

English 102-4
Shoreline Community College
Winter 1997

Professor Carol Doig
Office 2227 at 10:30 am, M-Th
Phone 546-4729

TEXT: Gibaldi, Joseph. MLA Handbook for Writers of Research Papers. 4th ed.
New York: MLA, 1995.

English 102 focuses on the English language and on procedures which culminate in a 2500- to 2700-word research paper. In this particular section, the topics will be suggested by the instructor.

The course will require consistent and considerable work, since the instructor has planned for the traditional five hours in class each week, and 10 hours of outside work for each student. That's average, with some variation from week to week, and it presumes college-level reading, writing, and organizational skills. To be successful in the course, please consider the following:

1. To begin with, you must be able to write prose easily and well. If you need more practice in the fundamentals, a quarter of preliminary work beyond English 101 is advised.
2. You must want to do this work, which sometimes is difficult and, at the research level, sometimes frustrating.
3. You must have concentrated hours of time available, outside of class, for research and writing.
4. Because of the continuity required, you must be prepared to get to class all the time, on time.
5. Become a member of this temporary community by undertaking full intellectual participation. As a member of the group, you will have the chance to help others while at the same time helping your own efforts.
6. Work with the instructor to solve problems promptly.

The following pages give a general outline of the work expected and the timetable. Additional handouts, and much discussion, will be forthcoming. You'll note that the majority of the course credit is earned in preliminary research assignments, and that indicates the importance of the research process. An informed and thoughtful approach to each step is essential to successful completion of the course.

The MLA Handbook is to be used by each student as needed throughout the course. The suggested readings listed below will be particularly helpful in the weeks indicated.

<u>Week of</u>	<u>Assignments and Suggested Readings</u>
January 6	Introduction to the course and to library research. Thursday: Please go directly to Library 116. Reading: Chapter 1 through 1.4.5.
January 13	Choosing a topic and beginning research. Reading: 1.5 through 1.7 and Appendix A. Assignment #1 due on Wednesday.
January 20	Holiday on Monday: M.L. King Day. Compiling a working bibliography. Reading: 1.5 and Chapter 4.
January 27	Assessing the credibility of research sources. Assignment #2 due on Wednesday.
February 3	Preparation of note cards. Reading: 1.6. Assignment #3 due Wednesday.
February 10	Refining and focusing the research. Avoiding plagiarism. Reading 1.7. Assignment #4 due Tuesday.

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<u>Week of</u>	<u>Assignments and Suggested Readings</u>
February 17	Monday holiday: Presidents' Day. Preliminary outline with revised thesis. Reading: 1.8 and Chapter 3. Assignment #5 due Wednesday.
February 24	Writing the preliminary draft and completing the research. Reading: 1.9 and Chapter 4. Assignment #6 due on Wednesday.
March 3	Writing the final draft. Reading: 1.10 and Chapters 2 and 5. Final draft due on Thursday, March 6.
March 10	Attending to details. In-class assignments.
March 17	Classes end on Monday.

SOURCES. Since a principal intent of this course is to introduce students to credible academic sources, the research must be done from standard material, approved by the instructor. Except where historical background is necessary, material must be current, which is defined as 1996 and 1997.

PLAGIARISM. Plagiarism means the use of any material other than one's own without giving full credit to the source. Statements and ideas must always be clearly attributed. Failure to do so violates the basic standards of academic life and can result in failure in the course. Be careful. Read your MLA Handbook and ask the instructor.

Each student has the option of generating points from the following possibilities. The scale at right indicates the grades applicable to various point totals.

GRADE COMPONENTS		Minimum Points Earned	Course Grade Earned
		745	4.0
		730	3.9
		715	3.8
		700	3.7
		685	3.6
		670	3.5
		655	3.4
150	IN-CLASS ASSIGNMENTS. Students should expect some writing assignments during class hours. Credit may be earned only by being present when the assignment is given.	640	3.3
		625	3.2
		610	3.1
		595	3.0
		580	2.9
75	INSTRUCTIONAL ASSISTANCE. Students may earn credit for a variety of activities in which they help other members of the class.	565	2.8
		550	2.7
		535	2.6
		520	2.5
		505	2.4
390	PRELIMINARY RESEARCH. Six assignments will be included in this point total. Separate handouts will explain in detail.	495	2.3
		480	2.2
		465	2.1
		450	2.0
		435	1.9
150	COMPLETED RESEARCH PAPER. This credit is available only after all preliminary research assignments have been completed, in order.	420	1.8
		405	1.7
		390	1.6
		375	1.5
		360	1.4
		345	1.3
		330	1.2
765	Total points available	315	1.1
		300	1.0
		285	0.9
		270	0.8
		255	0.7
	Accumulated total of less than	255	0.0

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Professor Carol Doig
Shoreline Community College

PRELIMINARY RESEARCH ASSIGNMENTS

It's a requirement of the course that the following preliminary assignments be successfully completed, in order.

- #1. Finding a topic of interest.
Deadline: Wednesday, January 15.
Maximum credit: 30/15/x
- #2. Narrowing a research topic and preparing a thesis statement.
Deadline: Wednesday, January 29.
Maximum credit: 60/30/x
- #3. Preparation of bibliography cards.
Deadline: Wednesday, February 5.
Maximum credit: 50/25/x
- #4. Preparation of note cards.
Deadline: Tuesday, February 11.
Maximum credit: 70/35/x
- #5. Preliminary outline with revised thesis.
Deadline: Wednesday, February 19.
Maximum credit: 100/50/x
- #6. A preliminary draft.
Deadline: Tuesday, February 25.
Maximum credit: 80/40/x

Grading standards. Assignments submitted at the start of class on the listed deadline dates will be eligible for maximum credit, if successfully complete at that time. Half-credit will be available for assignments which are substantially complete but need some revision. Revisions must be submitted at the next class session after the initial assignment is ready for return. Assignments submitted a day late also will be eligible for half credit, if complete.

Assignments submitted later, or which take more time for revision, will be checked off as completed, but will not earn grade points. All preliminary assignments must be listed as complete before the final research paper can be evaluated.

Keep a copy. Keep a copy of each assignment that you submit. (Handwritten bib cards and note cards are the exceptions.) That way, you'll be able to keep working even as the instructor prepares feedback.

English 102-4 Topic List

Winter 1997

Here are some preliminary topics, mostly in the form of questions, that can be expected to evolve in consultation with the instructor as research proceeds.

1. Freedom of information versus privacy: What's the balance?
2. The Supreme Court appointments of Reagan, Bush, Clinton: What standards?
3. The Telecommunications Act of 1996: How good for the consumer?
4. Disney/ABC/Capital Cities as an example of media consolidation: At what point is it too much?
5. Rupert Murdoch as a global media entrepreneur: Undue influence?
6. Indecent? Obscene? Can such ideas be successfully legislated?
7. Censoring the Internet: Is it a practical possibility?
8. When is undercover reporting journalistically ethical?
9. The World Intellectual Property Organization: What should be copyrighted?
10. The Nixon papers: Should presidential papers ever be private?
11. Microsoft: Strictly ethical?
12. Boeing and McDonnell Douglas: Anti-competitive?
13. The 1996 presidential campaigns and political funding: How can it be fixed?
14. Social Security is running a surplus. What's the problem?
15. The state of U.S. diplomatic relations with (fill in the country).
16. What are the options for global peacekeeping? Which is preferable?
17. The FTC? The FCC? Who watches out for the consumer?
18. The CIA and its problems: Is a spy shop consistent with democracy?
19. To teach Ebonics or not: a dispute about language.
20. Clinton and Gingrich: A study in language contrasts.
21. Retirees from the Senate: How damaging to consensus?
22. A question of security: Is it safe to shop and bank via Internet?
23. Assessing sources on the Internet: How do you know if it's true?
24. Clinton's new cabinet appointments and what they tell about his priorities.

English 102
Professor Carol Doig
January 10, 1997

A Brief Introduction to Library Reference Sources and Indexes

The college library has many reference sources that can help with your research. Here are a few that I've found especially helpful in the past. The Dewey Decimal numbers assigned to the reference books will direct you to sections where you'll find related information. Take a look around for what is most useful for your project. Remember you're not limited to the several suggestions below; they're only meant to give you initial ideas.

Reference Books

These are found in the central area of the library which you can find on your map. When the Dewey Decimal number is preceded by *R*, that means it's a reference volume and cannot be checked out.

R001.5103/I61	<u>International Encyclopedia of Communications.</u>
R050/K19	<u>Magazines for Libraries.</u>
R310.58/E89	<u>The Europa Yearbook.</u>
R317.3/U58	<u>Statistical Abstract of the United States.</u>
R320.973/C749	<u>CQ Almanac.</u>
R324.23/C749	<u>Congressional Quarterly Weekly Report.</u>
R900.5/E23	<u>The CQ Researcher.</u>
R900.58/F137	<u>Facts on File.</u>

Indexes

There are many indexes in addition to the computer system shown to you by Leslie Potter-Henderson. They are found on tables near the walkway in the main area (see map). These are helpful not only in finding material, but also in developing a list of key words. Be sure to look under each heading for related subject headings. For academic research the Reader's Guide isn't the best resource because it indexes mostly popular periodicals rather than scholarly journals. Here are just a few of the possibilities:

Humanities
Social Sciences
Education

Business Periodicals
New York Times
Wall Street Journal

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Winter 1997**

**Professor Carol Doig
Shoreline Community College**

Assignment #1: Finding a topic of interest.

Deadline: Wednesday, January 15.

Your research topic, which will sharpen its focus as you do your research, will be chosen in conjunction with information provided by the instructor.

The characteristics of a research topic for this course are as follows

1. It must have general significance.
2. There must be a difference of opinion about it.
3. It must be a subject which is currently contained in standard sources.

To start this assignment, you will:

1. make a choice among options presented by the instructor.
2. attend the library research session to discover initial sources for your research.
3. start your research. From the first, take notes of promising material. Read ahead in your MLA Handbook to find out about bibliographic information and note taking.

At the start of class on Wednesday, January 15, please submit the information requested on the accompanying sheet.

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Name _____

Assignment #1: Reporting on a topic of interest.

Deadline: Wednesday, January 15 at 9:30 a.m.

This assignment is to be based on information provided during the library information session on Thursday, January 9, and is to be done in the Shoreline Community College library.

1. My topic of interest is _____

_____.

2. The most helpful library reference source I have found so far is (give title, date of publication, and pages): _____

_____.

Why is this most helpful? _____

_____.

3. I have found information about my topic in the following library indexes to periodicals:

A. _____.

B. _____.

4. The two most helpful periodicals articles so far are (give periodical, date, title of article, and pages):

A. _____

_____.

B. _____

_____.

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Name _____

Preliminary Research Assignment #2: Working Toward a Thesis
Deadline: Wednesday, January 29.

Please complete the following as you think out your preliminary thesis, which should give three important indications:

1. your topic.
2. your point of view about that topic, and
3. a suggestion of the type of development you'll use.

My topic is _____ and the

issue (thesis question) surrounding the subject is _____

_____?

The conclusion (thesis statement) that I have reached so far is _____

The *reasons* which have led to this conclusion are:

1. _____.

Evidence: _____

Source: _____

2. _____.

Evidence: _____

3. _____.

Evidence: _____

Source: _____

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Name SAMPLE

Assignment #2: Working Toward a Thesis
Deadline: Wednesday, January 29 at 9:30 a.m.

Please complete the following as you think out your preliminary thesis, which should give three important indications:

1. your topic.
2. your point of view about that topic, and
3. a suggestion of the type of development you'll use.

My topic is the earthquake at Kobe and the

issue (thesis question) surrounding the subject is should environmentally dangerous

areas be developed for housing and commercial uses ?

The conclusion (thesis statement) that I have reached so far is Americans, who have a great deal more land than the Japanese, should legislate to prohibit further development of environmentally dangerous areas such as flood plains and earthquake fault zones.

The reasons which have led to this conclusion are:

1. A history of catastrophes

Evidence: Within five years, floods along the Mississippi and on the Pacific coast; earthquakes in SF and LA, and a hurricane in FL.

Source: (give bibliographic reference in MLA style)

2. Damage to people and environment (provide summary figures).

Evidence: Death, disruption and commercial losses.

add → Source: (2nd bib reference in MLA style).

3. Cost to taxpayers of cleanup and rebuilding.

Evidence: 67% of losses weren't covered by insurance. Public lands also were severely damaged.

Source: (3rd bib reference in MLA style)

Note: Use three different sources of best evidence so far from standard reference sources, academic and scientific publications and the like.

English 102
Professor Carol Doig
January 10, 1997

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Humanities
Social Sciences
Education

Business Periodicals
New York Times
Wall Street Journal

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SELECTED RESOURCES

Dewey decimal

- R001.5103/I61 International Encyclopedia of Communications, 1989. *4 vol. w/ Biblio.*
- R031/W927 World Book Encyclopedia, 1993 *Most timely.*
- R032/C212 The Canadian Encyclopedia, 1988
- R050/K19 Magazines for Libraries, 1992
- R310.58/E89 The Europa Yearbook, 1991 1993
2-vol. address + phone #s of newspapers!
- R310.58/S797 The Statesman's Yearbook, 1992-93 1993-94.
smaller scale. Place names in back
- R317.3/W927 The World Almanac, 1992
Maps. constit. Bill of Rights. + famous people. + product index.
- R332.6/M817MIT Moody's International Manual - 2 vol.
Alpina - Long Coast. list of companies.
- R332.6/M817C Moody's Handbook of Common Stocks
1 page per company.
- Lang.* { R403/C957 The Cambridge Encyclopedia of Language, 1987
Table of contents.
- R423/B262 Third Barnhart Dictionary of New English, 1990
- R900.5/F23 The CQ Researcher, 1992. *Controversial current issues. Biblio.*
- R900.58/F137 Facts on File, 1992 - current
Text. Supreme Ct. rulings.
- R909.0972/K96 Encyclopedia of the Second World, 1991. (Facts on File pub.)
Communist bloc. - so much superseded.
- R910.3/I29 Illustrated Encyclopedia of World Geography, 1990
-World Government. Set.
- R951.003/C178 Cambridge Encyclopedia of China, 1991
Origin of Chinese language. BILIOS.

PERIODICALS AND NEWSPAPERS

- ✓Advertising Age
- ✓Columbia Journalism Review
- ✓Current History - area per month
- ✓Economist - British weekly
- ✓Far East Economic Review
- ETC
- ✓Journal of Popular Culture
- ✓Child Development

- ✓Chronicle for Higher Ed
 - ✓Globe & Mail - Canada's paper of record.
 - ✓New York Times - by 8:15
 - ✓Manchester Guardian
 - ✓Wall Street Journal - noon + INDEX
 - ✓INFOTRAC ACADEMIC
 - ✓Social Science Index - mass media
 - ✓Humanities Index *even lang*
- Fallman lang. set*

English 102
Sentence analysis

Name _____

Count the number of words in each of your first six sentences.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

Write down the first six words of each sentence.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Write down all of the principal verbs in the first six sentences. In the case of a compound sentence, you may have more than one.

1. _____

4. _____

2. _____

5. _____

3. _____

6. _____

Write a short analysis of your writing based on the information above. In particular, what patterns do you find? Use the reverse side of this paper to continue.

ENGLISH 102
Professor Doig

Evaluation of Research Paper

Name

INTRODUCTION

- Announces thesis.
- Sets direction of development.
- Sets academic tone.
- Provides concise background,
as needed.

BODY

- Gives reasons that
 - are logically ordered
 - are connected to each other by
appropriate transitions
 - include alternate points of view.
- Provides evidence that is
 - diverse and from standard research
sources.
 - relevant to the thesis.
 - timely.

CONCLUSION

- Returns to thesis.
- Discusses significance of issue or points
to unanswered questions.

Linguistic Choices

- Clarity: Words successfully communicate
with audience.
- Tone: Word choices establish consistent
scholarly tone.

Mechanics

Grammar, spelling, punctuation, and syntax
conform to standard English usage.

Documentation

- Modern MLA citations are given for
works consulted.
- Parenthetical citations are provided as
needed.

English 102-4
Thursday, January 9, 1997
Library 116

Please sign below to indicate attendance

Sarawit Hainu

Bettina de la Cruz

Erica Kalapaca

Michelle Chummito

Jeffrey Feyer

Cathy Reed

Andrew Krause

Xiaodong Shen

Adam Hillard

Natalie Marchetti

John T. Mann

Mark Frey

Kristie Borel

Jessi Edelbrock

Sherry Martinelli

Matt Randles

Vicki Lai

Andy Beil

Stephanie Henriksen

Colleen Farrell

Material on bib card and as it will show in Works Cited:

Postman, Neil. Amusing Ourselves to Death: Public Discourse in the Age of Show Business. New York: Viking, 1985.

Quotation from page 51:

"To engage the written word means to follow a line of thought, which requires considerable powers of classifying, inference-making and reasoning. It means to uncover lies, confusions, and overgeneralizations, to detect abuses of logic and common sense. It also means to weigh ideas, to compare and contrast assertions, to connect one generalization to another. To accomplish this, one must achieve a certain distance from the words themselves, which is, in fact, encouraged by the isolated and impersonal text. That is why a good reader does not cheer an apt sentence or pause to applaud even an inspired paragraph. Analytic thought is too busy for that, and too detached.

"I do not mean to imply that prior to the written word analytic thought was not possible. I am referring here not to the potentialities of the individual mind but to the predispositions of a cultural mind-set. In a culture dominated by print, public discourse tends to be characterized by a coherent, orderly arrangement of facts and ideas. The public for whom it is intended is generally competent to manage such discourse. In a print culture, writers make mistakes when they lie, contradict themselves, fail to support their generalizations, try to enforce illogical connections. In a print culture, readers make mistakes when they don't notice, or even worse, don't care."

Introduction:

1. In 1986 a Chernobyl reactor blew up, releasing radioactivity equal to 90 Hiroshima bombs.
2. Many were evacuated but a population of about 2 million people suffered radioactive fallout, and 18,000 to 50,000 cancer deaths have been predicted.
3. An international research team concluded that the accident had no ill effects, but they omitted key parts of the population.
4. With financial and technological assistance from the West, the former Soviet Union should replace their most dangerous nuclear power plants with alternative power generation and modernize the remaining plants so that they meet international safety standards.

good

I. The Commonwealth of Independent States (CIS) has two types of nuclear reactors.

A. The Chernobyl reactor was an RBMK, their oldest reactor.

1. Unlike Western reactors, the nuclear chain reaction continues even when coolant is gone.
2. They lack containment structures that trap leaking radiation.
3. They have poor fire protection systems and flawed electrical and safety systems.

B. Pressurized-water reactors (PWRs) include Model 230, Model 213 and Model 1000 VVERs.

1. Model 230 is the most dangerous.
 - a. It has no containment structure and no emergency system to cool the core.
 - b. It has inadequate fire protection and poor secondary safety systems.
 - c. Instrumentation and control are inadequate.
 - d. Age has caused the reactor vessels to become brittle.

II. Thirteen RBMKs and twenty-four PWRs are still operating and causing trouble.

A. There were more than 200 accidents and mishaps in 1992.

B. An accident in Sosnovy Bor involved an RBMK reactor that released radioactivity into the air.

C. Yeltsin's environmental advisor Alexei Yablokov: "It's impossible to deliver [our] power stations by missile to some other country, but in reality, they are no less dangerous than nuclear weapons."

III. There are many who believe that the more dangerous reactors should be shut down, including:

- A. The International Atomic Energy Agency (IAEA)
- B. The US Energy Department
- C. Yuri Vishnevsky, head of the governments' commission on nuclear safety
- D. Ivan Selin, chairman of the US Nuclear Regulatory Commission

IV. Russia plans to expand nuclear power by building 30 new reactors, including RBMKs and PWRs.

- A. The Ministry for Atomic Energy believes there is no alternative, the new reactors will be safe.
- B. Russia needs nuclear expansion because of energy shortages and closure would mean job losses.
- C. Vladimir Goryenikhin of the Center for Public Information on Atomic Energy claims the RBMKs will have new safety and emergency shut down systems but admits that a design flaw could allow power surges.
- D. Alexei Yablokov and the European Commission's program for nuclear safety in Eastern Europe object to the plan.

V. Some experts support the construction of gas-fired power plants to replace the most dangerous reactors.

- A. The World Bank and IAEA support gas-fired plants and assistance from the West.
- B. William Chandler, a Battelle Lab scientist testified before the US Senate Foreign Relations Committee in support of gas-fired plants.
- C. Yablokov supports gas-fired plants and believes it would take less time and money.
- D. Conservation could make up for 10% of electricity now generated by nuclear reactors.
- E. Replacing dangerous reactors would cost about \$21 billion, the expansion would cost about \$28 billion.

Conclusion:

1. Yablokov: "To solve these problems, we need more than Western money -- we need especially your experience and assistance. Please bear in mind that without environmental well-being in Russia, which comprises one-eighth of Earth's land area, it will be impossible to establish and maintain an environmentally healthy world."
2. The existence of unsafe nuclear reactors in the former Soviet Union threatens the entire world. Western industrial nations should find it to their advantage to assist in correcting the problem.

Soviet Nuclear Reactors: Accidents Waiting to Happen?

by

Lorie Lorntson

Professor Carol Doig

English 102

23 May 1994

Soviet Nuclear Reactors: Accidents Waiting to Happen?

On October 26, 1986, the core of Chernobyl's No. 4 reactor blew up, releasing radioactivity equal to 90 Hiroshima bombs. The resulting radioactive cloud brought contamination to much of the former Soviet Union, Scandinavia, and Europe. More than 100,000 people were evacuated from Ukraine and Byelarus (Bojcun). The one million people who still live within the 30-kilometer zone around the nuclear plant need to be evacuated, but Ukraine doesn't have the money to relocate them (Myers 8). By 1990, 2 million people from 27 towns and 2,697 villages were affected by radioactive fallout (Marples 40).

In 1990, the International Chernobyl Project team, consisting of doctors and scientists from 25 countries and 7 multinational organizations, conducted a year-long study of 825,000 people from Ukraine, Byelarus and the Russian Federation. They concluded that the only ill effects of the Chernobyl accident were psychological problems related to stress. They found no increase in leukemia or other cancers (O'Sullivan 5). The study was limited, however, because it excluded the emergency clean-up crew and the more than 100,000 evacuees. The researchers studied only those whom the Soviet government requested they study (Dickman 335).

Despite the findings of the International Chernobyl Project team, much of the population is plagued with nosebleeds, headaches, vision problems and susceptibility to infections. Children have developed weakened immune systems, bronchitis and upper respiratory infections, a combination known as "Chernobyl AIDS." By 1990, an estimated 5000 people had died (Bojcun 34). World Health Organization officials have confirmed that in Byelarus, childhood thyroid cancer has increased from only two cases in 1986 to 55 cases in 1991. They also confirmed that immune deficiency diseases have "doubled or tripled

since 1985 and is now spreading to all other areas that have been consuming radioactive food" (Gould 332). The contaminated milk, meat, grains and other crops come from the more than 2.5 million acres of contaminated farmland in Ukraine and Byelarus that is still being used. Food from this area is shipped across the Commonwealth of Independent States (CIS) (Hofheinz 111). It has been predicted that the accident will eventually cause 18,000 to 50,000 cancer deaths (Green 594).

There are many other reactors throughout the CIS that have the potential for disaster similar to Chernobyl, or worse. These unsafe and unpredictable reactors are a threat not only to the former Soviet Union, but to the rest of the world as well. With financial and technological assistance from the West, the former Soviet Union should replace their most dangerous nuclear power plants with alternative power generation and modernize the remaining plants so that they meet international safety standards.

The CIS has two basic types of nuclear reactors. Their most dangerous, the Chernobyl-style RBMKs, were built in the 1950's when the goal was not safety but providing large amounts of commercial power and plutonium production for weapons during the height of the arms race (Reichlin 117). Fifteen are still operating today. Most other reactors are designed so that the nuclear chain reaction stops with the loss of cooling water. When coolant is gone in an RBMK the nuclear chain reaction continues and output increases. In Technology Review, Seth Shulman explains why this happens:

The problem is caused by the fact that the plants' nuclear fuel rods are surrounded by graphite -- a combustible material -- rather than the water used in most Western nuclear plants. The graphite is used to control the nuclear reaction by capturing the neutrons emitted by the fuel rods. But because graphite ignites when

overheated, the plant could become consumed in fire in the event of a power surge -- the scenario that occurred at Chernobyl. (18) RBMKs also lack containment structures to trap leaking radiation, have poor fire protection systems, flawed electrical and safety systems and piping arrangements that are too complicated.

The CIS also operates pressurized-water reactors (PWRs), including VVER Models 230, 213, and 1000. The most dangerous of these three is Model 230. Thomas Halverson, a lecturer in international relations at Keele University in England believes that these reactors are unsafe.

Type-230s are grossly deficient in design, operation, and construction. They have no containment structure; no true emergency system for cooling the core; inadequate fire protection; poor secondary safety systems, instrumentation, and control; and they have a host of other safety-related problems. Over the years their reactor vessels have become embrittled. (43)

Model 213 and some Model 1000 have less severe problems. The older versions of Model 1000 don't have containment structures or emergency cooling systems. The newer ones, though safer, have poor wiring and fire-protection (Pope 41). In the Model 213, steam is directed to the bubbler/condenser to reduce pressure in a loss-of-coolant accident. These reactors were built with better construction materials, but the quality of pipes, concrete and supporting structures are inferior. The International Atomic Energy Agency (IAEA) believes that some of these reactors can be upgraded to meet international safety standards (Halverson 44).

The former Soviet Union is still operating 15 RBMKs and 24 PWRs that are causing trouble. Lydia Popova, director of the energy program at the Socio-Ecological Union of Russia in Moscow, reports in the Bulletin of the Atomic

Scientists that "Russia has frequent shutdowns, due to poor quality equipment, human error, and poor management" (14). There were more than 200 safety mishaps in 1992 and since the 1986 Chernobyl accident, there have been four other serious accidents (Pope 40).

One such accident occurred on March 24, 1992. It involved an RBMK reactor in Sosnovy Bor, 60 miles west of St. Petersburg. A small amount of radioactivity was released into the air when a plugged valve caused the flow of water to stop and the fuel to overheat. Rising pressure caused steam to blow a hole in the tube (Marshall 319). This accident was no surprise to the Swedish safety inspectors who had visited the plant in January, just before the accident. They had made several suggestions for improvements, but within a month the number of Russian safety inspectors was cut in half because of money problems ("Alarming" 50). The German atomic energy experts who inspected the Sosnovy Bor plant in 1991 wouldn't have been surprised at the accident either. They had reported safety hazards such as fire doors that couldn't close. Russian environmentalists claim that Strontium 90, a radioactive isotope, was found in the ground water nearby at 350 times the normal level. Small concentrations of extremely toxic plutonium were detected as well. Radioactive particles 400 times the normal level were discovered only 1,300 feet from the plant. Yulia Khairutdinova, a geneticist and head of a local Greenpeace chapter claims the problem is the result of leaks from radioactive storage facilities that are poorly designed. In the reactor room itself, radioactive steam is seen to escape from under the cover of the reactor. The plant's director, Anatoly Eperin responds that it's "a usual story these days: The seals we're getting now are pretty poor quality" (Reichlin 117). As a result of the accident Sweden and Germany have renewed their pressure to have all RBMKs closed (Milne 9). Alexei Yablokov, environmental advisor to Boris Yeltsin fears the dangers of Soviet nuclear

reactors as well, "It's impossible to deliver [our] power stations by missile to some other country, but in reality, they are no less dangerous than nuclear weapons" (Halverson 43).

There are many who believe that the more dangerous reactors should be permanently shutdown. Safety experts testified before the Senate Energy and Natural Resources Committee on June 16, 1992, that design flaws make some reactors too unsafe to be operated (Marshall 320). Yuri Vishnevsky, head of the government's commission on nuclear safety, believes that the remaining 15 RBMKs should be shutdown because they can never be made safe by Western standards (Perera 39). The US Energy Department agrees with the IAEA that 15 RBMKs and 10 Model 230 reactors should be closed. "It is most probable that no changes or upgrades can reduce the uncertainty on the safe operation of these plants, as understood and accepted outside Eastern Europe" (Halverson 43-44). Ivan Selin, chairman of the US Nuclear Regulatory Commission, recommends the closure of these same plants because they cool slowly in an emergency which can cause an explosion at the core, as happened in Chernobyl. Zhores Medvedev, a Russian nuclear scientist living in Britain, warns that "these reactors are like huge bombs and they're getting older and older" (Hofheinz 111).

Instead of shutting down dangerous nuclear power plants, however, the CIS plans to modernize their existing plants in addition to building 22 new reactors of the RBMK and PWR designs, and nine "of an unspecified design" (MacKenzie 8). The plan was initiated by Russia's Minister for Atomic Energy, Victor Mikhailov, and approved by Yeltsin's government in December of 1992. The CIS is experiencing a severe energy shortage and they believe the economy needs expanded nuclear power due to a decline in domestic oil production -- a source of both electric power and hard cash. The Ministry for Atomic Energy claims the

plants have been redesigned to be safer, but officials in the European Commissions program for nuclear safety in Eastern Europe say there is "no such thing as a safe RBMK" (MacKenzie 8). Vladimir Goryenikhin of the Center for Public Information on Atomic Energy supports nuclear expansion but he admits that, even with better instrumentation and emergency shutdown systems, the reactors have a design flaw that could allow power surges (Perera 33). Recall that a power surge is what occurred in Chernobyl. Andrei Gagarinsky, deputy director of Russia's Kurchatov Institute believes expansion is necessary because of the "mismatch between the location of major power consumers in the former USSR and the Siberian deposits of fossil fuel" (Perera 33).

According to Judith Perera in the New Scientist, all new plant construction requires approval from the Ministry of Ecology and Natural Resources and the local authorities where the plants will be built. The public must also be kept informed and given the opportunity to object. The problem is that, while the public and the local officials know that the nuclear reactors are unsafe, the economic pressure they face compels them to accept the danger. The nuclear plants will be funded by the federal budget and they bring "improved infrastructure and other benefits," including jobs.

Judith Perera also reports that three of the new reactors will be in operation by 1997 in the cities of Kalinin, Kursk and Balakovo. The rest will be finished by 2010. Kalinin, 100 kilometers northwest of Moscow, already has two PWRs that are cooled with water from nearby lakes. The new PWR will use ground water for cooling, which the ecology ministry warns may cause subsidence, resulting in damage to the reactor. Kursk, 500 kilometers south of Moscow, where four reactors with poor records are currently operating, will get a new RBMK. Radioactive contamination on the ground inside the site was confirmed by a government investigating commission in May 1989. The

contamination occurred when a container wagon leaked while transporting spent fuel. In December of 1992, one of the reactors was temporarily shut down because pressure built up inside and activated a fail-safe device. In January of 1993, another reactor was closed for two weeks when a pipe broke releasing radioactive aerosol inside the plant.

Perera adds that the CIS plans to complete the construction of three previously abandoned RBMKs. Construction had stopped on two plants in Kostroma because local scientists had declared the area "geologically unsuitable." Nevertheless, construction will be resumed. A fifth RBMK reactor in Smolensk, near the border of Byelarus, will also be completed. The opposition by local authorities was withdrawn and approval given because of the promise of 8000 new jobs in an area of high unemployment.

Alexei Yablokov opposes the plan to expand nuclear power and believes that the CIS should use non-nuclear technology. He advises using gas-turbine engines for generating electric power to replace the more dangerous nuclear plants. This would provide work for military jet-engine factories (Pope 42). He believes that changing from a military to a civilian economy will reduce Russia's energy consumption by 30 percent, making it easier to switch to gas-turbine generated power (Mervis 198). Yablokov claims that the gas-turbines would be three times more economical and it would take about five years to build enough of them to generate the power that the planned nuclear plants would produce, which would take ten years to build (MacKenzie 8).

The IAEA and the World Bank agree with Yablokov. They propose that the major industrialized countries replace dangerous Soviet reactors with gas-powered turbine plants. They estimate that it could be done by the year 2000 for \$18 billion. That's \$6 billion less than modernization and expansion would cost (Shulman 19). William Chandler, a Battelle Lab scientist, testified before the US

Senate Foreign Relations Committee that gas-turbine power plants would create 20 gigawatts of energy, thus Russia could use gas reserves that are bigger than those of Saudi Arabia (Hofheinz 114).

The idea of conservation in Russia remains unexplored by government officials. Lydia Popova reports in the Bulletin of Atomic Scientists that per capita energy consumption in the CIS is twice as high as in the US, and three times as high as in Britain. They lose 20 percent of generated heat in pipes, and 17 percent of their electricity is lost in grids.

No mechanisms have been created to encourage utilities and consumers to save energy or to promote energy conservation or greater efficiency. A sound energy policy could become a propelling force for economic, environmental, and social restoration. The government could choose energy efficiency, integrated resource planning, and cheaper but environmentally sound power plants. (47)

She also believes that RBMKs could be replaced fairly quickly with "gas fired plants that use jet turbine engines that are now produced in military facilities -- a move that would also be a model of economic conversion" (47).

Even the use of more efficient light bulbs could make a difference. American Scientist Arthur Rosenfeld calculated that ten compact-fluorescent-lamp factories, constructed with aid from the West at a cost of \$7 million each, would enable the closure of the dangerous nuclear plants as well as about 20 of the dirtiest coal-fired plants. Instead, Western nuclear power companies promote a project of more that \$20 billion to replace the worst reactors with nuclear power plants "of their favorite design" (Popova 47).

The danger of nuclear power in the CIS is a problem too large to be corrected without worldwide assistance. Alexei Yablokov makes the need clear in his plea:

To solve these problems, we need more than Western money -- we need especially your experience and assistance. Please bear in mind that without environmental well-being in Russia, which comprises one-eighth of Earth's land mass, it will be impossible to establish and maintain an environmentally healthy world. (579)

The existence of unsafe nuclear reactors in the former Soviet Union threatens the entire world. Western industrial nations should find it to their advantage to assist in correcting the problem.

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Please write in blue or black ink. You may refer to one page of your own handwritten notes.

I. Short-answer questions from Hayakawa, Chapters 15 through 19. (20 points each)

1. Does Hayakawa think that intensional orientation is a good idea, or a bad idea? Why? Intensional orientation is the habit of guiding ourselves by words alone, rather than the facts to which words guide us. Hayakawa thinks that intensional orientation is a bad idea because it is a general term for errors. These are the problems; we become unaware of context, we have a tendency towards automatic reactions, we confuse levels of abstraction, we have a consciousness of similarities, but not differences and we form the habit of explaining words by definitions - more words.

2. The text suggests that there is a way to approach so-called "insoluble problems" which may indeed help to solve them. What is recommended? "Insoluble" problems in society are called "institutional inertia." We are all members of institutions which are organized patterns of groups of behavior, well established and accepted as a fundamental part of culture. Humans are so constituted that they inevitably organize their energies and activities into patterns of behaviors that are more or less uniform throughout a social group. Their abstractions of reality - their maps of the territory - are reality. We form a particular, proper + formal way of doing things for our institution that we become imperivious to new idea. Hayaka says we need to adapt institutional habits to new conditions. We should escape from the 2-value orientation + become more extensional so we have more options and decisions in society.

3. The text suggests that "consciousness of abstracting is necessary in what we say to ourselves about ourselves. Why? "Consciousness of abstracting" is necessary when what we say about ourselves, to ourselves is involved. One's self-concept is not one's self - just like a map is not the territory. We make high levels of judgements about ourselves therefore we use high levels of abstraction according to the abstraction ladder. We make false self concepts about ourselves because we fear the judgements that others may make about us. We need to increase the extensional awareness of ourself and understand the difference between that attitude and the institutional attitudes we have + others have towards us. We incorporate the institutional demands that our particular institution requires. We should instead move down the abstraction level to become more of an extensionally orientated person who is governed not by words only, but by facts to which words refer to.

II. Essay. (30 points)

Why and when did brand name advertising develop, and what are David Potter's and S.I. Hayakawa's concerns about its effects?

Advertising companies hope that consumers rely on their intensional orientation when making purchases. They hope that they can use affective language in order to grab our ~~att~~ attention and make us buy their products. They use rhyme, rhythmic, and repetition to help sell their products. They use directives w/o collective sanctions, exploit ambiguity + use objects of experience symbolic of something beyond themselves to help sway us in their directions. Companies are able to manipulate us and make us think that we will be like the glamorous people in the advertisements. Brand name advertising developed in the late 50's and has flourished ever since. They make slogans out of common place facts, play on words to persuade us.

II. Analyses. Use pertinent information from the entire course to point out the semantic problems in the following examples.

1. Excerpt from Rush Limbaugh's bestseller.

This is a two-valued orientation article. He chooses either for or against this issue (obviously against the notion that America has any faults in history). He appears to have a strong bias against anyone who differs. This article has high levels of judgements which would say it is high on the abstraction level. He obviously has a blocked mind when someone says differently about his opinion, therefore he has fixed, automatic reactions to this topic. There are obviously a lot of snarls in this article. He is also slanting because he does not have any empirical evidence - he is just stating his opinion about the situation.

Sick and Tired

In this 500th anniversary year of Columbus's voyage, I'm tired of hearing him trashed. I don't give a hoot that he gave some Indians a disease that they didn't have immunity against. We can't change that, we're here. We're the best country on earth and I'm sick and tired of people trying to change history so as to portray this country as an instrument of evil. It isn't true. I'm sick and tired of hearing Western culture constantly disparaged. "Hey, hey, ho, ho, Western culture's got to go," is the chant at Stanford University. What would Stanford be if the pioneers that are so reviled today as imperialists, racists, sexists, bigots and homophobes hadn't fought their way across a continent to California? The American middle class is just plain tired and worn out. They get blamed for everything in this country. They are taxed more than ever, and now they have to put up with lectures about how we have to ship billions of dollars to the former Soviet Union so they can eat this winter, even though it's cold there every winter and the people there have been hoarding food in their cellars for months.

From "The Way Things Ought to Be."

2. Ad analysis. Please see separate handout. (35 points)

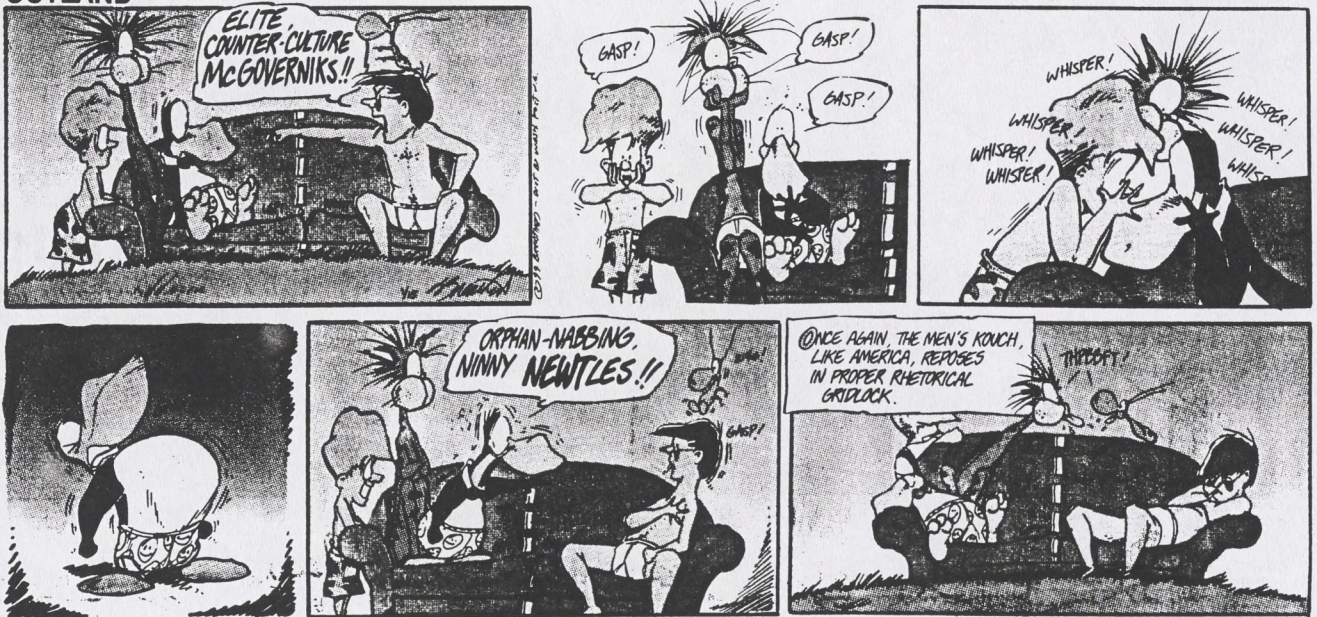
At the first glance of this advertisement, I had no idea what the company was trying to sell. Why would they put so many pictures of hot chiles' in the ad when they are trying to sell wine? The caption, "Bullets from Hell" does not give me a mental picture of chiles' or wine for that matter. I suppose the metaphor was intended to guide consumers into thinking that this wine would quench their thirst. (It seems out of context)

Ads are directives without sanctions - this means that they are trying to get the consumer to purchase their product, but they have no way of enforcing it. I suppose it would be 2-valued orientation because either you buy it or you don't. Their use of affective language could either be construed as a snarl or purr depending on the way you look at it. It is at a high level of abstraction and is a judgement because consumers either approve or disprove of what the author/manufacturing company is trying to say.

3. What's wrong with the responses of all the participants in this cartoon strip?
(10 points)

OUTLAND

by Berkeley Breathed



Good analysis (5)

This is a 2-valued orientation cartoon strip. They go back and forth making fun of another (contradiction) in order to get what they want. The last section states that the way we communicate is like a never ending circle. We have our conclusions made before we even begin to talk, therefore we have made ~~no~~ progress. They end up in the same situation that they started. Dead level abstraction - back and forth at the same level. There their physical responses in the strip is common to how we (humans) would react in a similar circumstance. They & the animals are trying to think of a rebuttal and once they do, the cartoon man appears astonished. Nothing is accomplished, so the author makes a simile to compare it to humans +/or society.