Chaudron, 1988; Chamot & Küpper, 1989). A number of investigators have developed detailed taxonomies of language learning strategies (O'Malley, et al., 1985a; Oxford, 1986; Wenden, 1986; Oxford, Lavine, & Crookall, 1989; and others). One such taxonomy has been constructed by Chamot and Küpper (1989), and is divided into sections for *cognitive, metacognitive,* and *socio-affective* strategic behaviors (an abbreviated adaptation of the taxonomy is appended).

Typically, cognition refers to procedures which the mind uses to process information, that is, recognizing, remembering, thinking, problem-solving, and so forth. In second language learning, one might relate cognition to the processing of verbal and/or visual input which language learning tasks might require. Chamot and Küpper (1989) describe cognitive learning strategies in terms of interactions with the material to be learned, which may involve mental or physical manipulation, or the application of a specific technique, en route to completion of given learning tasks. A typical cognitive strategy is "inferencing," where prior knowledge and other available information are used to deduce meaning/usage of unfamiliar components in a given language task, to predict outcomes, or to supply information which is missing (Bialystok, 1983; Chamot & Küpper, 1989).

In general terms, metacognition is thinking about thinking (Glover & Bruning, 1987). In the realm of second language acquisition, metacognition would involve learners' thoughts about the process of their own second language learning. Metacognitive learning strategies include behaviors, largely self-regulatory, which involve reflection on the learning process, planning for learning, monitoring of learning tasks, and evaluation of performance (Chamot & Küpper, 1989). Metacognitive strategies would relate then, to one's self-questions: "How do I learn languages? What sorts of things help me learn best? How am I doing with this task? How did I do on the task I just completed?" For example, in the Chamot and Küpper taxonomy, a metacognitive self-evaluation strategy would involve checking one's work when the task was finished, and then evaluating: 1) one's overall performance of the task, 2) one's ability to perform the task, 3) the strategies one has used, and 4) how much one really knows of the TL at any given level (word, phrase, etc.).

Socio-affective learning strategies might include interaction with another (likely a teacher or peer) to expedite learning, or the use of affective control over one's own learning behavior. Typically, one might ask another for verification, explanation, or feedback on one's own performance; or one might use techniques for one's own anxiety-reduction and self-reinforcement (Chamot & Küpper, 1989; Oxford, Lavine & Crookall, 1989).

Having briefly discussed the concept of "language learning strategies" and noted some typical strategic categories and types, a logical question would be: "How might learning strategies facilitate language acquisition?"

Strategies and cognition

One answer arises from information-processing theory in cognitive psychology (Wesche, 1979; Cohen, 1988). It has been suggested that memory is a function of *depth of processing* , that is, the more deeply or carefully learners analyze new information, the more likely that information may be recalled over time (Glover & Bruning, 1987). Processing and analysis make information more *distinctive* in its context, hence more easily recalled. A related idea is that of *elaboration* : As learners use more and more varied methods of encoding new information, memory and recall of that information should improve. The key to memory as related to depth of processing, distinctiveness, and elaboration is what learners actually *do* with the material they are attempting to learn.

The application of more and varied learning strategies to given tasks (elaboration) would result in deeper processing and greater contextual distinctiveness, hence more accurate and thorough learning. Cohen (1988) suggests that it is elaborate processing which causes TL "input" (teacher presentation, explanations, gestures, materials, student questions, etc.) to become "intake" (comprehension of TL data leading to learning). Consequently, IL features arising from the successful application of language learning strategies should more closely resemble corresponding TL target norms.

The notions having been discussed individually, a relationship between fossilization and language learning strategies may now be proposed.

FOSSILIZATION AND LEARNING STRATEGIES

The relationship between fossilization and learning strategies has received minimal scholarly attention (E. Tarone, personal communication; L. Selinker, personal communication). Proceeding from the discussion of learner hypotheses in Corder (1967), one might suggest that someplace along the IL continuum, inappropriate or misapplied learning strategies could lead to fossilization of some features (phonological, morphological, syntactic, lexical, psycholinguistic, or socio-cultural). Selinker (1972) maintains that systematized errors could likely arise from the use of learning strategies in IL, although the exact nature of the process is not discussed. Cohen (1988) also suggests that the repeated use of unsuccessful strategies (i.e., those strategies which do not enable completion of a given language-learning task) could impede a learner's progress.

One might suggest that the process of "fossilization-through-learning-strategy-use" could operate as follows: A learner has reached some conclusions about effective second language learning, based upon NL metalinguistic awareness, prior NL instruction, current TL instruction, or general knowledge. These conclusions manifest themselves in cognitive, metacognitive, or socio-affective behavior which the learner feels will facilitate learning. So far, so good — but there is evidence for what one might call a "specificity factor" inherent in language learning strategies; that is, learning strategies tend to be task-, context-, situation-, or learner-specific (Chamot & Küpper, 1989; Cohen, 1988; Oxford, 1986; Politzer, 1983; Wenden, 1986). Perhaps then, if a given strategy is inappropriate (e.g., having been derived from another task/context), and is repeatedly applied by a learner (perhaps through ignorance of its inappropriateness), successful completion of the language task at hand could tend to be inhibited rather than facilitated. If the inaccurate strategy in question is never identified/remediated, the TL features touched by the strategies could tend to temporarily or permanently (for all practical purposes) fossilize.

The situation might become yet more complex if there were prior instruction in a different foreign language. Based upon previous experience in another TL, the learner may assume that a once-successful strategy will again be successful in the context of instruction in a new TL; but because of the specificity factor, the old is inappropriate for the new. Learning is inhibited, perhaps sufficiently for IL errors to systematize. Similar complexities might arise if any prior instruction were under a substantially different methodology (say, a grammar-translation or audio-lingual approach) than the methodology operant in the current learning situation. If certain strategies were methodology-specific, strategy transfer would be inappropriate. Of course, if prior instruction were in a different TL *and* under a different methodology, chances of strategy misapplication could increase further still.

Research suggests that *frequency* and *type* of strategies used can also affect language learning (Wesche, 1979; Oxford, 1986; Cohen, 1988; Chamot & Küpper,1989; Oxford, Lavine, & Crookall, 1989). For example, in their recent discussion of the Learning Strategies in Foreign Language Instruction Project, Chamot and Küpper (1989) report that higher level learners tend to use more and more varied strategies than lower level learners, and that more effective learners tend to use more and more varied strategy types than less effective learners (which they suggest is in keeping with previous "good learner" research). It would seem to follow, then, that the use of fewer and less diverse strategy types could leave learners in the "less effective" category, perhaps with a number of systematized IL errors still short of TL norms.

Conclusion

Although the discussion of fossilization and learning strategies is, at the moment, chiefly theoretical, it does have some implications for *praxis*. Certainly, the fossilization literature suggests possibilities for understanding the origins of systematized interlingual error. The strategies literature urges a shift of pedagogical focus from language *teachers* to language *learners*. The proposed relationship of fossilization and learning strategies, given a cognitive frame of reference, could be a key to the remediation of systematized errors, as the role of learner information processing in the second language acquisition process becomes more clearly understood.

Of course, much careful thought and investigation will be necessary before any substantial conclusions can be drawn. The possible use of learning strategies to remediate fossilized IL features will require further research, as will the relationship of time with fossilization and language learning strategies. For example, the tenacity of erroneous or misapplied hypotheses could be described in terms of the time required to identify them and to replace them with accurate hypotheses. In dealing with the neurolinguistic effects of age, the time required to devise and apply compensatory techniques (such as teaching of skills for using kinesthetic memory to deal with the "foreign accent" problem) might be discussed. The amount of effort needed for learners to improve levels of attitude and motivation in regard to target language (and cultural) learning tasks could be described in terms of requisite time. Similarly, fossilization stemming from types of prior learning or from the misapplication of learning strategies might be seen alongside the measure of the time needed for their identification and remediation. Other topics for further research might include: the transfer of learning strategies from L1 to L2 to L3 and the effects of similarities/differences between languages; the joint operation of metacognitive strategies as sort of "strategy monitor;" or the application of the "compensation hypothesis" (Cohen, 1988), where learners lacking adequate TL strategies rely on NL strategies more than they do in NL learning. It will be of great interest to see what practical and theoretical insights might be generated by further research in these areas.

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APPENDIX

Inventory of Language Learning Strategies (adapted from Chamot & Küpper, 1989)

Cognitive strategies:

Repetition (repeating a word or phrase during a language task)
Resourcing (using dictionaries, textbooks, prior work)
Grouping (ordering, classifying or labeling common material in a language task)
Note-taking (writing key words/concepts in short verbal, graphic or numerical form)
Deduction/Induction (applying learned or self-developed TL rules)
Substitution (selecting alternative approaches, plans, words, or phrases)
Elaboration (relating new material to prior knowledge, relating components of new information, making personal associations to new information, etc.)
Summarization (making mental or written precis of task-related language/information)
Translation (verbatim relating of ideas from one language to another)

Transfer (using previously learned linguistic knowledge to facilitate a new language task)
Inferencing (using available information to guess meaning/usage of unfamiliar items, predict outcomes, or fill in missing information)

Metacognitive strategies:
Planning (using advanced organizers, proposing strategies for a given task, anticipating necessary parts, sequence, main ideas, or language functions)
Directed Attention (deciding to attend in general to a learning task; maintaining attention)
Selective Attention (deciding to attend to specific aspects of TL input; attending to input during task)
Self-management (understanding/arranging for conditions requisite to task success; controlling performance to maximize use of prior knowledge)
Self-monitoring (checking, verifying, correcting comprehension / performance during language task)
Problem Identification (explicitly identifying central unresolved facet of task)
Self-evaluation (checking performance outcomes, language repertoire, strategy use, or task abilities)

Socio-affective strategies:
Questioning (requesting explanation, verification, rephrasing about materials or task; self-questioning)
Cooperation (working with peers to solve problems, pool information, check learning task, model an activity or obtain feedback)
Self-talk (using mental techniques to reduce anxiety)
Self-reinforcement (providing motivation by arranging personal rewards for task completion)

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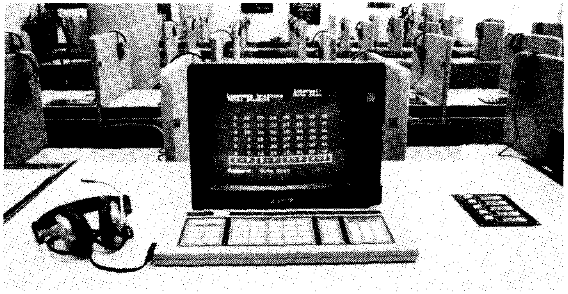

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