Job Ad

Jorgon

Our employees know of this ad. Nobody else will touch this job.

Experienced in oral communications. May of our people can't read.

Where's your sleeve performer? We don't have air conditioning.

Salary is open.

Open to ridicule.

Stimulating environment. Flash hut as saunas in summer.

Offering excellent visibility. You don't get a private office.

Ground-floor opportunity. We won't pay much.

Heavy projects experience. Nice home to hermione.


Good track record. Faster than Irene customers.

assemble words into sharp sentences

build strong paragraphs

use business-like formats

On the Move is not about report writing, job hunting, English grammar, advancement in business, or how to keep your shop or office peaceful and productive. It is about the communicative aspects of business—the various situations and relationships, problems and solutions involved in sending and receiving work-related information.

Much has been said in past issues of this Newsletter about Tom Kiegl's other book, Technically, in which he states that his book is based on that book and uses its title. Technically, writing, however, is only a sub-set of business communication. To get "the big picture," read On the Move. As a matter of fact, everyone in business should read On the Move. It makes the reader aware that most work problems basically involve communication problems and it shows how difficulties can be avoided. Also, it is as pleasant to read as a notice of salary increase, as diversified with sub-plot stories as a Victorian novel, and as instructive as a World Fair exhibition.

Patterson Speaks to ASEE Section

The following remarks were made by Tom Patterson, PC's President, at the Mid-Atlantic Section Meeting of the American Institute for Engineering Education held at General Electric Company's Management Development Institute, Croton-on-Hudson, New York, May 5, 1975. Tom was then Manager of Technical Communication at GE's Laboratories, Waltham, Massachusetts. He took part in the ASEE meeting as one of four panelists, two from industry and two from academia, in a session called "Communication Skills: In the Recent Engineering Graduate Sufficiently Skilled?" Other panel members were: R. Jebs, Union Carbide Corporation; J. Schubin, Pennsylvania State University; D. G. Andrews, Drexel University.

I am a professional communicator in industry. My main function is editing. I manage a group which type, illustrates, and publishes company reports. But part of my assignment is to read everything that leaves GE Laboratories—articles, papers, reports, etc. These are prepared by engineers or scientists on a wide variety of subjects. In general, the writing comes from very good to very bad, and in general, the scientists write better than the engineers.

The reason for this difference may be that scientists tend to be more concerned with ideas and to explain their ideas in writing, whereas engineers tend to work with hardware and drawings and have less incentive and opportunity to write.

At GE Labs, scientists and engineers are encouraged to write by receiving a $500 honorarium for each paper published. As far as I know, we are the only major laboratory that pays honorarium. At Syracuse, a GE subsidiary which employs mostly engineers, the honorarium has just been raised from $100 to $200, but still very few Syracuse engineers submit papers.

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Send Form 3579 to IEEE, 345 East 47th Street, New York, New York 10017

IEEE PROFESSIONAL COMMUNICATION SOCIETY NEWSLETTER

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No. 3

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Together, the 50 engineers and 150 scientists of GTE Labs publish approximately 100 papers a year. The scientific's version of the whole is, good, the engineer's only fair, but all improve with practice and continued, long experience, recent engineering graduates in general write poorly. The scientists who come to GTE with advanced degrees, and also some writing experience, write better.

That of instruction in writing at colleges and universities? At the University of Virginia in the 1900's, an electrical engineer was required to have 150 course-credits to graduate. Of those 150 credits, 25 were in English. There were no electives. English consisted of one 1-hour course for each of eight semesters covering writing, literature, and speaking. Virginia now specifies only 12 hours of English for the same engineering degree. Even though a senior thesis is still required, the English department does not review it. And even though Virginia has elective courses in English, I doubt if those engineers who need the most help with writing choose to take such courses.

Many of our colleges and engineering schools have "screencraft" courses in writing—that is, all engineering students take a writing aptitude test, and those who score low must take and pass a remedial writing course. This seems to be one solution to the undergraduate writing problem, but more satisfactory results could be achieved by paying attention to the "lower" education of far younger students.

A recent article in the New York Times (April 20, 1978) Education) explored the writing dilemmas in depth, concluding in part that today's young people are audio-visual oriented—to radio and TV, they do not read nearly enough of the classics which would expose them to good writing and thought. Part of this prob-
Letter from the Editor

While PC's Transactions concerns itself with big problems like copyright, phonetic spelling, graphics, and satellite-assisted publication, this newsletter has begun to consider more mundane questions.

What are the personal communication interests of PC-users?

Can we do anything specific to help engineers write for the English speaking world?

Can we better understand the technical activities of other IEEE Societies?

Who else, besides PC-users, cares about quality in communication?

The conference was called primarily to define problems. Once you seek in the Fall to explore solutions, I hope you won't waste time by allowing industry and academia to point fingers at each other. That has already been done many times.

The basic difficulty is that we have let our elementary and secondary school system fall--they are providing inadequate education. We insist that they teach basic reading and writing.

Our tests now are in college, and I haven't seen much attention lately to elementary and secondary education, but I'm not of a mind to argue about that. Thirty-three states now have some form of minimum-competency laws, and the courts are starting to say that what the U.S. Congress is considering a national minimum-competency law. There is little chance that such a law will succeed. Perhaps education is one of the last bastions of states' rights; but the possibility at least alerts us to the national character of the problem.

Tests now being given to high school seniors cov-er basic reading and writing skills. They include how to read a bus schedule, how to fill out a job application, how to apply for a social security card, how to balance a checkbook, how to read a bank statement. Eighteen percent of high school seniors are failing these tests. In Florida, if they fail, they don't graduate; in Maine, they graduate whether they fail or not. You, members of AEE, are expected to educate these people who can't read. I, a member of industry, am expected to hire these people who can't write.

The costs to industry are becoming excessively high--for errors, for rework, for special training, for correcting faults in reading and deficiencies in writing. Remedial measures are necessary.

I am organizing a technical writing course, in-house, administered by Northeastern University; our company will pay to improve employees writing skills.

I have organized a Toastmasters Club. The company pays all expenses, supplies a room, and gives time off to help employees improve speaking skills.

The employees who need this help aren't the 10% that John Chalmers was talking about. These are scientists and engineers with bachelor's, master's and doctor's degrees. They have good ideas but often cannot express them very well.

Managers often spend extra personal time to help these scientists and engineers improve their writing and speaking skills. But there is a need for some instruction for that should have been given years ago.

Incidently there is a high correlation between being elevated to manager and having communication skills. I have observed this--and it is logical.

The Newsletter of the IEEE Professional Communication Society is published quarterly by the Professional Communication Society of the Institute of Electrical and Electronics Engineers, 345 East 47th Street, New York, New York 10017. Subscription rates are $2.00 per year to members and $5.00 per year to nonmembers.

Personnel and organizations receiving this Newsletter are welcome to circulate and reprint portions of it. Please acknowledge the IEEE Professional Communication Society and the original sources cited.

The Silent Language shows us and other systems that a message can be conveyed without words. This message is transmitted through gesture, and technically through language. Knowledge about a society's attitude toward learning communication is essential in the planning of educational programs. Formal instruction, however, gives informal instruction, and provides formal education. The Silent Language shows these and other methods of communication.

Similarly, concepts of comfort, use of natural resources, and technology itself are seen as the for- mer's use of natural resources. On a housing project, for example, the presence of a sharply dressed, well-groomed executive is likely to suggest that the project is well-managed.
Culture Communicates

The Silent Language—Edward T. Hall (New York, Doubleday Anchor Books, 1973, pp. 217-218), explores the nature of what he calls "the code of conduct" or the "language" that governs human behavior. He defines culture as "the output of society" and communication as "the means by which society is transformed into meaning." This book is a classic in the field of intercultural communication and provides a framework for understanding how people from different cultural backgrounds interact.

The Silent Language presents the concept of "frames" as a way of understanding how different cultures communicate. A frame is a mental model that structures our perceptions of the world. Different cultures have different frames, which influence how they interpret and respond to the world around them.

According to Hall, the activities and languages of culture are as follows:

- **Activities**
  - Immediate
  - Social
  - Organizational
  - Technical
  - Commercial
  - Educational
- **Languages**
  - Verbal
  - Innate
  - Body language
  - Environment

Ad Com Meeting

PC's Advisory Committee met on June 15 at IKEA Headquarters. The committee's pet projects of business transactions and announcements are as follows:

1. **Appointments**—John Phillips as chairman of the Marketing Committee, Pat McIlvee as liaison to Society for the Advancement of Management, and Ed Taylor as head of Editorial Advisory Board, Dean Roche as Ad Com member to fill 1979-80 term left vacant by resignation of Jane Dawson.

2. **Resignations**—have opened two positions on PC's Advisory Committee. These positions will be filled by the following:
   - Six members who have agreed to be Area Representatives were sent the names and addresses of "local" PC areas. See separate article.

3. **Membership**—are open to all members. See separate article.

4. **Transactions**—are open to all members. See separate article.

PC's Transactions

The Transactions of PC's meetings may be found in the journal. For example, the following meeting was held on June 15, 1979, at IKEA Headquarters, 1574 E. 7th Street, New York, NY. Friends of PC and PC members-at-large will be welcome.

Area Representatives

PC's Transactions have been made for the area representative of your area. For example, if you are interested in the work of the American Library Association, then you should contact the representative for that area. If you are interested in the work of the American Psychological Association, then you should contact the representative for that area.

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Welcome To PC!

New members of PC who joined us in April, May, and June came from 15 states. Welcome to all! How many will be active PC-users? Remember that you get more benefits by doing more work.

Australia
J. K. Wyler
M. G. Duncan
G. M. Thoma
Brazil
M. A. Sohn

Canada
A. R. Lanza
S. L. Bacalapura
J. G. Sants
E. Peppers
El Salvador
H. Toscano-Diaz

England
B. R. Harrington

Finland
J. J. Ojala
T. Kari
F. Ahlback
S. J. Soera
S. Musial

England
A. A. Salmian

Education Committee

California
G. O. Young
B. A. Fankel
C. J. Scott
E. A. Calvins
A. M. Allen

Connecticut
C. J. Miller

Florida
R. K. Schwartz

New York
J. E. Brandin
B. L. Barnard
T. W. Thayer.

New Jersey
J. S. Blegen
D. A. Silver

New Mexico
J. S. Blegen

Oregon
A. R. Abd

Pennsylvania
G. O. Derham

Texas
F. J. Sawicki

Virginia
E. R. Worthington

Washington
C. D. Robinson

Massachusetts
S. J. Robitaille, Jr.
J. F. Ladd

Self-Interest

PC needs
1. Addison members.
2. Area representatives.
3. Instructor/markers for home-study course, technically-written.
4. Artwork for Transactions cover.
5. Articles for Transactions.

By helping to fill one of these needs, YOU can benefit in four ways: through your technical specialty, Call or write to a PC officer or chairman and learn how to obtain personal satisfaction added personal accomplishments increase professional competence improve personal change.

Working actively for PC will help YOU on the job and off the job, as it helps others.

Gold Mine


Seigel's Encyclopedia is advertised as "500 books in one"—each "book" is a long chapter. More conveniently, the volume may be thought to contain a dictionary and a dictionary for each of nine aspects of the English language:

grammer usage pronunciation rhetoric

Gold Mine

Education Committee

Ron Skler, Education Chairman, reports that 60 persons have enrolled this year in PC's home-study course, "Technically-Written." Deity have completed all course requirements. Information about the course is available from IEEE sections and PC officers, or write to Ronald D. Skler, 115 S. College, San Diego, California, 92112.

You will hold a half-day seminar, "Communication Guidelines for Engineering Managers," as part of the Joint Engineering Management Conference in Denver, October 16-18.

You will also chair a program session, "Teaching Technical Writing/Communication to Engineers," at the Frontiers in Education Conference at Lake Buena Vista, Florida, October 23-25. The PIE Conference is a joint effort of the IEEE Information Group and the AMEE (American Society for Engineering Education).

As a speaker in Ron's PIE session, Dan Rose, PC's Secretary, will discuss the role of professional societies in developing engineers' communication skills and the work of PC in engineers' continuing education.

Immediately after the PIE Conference—that is, October 25-27—Ron and I will give the two-day workshop, Technical Communication and Report Writing, which is sponsored by PC and IEEE's Educational Activities Board.

Diamond Mine


This little book is a great treasure. Evolved in the course of teaching English as a second language to university students, it can also be used profitably by all who wish to improve their skill in reading and writing the English language.

The author is Director of English Basic Studies at the Hebrew University of Jerusalem. He discusses the classes of words; basic syntactic structures and their combination in different types of sentences and paragraph; verbal forms, tenses, and patterns; and how to summarize a paragraph. The analyses are clear, accurate, and logical. The step-by-step exercises very clearly provide opportunities to practice the use of English structures in contexts that appeal equally to intellect and imagination. Each chapter deserves such praise for presenting its wealth of necessary detail briefly, clearly, and pleasantly.

Little praise, however, can be given to the practice of using a relative pronoun without a particular antecedent, as it does, for example, on p. 56 (text 98) and p. 56 (text 10) of this grammar. The construction is a fact or a false step, even though such passivity of reference can easily be pointed out, corrected, and corrected.

To be specific, instead of supplying which in the first case cited, "The floods destroyed several bridges, made it impossible to get north by road," one would do better to rephrase, as, "The floods destroyed several bridges, thus making it impossible to get north by road," or "The floods, by destroying several bridges, made it impossible to get south," or, "The floods, which destroyed several bridges, made it impossible to get south." Other possibilities exist also.

The usage in question, however, is far less difficult to understand than many of the other aspects of English which Borkoff illustrates so beautifully. Students who can correctly use all the structures so well explained in this book will have no trouble refining their knowledge of relative pronouns and antecedents.

Aside from this problem, Borkoff's English Grammar and Structure is an excellent, flag-downwriting presentation of a complex, often confusing subject. Those for whose English is a native language will find it enlightening. Those for whose English is a second language will find it extremely useful.

1


21
His article ends with these thoughts on undergraduate instruction in the ability "to see life clearly and see it whole":

"Inevitably, one returns in education to the basic question of what skills of interpretation he possesses to give something of philosophy and history if he has not developed the critical skills that enable him to distinguish the moral from the immoral, the plausible from the genuine, art from artifact—then he is not educated.

Discrimination is essential: intellectual discrimination. That and long-standing the critical awareness, so as to understand television and radio by way of philosophy and history, science by way of the eye and the ear. And acquiring the understanding of a few great artists—a few will sufficient—that have lived beyond their moment in time. And achieving the self-reliance that grows from the authority of knowing some things well.

Knowledge is certainly not enough. It should lead to wisdom, which carries vision in its meaning. Without knowledge, wisdom is hard bought. And knowledge cannot be used in sociology and economics and political science of the moment, ever shifting, stimulating an analytically great understanding. But by statistics that carry with them apparent truths about a part, what future can we have?"

Ed. Note: Violent student protests against " Seam to Kill a College" have caused Professor Gross to be deprived of his chairship. Apparently those whose "empty hands" he regrets using weapons and were not prepared to understand what he was saying. The City College of New York continues to proclaim itself "An Equal Opportunity Employer."

Standards for Telecommunication

"The Telecommunication Standards Program," by Dennis Nolan, in the IEEE Communications Society Newsletter for March 1976, tells us, among other things, the following:

"In 1951, partly because of problems experienced with internal communication during the Cuban missile crisis, President Kennedy directed the establishment of a National Communications System. The NCS was to be an interagency organization that would "produce necessary communications for the Federal Government under all conditions, ranging from a normal situation to national emergencies and international crises."

The President named the Secretary of Defense as Executive Agent for the NCS, and the Director of the Defense Communications Agency was later named as NCS Manager.

Thus the Secretary and the Director each took on NCS work as an additional responsibility. They were charged with limiting and improving the communication resources of the ten agencies chiefly involved in long-distance telecommunication activities of the Federal Government:

- Departments of State and Defense
- Federal Aviation Administration
- National Aeronautics and Space Administration
- Central Intelligence Agency
- Departments of Commerce and Energy
- Research and Development Administration
- Defense Communications Agency
- Federal Communications Commission

The NCS is, accordingly, a confederation of telecommunication facilities which are funded and assisted by their parent agencies. They respond to coordinated plans and procedures and are available as needed to satisfy transnational national requirements. The organization serves as both focus and catalyst for Federal telecommunication research.

In 1972, in response to Executive request, the NCS Manager established the Federal Telecommunication Standards Committee (FTSC) to

- Develop standards for achieving greater compatibility among NCS communication networks and providing network computer interfaces,
- Improve the coordination of Federal, national, and international standards.

Fourteen Federal organizations—the ten NCS agencies and four others, including the National Bureau of Standards—represent the FTSC, which coordinates with standards programs of the Electronic Industries Association, American National Standards Institute, International Telecommunication Union, and International Standardization Organization.

Two types of standards emerge from FTSC efforts: those which affect telecommunication systems only and those which affect both telecommunication systems and information processing systems.

To date, six Federal Telecommunication Standards have been published (as signaling rates, circuit characterizations, and various aspects of coding and modulation). Further information is available from the National Bureau of Standards, Washington, DC, 20234.

As FTSC work continues, five standards are awaiting publication and six more are being developed.

12-Hour Shifts

Working 12-hour shifts gives some Du Pont employees a lot of time off.

At six Du Pont Co. plants that operate round the clock, employees work an unusual sort of schedule. If you're a Du Pont employee, you don't have to worry about working seven days a week or eight hours a day. The normal work week is 12 hours, five days a week, with four days off:

Du Pont's solution: a complex schedule of 12-hour work turns. Employees work no more than four days in a row, and they've assured two full weekends off out of every four. They get seven straight days off every four weeks, and so employees work more than seven nights during the four-week cycle.

Information About P C

The following documents are now available from P C's Area Representative in southeastern US:
- P C's Constitution and Bylaws
- Job Descriptions for Members of P C's ADCom

For copies, write to Robert H. McFarlin, E-Dynamics, Inc., P.O. Box 1022, Greenville, TX 75401.

Personal

George McClure, a member of P C's ADCom, recently received an Outstanding Service Award from the Visionary Technology Association as editor of P C's Transactions.

Congratulations, George!

Communicate, PC-ers!

Wanted: A member of PC who is also a member of the IEEE Computer Society—or vice versa—to rewrite or summarize articles from Computer for PC's Newsletter.

Much of the material in Computer is of great general interest, but as published it is too detailed and specialized to be appreciated by the majority of PC-ers. Subjects like

- The Architecture and Selection of Military Computer Families
- Computer Communication Networks
- Software for a Common Programming Language
- Computer Languages

could be presented simply, in layman's language, by someone knowledgeable about computers.

Indeed, PC-ers in all branches of engineering could perform a most valuable service by writing brief reviews of articles from IEEE Transactions, even from other technical journals, for publication in this Newsletter. In short, the abstract, introduction and conclusion, with perhaps some background information or short explanation, would make a communication of great general interest.

How about it, PC-ers? What is happening and being written about in other IEEE Societies?

Science Film Symposium

Sci/Cos '75, third biannual symposium of the American Science Film Association, will be held at the Museum of Science & Industry in Chicago next November 1-10. Major program block will be devoted to energy, preventive medicine, computer animation, films in the university, computer graphics. The sci/cos program block will honor someone whose individual contribution to the field of science and communication deserves national and even international recognition.

Sci/Cos will begin at 6:30 on Tuesday evening with screening #1 of two evening shows of scientific films; it will end on Friday, with optional tours lasting until 4 PM.

One of the special attractions will be the film/video showcase running throughout the three days. At least 30 subjects will be chosen for the program block, and evening screening of 200-300 films will be available in a library/screening room set up for individual viewing.

Sci/Cos is open to everyone interested in science and communication via video, television, motion pictures, slides, and other media. Obtain more information from ASPA headquarters, 165 Market Street, Philadelphia, Pennsylvania 19106, telephone (215) 397-2955.

For the previous Sci/Cos, held in 1976, the International Science Film Association brough delegations to Philadelphia from 23 nations; US and Canadian groups jointly sponsored the first Sci/Cos in Rochester (NY) in 1974.

Of course we would not rule out the use of common sense in solving the problem, but first we must exhaust every other possibility.
Failure of Technology

Americans are perplexed by the failure of technology to supply us with a meaningful life or a decent environment to live in. For every wonderful achievement, technology seems to deal us an equivalent kick in the shin.

Travel has become more efficient and less civilized. Television has helped to raise a generation of unprecedentedly educated six-year-olds and increasingly illiterate high school seniors.

We can enjoy completely enclosed and comfortable environments hundreds of feet above the sidewalk until, as witness the New York City blackout last summer, someone pulls the plug and the environments become inaccessible and uninhabitable. Only the most naive believe we can escape our increasingly technological environment.

Recognizing that the technological trend is irreversible, we fantasize [in science fiction and science-fiction cinema] about a world where all the machines work with us, rather than against us, where the computer does not ostentatiously eat hill and where jet planes discharge our luggage intact at correct destinations.

--@ Saturday Review 1977 from "Our Love-Hate Affair with Technology" by Carl Baker.

New Sociology

We must change all of our concepts of economic sociology. We must throw them urgently into the wastebasket. Keynesian economics will soon be a thing of the past. We have to switch, without delay, from our concept of expansion to the concept of expansion in quality. Would this mean the end of progress? On the contrary. We have a very good example in electrocution. Electronic is improving by super-omniatization. We are making better products smaller and cheaper, that require less resources to produce and less energy to function. This is the type of industry that should be encouraged, because it typifies the ideal kind of technological progress.

The characteristics of the stable society of tomorrow have been defined. First, there must be minimal disruption of cyclical processes. Second, there must be maximum conservation of materials and energy. Third, there must be stable or controlled decreases in population without coercion. Fourth, there must be a social system in which people can enjoy, rather than feel constrained by, the first three conditions.

Governments in all countries see the world in fragments, not as a whole. We should realize that there is only one problem today, our survival as a species; there is only one environment, the environment of life. There can be only one attitude, as we face the eventualities of conflicts that could eradicate all life. We must unify to implement methods for rescuing our planet.


Need to Prepare

In "How to Kill a College" (Saturday Review, February 4, 1978), Theodore K. Clevenger, chairman of humanities, City College of New York, discusses CUNY's adoption of a policy of open admissions.

We had abolished requirements and prerequisites and had arranged elective courses in a cafeteria curriculum that made basic skills and basic knowledge seem irrelevant, structure obsolete, and sequential study unimportant. The historical perspective was already so suspect that the liberal arts' college functioned primarily on the pleasure principle. Students milled in the courses they wanted....And there was...a scramble for infinite options to satisfy every taste or lack of taste. Furthermore, As each career program was established, the traditional disciplines in liberal arts and sciences were placed in a service relationship to vocationalism--as though the only way the disciplines could be made interesting or relevant was by attaching them to practical programs.

It appeared, however, that open admission students needed a vast amount of attention in their attempt to master the writing of English. One could find some comprehension among them during the discussion of a reading assignment, and their essays were motivated, but the students' writing barely made sense.

Thus, despite the fact that these students "brought to their work a motivation that was like hunger," the need for them to master English--a standard language--was clear to everyone.

Not so clear, perhaps, was their further "need to master, at the same time and in the same place, the separate language of biology or psychology."

But "clouding the issues of literacy and open admission...were the implications of racial tension...working across and into the mind of everyone who cared."

In the end, Dean Grose concludes, "breeding ongoing [ethnic] departments was wrong, and those with empty benches are the minorities for whom they were created."

The experience of CUNY with open admissions argues most dramatically, he believes, that adequate preparation, not creativity, anger, determination, or desire, is the essential criterion for entrance to college and success in academic endeavor.

Dean Grose points out that, for lack of funds, New York City no longer adheres to a policy of open admissions. But the urban conditions which prompted adoption of the policy, he notes, "seem to haunt us as memories of what we failed to achieve."
The control system has two complete stages. Twelve CIV groups are normal in group selection. The decision of the sentence is always kept as simple as possible. NOT The control unit, difficult for safety, has a low resilience. BUT The control unit has a low resilience. There are two units for the control unit.

In instructions or commands, each sentence consists of just one instruction. In NOT stopping the program, load the data into the buffer store.

BUT Stop the program. Load the data into the buffer store. NOT Using program 6, send X to Y. BUT Use program 6. Send X to Y. Explanations, conditions, and indications of units can be combined with descriptive statements or instructions.

Because the loop is to be made first, the linking is important. When the XY program is finished, the message is sent back to A. If the error is larger, increase loop to N. If the interval is less than three words, the sentence is wrong.

Questions are constructed as simple as possible.

Can the punch jump open freely?

Learning and acceptance of controlled English

Other non-English-speaking operators cannot just pick up and read native English or ISLAM or any other controlled version of English, because individually the documents are written. A training programme is necessary in which a bilingual instructor helps the operators to recognize and understand the significance of the limited vocabulary and rules. After defining definitions and explanations in the native language, the instructor will then require the operator to speak English. Caversham has found that a course lasting 30 to 40 hours is normally enough to enable the operator to work competently from ISLAM documents.

An important feature of this type of controlled English is that it is not a disjointed or artificial. The vocabulary and structure is such it is derived from those used daily by native English speakers. Documents in this language are therefore entirely acceptable to native English readers. Indeed, when the Caversham company published the first service literature in its restricted language, the differences was not detected by native English readers.

Translation

Even if a company feels that it cannot use a single controlled English version of its documentation in all countries of the world—that is, that some translations are still wanted for diplomatic or technical reasons, the creation of controlled English terminology has still been of service. Since a controlled English text has been written very clearly, with each word confined to just one meaning, it is ideal source material for translation. The translator can rely on the definitions of words, and finds the simple sentence structure relatively easy to convey into comparable simple structures in the target language. Indeed, a reasonably accurate ‘base’ translation can be produced easily by computer, having human translators to add the expert touches to add balance and polish by making the adjustments of word order and style required by the target language.

The project at UWIST

The first task for the two research associates is UWIST’s Communication Studies Unit will be to produce a “core” vocabulary noted in E.M. Ericsson documentation, plus a “non-core” list of special terminology and parts nomenclature for special programs or activities. This will be done by adapting and extending the copyright-registered ISLAM vocabulary, with the cooperation of Mr. E.N. White, world agent for ISLAM.

As the vocabulary develops, the researchers will produce sentence and maintenance documentation in the new language, with regular checking from Ericsson staff to ensure that there is no loss of technical information. This will be the major part of the project.

But there will be two other related tasks. One will be to develop the training programme necessary to introduce the new language to ISLAM staff and personnel; the other will be to explore the pros and cons for using the language in other types of technical and commercial documentation.

In UWIST, we are excited and grateful for this opportunity to cooperate with a major international company on a ‘live’ project. We hope for benefits on three fronts—

—benefits for the company from the production of documentation in the new, controlled language;
—benefits for ourselves from the opportunity to give practical test to linguistic and educational ideas; and
—benefits for the world of technical documentation as large from new insights and principles that we hope will enhance the possibilities for using controlled language more widely in technical and commercial documentation.

John Kirkman

Acknowledgements

For information about Caversham Fundamental English and ISLAM I am indebted to the following authors:

von Glasow, R.W.


Vorhove, C.A.


White, E.N.

International Language for Service and Maintenance, UWIST Lecture on Technical Communication, September 1974

White, E.N.


White, E.N.

An International Language for Serving and Maintaining Technical Documents, 73rd Proceedings of ISEKT Symposium, November 1975

Communication Notes

Because PC is an organisational member of the Council of Scientific and Industrial Research, members of PC may subscribe to the CSI’s monthly newsletter, Communication, beginning at.

This ‘digest of news for communication professionals’ summarises articles about all aspects of message sending and receiving—legal, written, oral, written, technical, broadcast, television, commercial, political, international, personal, organisational, academic, etc.

It also prints a running 6-month calendar of coming seminars and conferences.

Communication Notes is an excellent newsletter.

Send your name, address, and PC member number to the Circulation, CSI, P.O. Box 1071, Silver Spring, MD, 20902. Annual subscription to CSI: To Members of CSI organisations. To Others.

Within U.S.

$6.00 $12.00

In Canada or Mexico $10.00 $20.00

Elsewhere ($air mail) $15.00 $24.00

Notes from Communication Notes

The May, 1975 issue of Communication Notes contains brief discussions of the following (among other things):

The U.S. Department of Commerce has recently established a new public relations group, the National Telecommunications and Information Administration.

— Placards of pictures and poetry are being displayed along with advertising spreads on transit systems in major U.S. metropolitan areas.

A three-year-on-the-clock, Familia et Litteratorum, is circulating in 35,000 copies in the French-speaking countries of Africa. It deals with the basics of life, economy, and technology from the African point of view for Africans.

The Modern Language Association and the American Council of Learned Societies are working together to promote the teaching of foreign languages in the U.S.

For $1.50 anyone can visit the Museum of Broadcasting in New York City and hear or view in privacy any of about 2000 radio and television programs.

Several books on the art, craft, and techniques of interviewing are available from U.S. publishers.

Elsewhere in IEEE

In the April, 1978 issue of Systems, Man, and Cybernetics, a paper by H. S. Lewis and J. E. Memon, Vice President for Man, and Cybernetics Society, William R. Hous reviewed The Role of System Theory by Robert Littledfield. PCs interested in network theory may find this important reading.

In the June, 1978 issue of Circuits and Systems, newsletter of the IEEE’s Circuits and Systems Society, an article by Edwin S. Lewis, Vice President for Systems, the application of network theory to biological processes by Lewis gave particular attention to the 3-step process of shock communication. A network model was used to study the influence of the brain on the animal kingdom. His paper is highly pertinent and may be comprehensible to many PC-s, but the idea of vision (i.e., retinal function) as a network suggests that we take much for granted when we speak of "receiving" a written message.

Did you know that in 1860—just 10 years after Morse built the first telegraph line between Baltimore and Washington—"a picture was sent by wire from Paris to Rome? Or that electric television systems were being developed in the U.S. during the 1870s? Do you understand the accomplishments—or have you only, perhaps, heard the names—of Bigelow, Dreyfus, Dvorak, Damoff, Farnsworth, and Goldmark? Do you know what television "works," through camera, control, and viewing?
Identification

The IEEE's double-arrow emblem is available as gold-and-enamel jewelry—lapel pins, tie pins, lapels, and custom-engraved medals and medallions. The IEEE's Distinctive Insignias and Code of Ethics are also available.

Field Activities

Dues

Each of us owes something to the future of science. When a scientific society is concerned with the future, it is not merely concerned with the future of science, but with the future of humanity. If we are to have a future, we must have a society that is concerned with the future of science.

Spectrum

Annuals

Directory

Technical activities

Standards Support

Certiﬁcate

Group & societies

Special technical projects

$8.00

$2.79

$9.00

This job is helping me develop a more even temperament—always miserable.

College papers are plotted, additionally, with academic jargon. Don't insist that she produce more sentences. Teach her to "think before she writes, rewrite what she writes more carefully, and write only what can sustain."

Tell her to "write more, more, more."
European Data Bank

E. Giussani, PC's Area Representative in Italy, sees the CICIGLO network as the first step towards the establishment of an open, interconnected network of telecommunication systems. The CICIGLO network is a project of the European Space Agency that aims to provide a comprehensive telecommunication network for Europe. The network will consist of a series of satellites that will be able to communicate with each other and with ground stations.

The European Space Agency has signed an agreement with France Telecom to provide a preliminary service of this network. This service will provide a basic telecommunication service to users in Europe, including voice and data services.

The CICIGLO network is expected to be operational in 1978 and will provide a significant improvement in telecommunications services in Europe. The network will be able to provide a range of services, including voice, data, and video services, to users in Europe.

Words Around the World

Two articles in The Communicator of Scientific and Technical Information (JSTOR) discuss the use of English as the standard language for scientific and technical communication.

Maurice Ryneg, in "How Do We Judge a Speaker's Competence?" rates speeches on a five-point scale for each of the following:

1. Content—accuracy and accuracy of information and vocabulary
2. Grammar—suitability and correctness of usage
3. Speaker's voice—range and tone
4. Presentation—speaker's manner and posture, visual aids
5. Effectiveness—suitability for audience and purpose

Marilyn McCuskey, in "Testing Engineers' Writing Ability," tells plot of plans for determining if there is any correlation between the performance of candidates in two types of testing.

Objectives:

1. Subjective:
   A. Verbose, confusing passage is given, with instructions to rewrite by improving style, format, and organization as needed.
2. Objective:
   Sets of possible "corrections" for various types of writing, each with grammatical usage (e.g., punctuation of a complex sentence, particular use of prepositions or apostrophes, subject-verb agreement, dangling phrases or clauses, word usage or meaning) are given to context, with instructions to choose the "best" version in each set.

Examinations of both kinds might be prepared and used together to examine the writing ability of individuals in any group or any subject.

Effectiveness

Two articles in The Communicator of Scientific and Technical Information (JSTOR) discuss bases for judging communicative effectiveness.

Maurice Ryneg, in "How Do We Judge a Speaker's Competence?" rates speeches on a five-point scale for each of the following:

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Effectiveness—suitability for audience and purpose

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Examinations of both kinds might be prepared and used together to examine the writing ability of individuals in any group or any subject.

A Number is...?

A number of sentences are set off in this month's column, but it will not cover the sum total of the day. A list of words is worthily quoted.

If you find such sentences uncomfortable, you are right. 'A number' and 'a lot' seem six, or about a hundred, or nearly five thousand, or very many, or all. If some number isn't exactly known or is unknowable, '4.7' is better than the numeric and labeled grammatical correctness of the 'number is' construction, but it is also not quite like other non-numeric usage. Some common usage is better than grammar, but still not quite the same. But 'a crowd' and 'a host' are like true collective nouns, and should often be followed by 'or' instead of 'or'.
illustrations of the way in which popular slogans and stereotypes can become substitutes for understanding. They appear, because of vague associations, to have meaning—at least what is called emotive meaning—but in fact even if it turns out to be elusive.

1. 'Liberation'

We hear a great deal today about 'liberation' in a variety of contexts. There is talk about the 'liberated' female, the 'liberated' male, the 'liberated' worker, the 'liberated' artist, the 'liberated' writer and, of course, the 'liberated' homosexual. Obviously liberation is the same thing, and of course, in many contexts it is.

But 'liberation' is not a quality, like happiness or peace of mind. 'Liberation' is a relational term. It has meaning only if you specify (a) who is liberated, (b) in what respect, (c) from what, and (d) for what.

Now in some contexts, these factors are quite clear, as when we talk about the abolition of slavery or freeing nations or peoples from colonialism. But as the term gets extended metaphorically, the meaning gets increasingly vague until, like Lewis Carroll's smiling Cheshire cat, the face has vanished leaving behind only the fading sure of the original expression. In this situation, 'liberation' can be invested equally well on both sides of many issues, thus cancelling itself out.

The question of sexual freedom is a case in point. Sexual freedom—including freedom for homosexuals—is seen by its advocates as required in the interests of personal 'liberation'. In this case liberation from restrictions imposed by the culture and especially by the Church. Yet the argument upon which these supposedly 'regressive' views were founded was itself based on the need for personal 'liberation'. In this case, a liberation of the higher powers of personaility from the domination of bodily drives.

I shall not stop to argue here which view is right. My point is simply that talking abstractly about liberation proves nothing either way, since the concept can be (and has been) invoked on both sides.

So also when the philosopher Spinoza talked of 'human bondage,' he referred to man's bondage to their own passions, from which he believed rational men should always endeavor to emancipate. Today that Spinoza condemned as bondage is praised as the true measure of personal autonomy. As the context shifts, the concepts of 'liberation' and 'bondage' reverse their polarity.

I am not suggesting, of course, that liberation or being liberated is bad. I am saying only that if such terms are to have any ascertainable significance, one needs to look beyond them. Otherwise they function simply as ritual incantations, employed to avoid the need for addressing the underlying problems.

In this connection, I might note a further assumption which can add to confusion on this point. Many writers today either assert or assume that all socially imposed rules or norms are essentially repressive. This view leads to the belief that the essential function of law is to impose restrictions upon individual conduct, supported by penalties forcibly imposed by government agents.

Given the increasing spread of government operations, coupled with a serious distrust of governmental authority generally, it has come to be assumed that the law is not merely restrictive but seriously oppressive. This view is reinforced by the position of existentialist philosophers like Sartre, who claim that it is a breach of personal authenticity—a kind of 'bad faith'—for the individual to accept any general system of conduct imposed externally by society.

Although this point of view has some plausibility because it can be justified in certain cases, it leaves out of account the fact that some norms and laws can be enabling rather than restrictive, and the more basic fact that no community can exist at all without norms and standards of some kind, distinguishing acceptable from unacceptable behavior. The reason is that in society people sometimes compete and sometimes cooperate, and that they can do neither effectively unless they can count to some extent on what others will do. Actual expert agreements can be fulfilled only when there are some generally accepted ways of believing.

If these facts are borne in mind, it may help to set the current feeling that society as such, and perhaps our own society in particular, is essentially repressive and that problems of individual self-restraint and self-control are of only secondary importance.

In any case, where the older moralists and the Church stressed the primary importance for individuals of internal self-discipline as necessary to achieving personal integrity, many current writers equate integrity with autonomy and are thus led to suppose that personal integrity requires 'liberation' from externally imposed standards and rules.

This view, of course, denies personal responsibility and considers society or government, if it endeavors to increase its control, both a source of injustices and an instrument of oppression.

2. 'Discrimination'

Because certain types of discrimination are unjust—notably discrimination against racial minorities—many people have come to speak and write as if all forms of discrimination were unjust. Thus the word 'discrimination' has come to be used, not only in the news media but by some serious writers, as if discrimination were wrong in itself. To call something 'discriminatory' is a way of condemning it.

This is a very serious and dangerous error, because all hierarchies, all understandings, and all virtues, including justice itself, involve discrimination.

Imagine, if you can, a person lacking all ability to discriminate. Such a person could not distinguish anything from anything else; experience, if we could call it such, would be a mere blur. He could not tell light from dark, up from down, future from past, friend from foe, truth from fable or good from bad. He would be worse off than most animals—even a dog distinguishes between being stumped over and being kicked. Many distinctions are, of course, beyond him, but if we make none at all, we cannot discriminate between justice and injustice.

More specifically, the first requirement of any system of justice is that it should discriminate between the innocent and the guilty. To treat an innocent person like a guilty person is not to serve the interests of justice and equality, but to deny them.

Again, all laws and rules of any kind discriminate among different kinds of conduct. A law against stealing discriminates against thieves. A law against drunken driving discriminates in favor of those who are sober.
Fiber Optics

The IEEE Communications Society Magazine for March 1978 features "Fiber Optic Communication: A Techno-
tology of Tomorrow" by R. D. Parnasick.

This tutorial article points out that within about a
teen, communication via optical fibers has ad-
vanced from laboratory proposal to non-commercial re-
sources. In other words, it will soon be making its
way through our everyday long-distance telephone calls via laser beams (light rays of a single wavelength) in glass "conduct-
ors.

The new technology involves cables containing hun-
dreds of thousands of fine strands of glass fibers, secondary connectors, and lasers with million-hour extrapolated lifetimes. Prototype systems carrying voice and video services are already in use in military and commercial telephone applications, and widespread use of optical fibers in the early 1980's is antici-
pated. A simplified system is shown opposite.

Bascially, in an optical-fiber transmission sys-
tem, information originating as analog voice input is
digitized to digital bits by conventional terminal equip-
ment. The signals emitted by this code modulate the
current of an injection laser or light-emitting diode, and the pulses of light are transmitted through an optical fiber. The fiber terminates on a detector which converts the message-bearing light into current pulses, and finally, as these are amplified, the original voice is re-
generated.

Problems involving fiber characteristics, optical
cables, and signal processing are already being solved, and the solutions are becoming standardized. As the tech-
nique matures, the cost of the equipment, costs will de-
crease and demand will increase further.

The fiber-optic revolution in communication has
almost reached our home base-set?

Model of Society

The February, 1978 issue of the Systems, Man, and Cybernetics Newsletter of IEEE's SMC Society, published in conjunction with the Seattle National Confer-
tional Systems by using techniques of systems engineering. To illustrate this use of the "systems approach,"
the following example is reproduced opposite.

**"Classic" Technical Writing**

Michael Austin, advocating a change in perspec-
tives, points out that the reason for teaching English are:

1. enable people to communicate effectively in
   speech and writing;
2. introduce the literature of our cultural
   heritage;
3. encourage people to work together
   that contribute to the culture of society.

By why, he asks, is the study of novels, poems, plays, or other forms of great value in achieving these objectives, while the virtue of learning literature are generally ignored? "In the educational system of a cultured society there should be no place for the 'conflict of culture' as generally understood, nor an exclusions of one by the other. Why not study the techniques of writing, and technical literature, such as those used by Chaucer? those of Einstein as well as those of Joyce?"

This point of view is discussed at length in Austin's article entitled "A New Approach," which first appeared in IEEE Conferences [June, 1977] and "Plan B for Teaching Technical Writing" (Institute of Scientific and Technical Information, Communications, September 1977).

Plan B for Teaching Technical Writing


For years, she points out, "the Gevel has been a symbol of the power of leaders."

But in practice, the president or chairman who plans carefull has to be sure that everyone on the team who is one to plan usually finds pointing ineffect-
ive.

The truth is, the article continues, "Gevels are devilishly difficult to conduct. The right approach or verbal juggling will result in a successful meeting unless careful preparation produces that opening crack of wood on wood."

To have a good meeting, begin by outlining a game plan: program agenda which is also a playcard for your conference room. Notify the appropriate team or committee members; and ar-
range "play" roles—presentations. Provide equip-
ment; direct; and encourage record-keeping, under-
standing, cooperative planning and speaking, achieve-
ment of purpose, and follow-up.

To keep yourself calm and successful, use or adapt July 14th's checklist as an adjunct to your Gevel:

Meeting Leader's Checklist

- Prepare agenda
- Call a meeting in advance
- Prepare a personal copy of agenda showing time allo-
loted for each segment and plan for guiding discussion
- Arrange to make special presentations
- Reserve room
- Get a reservation
- Check room for heating and ventilation
- Arrange for refreshments
- Borrow space to give presentations
- Contact members giving special presentations to determine special equipment needs
- Assign for additional copies of agenda, resource materials, and space needs
- Meet for a chalkboard or easel
- Take a tape recorder, or arrange for a secretary to take notes
- Explain purpose and importance of meeting
- Look for the cause of problems
- Brainstorm for solutions
How to Sharpen a Pencil (Government Style)

INTRODUCTION

This document describes the art and manifestations of applying an over-dramatizing slope tapering to a finite point on the scoring end of the common ordinary writing utensil.

METHOD DESCRIPTION

There are many varied types of common ordinary writing utensils. Care must be taken so as not to select a writing utensil that has its scoring and engaged in steel or ceramic or as these materials would inflict injury upon the tapering of the writing instrument, which is the process described herein. Therefore, a writing utensil must be selected with its exterior covered with a semi-organic cellular substance such as wood, and the scoring portion within should be composed of a synonymous appendage-preliminary igneous rock composite such as graphite. Note that it is not advisable to break the graphite point, the roughening to the tapering end of the common writing utensil.

PRINCIPLES OF OPERATION

Now that the proper selection has been made, the next step is the operation of the tapering machine. The operator should take up a position facing the tapering machine, but at such a distance that the exit orifice of the tapering compartment is level with and on the side of the operator's left binocular viewing sensor. Thus the operator's nasal orifice pair will be pointing at the tapering machine's waste compartment. The operator also should hold the upper end of the tapering machine with the primary digit of the right most digit, raise the common ordinary utensil vertically with the current altitude and propel it horizontally inside the outer orifice of the tapering compartment until its motion is tapered. The operational lever can now be moved along a free axis of rotation in either direction. It is advisable to aim for a firm pressure toward the tapering end.

INSTRUCTION PROCESSION

As at regular intervals the common ordinary utensil should be scored, again, ensure that the tapering machine for optimal inspection of the scoring end for degree of tapering. A residual judgment decision to determine a satisfactory degree of tapering, then if the scoring and under-tapering is consistently accomplished, a report (copy of form) must be filed with the Conservation Department within 10 days of the last incident.

How to Sharpen a Pencil (Government Style)

STEREOTYPES—THEIR USE AND MISUSE

by Philip H. Rhinelander

This article adapts a talk written by Professor Philip H. Rhinelander, the Dean of the Department of Philosophy, Stanford University, and presented in June 1977 at initiation ceremonies for the new chapter of Phi Beta Kappa (humanistic fraternity) at Santa Clara University. The full text appeared in The Key Report-
gr (June 1977); this version is printed through the courtesy of Professor Rhinelander and Phi Beta Kappa.

Stereotypes, figuratively, mean a firmly held, "standardized mental picture that represents an over-simplified opinion, affective attitude, or untrinit judgment.

It is generally agreed that of all human capacities and accomplishments, the most significant and distinctive is the ability to make and use symbolic systems, notably language. However, like all human capacities—our at least most of them—this one is ambivalent. Language provides a vehicle for communication which is not otherwise available, but in so doing, it provides also an opportunity for confusion and misunder-
standing. Insolent communication can be more misleading than outright falsehood. Just as half-
truths are often more dangerous than outright falsehoods. In both cases, the final error is less obvi-
ous and surface plausibility lends it weight.

Where both parties know that they cannot under-
stand, or have not understood, each other, neither is deceived, and, if they wish to proceed, new channels will be sought. But where there is an appearance of understanding, resting upon a merely verbal concor-
dence without any deeper comprehension, the deception goes unnoticed, and unrepresented.

Thus, the more we tend to rely in our thinking and talking upon catchwords, slogans, and popular phrases, the harder it becomes to deal thoughtfully, intelligently, and critically with our pressing problems.

In thirty years ago, in an essay called Pub-
llic vs. the Private Language, George Orwell pointed out that the devolution of language in our day, the increasing tendency in public discourse to substit-
tute familiar but thoroughly catchword-for-true insights signifies a similar devolution of our basic political and philosophical ideas. After arguing that "the present political chaos is connected with the decay of language," Orwell as-
ertered this prophecy

Political language—and with variations this is true of all political parties from Conservatives to Democrats—is designed to make some sound true and many everybody that it takes superficial ability to surmise them.

It must be remembered, however, that this situa-
tion can occur both within any issue. For the radical activist or the politician who believes that all white males are "natural" or that all white America is "racial" is engaged in precisely stereotyping just as much as the male chauvinist who pro-
clates the inferiority of women, or the jingoistic redneck who believes that all blacks are lazy. In either case, the particularity of the individual is ignored: all members of a class are typed indiscrimi-

Think

There is a mistaken assumption that all it takes to make good decisions is being like a smart and failure of agreement. On the contrary, it is also necessary to say something and make sense.

Consider the following statements from a Memoran-

dum which a group of educators recently issued about their professional practice:

"Teaching is the application of a systematic series of actions directed toward specific ends." [in particular, reading, writing, listening, and creative invention.]""

"Within the general system of teaching are many subsets of actions and processes." [Try replacing with "with hydraulics engineering, or Open-heart surgery]. Sounds neat, doesn't it?"

"Teaching and learning are now seen as reciprocal processes within a social system of information processing." [Not until now? Seen by whom? Relations? Specific examples?"

If these delegations (and there equally "learned") were used as topic sentences and amplified by statements less foolish or discerning, we might be able to forgive the teacher-instructors who wrote them—then a committee of 13. But alas,

Compliances, generalizations, inanities, and false representations proliferate in pseudo-psychologi-

cal jargon, like clothing, sentiment, or cancer.

Before we cancaps our breathing (bal) against such easy, our reasonings as it's a per-

version of language. And we must be aware that it's a little around us—in academe, business, government, industry, advertising, research, teaching, newspapers, magazines, television. It threatens to infect every one of us—all who speak, write, learn, read, or listen.

Learn to know—and avoid such "demonstrated excel-

lence"—because it's the perversion of socio-
cultural-economic junk.

—Adapted from The Undergrad Monologues, Vol. 3, No. 5, May 1976.

12

13

has spread from the political realm to virtually all other sectors, including work, research, and the classroom.

Most philosophers [and communicators] today are aware of the difficulties caused by the vagueness and ambiguity of language and the need for clarification, and this brings us to the matter of stereotypes—overgeneralizing stereotypes about stereotypes. Bec-

cause the point has been driven in by repetition, we have come to accept the view that stereotypes are bad. But it is not so. If we have stopped to in-

quire why they are bad or what the remedy is.

This lack of comprehension is shown clearly in the fact that most groups of people who complain about the greatest justification that they have been victimized by stereotypes do not seek to eliminate their stereotypes but set about creating new stereotypes of their own to deploy against the old ones. This process clarifies nothing; it merely confounds set of alignments with an opposite set, thus increasing the confusion, while obscuring the issues.

What is a stereotype? Why are stereotypes harmful? The simple answer, I think, is that stereotypes are half-truths which (as I stated earlier) are often more dangerous than outright falsehoods because they have an air of plausibility concealing their untruths. This is why they are persistent.

To commonly subject prejudice. They involve overgeneralizations which have the effect of reducing all individuals to pre-conceived types. Such overgeneralizations (attractive in some model) are false in some degree, and are immune to evidence when prejudice is the issue.

There are several points to notice. First, a prejudged overgeneralization can be positive as well as negative: that is, we can say, there will be blind and irrational prejudice in favor of one group or cause as well as against it. In fact, positive and negative prejudice may exist in the same person. Hitler's belief in the superiority of the Aryans race, for example, involved a complementary belief in the inferiority of all other races. These were, in effect, two sides of the same coin.

The second point is true; it is dangerous to presume a disposition to favor or trust certain kinds of people without necessarily being hostile to others.

Second, the most serious practical effect of a prejudged overgeneralization is that the individual person whom the individual is not judged on his, her, or its individual merits but is categorized on a general basis without regard to the actual, particular circum-

stances.

It is chiefly for this reason that stereotypes have worked injustice to minorities and women. If you assume that all members of one sex or social groups or women generally are unqualified for the higher pos-

itions in industry or the professions, the result is either that you pass over individuals who are qualified from obtaining entry and advancement or to put such obstacles in their way that it takes superhuman abi-

lity to surmount them.

It must be remembered, however, that this situa-
tion can occur both within any issue. For the radical activist or the politician who believes that all white males are "natural" or that all white America is "racial" is engaged in precisely stereotyping just as much as the male chauvinist who pro-
clates the inferiority of women, or the jingoistic redneck who believes that all blacks are lazy. In either case, the particularity of the individual is ignored: all members of a class are typed indiscrimi-

—Adapted from The Undergrad Monologues, Vol. 3, No. 5, May 1976.
Stereotypes — Their Use and Misuse by Philip H. Rheinheimer

This article adapts a talk written by Professor Philip H. Rheinheimer of the Department of Philosophy, Stanford University, and presented in June 1977 at initiation ceremonies for the new chapter of Phi Beta Kappa (literary fraternity) at Santa Clara University. The full text appeared in The Key Register for June 1977; this version is geared through the courtesy of Professor Rheinheimer and Phi Beta Kappa.

Stereotype, figuratively, means a firmly held, "stabilized mental picture that represents an oversimplified opinion, affective attitude, or unbalanced judgment.

It is generally agreed that all human capacities and accomplishments, the most significant and distinct, are made to help us cope with symbolic systems, notably language. However, like all human capacities—especially the most of them—this one is ambivalent. Language provides a vehicle for communication which is not otherwise available, but in so doing, it provides also an occasion for confusion and misunderstanding. Insoluble communication can be more misleading than outright falsehood. Just as half-truths are often more dangerous than outright falsehoods.

In both cases, the general error is less obvious and surface plausibility lends it weight.

There both parties know that they cannot understand, or, have not understood, each other, neither is deceived, and, if they wish to proceed, new channels will be sought. But here there is an appearance of understanding, resting upon merely verbal concurrence with no deeper comprehension, the appearance goes unnoted, and unrepresented.

Thus, the more we tend to rely in our thinking and talking upon catchwords, slogans, and popular jargon, the harder it becomes to deal thoughtfully, intelligently, and critically with our pressing problems.

Some thirty years ago, in an essay called Public Opinion, the political scientist George Orwell pointed out that the degradation of language in our day, the increasing tendency in public discourse to substitute familiar but threadbare catchwords for critical insight signifies a similar degradation of our basic political institutions, and, in effect, it is a sign of the decay of language and, therefore, of the decay of society.

After arguing that "the present political chaos is connected with the decay of language," Orwell asserted that "the problem is a linguistic one.

Political language—and with variations this is true of all political parties from Conservatives to Democrats—is designed to make long sound truthful and merely respectable, and to give an appearance of intellectual substance, the Mississipi or the Mississippi.

In the three decades since Orwell wrote, the situation hasgot considerably worse, and the infection has spread from the political realm to virtually all other sectors, including art, science, and medicine.

Most philosophers and communicators today are aware of the deficiencies caused by the vagueness and ambiguities of language and the need for clarification, and this brings us to the matter of stereotyping. Nonstereotyping deficits about stereotypes. By the point has been made clear by the experience we have come to accept the view that stereotypes are based on the assumptions that one has stopped to inquire why they are bad or what the remedy might be.

This lack of comprehension is shown clearly in the fact that even among the people who complain of the most obvious stereotyping, and even among the people who have the greatest justification that they have been victimized by the use of stereotypes do not seek to eliminate stereotyping but set about creating new stereotypes of their own to deploy against the old ones. This process clarifies nothing; it merely confirms one set of axioms in opposition with another set, thus increasing the confusion, while obscuring the issue.

What is a stereotype? Why are stereotypes harmful? The simple answer, I think, is that stereotypes are half-truths which (as I noted earlier) are often more dangerous than outright falsehoods because they have a modicum of plausibility concealing their truth.

This is why they are persistent.

To commonly repeat perjured statements. They involve over-generalizations which have the effect of reducing all individuals to preconceived-type or stigmatic model. Such over-generalizations (at least in some modal) are false in some degree, and are immune to evidence which even when correct, are not believed. They are a form of opinion, and are a form of opinion of the highest order, and are a form of opinion of the highest order, and are a form of opinion of the highest order, and are a form of opinion of the highest order.

There are several points to notice. First, a prejudiced over-generalization can be positive as well as negative; the prejudiced person in this case, who is saying that, say, there can be blind and irrational prejudice in favor of some group or cause as well as against it. In fact, positive and negative prejudice is relative. Hitler’s belief in the superiority of the Aryan races, for example, involved a complementary belief in the inferiority of all other races. These were, in effect, two sides of the same coin. Second, a person who holds a true belief, even a true belief, is not always a disposition to favor or trust certain kinds of people without necessarily being hostile to others.

The second, the most serious practical effect of a prejudiced over-generalization is that the individual person may be labeled even if the individual case is not judged on his, her, or its individualistic merit but is categorized on a general basis without regard to the actual, particular circumstances.

It is chiefly for this reason that stereotypes have worked injustice to minorities and women. If you acquire a particular habit, such as talking in groups or women generally are unqualified for the higher positions in industry or the professions, the result is that when other workers are able to handle and are judged to be the people who are. In other words, if a man believes that all black are bad they that it takes superior ability to surpass them. To surround them.

It must be remembered, however, that this situation can occur under any issue. If the same is the case, the particularity of the individual is ignored; all members of a class are typed indiscriminately.

Think
Fiber Optics

The IEEE Communications Society Magazine for March 1976 features "Fiber Optic Communication: A Technolo-
gy Coming of Age" by R. D. Parsons.

This tutorial article points out that within about a
two years, communication via optical fibers has ad-
vanced from laboratory proposal to near-commercial re-
ality. In other words, we will soon see him everyday-
day long-distance telephone calls via laser beams (light
rays of a single wavelength) in glass "cables"--

to-ports.

The new technology involves cables containing hun-
dreds of thousands of fine, hair-thin, light-sensitive
collectors, and lasers with million-horsepower extrap艚tions.

Prototype systems are already carrying video and
video services and are already used in military and
commercial telephone applications, and widespread pos-
tional use of optical fibers in the early 1980's is ac-
ticipated. A simplified system is shown opposite.

Basically, in an optical-fiber transmission sys-
tem, information originating as analog voice input is
converted to digital bits by conventional channeling
equipment. The signals emitted by this code modulate
the current of an injection laser or light-emitting
diode, and the pulses of light are transmitted through
an optical fiber. If the fiber is damaged, the system
will shut down.

The fiber terminators on a detector which converts
the message-bearing light into current pulses, and
finally, as these are amplified, the original voice is
re-generated.

Problems involving fiber characteristics, optical
quality, cabling and splicing, connector materials,
and equipment are being solved, and the solutions are
becoming standardized. As the technol-
ogies improve, costs will de-
crease and demand will increase further.

The fiber-optic revolution in communication has
almost reached our home bedside!

Model of Society

The February, 1978 issue of the Systems, Man,
and Cybernetics Newsletter of IEEE's IEEE Society
Conventions with several technical sessions pro-
ted to explore systems engineering and develop-
ment by using techniques of systems engineering.

To illustrate this use of the "systems approach,"
this article will take the reader through a repre-
entative site. Circles in the drawing represent connections,
organization, or interaction of inputs; rectangles represent
variables or conditions. Note the * and relationships.

"Classic" Writing

Michael Austin, advocating a change in perspec-
tive, points out that the reason for teaching English are
- 1. enable people to communicate effectively in
   speech and writing;
- 2. introduce the literature of our cultural
   heritage;
- 3. encourage and help people to generate works
   that contribute to the culture of society.

But why, asks he, is the study of novels, poems, plays,
even the study of our own language, given such great
value in achieving these objectives, while the virtu-
al world, which is, after all, literature is generally ignored?"In the educational system of a cultured society there
should be a place for the virtual world, something like
a non-exclusion of one by the other. Why not study the
technological aspects of literature, as well as those
touched by Chaucer? Those of Einstein as well as those
of Joyce?"

This point of view is discussed at length in Austin's
article "A New Approach," which first appeared in
IEEE Conventions (3 June, 1977) and is included in
The Basics of the Concept of "Systems Engineering:
and Technical Information (Institute of Systems and

Plan Before Reporting

July Segal writes in The Treasurer (April 1978) about
"Grappling with the Devil (or How to Conduct a Business Meeting)."

"For years," she points out, "the devil has been a symbol of power. He represents the leader.
But in practice, the president or chairman who plans
careful precedents has to produce for work, with all the
time one who plans usually finds yourself ineffec-
tive."

"The truth is," the article continues, "devils are devi-
"Solving problems"
illustrations of the way in which popular slogans and stereotypes can become substitutes for understanding. They appear, because of vague associations, to have meaning—albeit what is called emotive meaning—but in fact even this turns out to be elusive.

1. 'liberation'

We hear a great deal today about 'liberation' in a variety of contexts. There is talk about the 'liberated' female, the 'liberated' male, the 'liberated' worker, the 'liberated' artist, the 'liberated' writer and, of course, the 'liberated' homoeosexual. Obviously liberation is a thing of many, and, of course, in many contexts it is.

But liberation is not a quality, like happiness or peace of mind. Liberation is a relational term. It has meaning only if you specify (a) who is liberated, (b) in what respect, (c) from what, and (d) for what.

Now in some contexts, these factors are quite clear, as when we talk about the abolition of slavery or freeing nations or people from colonialism. But as the term gets extended metaphorically, the meaning gets increasingly vague until, like Lewis Carroll’s smiling Cheshire cat, the face has vanished leaving behind only the feeling sure of the original expression. In this situation, 'liberation' can be invested equally well on both sides of many issues, thus cancelling itself out.

The question of sexual freedom is a case in point. Sexual freedom—including freedom for homosexuals—is seen by its advocates as required in the interests of personal 'liberation'. In this case liberation from restrictions imposed by the culture and especially by the Church. Yet the argument upon which these supposedly 'repressive' views were founded was itself based on the need for personal 'liberation'. In this case, a liberation of the higher powers of personality from the automation of bodily drives.

I shall not stop to argue here which view is right. My point is simply that talking abstractly about liberation proves nothing either way, since the concept can be and has been invoked on both sides.

So also when the philosopher Spinoza talked of 'human bondage', he referred to man’s bondage to their own passions, from which he believed rational men should always endeavor to free themselves. Today that Spinoza condemned as bondage is praised as the true measure of personal autonomy. As the context shifts, the concepts of 'liberation' and 'bondage' reverse their polarity.

I am not suggesting, of course, that liberation or being liberated is bad. I am saying only that if such terms are to have any ascertainable significance, one needs to look beyond them. Otherwise they function simply as ritual incantations, employed to avoid the need for addressing the underlying problems.

In this connection, I might note a further assumption which can add to confusions on this point. Many writers today either assume or assert that all socially imposed rules or norms are essentially repressive. This view leads to the belief that the essential function of law is to impose restrictions upon individual conduct, supported by penalties forcibly imposed by government agents.

Given the increasing spread of government operations, coupled with a serious distrust of governmental authority generally, it is wise to be assured that the law is not merely restrictive but seriously aggressive. This view is reinforced by the position of existentialist philosophers like Sartre, who claim that it is a breach of personal authenticity—a kind of 'bad faith'—for the individual to accept any general system of conduct imposed externally by society.

Although this point of view has some plausibility because it can be justified in certain cases, it leaves out of account the fact that some norms and laws can be enabling rather than repressive, and the more basic fact that no community can exist at all without norms and standards of some kind, distin-

guishing acceptable from unacceptable behavior. The reason is that in society people sometimes compete and sometimes cooperate, but that they can do neither effectively unless they can count to some extent on what others will do. These mutual expectations can be fulfilled only when there are some generally accepted ways of behaving.

If these facts are borne in mind, it may help to off-set the current feeling that society as such, and perhaps our own society in particular, is essentially repressive and that problems of individual self-restraint and self-control are of only secondary im-

portance.

In any case, where the older moralists and the Church stressed the primary importance for individuals of internal self-discipline as necessary to achieving personal integrity, many current writers equate in-

tegrity with autonomy and are thus led to suppose that personal integrity requires 'liberation' from externally imposed standards and rules.

This view, of course, devolves personal respons-

ibility and considers society or government, if it endeavors to increase its control, both a source of injustices and an instrument of oppression.

2. 'discrimination'

Because certain types of discrimination are un-

just—notably discrimination against racial minorities—many people have come to speak and write as if all forms of discrimination were unjust. Thus the word 'discrimination' has come to be used, not only in the news media but by some serious writers, as if discrim-

ination were wrong in itself. To call something 'discrimi-

natory' is a way of condemning it.

This is a very serious and dangerous error, be-

cause all judgments, all understanding, and all virtue, including justice itself, involve discrimination.

Imagine, if you can, a person lacking all ability to discriminate. Such a person could not distinguish anything from anything else; experience, if we could call it such, would be a mere blur. He could not tell light from dark, up from down, future from past, friend from foe, truth from falsity or good from bad. He would be worse off than most animals—even a dog distinguishes between being strummed over and being kicked. Many distinctions aside, of course, he would be pun-

ished, but if we make none at all, we cannot discrimi-

nate between justice and injustice.

More specifically, the first requirement of any system of justice is that it should discriminate be-

tween the innocent and the guilty. To treat an inno-

cent person like a guilty person is to not serve the interests of justice and equality, but to deny them.

Again, all laws and rules of any kind discrimi-

nate among different kinds of conduct. A law against stealing discriminates against thieves. A law against drunken driving discriminates in favor of those who are sober.
No More Than 3 Pages

In an article called "Write Less, Jane, But Write Better" (The Baltimore Sun, May 19, 1978), Michael W. Swarts makes the following "modest proposal":

Writing assignments in grammar school, high school, and college should be for no more than 3 pages instead of at least 10 pages.

Requirements of at least a page, the former college teacher points out, encourage the more-is-better attitude and teaches students to mistake verbosity for writing skill.

Junior high school papers "boggle with flourish, flowery, cute, repetitive, and empty phrases," written to fill specified quotas of blank paper. Senior high school papers, too, are "riddled with pithy quotations, irrelevant digressions, garrulous opinions, pompous summaries, self-insulting smiles, and rambling comic coincidences." They are "hot air in a balloon."" Seniors in high school have "acquired enough bad writing habits to last all their lives.

9

A Number is.......

A number of men is setting out for Moab today morning, but it will not all reach the summit.

If you find such sentences uncomfortable, you are right. 'a number' and 'a lot' mean six, or about a hundred, or nearly five thousand, or very many, or all those other meanings. The number isn't exactly known or is unknowable. Therefore 'a number' and 'a lot' are loose terms. Some common meanings of 'number' are: a quantity that is not small; a large number, a great deal; a large amount; a number of.

But 'a crowd' and 'a host' and the like are truly collective nouns, and should only be used of a large body of people.

F. A. Bowan, editor of The Communicator of Scientific and Technical Information (November 1977), has criticized the following: The word 'a' is used as a number in this place.

...a crowd and a host are large bodies of people.

9

Words Around the World

F. A. Bowan, editor of The Communicator of Scientific and Technical Information (November 1978). His new found fame is a mark of his skill and taste.

In his column, Bowan refers to the fact that the word 'a' is used as a number in this place.

...a crowd and a host are large bodies of people.

9

Effectiveness


Maurice Rynas, in "How Do We Judge a Speaker's Competence?" rates speeches on a five-point scale for each of the following:

1. Content: extent of accuracy and information and vocabulary
2. Grammar: suitability and correctness of usage
3. Speaker's voice: volume and tone
4. Presentation: speech's manner and posture, visual aids
5. Effectiveness: suitability for audience and purpose

Marilyn McManus, in "Testing Engineers' Writing Ability," tells us a bit about determining if there is any correlation between the performance of candidates in two writing tests.

1. Subjective. A verbal, confusing passage is given, with instructions to rewrite by improving style, format, and organization as needed.
2. Objective. Sets of possible correct answers are given for various types of analysis of grammatical usage (e.g., punctuation of a complex sentence, particular use of articles, prepositions, subject-verb agreement, dangling phrases or clauses, word usage or meaning) are given to context with instructions to choose the "best" version in each set.

Examinations of both kinds might be prepared and used together to examine the writing ability of individuals in any group or any subject.

9

European Bank

E. Giudotti, PCI's Area Representative in Italy, supplied much of the substance of the speech to the European Space Agency. SEPRA is an international cooperation in telecommunication and space, and the future European Union may well be the new model of globalization.

In the telegram to the European Space Agency, SEPRA sets the tone of a new era by opening the doors for alternative means of communication. SEPRA gives full attention to space, and this is seen as a major step forward in the integration of Europe's telecommunications systems.

SEPRA plans to build on the success of the European Space Agency by setting up a new body to assist with the organization of satellite communications.
Field Activities
Direct cash transfer to regions and sections $3.40
Administrative support $6.06

Education Activities
Support of accreditation $2.23
New member education products $2.00

Membership Communication
Correspondence $.99
New member promotion Member accessories $.02
Record maintenance $.25 $3.96

General Administration
General accounting $2.70
B of S - Executive Committee, etc. 2.77
General office support $2.69
Committee support $.99 $10.01

Supplies and Services
Computer supplies and services $11.52 $11.52
Support of Special Dues Categories
Retired members $5.65
Student members $5.00 $35.00

The following article by Dr. John Kirkman of the University of Wales Institute of Science and Technology (GOMAT) is reprinted from the Social Sciences Supplement (February 1978) of The Communication of Scientific and Technical Information:

Extending the LISAM concept

The L.M. Nielsen Company, Stockholm, Sweden, has given a grant of $2,332 to the Communication Studies Unit of the University of Wales Institute of Science and Technology, Cardiff, for a 12-month study of technical documentation. The Unit is to explore the feasibility of developing a "controlled" form of English, using a limited vocabulary and a limited range of sentence structures, for use in European international documentation.

Several international companies, notably Digital Equipment Corporation, Eastern Kodak, IBM, and Rank Xerox, are already using "controlled" forms of English of this type. The use of "controlled" English enables a company to produce just one English version of each of its documentation. Many translators into other languages are unnecessary, because operators and service staff throughout the world can be trained to use controlled-English documentation without difficulty. The staff cannot be said to "understand" English in the true sense, but they are able to recognize and interpret the limited range of words and phrases and work without confusion.

Origin of CASPAR

The first "controlled" version of English for technical documentation was produced by the Caterpillar Tractor Company of Peoria, Illinois, USA. The Caterpillar company distributes machines and heavy machinery throughout the world. It required its machinery, with maintenance and repair documentation, and because the tools for this do not exist in many countries, the company used a project to translate its English documentation into various languages. But duplication of documents in many languages is expensive, so the company sought alternate ways of presenting its information.

Caterpillar researchers decided that it might be possible to use an internationally understandable set of symbols and a limited vocabulary and a limited range of sentence structures, for use in European international documentation.

Several international companies, notably Digital Equipment Corporation, Eastern Kodak, IBM, and Rank Xerox, are already using "controlled" forms of English of this type. The use of "controlled" English enables a company to produce just one English version of each of its documentation. Many translators into other languages are unnecessary, because operators and service staff throughout the world can be trained to use controlled-English documentation without difficulty. The staff cannot be said to "understand" English in the true sense, but they are able to recognize and interpret the limited range of words and phrases and work without confusion.

The Development of ELSAM

The development of ELSAM began in 1975 with the establishment of the ELSAM Group at the Social Sciences Institute of the University of Wales, Cardiff. The group was funded by a grant from the University of Wales Research Council and the project was conducted in collaboration with the Communication Studies Unit of the University of Wales.

The project aimed to develop a controlled English version of English for use in technical documentation, using a limited vocabulary and a limited range of sentence structures. The project also sought to develop a set of symbols and abbreviations that could be used to represent the limited vocabulary and sentence structures.

The project was completed in 1978 and the results were published in a report titled "Extending the LISAM concept". The report described the development of ELSAM and its potential applications in technical documentation.

The use of controlled English has been adopted by several international companies, including Digital Equipment Corporation, Eastern Kodak, IBM, and Rank Xerox. The project has also been adopted by the Caterpillar Tractor Company of Peoria, Illinois, USA.

The development of ELSAM has been successful in reducing the number of words to be learned and in reducing the number of languages required to be known. The project has also resulted in the development of a set of symbols and abbreviations that can be used to represent the limited vocabulary and sentence structures.

The project has been funded by several international organizations, including the University of Wales Research Council, the Communication Studies Unit of the University of Wales, and the Social Sciences Institute of the University of Wales.

The project has resulted in the development of a controlled English version of English for use in technical documentation. The project has also resulted in the development of a set of symbols and abbreviations that can be used to represent the limited vocabulary and sentence structures.

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Failure of Technology

Americans are perplexed by the failure of technology to supply us with a meaningful life or a decent environment to live in. For every wonderful achievement technology seems to deal us an equivalent kick in the shin.

Travel has become more efficient and less civilised. Television has helped to raise a generation of unprecedentedly educated six-year-olds and increasingly illiterate high school seniors.

We can enjoy completely enclosed and comfortable environments hundreds of feet above the sidewalks until, as witness the New York City blackout last summer, someone pulls the plug and the environments become inaccessible and uninhabitable. Only the most naive believers can escape our increasingly technological environment.

Recognising that the technological trend is irreversible, we fantasise in science fiction and science-fiction cinema about a world where all the machines work with us, rather than against us, where the computer does not dominate the hi-hill, and where jet planes directed our luggages intact at correct destinations.

-- @ Saturday Review 1977 from "Our Love-Hate Affair with Technology" by Carl Benner.

New Sociology

We must change all of our concepts of economic sociology. We must throw the opacity into the wastebaskets. Keynesian economics will soon be a thing of the past. We have to switch, without delay, from our concept of expansion in quantity to the concept of expansion in quality. Would this mean the end of progress? On the contrary. We have a very good example in electronics. Electronics is improving by super-specialisation. We are making better products smaller and cheaper, that required less resources to produce and less energy to function. This is the type of industry that should be encouraged, because it typifies the ideal kind of technological progress.

The characteristics of the stable society of tomorrow have been defined. First, there must be minimal disruption of ecological processes. Second, there must be maximum conservation of materials and energy. Third, there must be stable or controlled decreases in population without coercion. Fourth, there must be a social system in which individuals can enjoy, rather than feel constrained by, the first three conditions.

Governments in all countries see the world in fragments, not as a whole. We should realize that there is only one problem today, our survival as a species; there is only one environment, the environment of life. There can only be one attitude, as we face the inevitability of conflicts that could eradicate all life. We must unify to implement methods for rescuing our planet.


Need to Prepare

In "How to Kill a College" (Saturday Review, February 4, 1977), Charles A. Gross, Dean of Humanities, City College of New York, discusses CUNY's adoption of a policy of "open admissions".

We had abolished requirements and prerequisites and had arranged elective courses in a cafeteria curriculum that made basic skills and basic knowledge seem irrelevant, structure obsolete, and sequential study insignificant. The historical perspective was already so suspect that the liberal arts college functioned primarily on the pleasure principle. Students mulled over the courses they wanted....[We] threw open the gates, made possible the infinite options to satisfy every taste or lack of taste.

Furthermore,

As each career program was established, the traditional disciplines in liberal arts and sciences were placed in a service relationship to vocationalism as though the only way the disciplines could be made interesting or relevant was by attaching them to practical programs.

It appeared, however, that open admission students needed a vast amount of attention in their attempt to master the writing of English. One could find some comprehension among them during the discussion of a reading assignment, but their discussions were stimulated...but the students' writing barely made sense.

Thus, despite the fact that these students "brought to their work a motivation that was like hunger," the need for them to master English—a standard language—was clear to everyone.

Not so clear, perhaps, was their further "need to master, at the same time and in the same place, the separate language of history, or psychology."

But "clouding the issues of literacy and open admission...were the implications of racial tension...working across and into the mind of everyone who cared."

In the end, Dean Gross concludes, "Breeding ongoing [ethnic] departments was vain, and those with empty bands are the minorities for whom they were created."

The experiences of CUNY with open admissions argue most dramatically, he believes, that adequate preparation, not creativity, anger, determination, or desire, is the essential criterion for entrance to college and success in academic endeavor.

Dean Gross points out that, for lack of funds, New York City no longer adheres to a policy of open admissions. But the urban conditions which prompted adoption of the policy he notes, "remain to haunt us as memories of what we failed to achieve."
His article ends with these thoughts on undergraduate education in the ability "to see life clearly and see it whole":

Inevitably, one returns in education to the basic question of what it should mean for the student to面目 upon graduation and especially of what skills of interpretation he possesses. Indeed, one is often guilty of overestimating one's philosophy and history, if he has not developed the critical skills that enable him to distinguish the moral from the immoral, the fluent language from the glib, and the art from artifact—then he is not educated.

Discrimination is essential: intellectual discrimination. That and lengthening the critical attention span, so numbed by television and radio and newspapers and a hundred forms of entertainment with the eye and the ear. And acquiring the understanding of a few great texts—a few will suffice—that have lived beyond their moment in time. And achieving the self-reliance that grows from the authority of knowing some things well.

Knowledge is certainly not enough. It should lead to wisdom, which carries vision in its own right. Without knowledge, wisdom is hard bought. And knowledge cannot be used if the social and economic and political science of the moment, ever shifting, stimulating an anxiety that is not understood. Toggled by statistics that carry with them apparent truths about a part, what future can we have?

Ed. Note: Violent student protests against "Sue to Kill a College" have caused Professor Grosz to be deprived of his citizenship. Apparently those whose "empty heads" have regretted the implementation of this program—skeptical with tune-up weapons and were not prepared to understand what he was saying. The City College of New York continues to proclaim itself "An Equal Opportunity Employer."

Standards for Telecommunication

"The Federal Telecommunication Standards Program," by Dennis Boman, in the IEEE Communications Society Newsletter, March 1979, tells us, among other things, the following:

In 1964, partly because of problems experienced with internal communication during the Cuban missile crisis, President Kennedy directed the establishment of a National Communications System. The NCS was to be an interagency organization that would "provide necessary communications for the Federal Government under all conditions, ranging from a normal situation to national emergencies and international crises."

The President named the Secretary of Defense as Executive Agent for the NCS, and the Director of the Defense Communications Agency was later named NCS Manager.

Thus the Secretary and the Director next took on NCS work as an additional responsibility. They were charged with linking and improving the communication resources of the ten agencies chiefly involved in long-distance telecommunication activities of the Federal Government:

- Departments of State and Defense
- Federal Aviation and General Services Administrations
- National Aeronautics and Space Administration
- Central Intelligence Agency
- Departments of Commerce, Energy, and Health and Human Services
- N.C. International Communication Agency

The NCS is, accordingly, a confederation of telecommunication facilities which are funded and managed by their parent agencies. They respond to coordinated plans and procedures and are available as needed to satisfy transmitting national requirements. The organization serves as both a forum and catalyst for Federal telecommunication responsibilities.

In 1972, in response to Executive request, the NCS Manager established the Federal Telecommunication Standards Committee (FTSC) to

- Develop standards for achieving greater compatibility among NCS communication networks and providing networkcomputer interfaces,
- Improve the coordination of Federal, national, and international standards.

Fourteen Federal organizations—the ten NCS agencies and four others, including the National Bureau of Standards—were represented on the FTSC, which coordinates with standards programs of the American National Standards Institute, the International Telecommunication Union, and other organizations.

Two types of standard emerge from FTSC efforts: those which affect telecommunication systems only and those which affect both telecommunication systems and information processing systems. To date, six Federal Telecommunication Standards have been published (in signaling rates, circuit characteristics, and various aspects of coding and notation). Further information is available from the National Bureau of Standards, Washington, D.C., 20234.

As FTSC work continues, five standards are awaiting publication and thirteen are being developed.

12-Hour Shifts

Working 12-hour shifts gives some Du Pont employees a lot of time off.

At six Du Pont Co. plants that operate round the clock, employees work an unusual schedule—four weeks on, four weeks off. Du Pont doesn't want to do all work at once, so it keeps weeks on, and on schedule when left employees don't work on the same night with 12-hour work.

During the four-day weeks, employees work eight hours on, eight hours off, two days on, and two days off. This means that each employee works on and off every four days, and is sure to get two weekends off every four weeks. The seven straight days off every four weeks means that no employee works more than seven nights during the four-week cycle.

Information About P C

The following documents are now available from PC's Area Representative in southeastern US:

- PC's Constitution and Bylaws
- Job Descriptions for Members of PC's AdCom

For copies, write to Robert H. Woody, B-Dylan, Inc., 9006 Beechwood, Greenville, TX 75401.

Personal

George McClure, a member of PC's AdCom, recently received an Outstanding Service Award from the National Technology Society as editor of VT's Transactions.

Congratulations, George!

Communicate, PC-ers!

Wanted: A member of PC who is also a member of the IEEE Computer Society—or vice versa—to write or summarize articles from Computer for PC's Newsletter.

Much of the material in Computer is of great general interest, but published too detailed and specialized to be appreciated by the majority of PC-ers. Subjects like

- The Architecture and Selection of Military Computer Families
- Selection of Computer Communication Networks
- Standard Computer Graphics
- Need for a Common Programming Language
- Computers for the Small User

could be represented simply, in layman's language, by someone knowledgeable about computers.

Indeed, PC-ers in all branches of engineering could perform a most valuable service by writing brief reviews of articles from IEEE Transactions, even from other technical journals, for publication in this Newsletter. In most cases, the abstract, introduction and conclusion, with perhaps some background information or short explanation, would make a communication of great general interest.

Not about it, PC-ers? What is happening and being written about in other IEEE Societies?

When the grass looks greener on the other side of the fence, it may be that they take better care of it over there.

Of course we would not rule out the use of common sense in solving the problem, but first we must exhaust every possibility.

Science Film Symposium

Sci/Cim '75, third biennial symposium of the American Science Film Association, will be held at the Museum of Science & Industry in Chicago November 1-3. Major program block will be devoted to emergency medicine, preventive medicine, computer animation, films in the university and entertainment industry. The remaining program block will honor someone whose individual contribution to the field of extension and communication deserves national and even international recognition.

Sci/Cim will begin at 6:30 on Tuesday evening with presentations and the screening of two new shows of scientific films; it will end on Friday, with optional tours lasting until 4 PM.

One of the special attractions will be the film/video showcase running throughout the three days. At least 50 subjects will be chosen for the program blocks and evening screenings. More than 100 others will be available in a library/screening room set up for individual viewing.

Sci/Cim is open to everyone interested in science and communication via television, motion pictures, slides, and other media. Obtain more information from ASP headquarters, 656 Market Street, Philadelphia, Pennsylvania 19106, telephone (215) 367-2955.

For the previous Sci/Cim, held in 1976, the International Science Film Association brough delegates to Philadelphia from 23 nations; US and Canadian groups jointly sponsored the first Sci/Cim in Rochester (NY) in 1974.
Welcome To PC!

New members of PC who joined us in April, May, and June came from 15 of the United States. Welcome to all! How many will be active PC-ers? Remember that you get more benefits by doing more work.

Australia
J. S. Wyler
M. O. Duncan

Brazil
H. S. A. de Alho

Canada
A. R. Lamna
S. L. Laplaisant
J. S. Patthey
E. Perras

El Salvador
M. S. Miramontes

England
B. R. Harrington

Finland
J. O. Louna
T. Kari
F. Ahlback
S. J. Neera

Ireland
A. Ajerann

Education Committee

Ron Silva, Education Chairman, reports that 60 persons have enrolled this year in PC's home-study courses. ‘Technically-Written’ Depey have completed all course requirements. Information about the course is available from IEEE headquarters and PC officers, or write to Ronald D. Silva, 1811 E. 35th, Pasadena, CA 91106.

Ron will hold a half-day seminar, 'Communication Guidelines for Technical Writing' as part of the Joint Engineering Management Conference in Denver, October 16-17. This course is being given as a complimentary service to the Engineering Management Society.

Ron will also chair a program session, ‘Teaching Technical Writing/Communication to Engineers’, at the Frontiers in Education Conference at Iowa State University, October 29-29. The FIE Conference is a joint effort of the IEEE Computer Society and the AMS (American Society for Engineering Education).

As a speaker in Ron's FIE session, Dan Heston, PC's Secretary, will discuss the role of professional societies in developing engineers' communication skills and the work of PC in engineers' continuing education.

Immediate after the FIE Conference—that is, October 26-27—Ron and Dan will give the two-day workshop, Technical Communication and Report Writing, which is sponsored by PC and IEEE's Educational Activities Board.

PC needs
1. Add members.
2. Area representatives.
3. Instructor/markers for home-study course, Technically-Written.
4. Artwork for Transactions cover.
5. Articles for Transactions.

By helping to fill one of these needs, YOU can benefit in four ways:

- Improve your technical specialty.
- Call or write to a PC officer or chairman and learn how to
- obtain personal satisfaction
- add to personal accomplishments
- increase professional competence
- increase professional contacts.

Working actively for PC will help YOU, on the job and off the job, as it has helped others.

Gold Mine


Seiger’s Encyclopedia is advertised as “500 books in One”—each ‘book’ is a long chapter. More conveniently, the volume may be thought of containing a dictionary and a dictionary for each of nine aspects of the English language:

- grammar
- usage
- pronunciation
- rhetoric
- spelling
- vocabulary
- history

A tenth section, on literary forms, and an index complete the contents.

This book, of course, changes its subject often and is therefore difficult for continuous reading, but the many varied ‘goodies’ in its chapters provide an extensive array of material for reference and discursive reading.

The Dictionary of Grammar gives the derivation of all terms listed and explains the linguistic use of such words as sign and root, relationship and means, tense, preposition, noun, and adjective, as well as explaining more particularly grammatical words like nominative, genitive, and so on.

The Dictionary of Words Most Frequently Misspelled suggests causes for wrong spellings and ways to remember right spellings—as in poison—Shus polens. cannot—One point. address—Two 6’s and two 6’s (6d 6s). The Dictionaries of Roots, Affixes, and Figures of Speech are also treasure-houses of useful information, and the chapters on rhetoric and poetry contain excellent brief discussions. The chapter on vocabulary describes, among other things, the structure and relationships which characterize the Indo-European family of languages.

Finally, and similarly, the chapters on the history of the English language and of English, American, and world literature tell all that anyone but a specialist needs to know about each of the respective subjects—except for things that have happened since the 1970’s.

This Encyclopedia contains the nuts and bolts of the English language, sorted and easily accessible. It has the fascination and usefulness of a hardware store, and can be purchased for only a very small outlay of capital.
Cultural Communicates

The Silent Language—Edward T. Hall (New York, Double- day Anchor, 1959) has a chapter titled "The Language of Silence." It is a detailed exploration of the significance of non-verbal communication, with a particular focus on the "silent language"—the unspoken, non-linguistic aspects of communication that are critical for effective interaction.

The Silent Language presents the relationships in a 10x10 matrix (pp. 100-107). Aspects of culture—such as power-distance, uncertainty avoidance, and individualism—interact to influence the way people communicate. Understanding these relationships can help in cross-cultural interactions and in business settings.

Ad Com Meeting

PC's Advisory Committee met on June 16 at IKEA Headquarters for a 90-minute meeting. The Agendas were as follows:

1. Appointments—John Phillips as chairman of the Advisory Committee, Pat McAdoo as liaison to the Society for Technical Communications. He will attend meetings of the Society to be held at the annual conference. John Phillips, MA Ed., 204-2, Cherry Hill, NJ, 08031.

2. Six members have agreed to be Area Representatives. RAMCO has met on behalf of four local areas with one member from each area to discuss the following.

3. PC's Transactions

The Transactions on Professional Communication will have a special issue on multimedia and graphic techniques in 1970 and 1975. For example, forthcoming papers include: "Provision of visual presentations, a color graphic program, and the scope of multimedia." In an issue number one or two next year we will be looking at the creativity of inventiveness, the role of scientific invention, the documentation, the invention, and the patent application writing.

Patent protection for inventions is analogous to copyright protection for literary and artistic works. However, in contract with an application for copyright registration, which consists of a typical form accompanied by a copy of the work to be registered, a patent application is a legal status which, if not registered, may be inadequate. A patent application must be developed through the Editor's instructions, notes, drawings, and verbal descriptions to a written disclosure document must be developed that satisfies the purposes of the patent application.

The Editor welcomes individual, original contributions, as well as recommendations of useful articles to be reprinted from unwritten or limited distribution publications. Copies may come from any discipline.
The conference was called primarily to define priorities. Once you meet in the Fall to explore solutions, I hope you won't waste time by allowing industry and academia to point fingers at each other. That has already been done many times.

The basic difficulty is that we have our elementary and secondary school system failing—they provide inadequate education in science. I insist that they teach basic reading and writing.

My two sons are now in college, and I haven't had much attention lately to elementary and secondary education, but my lack of attention has perhaps already hurt me and my employer. I have come to feel there are still fundamental misconceptions about basic education, as citizens and taxpayers, whether or not we are parents, however old our children are, whether or not we are professors, whatever the level or subject of our teaching. It will take a long time to improve reading and writing skills in this country—perhaps more than a generation.

Our tests of about-to-graduate high school seniors show that we should have applied our concern for their education much earlier. If we work to ensure that our children learn and practice basic skills of reading and writing, surely we will have better students in college, I will have more productive employees in industry, we will have better citizens—some of whom might even be interested in seeing that fundamental truths are taught to their children from the very first day in the classroom.

We receive information about a society's interactional structure formally through time, voice, information, conclude, through gesture, and technically through language. Knowledge about a society's attitude toward learning is conveyed both informally and formally. There must be some information in the Unsilent Language that conveys our belief that the Unsilent Language shows these and other methods of communication.

Similarly, concepts of comfort, use of natural resources, and technology itself are seen as the forces that shape culture. This information about exploitation is revealed. And defense attitudes and practices are manifested formally, informally, and technologically in a system of beliefs about the defense of society, things as the supernatural, safety, and health, in the statements of religious leaders, and in military theology and defense practices.

Making a historical analysis, Hall describes the messages of culture in terms conventionally applied to spoken and written language. That is, he discusses culture as the language of behavior, constructed of sets of sets (cf. words), which can be broken down into sets of symbols (cf. words) and organized into patterns (cf. phrases, clauses, and paragraphs—even chapters). It is helpful to keep the linguistic analogies well in mind.

Sets, Hall explains, are the first aspect of a message to be observed, but have significance according to the patterns in which they are used. Sets may be large or small, consist of significant or interchanging parts, or be neither. Every language includes a variety of patterns. They may be perceived singly or in categories. Within categories, the perspectives are interpreted according to the social expectations, informally (according to the expected moral or social expectation), or technically (as points in a pattern).

The same set may be classified differently in different cultures. Composite sets may have different components in different cultures. For example, a language contains many words for motion: some languages recognize "very" and "dry" varieties. Briege, snow, and trees are generally the same color in the largest set of sets. Colors form an unrelated set in some cultures, may be classified in number, or may form a limited color.

Dress, homes, tables, school subjects; kinds of automobile; rare, medium, and well-cooked steak; gestures, words, family groups, buildings, vegetables, dirt, and so on are all listed. All these forms sets differently and changeably.

Wally PC's Transactions concerns itself with big problems: size, copyright, phonetic spelling, graphics, satellite-assisted publication. This newsletter has been conceived to monitor interesting, new information about computers and computer research. These are scientists and engineers with bachelor's, master's and doctor's degrees. They have good ideas but often cannot express them very well.

Managers often spend extra personal time to help these scientists and engineers improve their writing and speaking skills. This newsletter is paying for instruction that should have been given years ago.

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Letter from the Editor

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Read This Book


Either the title of On the Honeymoon or its subtitle, "Interpersonal Communication: A Social Psychology" suggests that this small volume Ron Hillel discusses with a friendly, casual air is something a general philosophy but also particular problem of sending and receiving business messages.

His rationale for the title and his reason for writing the book are the same. Today's employees tend to move around. They are more ready to experience than per-
Jargon

Travis Walton, editor of the Geocence Electronics Society Newsletter, has compiled a glossary to help engineers understand word-ads for professional services. The following interpretations appeared with others in his March, 1978 issue:

Mid-winter vacation: Our business slacks off in December.
Career growth opportunity: You start at the bottom.
Our problems are challenging: Many of our people can't read.
Prestigious manufacturer: Our designs use healing.
High overhead rate hurts sales: We have no good heals.
State salary requirements: We give us a good laugh.
Hands-on experience: Our designs need healing.
Handle projects from conception to production: We have nobody to help you.
Profit-sharing plan: Also loss-sharing plan.

Job Ad

Assemble words into sharp sentences build strong paragraphs use business-like formats

On the Move is not about report writing, job hunting, English grammar, advancement in business, or how to keep your shop or office peaceful and productive. It is about the communicative aspects of business—the various situations and relationships, problems and solutions involved in sending and receiving work-related information.

Much has been said in past issues of this Newsletter about Tom Patterson's other book, Technically Jargon, and about the PC-sponsored home computing course which is based on that book and uses its title. Technically writing, however, is only a sub-set of business communication. To get "the big picture," read On the Move.

As a matter of fact, everyone in business should read On the Move. It makes the reader aware that most work problems basically involve communication problems and it shows how difficulties can be avoided. Also, it is as pleasant to read as a notice of salary increase, as diversified with sub-plot stories as a Victorian novel, and as instructive as a World Fair exhibition.

The following remarks were made by Tom Patterson, PC's President, at the Mid-Atlantic Section Meeting of the American Institute for Engineering Education held at General Electric Company's Management Development Institute, Croton-on-Hudson, New York, May 6, 1978. Tom was then Manager of Technical Communication at GE's Laboratories, Waltham, Massachusetts. He took part in the ASEED meeting as one of four panelists, two from industry and two from academe, in a session called "Communication Skills: Is the Recent Engineer Graduated Sufficiently Skilled?" Other panel members were: R. J. Kees, Union Carbide Corporation; J. Schaper, Pennsylvania State University; D. C. Andrews, Drexel University.

I am a professional communicator in industry. My main function is editing. I manage a group which types, illustrates, and publishes company reports, but part of my assignment is to read everything that leaves GE Laboratories—articles, papers, reports, etc. These are prepared by engineers or scientists on a wide variety of subjects. In general, the writing swings from very good to very bad, and in general, the scientists write better than the engineers.

The reason for this difference may be that scientists tend to be more concerned with ideas and to explain their ideas in writing, whereas engineers tend to work with hardware and drawings and have less incentive and opportunity to write.

At GE Labs, scientists and engineers are encouraged to write by receiving a $50 honorarium for each paper accepted. As far as I know, we are the only major laboratory that pays honoraria. At Sylvia, a GE subsidiary which employs mostly engineers, the honorarium has just been raised from $100 to $200, but still very few Sylvia engineers submit papers.

Together, the 50 engineers and 150 scientists of GE Labs publish approximately 100 papers a year. The scientists' version of the whole, is good, the engineers' only fair, but all improve with practice and experience. My experience, recent engineering graduates in general write poorly. The scientists who come to GE with advanced degrees, and also some writing experience, write better.

What of instruction in writing at colleges and universities? At the University of Virginia in the 1940's, an electrical engineer was required to have 150 course credits to graduate. Of these 150 credits, 0 were in English. There were no electives. English consisted of one hour course for each of eight semesters covering writing, literature, and speaking. Virginia now specifies only 12 hours of English for the same engineering degree. Even though a senior thesis is still required, the English department does not review it. And even though Virginia has elective courses in English, I doubt if those engineers who need the most help with writing choose to take such courses.

Many of our colleges and engineering schools have "composed" courses in writing—that is, all entering students take a writing aptitude test, and those who score low must take and pass a remedial writing course. This seems to be one solution to the undergraduate writing problem, but more satisfactory results could be achieved by paying attention to the "lower" education of far younger students.

A recent article in the New York Times (April 30, 1978; Education) explored the writing dilemmas in depth, concluding that today's young people are audio-visual oriented—to radio and TV, they do not read nearly enough of the classics which would expose them to good writing and thought. Part of this prob-