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WKU Honors Program

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The Western Kentucky University Student Honors Research Bulletin is dedicated to scholarly involvement and student research. These papers are representative of work done by students from throughout the university.
PREFACE

Although the Western Kentucky University Student Honors Research Bulletin has been published for several years, this is the first issue in which the winning papers were chosen by the various academic colleges themselves. In the past, the editor alone was charged with the responsibility of judging the papers—even if they dealt with topics outside his own academic ken. Having screening committees in each of the colleges has made the judging more equitable and more competitive, for now each college selects the best freshman, sophomore, junior, senior, and graduate paper from that college. If no worthy paper is available for a given student classification, however, the college is under no obligation to fulfill that classification. The upshot of the new selection process is that this issue of the Bulletin is surely the best one ever. I wish to congratulate the students whose work is represented in this issue and to thank the members of the various screening committees for their contributions. A special note of appreciation is due Ms. Judy French and Ms. Janet Watwood, who helped prepare the manuscripts.

Walker Rutledge, Editor
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By Irene Hansel Wood
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Senior: Jungian Psychoanalysis of the Petrarchan Lover
By Ben Logan
Written for English 381 taught by Dr. James Flynn

Graduate: In Defense of Camus
By Eugenia M. Porto
Written for English 594 taught by Dr. Joseph Survant
This paper was also judged Best Paper of the Year.
Preface

This study was initiated under the auspices of the Department of Library Science of Western Kentucky University and Dr. Jefferson Caskey. Utilization of the survey results will be by the Kentucky Department of Library and Archives, State Library Division.

Overview

Government documents are produced in ever-increasing numbers and serve as a valuable information source on the national and local level. The primary producer of documents is the Government Printing Office with the Superintendent of Documents serving as sales agent for federal publications.

The number of depository libraries is determined by law. The public access to documents on the local level is through these depository libraries or through the local public library's acquisition of documents on a very limited basis.

Those institutions with libraries serving as selective depositories in Kentucky are the Hopkinsville Community College, Murray State University, Western Kentucky University, Kentucky Wesleyan College, Louisville Free Public Library, University of Louisville, University of Louisville Law School, Thomas Moore College, Union College, Eastern Kentucky University, Centre College, Kentucky Department of Library & Archives, Kentucky State University, State Law Library, University of Kentucky, Ashland Public Library, Northern Kentucky University, University of Kentucky Law Library, and Morehead State University. The University of Kentucky is designated as a regional library (one which receives all federal publications classed as depository items).
The selection of documents is complicated by the large number produced, the librarians' access to review sources and full bibliographic information, and their knowledge of ordering procedures for the acquisition of documents from either the source or the Superintendent of Documents. On the local level many public librarians have not had the exposure necessary to utilize government documents as an information base and do very little ordering of government documents.

The Survey

The need to determine public library use of documents and the librarians' own knowledge of access to government documents was viewed as the first stage in preparation of a one-day workshop to provide instruction in government documents. The workshop would be structured to provide learning opportunities for public librarians to better understand what documents are available, how the documents function in information systems, and how the documents may be acquired and used in a library collection, vertical file, or bibliography.

A survey was the research tool used to gain the necessary information. The sections of the survey were these: 1) Program data, 2) General knowledge of publications, guides, etc., 3) Present-use status, 4) Exposure to government documents, 5) Utilization of government documents, 6) Impressions, 7) Financial considerations, and 8) Recommendations.

A secondary purpose of the survey was to call attention to government documents and to provide awareness of the State Library Division as a resource base and as a continuing education facilitator. Knowledge of documents would increase requests for documents from the Government Documents Section of the State Library Division.

Review of the Responses

1.0 Program data

Survey response was poor. The author believes that this indicates that a much larger percentage of public librarians knew little of government documents.
and failed to utilize them. Surveys were sent to 108 participating libraries in the State system and 46 were returned (43%).

An effort to determine the needs of the community was made by noting the class of town in which the library was situated. Since most of the counties in Kentucky are rural, the towns are usually small. However, in some cases the county seat is one of several medium-sized towns within the county with a combined population equaling a county with a higher class city.

Towns are classed on the basis of population. The most recent edition of The State Directory of Kentucky was used to confirm the class. The results of the survey showed the following:

<table>
<thead>
<tr>
<th>Class</th>
<th>Town Reporting</th>
<th>Percentage of Return</th>
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<tr>
<td>2nd</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>3rd</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>4th</td>
<td>19</td>
<td>41</td>
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<td>5th</td>
<td>9</td>
<td>20</td>
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<td>6th</td>
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Fifty percent of the population of the State was represented by the returned surveys. Over 400,000 persons within the counties represented were not served by libraries with government documents.

The 61% of returns for 4th and 5th class cities reflects the rural nature of Kentucky's libraries. It is assumed that rural areas have less need for information than urban; consequently, they have less need for government documents than an urban area. The diversity of government documents, however, covers every aspect of human life, and the publications of certain departments such as the Department of Agriculture could be useful in a rural community. Statistical information and sociocultural studies have basic educational value to any community.

Louisville is the only official first-class city in Kentucky. Since the Louisville Free Public Library is a selective depository and is a large urban
library, it was not included in the survey. Ashland Public Library, the only other public library in the State which is a depository library, was included because the library serves a much smaller population than Louisville.

2.0 General knowledge of publications, guides, etc.

Nine items were selected to test the general knowledge of librarians of certain publications and terms relating to government documents. Those terms selected were ones which would likely be known by librarians and were ones to be included in the workshop design if lack of familiarity was evidenced. Results showed that a large percentage were not familiar with government publications and document sources of bibliographic information. A majority of respondents did not know what depository libraries were.

<table>
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<tr>
<th>Librarians understand</th>
<th>Item</th>
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<tr>
<td>76%</td>
<td>GPO (Government Printing Office)</td>
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<tr>
<td>67%</td>
<td>SUDOCS (Superintendent of Documents)</td>
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<tr>
<td>17%</td>
<td>NITS (National Technical Information Service)</td>
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<tr>
<td>59%</td>
<td>Monthly Catalog</td>
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<tr>
<td>65%</td>
<td>Selected List</td>
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<tr>
<td>48%</td>
<td>Index to U.S. Government Periodicals</td>
</tr>
<tr>
<td>39%</td>
<td>ERIC's Resources in Education</td>
</tr>
<tr>
<td>54%</td>
<td>Regional Depositories</td>
</tr>
<tr>
<td>41%</td>
<td>Selective Depositories</td>
</tr>
</tbody>
</table>

The variation between those who said they understood the term "regional depositories" and "selective depositories" indicates that this percentage is inaccurate. Since only one library in Kentucky is a regional depository, it can be assumed that librarians misunderstand the term "regional" as it applies to depository libraries. If 54% knew that terminology, then the same percentage should
know the meaning of "selective" depository.

The fact that over one-fourth of the respondents did not know what the Government Printing Office and the Superintendent of Documents were indicates a strong need for a workshop on documents.

3.0 Present use status

A section on present-use measures those libraries whose librarians actually order documents and the librarians' understanding of the order procedure.

Sixty-five percent of the librarians had ordered documents from the Superintendent of Documents for their present or past libraries. Sixteen librarians (35%) indicated they had never ordered documents, so projections are that one-third of Kentucky's libraries have never provided government documents in their acquisitions program.

Half of the librarians admitted to having trouble finding out what materials are available--indicating that they need to be made aware of review sources. Sixty-one percent said "yes" to knowing the sources from which government publications may be obtained, and 57% understood the order procedure for government documents. Only 22% said they didn't understand the order procedure. Ten persons (22%) failed to respond to the question "Do you understand the order procedures?" Those who failed to respond may be assumed to have offered negative responses, giving an aggregate of 44% who did not understand the order procedure.

Librarians gave the following source of information for available documents of other government materials:

- **Selected List** 13
- **Booklist** 4
- **Consumer Information Catalog** 2
- **Monthly Catalog** 10
Sources receiving only one response were Distribution Center, Regional Depositories, SUDOCs, Index to U.S. Government Periodicals, ERIC, and Vertical File Index.

4.0 Exposure to government documents

Exposure to documents from college experiences or library visitation was felt to be an indicator of the awareness of librarians to and acquisition of government documents. A simple majority (54%) was found to have never visited or browsed through a government documents library at a depository library.

Librarians were asked if free government documents were ever received from a government agency, congressman, etc., since materials are available in this manner if requested. Seventy-eight percent said "yes." The other 22% are missing a good opportunity for complimentary copies from government sources.

5.0 Utilization of government documents

Utilization of government documents provides information on the actual attitudes of librarians toward documents within the library and the actual use of documents on hand.

Sixty-seven percent of the librarians had examined or used government documents for personal use. Seventy-eight percent said their library had documents on hand either in the cataloged collection or in the vertical file. The terminology "personal" may or may not include the librarian's use in searching reference requests for patrons.

The question "Does your library have any government documents on hand either as cataloged items or as items available in your vertical (information) file?" received these replies:

Yes - 78%  
No 22%

If the response was "yes" to the previous question, the respondent was asked, "Do you or the library staff make use of those government documents on hand in your library?" Thirty persons of the thirty-six who responded with "yes" said "occasionally,"
and six persons said "often." One person answered "never."

If the response was "no" to the question given, the respondent was asked, "Do you feel government documents could prove useful as resource (information) material in your library if made available?" Seven persons of the ten "no" responses said "limited use," seven said "moderate use," and one said "heavy" use.

There was an inconsistency in answering the previous questions, for many librarians answered both regardless of their "yes" or "no" answers. The total responses were given to indicate attitudes, however.

Each person answering "yes" to having documents on hand was also asked, "Do you consider government documents for 'reference only' material or 'check-out' material?"

Reference only--22%  
Check-out--50%

Seventeen percent answered both to reference and check-out, and 11% left the question blank.

Whether librarians consider documents reference or circulating materials suggests a possible reason for acquiring them. The decision to catalog and shelve a document as opposed to placing it in a vertical file folder determines how much the document may be used, the importance placed upon it, and staff processing time. Those librarians considering documents as check-out think of them in the more popular vein of general information, narrative, and reading material. Those regarding documents as reference only will likely think of them as statistical, highly-specialized documentary, and of less use than circulating material.

6.0 Impressions

Impressions of librarians were necessary to see how willing they might be to learn more about documents and utilize them to serve the public needs. The following questions were asked:

"What is your first impression of the cost of government documents?"

35% Cheap  
52% Reasonable  
4% Too high
The responses prove that the cost factor is not a reason against buying documents, as a minimum of people regarded them as being highly priced.

The question "Do you consider yourself and your support staff as knowledgeable of government documents as much as you need to be for your library service?" prompted these responses:

13% Yes     83% No

The 83% response of librarians who didn't consider themselves as knowledgeable as they needed to be led to a high response of persons who said they would order documents if they had an opportunity to learn more about the types of government documents available and how to locate useful government publications. Sixty-three percent said "yes," 17% said "no," and 20% failed to respond to the question about having the opportunity to learn more about the availability of documents and how to locate documents.

Eighty percent would recommend government documents on a selected basis for libraries not using them. The same percentage of librarians wanted the Department of Library & Archives to supply regularly selected "useful" government documents. When asked if they would like for the Department of Libraries and Archives to mail out regularly a suggested list of documents with practical need in a small or medium-sized public library, 98% said "yes." Ninety-three percent stated they would attend or send a staff member to a regional library workshop on selecting documents.

7.0 Financial considerations

Each librarian was asked to comment on the acquisitions budget to determine the monies which could be allocated for document purchase as part of collection development. A rather large percentage of libraries had acquisition budgets under $10,000. Sixty-seven percent had budgets under $10,000, and 22% had budgets between $10,000 and $25,000. Sixty-three percent, nevertheless, said a small amount could be made available from the present budget for ordering documents without hurting the acquisitions program. Only 17% said no money could be allocated for government documents.
Conclusions

The survey documented the need to provide for continuing education programs about government documents for public librarians in Kentucky. This was evident by the number of librarians who were not familiar with standard terms relating to government documents, by the fact that 35% had never ordered documents, and by the many librarians (50%) who admitted to having trouble finding out what materials are available.

The librarians were honest in admitting that most did not know as much about government documents as they needed to know for providing library service; the majority indicated they would order documents if they had an opportunity to learn more about them.

The Department of Library & Archives received good support from the librarians who indicated they would like the Department to supply regularly selected "useful" government documents and would also like to receive a suggested list of documents for practical needs. The Department of Library & Archives, State Library Division, has already begun to refer documents to the book selection committee and started plans for the workshop to be presented on a regional basis among the fifteen library regions in Kentucky.
STATUS PRESERVATION IN THREE CHARACTERISTIC RADICAL RIGHT GROUPS

by Tom Irwin

Richard Hofstadter has written that "it has become increasingly clear that people not only seek their economic interests but also express and even in a measure define themselves in politics; that political life acts as a sounding board for identities, values, fears and aspirations." The preservation of social status is one of the strongest of the psychological, nonmaterial determinants of political behavior. When a well-defined, cohesive status group senses that its prestige and social standing are declining, it often turns to politics as a means of protesting this situation. Status preservation often manifests itself in politics as a form of right-wing extremism.

William McPherson, after having examined several thousand statements on civil rights and the Vietnam War in various rightist and leftist publications, defined extremism as "value-oriented movements which refuse to participate fully in democratic politics or make cynical use of politics as a means to other goals." Richard Hofstadter has referred to right-wing extremism as "pseudo-conservatism" in order to differentiate it from the more moderate, responsible mainstream of conservative thought. He contends that "its exponents, although they believe themselves to be conservatives and usually employ the rhetoric of conservatism, show signs of a serious and restless dissatisfaction with American life, traditions, and institutions." The three organizations to be treated in this paper, the John Birch Society, Liberty Lobby, and the National States Rights Party, are all excellent examples of right-wing extremism. Their common psychological motivation is status preservation. The dominant extremist theme of the last two groups is racism.
All right-wing extremist political organizations have three essential characteristics: nativism, political moralism, and conspiracy theory. Ralph Linton has written that in nativism "certain currents or remembered elements of culture are selected for emphasis or given symbolic value. The more distinctive such elements are with respect to other cultures with which the society is in contrast, the greater their value as symbols of the society's unique character."\(^5\)

Political Moralism portrays political competition in absolute terms. The social group that is declining in status sees itself and its "remembered elements of culture" as the repository of all that is good and noble within a given society. Whatever elements in society are threatening its status are viewed as innately corrupt and evil. One or the other must triumph. Conspiracy theory is the means by which a declining status group disqualifies its competition from access to the "open marketplace of ideas." The rival elements causing its decline in status are not merely deluded. They are deliberately conspiring to perpetrate evil in the political arena. They must be denied access to the democratic process. "Backlash" is the process by which a declining status group's generalized hostility towards change is transferred to a specific group identified with that change.

The John Birch Society is a good example of an extremist group which expresses its nativism in cultural rather than racial terms. A recent article in American Opinion, the Society's monthly magazine, contains a characteristic expression of culturally oriented political moralism. The writer asserts that Communism and liberalism have "threatened poetry—and all the beauty, truth, and goodness in the world as well."\(^6\) The Society has the most detailed and well-developed conspiracy theory of any right-wing extremist group. Robert Welch speaks of a "long-range conspiratorial intent to destroy completely the old order of civilization, in order to build on the resulting ruin, misery, and despair their totally tyrannical new world order . . . ."\(^7\)
The "they" of the above quote are the "Insiders," whom Welch postulates as the motivating force behind such diverse phenomena as the French Revolution, the rise of Nazism in Germany, and the emergence of world Communism. He is never very specific about exactly who they are, except that they are highly intelligent, totally evil, and possessed of an exceptional ability to deceive and manipulate. When the Society is in need of a less esoteric backlash target it refers simply to Communists and a "Communist conspiracy."

If the John Birch Society is not a racist organization and if it opposes Communism, is it then the defender of American values it claims to be? Welch answers this question himself and reveals the essentially pseudo-conservative nature of his group. He states, "The John Birch Society is to be a monolithic body. A republican form of government or of organization has many attractions and advantages, under certain favorable circumstances. But under less happy circumstances including those in the United States today it lends itself too readily to infiltration, distortion, and disruption. And democracy, of course, . . . is merely a deceptive phrase, a weapon of demagoguery, and a perennial fraud."8

The John Birch Society has a highly developed conspiracy theory, but it does not single out any racial or ethnic group as the source of evil in society. For this reason, a sizable portion of its membership seems to feel the need to "flesh out" the conspiracy theory by identifying a more specific group of conspirators. Revilo Oliver, one of the founding members of the Society in 1958, a member of its Executive Council and an associate editor of American Opinion, was expelled in August 1966 for his anti-Semitic activities. Other prominent members such as Robert DePugh, head of the Minutemen and the Committee of Ten Million, and the late Westbrook Pegler, a frequent contributor to radical right publications, have had their membership revoked for anti-Semitism.

The two organizations of primary interest to this paper, the Liberty Lobby and the National States Rights Party, have no such problem with an ill-defined
backlash target. Both use race as their major cultural symbol. Race is perceived to be the basis of Western culture, and whites are portrayed as the most advanced of the world's races. Just as the John Birch Society sees history and the current political situation as a struggle between virtuous patriots and a cabal of grasping, amoral "Insiders," Liberty Lobby and the NSRP view them as basically a struggle between races. The white man is pitted against the other peoples of the world in an epic struggle for survival. Jews are viewed with great hostility, sometimes on religious and sometimes on racial grounds. They are often identified as the principal force behind the conspiracy against "white civilization."

Liberty Lobby and the NSRP have a less systematic and developed conspiracy theory than does the John Birch Society, and they do not share the Society's reluctance to make direct attacks on minority groups that are perceived as status threats. The key backlash targets are Negroes and Jews, though there is occasional hostile mention of other minority groups, particularly Latin Americans.

Liberty Lobby is "not so much a political organization as a mass media organization, with a widely distributed newspaper and programs on about a hundred radio stations." Liberty Lobby is apparently well aware that its best strategy at present is to avoid a direct confrontation with the two-party system it never tires of denouncing. Instead, it is concentrating on radicalizing the white majority of Americans through an intensive propaganda effort, with an eye to building up a base of support for future political campaigns.

Liberty Lobby publishes a weekly tabloid, The Spotlight. The Spotlight does not attack minority groups outright, but follows a subtler strategy. Organizations created to advance minority interests, such as the Anti-Defamation League, the American Jewish Committee, the National Association for the Advancement of Colored People, and the Urban League, are portrayed as actively and maliciously seeking to undermine the interests of the "American majority," which in The Spotlight can
be read as a code word for non-Jewish Americans of European descent.

A recent article dwells on the hostility of Jewish organizations to Christian religious observances; another details how the ADL undermines U.S. policy in the interests of Israel. Liberty Lobby is currently bringing suit against the ADL for the sum of six million dollars; and part of its petition states that they "have misused economic power and influence for the purpose of stifling all criticism and debate concerning the ADL, the government of Israel, Zionism, and any other Zionist or Jewish interest . . . ." This more sophisticated form of anti-Semitism prefers to call itself anti-Zionism and attacks any manifestations of Jewish power and influence in the U.S., while avoiding any references to the Jewish people, per se. Nonetheless, the reader is given the clear impression that Jews are a hostile and tightly organized element in American society.

Race is dealt with in a similar fashion. The reader will find no outspoken denunciations of blacks or "inferior races." The Spotlight prefers to stick to the issues, particularly those that reveal blacks or other minority groups in a bad light. An article on Rhodesia asks: "In the sense that culture has been known in the West for a thousand years--what has Africa to offer?" It concludes, "If there is a chance . . . of white rule continuing, then, in the interests of whites as well as blacks, it must continue."

An editorial in The Spotlight attributes the Jonestown tragedy to inter-racialism and puts the blame for this incident at the door of American's liberal establishment. Additional articles emphasize the primitiveness of other races, describe the peril to national sovereignty posed by wealthy alien entrepreneurs, and portray well-meaning whites as persecuted and besieged by unassimilable non-white minorities.

The Spotlight is cautious not to evoke sympathy for minority groups by engaging in shrill, vitriolic white supremacist diatribes. It asserts that whites are the truly persecuted ones; and in its pages whites are always well-intentioned
towards minorities but always betrayed in their trust, always confronted with new evidence that different racial and religious groups are implacably opposed. White liberals are treated with the utmost contempt. They have allegedly sold out to "un-American" minority interests, preferring status and wealth to integrity.

Liberty Lobby is one of the foremost purveyors of conspiracy theories in the U.S. today. The Spotlight traffics in a wide variety of often contradictory conspiracy theories from issue to issue, all with the intent of undermining its readership's faith in the fairness and honesty of the American political system. The Rockefellers, the Trilateral Commission, the Council on Foreign Relations, Communists, liberals, Jewish groups, and Negro organizations are all somehow in league to tyrannize and crush the "American majority." 19

The Liberty Lobby, however extreme in its rhetoric, fails to reach the outer limits of right-wing extremism in the United States. The National States Rights Party comes much closer to the ultimate mark. Probably the most successful white supremacist political organization in America today, its monthly newspaper, The Thunderbolt, is described by the Anti-Defamation League as "a major hate publication." 20 The NSRP has a membership that is organized nationwide, and its newspaper "is read regularly by many Klansmen as well as many in the neo-Nazi movement." 21 The NSRP is quite single-minded in its propaganda. White supremacist topics are the only ones dealt with at any length.

The Thunderbolt is violently anti-Semitic. It does not limit itself, like The Spotlight, to attacks on Jewish special interest groups. It attacks Jews as such on racial and religious grounds. The Thunderbolt asserts that the Jew wants to destroy "the white race he so passionately hates." 22 Communism is referred to as "Jewish Marxism," 23 and "Communists and Jews are defending black killers in order to further their goals of bringing about chaos and social disorder. They want a revolution in this country which will result in the
establishment of a Marxist slave state run by minorities with the Jews in control." Jews are the force behind miscegenation. "The Jew is using the negro in an effort to destroy the White Race," and "in the captivity of Jew propaganda and of the Jew news media and Jewish control of education, innocent white people are duped into mating with negroes even though it is unnatural." According to The Thunderbolt, Jews are responsible for most of America's and the world's problems: "It was Jew money, power and political influence which brought the White Race to the crisis we face today." And finally, Jews are attracted to sexual perversions, as illustrated by the subtitle "Jew Dentist Convicted in Sex Assault."

The NSRP uses all the mainstays of anti-Semitic religious bigotry. Attorney J.B. Stoner, National Chairman of the NSRP, has written, "For two thousand years, the Jews have been carrying on a terror campaign against our Lord Jesus Christ and His followers." Central to this accusation is the traditional anti-Semitic charge that "The Jews crucified the Son of God and the Christ-hating Jews of today are as guilty as those of two thousand years ago." Stoner asserts that "According to the Holy Bible, we Christians are God's chosen people, not the Jews."

Besides trying to divorce the Christian and Jewish religious traditions and portray Jews as vengeful "Christ-killers," the NSRP presents Judaism as a dark, Satanic cult, a conglomerate of lewd and sinful practices held together by an undying hatred of Gentiles. It adduces alleged quotes from the Talmud to support this view. Some, such as "if the goyim knew what we teach about them they would kill us openly," emphasize the conspiratorial nature of Jewry. Others evoke the timeworn stereotype of the cunning, greedy Jew, as, for example, "All property of other nations belongs to the Jewish nation, which, consequently, is entitled to seize upon it without any scruples."

The NSRP's propaganda against black people is almost unbelievably crude. All blacks are disqualified absolutely from the American political system on
the basis of genetics, and any black achievements are attributed to "white blood." The NSRP believes that "the Negro is much closer to the ape than any other race physically and consequentially mentally." It is contended that "The Negro carries stench glands as does the dog and in his natural state these may serve as a means of identification in place of a name." Because the Negro is mentally backwards, "No amount of imitation and aping will instill a creative or inventive instinct into the Negro."

The NSRP's pamphlets at times outdo The Thunderbolt in crude assertions of the black man's subhuman nature. One claims that Negroes have mated with apes and presents what is supposed to be a photograph of the offspring of such a union. A brief article circulated by the NSRP reports the discovery of the "bones of an African negroidal tribe who had tails and existed only a few hundred years ago." The same piece asserts that "Negroes should be reclassified as a zoologically distinct species of the animal world." It concludes on a religious note, saying, "Negroes are a form of animal and it is against the will of God and nature to mate with such creatures."

While the NSRP does not reveal its specific plans for American Jewry, it presents a detailed program for solving the "negro problem" in the United States. Drew Smith, a New Orleans lawyer who writes for the NSRP, concludes that "From the standpoint of the white American the resettlement of the nation's Negroes in Africa would offer the only permanent solution of the Negro problem that has plagued him from the beginning. It presents the only chance for the perpetuation of white civilization in the United States." The NSRP supports a "Back to Africa Law" by which Negroes "shall be stripped of their citizenship" and "those that resist shall be forcibly deported."

The fanatical, unqualified racism of the NSRP could hardly be more thorough-going, nor could its plans to implement that racism be more extreme, short of genocide. No other contemporary U.S. white supremacist political organization
has offered a racial program as comprehensive as that of the NSRP, and no other organization has as effectively exploited democratic rhetoric in the service of the racial supremacy. The NSRP is as fanatical as any of the Klan or Nazi groups, but because it is an independent organization without a notorious past, it has been able to attract more support. However, one should bear in mind that its ideology lends itself to violence as much as that of the smaller, but better-known Klan and Nazi groups.

The two white supremacist groups discussed in this paper reveal a significant contrast in styles of racist propaganda. These differences are not accidental. Liberty Lobby members tend to prefer a less rabid form of racism because they are deeply disturbed, but not absolutely desperate, about their loss of status in contemporary American society. The Liberty Lobby employs a corporate, or concrete, form of racism, which is closely akin to that of the second Ku Klux Klan during the 1920's and the elements associated with the Wallace movement of the 1960's. The people who are drawn to the Lobby's propaganda tend to be those who can still see themselves as part of a cohesive social group in American society. Their group still has status, but that status is perceived to be under attack by various minority groups. The corporate form of racism is primarily interested in maintaining the position of a particular group. This can be achieved by the extremist solution of permanent subordination of targeted minority groups. Corporate racism, however, stops short of a solution which would attempt to permanently eliminate such groups from American society.

The National States Rights Party represents a second form of racism which does not shirk from a solution involving the elimination of blacks (by forced deportation) and of Jews and other groups (by means undisclosed) from American life. The Thunderbolt not only strips these groups of their status as Americans, but even of their humanity. Negroes are portrayed as subhuman brutes, and Jews are treated as the malicious emissaries of Satan on earth. The inescapable
conclusion is that they are disqualified from American life in a way that no amount of good works could rectify.

The NSRP manifests an anomic form of racism. The term "anomic" is used to describe a state of society in which there is a lack of faith in traditional roles and standards of behavior. These roles and standards are perceived to be in a state of decline, and the individual who experiences anomie often experiences disorientation and alienation. Unlike the corporate racism of the Liberty Lobby, the NSRP's anomic racism is not employed to maintain the status of an existing social group. Instead, it is utilized by those who believe that the status of their social group has fallen so low that they can no longer identify with it. Anomic racists have lost that sense of identity which comes from seeing oneself as part of an existing social group. To retrieve what has been completely lost, they seek a new home in a white racist utopia. The NSRP's propaganda responds to this desperate need. The "white race" is no longer a well-defined social group whose status is threatened. Instead it is a metaphysical construct, a force that has been active throughout human history in the creation and advancement of civilization. It is the repository of all that is noble and grand in being human.

The corporate racism of Liberty Lobby is currently much more successful than the anomic racism of the NSRP. Liberty Lobby's Board of Policy has a membership of around 25,000. Its members are polled for their opinions on current political issues, and Liberty Lobby bases its formal political position on their responses. The Spotlight claims, probably correctly, that it reaches over 250,000 readers each week.

The NSRP has an estimated membership of 15,000. One source approximates The Thunderbolt's paid circulation at 12,000. The contrast with The Spotlight is apparent. It seems that most white Americans still sense that they are part of a cohesive social unit, and if they are going to be attracted by racism, it will be a type that expresses itself in a corporate form. The social standing
of white Americans would have to decay considerably before the anomic racism of the NSRP could begin to have any mass appeal.

At the conclusion of this paper the question arises as to which of the two race supremacist groups considered here is more dangerous. The only answer can be that they are both equally dangerous, but for different reasons. At first glance the unrestrained extremism of the NSRP might seem the more threatening. However, the racism of Liberty Lobby is just as destructive. The subtler, more restrained approach of The Spotlight is more likely to insinuate itself into the reader's consciousness, desensitizing him to racism in general. Once this is accomplished, an individual is prepared, given the proper set of circumstances, to take the more radical step into the undiluted racism of the NSRP. The corporate racism of Liberty Lobby should be seen as the natural ally of the anomic racism of the NSRP. Despite their differences, they both use race as their primary status preservation symbol. This is brought out by The Spotlight's classified section, which offers the reader a virtual directory of the most extreme ideological racist groups, including the American Nazi Party, the modern Ku Klux Klan, and the NSRP.

A thoughtful investigation of right-wing extremism in America clearly reveals the importance of noneconomic motivations in politics. A perfectly prosperous social group can be moved to protest if it feels that its significance in the nation is declining. And, since perception of status is in the end a subjective phenomenon, the irrational elements of the human psyche cannot be excluded from the political scene.

The study of radical right groups in the United States casts considerable doubt on the comfortable assumption that economic prosperity can guarantee a free and stable political system. Perhaps because this assumption lingers on, the importance of status protest as exemplified in the development of the contemporary extreme right has not received the emphasis it deserves.
NOTES


3 Hofstadter, pp. 43-45.

4 Ibid., p. 43.


9 Lipset and Raab, p. 544.


11 "ADL is Unregistered Foreign Power Lobby," The Spotlight, 4 (December 25, 1979), 5.

12 "Liberty Lobby Seeks $6 Million in Damages from ADL, Mutual," The Spotlight, 4 (November 13, 1979), 10-11. In this same issue, also see "Men Who Lived 'American Dream' Control Network."


14 Ibid.

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J.B. Stoner, Christ Not a Jew and Jews Not God's Chosen People, p. 8. This booklet is published and distributed by the NSRP.

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From "Scientists Say, Negro Still in Ape State," in the "Negro/Ape Handbill," published and distributed by the NSRP, point 12.

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41Drew L. Smith, "Details How to Ship Negroes Back to Africa," in the "Back to Africa Program" a 4-page tract published and distributed by the NSRP, p. 4.

42"The Back to Africa Law," in the "Back to Africa Program," p. 4, point A.

43Ibid., p. 4, pt. B.

44See Lipset and Raab, pp. 460-463.


46For a brief discussion of the Board of Policy and the function of Liberty Lobby, see the pamphlet "Who's your lobbyist in Washington?" published and distributed by Liberty Lobby.

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49McCuen, p. 49.
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Disordered communication styles are a distinguishing feature in the families of schizophrenics. Over the past two decades, research and theory pertaining to schizophrenia have focused on communication patterns among the families of adolescent and young adult schizophrenics.

Much of this research has centered on the qualification of communication. Communication involves more than just what the words mean. Very broadly, communication consists of

1) verbal messages,
2) vocal and linguistic patterns,
3) body movement, popularly called body language, and
4) the context in which the communication takes place.

These components of communication interact to form a total message which may be different from any of the individual components. The components qualify one another or change the meaning of each other. A person saying, for example, "How nice to see you," in a warm, soft voice while touching the other person on the arm communicates a different message than if he or she says, "How nice to see you," in an indifferent voice with arms crossed. The context of the message is important as well; telling someone that it is nice to see him is something different when it is said at a cocktail party than when both people meet in jail or at a funeral (Haley, 1968).
What is presented at one level of communication may be qualified or contradicted at another level; verbal messages may qualify vocal messages or vice versa, and all four of the previously-mentioned components of communication qualify, interact, and form a total message which is different from any of the parts.

Bateson, Jackson, Haley, and Weakland (1956) hypothesized that confusing communications at different levels significantly contributes to the etiology of schizophrenia; confusing or contradictory communication, they stated, puts a person in a situation which they named a "double-bind." A person in a double-bind situation, unsure of the messages he or she is receiving, is unsure of what he or she thinks or should do. Bateson et al. give the example of a mother hugging her son and saying, "I love you." The verbal message and the body movement are congruent and appropriate. If, however, the mother were to say, "I love you," and move away, the son would not know which of the communications--the verbal or the body movement--was correct. Without knowing what the message is, he does not know how to act and may develop ways of dealing with his world that are labeled schizophrenic.

Necessary ingredients for a double-bind, according to Bateson et al. (1956), are

1) two or more persons,

2) repeated experience such that the double-bind becomes an enduring pattern which makes it an habitual expectation,

3) a primary injunction ("If you do X, I will withdraw my love," or "If you do not do X, I will withdraw my love.") which makes reinforcement contingent upon behavior,

4) a secondary injunction which conflicts with the first injunction, and, like the first injunction, makes reinforcement contingent upon behavior, and

5) a situation from which a person is unable to leave.
After prolonged exposure to the double-bind situation, a person loses the ability to discriminate between meanings, synthesize different cues into a total message, and comprehend total messages. Without being able to understand communication about communication, much of the meaning of the message is lost, misinterpreted, or garbled. Not only is a person unable to understand messages and communication from others, but messages to self (thought) and to others (speech) may be impaired.

Very simply, Bateson et al. proposed that schizophrenic disorders are promoted if a person is in a double-bind situation for a prolonged period of time.

Although there is a general paucity of research either supporting or disputing the double-bind hypothesis, some studies have been done which deal with the double-bind. Ringuette and Kennedy (1966) attempted to determine whether people conversant with the double-bind hypothesis could agree as to the presence or the absence of double-bind communication and whether double-binds are more frequent than could be expected in letters written to schizophrenic hospital patients by their parents. In their study, twenty letters from the parents of hospitalized schizophrenics were compared to twenty letters from the parents of hospitalized non-schizophrenics and to twenty letters written by hospital volunteers (nurses and aides) as if they were writing to hospitalized offspring. The criteria for using a patient's letter were that the patient be eighteen to thirty years of age, white, English speaking, that this be the person's first known hospital admission, and that the patient have been hospitalized for less than six months.

Five categories of judges were used, and there were three judges in each category. The categories were as follows:

1) "Experts," persons closely involved in the formulation of the double-bind hypothesis, were asked to rate the letters for presence or absence of a double-bind hypothesis on a one to seven scale.
2) "Trained" first year psychiatric residents who had been presented with the double-bind theory and examples were asked to rate the letters for the presence or absence of a double-bind hypothesis on a one to seven scale.

3) Clinicians not told about the double-bind hypothesis were asked to tell if each letter was written by the parents of schizophrenics or non-schizophrenics.

4) "Informed clinicians" were told the nature of the three groups of persons from whom the letters were obtained; this group was asked to sort the letters into three groups corresponding to the authors of the letters.

5) Naive raters were simply asked if they would like to receive each letter. Ringuette and Kennedy found the interrater correlations to be quite low, indicating that the first year psychiatric residents and the experts were unable to agree whether or not a double-bind existed in the letter. The interrater agreement for the experts here was a correlation of .19, and the interrater agreement for the first year psychiatric residents was .26. None of the groups were able to determine whether the recipient of the letter was schizophrenic or not.

Their conclusions were that either the double-bind does not exist in letters, is not a presently measurable phenomenon, or does not exist. They did not mention that half of a double-bind could conceivably be in one letter and the other half be in another letter. A message in one letter could be contradicted in another letter, leaving the recipient unsure of which is the correct statement and what he or she should do.

Ringuette and Kennedy chose to look for double-binds in letters from parents because the letters were objective and free from extraneous vocal, facial, and gestural messages. Verbal messages, however, are only part of the total communication; verbal messages may be contradicted at vocal, facial, postural, or even contextual levels. Consequently, their study really did not tell much about
communication between parents of schizophrenics but simply told about the letters they wrote.

In a lab situation, Smith (1976) measured changes in state anxiety to contradictory information. Smith used 156 female college volunteers in a 2 x 2 x 3 factorial study; these subjects were divided into three groups (high, medium, and low) according to their scores on the Taylor Manifest Anxiety Scale to control for trait anxiety. All subjects were given letters said to be from a mother to her daughter. Half of the subjects received letters that had contradictory messages. All of the subjects were asked questions about the letters, but for half of the subjects auditory punishment consisting of unpleasant noise was contingent upon incorrect answering.

Changes in state anxiety were measured by pre- and post-tests on the Mahl Speech Index, the State-Trait Anxiety Scale, Multiple Affect Adjective Checklist, and on Forms D and F of the 8-Parallel Form Anxiety Battery. Results indicated that the reception of contradictory messages with contingent punishment for incorrect answers produced a significant rise in state anxiety. How applicable this is to real family situations is questionable. Lab studies may not be able to identify factors in a family such as enduring communication patterns.

The use of interview techniques is more apt to produce meaningful results in studying communication patterns than are experimental or one-shot studies. Laing and Esterson in Sanity, Madness, and the Family (1964) presented a series of extensive case studies of the families of female schizophrenics. These case studies involved between thirty and forty hours of interviews with all members of the family in various combinations. For example, a case study of a mother, father, son, and schizophrenic daughter involved interviews with the daughter, the father and daughter, the mother, father, and daughter, and the mother, father, son, and daughter.

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This series of studies, although time consuming, indicated that family interactions in terms of unclear, ambiguous, and/or contradictory communications as well as family members pairing off or converging on one member play a significant role in understanding schizophrenia. Laing and Esterson unfortunately made no conclusions from their extensive study but rather left this series of case studies to speak for themselves. Although the recorded interviews and presentations of family interactions in their study are insightful and provocative, the lack of direction and focus does not help one to understand as well as possible what is going on in the families of schizophrenics.

Other studies have used family and parental interviews in looking at communication problems. Morris and Wynne (1965) also used parental interviews, but their study was somewhat more focused and directed than Laing and Esterson's (1964) study. They explored transactional or communicational breakdowns when there is, in the course of communication, a failure of one person to share the focus of attention with another person. Attention, they felt, is the precursor to successful communication; if two people are not communicating about the same thing, their communication is not apt to be meaningful.

In case studies with two families with schizophrenic offspring and one family with a neurotic offspring, Morris and Wynne found that the families of schizophrenics had more trouble in focusing and maintaining attention in communication than did the family of the neurotic.

Several patterns appeared in the communication of the parents of the schizophrenics. Predominant styles of communication were

1) undirected attention: unfocused and global, with the speaker's having little or no intention of direction attention,

2) vague, drifted attention, without the speaker's behaving as if the attention had changed,
3) disorganized disruption of attention,
4) unwarranted assumption of shared meaning,
5) "erased" attention with primary negation,
6) erratic, strained distancing, with the speaker's being first familiar then distant,
7) scattered attention, with the attention rapidly changing from one thing to another,
8) overfocused, reductionistic attention, and
9) manipulated meaning, achieved by the speaker's toning down or de-emphasizing the meaning.

These attentional components were used in a study of eight families. A judge, using these nine components of attention, correctly identified the four families that did not have a schizophrenic offspring. Morris and Wynne concluded that the lack of focus of attention in families of schizophrenics was an important characteristic in their communication patterns.

Fontana (1966) voiced the criticism that Morris and Wynne's (1965) study was not objective enough. This problem was rectified by Singer and Wynne (1966) with the presentation of a manual for scoring communication deviances in Rorschach protocols. The use of the Rorschach technique provides a standardized arena for communications; the subject proposes a focus of attention within the stimulus card, names the focus of attention, and tries to communicate what he sees to the examiner. This process of naming and explaining that goes on in the administration of the Rorschach is a basic style of parent-child interaction during the child's early, formative years when the child is establishing a learning set. Parental patterns of communication are what the child learns to learn by. These enduring communication difficulties affect the behavior patterns and communication styles that a person develops.
The scoring manual for communication deviances in Rorschach protocols was developed in a series of studies involving 114 pairs of parents with normal, neurotic, and schizophrenic offspring (Singer and Wynne, 1966; Wynne, Singer, and Toohey, 1976; Singer, Wynne, and Toohey, 1978). More communication deviances were found among the parents of schizophrenics than among the parents of normals or neurotics.

These 114 pairs of Rorschach protocols were examined for communication deviances or disorders in communication which made the examiner's task of understanding what the subject saw more difficult. A total of thirty-two categories of communication deviance were found, and these thirty-two categories could be factor analyzed into six independent factors:

Factor 1: odd, hard-to-follow, ambiguous remarks. This factor accounted for 11.1% of the total variance.

Factor 2: distracted and distracting failures to sustain task. This factor accounted for 7.4% of the total variance.

Factor 3: unstable percepts and thinking, which accounted for 9.4% of the total variance.

Factor 4: nihilistic and idiosyncratic task orientations, which accounted for 8.1% of the total variance.

Factor 5: extraneous, illogical, and contradictory remarks, which accounted for 8.5% of the variance.

Factor 6: abstract, indefinite, and discursive vagueness, which accounted for 6.1% of the variance.

Singer and Wynne (1966) published a scoring manual for communication deviances in Rorschach protocols based upon the factor analysis. Abbreviated scoring categories from the manual are

I. CLOSURE PROBLEMS

1) uncorrected speech fragments
II. DISRUPTIVE BEHAVIOR
1) interruption of the examiner's speech
2) extraneous questions and remarks
3) tangential and inappropriate remarks
4) nonverbal disruptive behavior
5) humor
6) swearing
7) hopping around among responses
8) negativistic temporary card rejection followed by a response

III. PECULIAR LANGUAGE AND LOGIC
1) peculiar word usage
   a) ordinary words used out of context, oddly, and/or incorrectly
   b) odd sentence construction
   c) peculiar or quaint private terms and phrases
   d) euphemisms
   e) slips of the tongue
   f) mispronounced words
   g) foreign terms used for no apparent reason
   h) cryptic remarks
i) slang association, rhymed phrases, word play
j) abstract, global terms

2) reiteration

3) peculiar logic
   a) illogical combinations of percepts and categories
   b) nonsequitur reasoning
   c) assigning meaning on the basis of nonessential attributes of the cards
   d) contamination

Communication disorders were more prevalent in the Rorschach protocols of parents of schizophrenics than among the parents of neurotics or normals. Using a blind scoring method in which the person scoring the protocols did not know the diagnosis of the offspring, twenty-four pairs of parents were correctly identified as having schizophrenic offspring.

An index of communication deviance (defined as the total number of scored communication deviances divided by the total word count) clearly differentiated both the parents of the twenty-four remitting schizophrenics and the parents of the twenty non-remitting schizophrenics from the parents of the twenty normals and the parents of the twenty-five neurotics. This index of communication deviance did not, however, differentiate the parents of normals from the parents of neurotics or the parents of remitting schizophrenics from the parents of non-remitting schizophrenics. The parents of borderline schizophrenics could not be differentiated from any of the other four groups of parents.

Communication deviance is not the same thing as psychopathology, however; schizophrenics tend to score lower than their parents in terms of the communication deviance index.

Using communication deviance as a rearing variable rather than using parental psychopathology as a rearing variable as has typically been done in the past,
Wynn, Singer, and Toohey (1976) conducted an adoption study involving parents of schizophrenics. Twenty-six pairs of parents were administered Rorschachs along with extensive interviews and other tests, and these Rorschach protocols were scored from communication deviance. Seven of the parental pairs were the biological parents of schizophrenics, and nine of the parental pairs were the adoptive parents of schizophrenics. Ten pairs of adoptive parents of non-schizophrenic offspring were used as controls.

Communication deviance scores did not differentiate the biological parents from the adoptive parents of schizophrenics but did differentiate the parents of schizophrenics from the parents of non-schizophrenics. Rorschach protocols were scored blind as to the diagnosis of the offspring. On the basis of the communication deviance scores, all seven of the pairs of the biological parents with schizophrenic offspring and all nine of the pairs of adoptive parents with schizophrenic offspring were predicted to have schizophrenic offspring, whereas none of the ten pairs of adoptive parents with non-schizophrenic offspring were predicted to have schizophrenic offspring.

Although excess verbiage itself makes communication more difficult to understand, communication deviance as measured by Wynne et al. was not related to the number of words. By dividing the number of communication deviances by the total word count, an index of communication deviance was derived that was independent of the total verbiage. The biological parents of schizophrenics and the adoptive parents of schizophrenics had average indices of .122 and .121, respectively, whereas the adoptive parents of non-schizophrenic offspring had an average index of communication deviance of only .049.

In addition to other communicational disorders, the way in which parents of schizophrenics focused attention differentiated them from the parents of normals and neurotics; the parents of schizophrenics had more trouble focusing attention and conveying the focus of attention than did other parents.
As schizophrenics appear to have been raised in environments fraught with communication problems, especially in the area of the focusing of attention, and have learned ways of learning that are less than perfect, they have problems in communicating not only with others but with themselves as well. These thought and communication disorders among schizophrenics are not a homogeneous type, and Singer, Wynne, and Toohey (1978), Wynne, Singer, and Toohey (1976), and Morris and Wynne (1965) as well as others (Fleck, 1976) refer to amorphous and fragmented patterns of schizophrenic communications. Singer, Wynne, and Toohey (1978) presented the following differences in amorphous and fragmented types of schizophrenic communication and thought.

<table>
<thead>
<tr>
<th>Amorphous</th>
<th>Fragmented</th>
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<tbody>
<tr>
<td><strong>Attention:</strong> poorly focused, drifting</td>
<td><strong>Attention:</strong> fairly clearly focused for brief moments</td>
</tr>
<tr>
<td><strong>Perception:</strong> uncertain and blurred</td>
<td><strong>Perception:</strong> relatively well differentiated, but bits and pieces of memories and current stimuli become tangled</td>
</tr>
<tr>
<td><strong>Communication:</strong> loses continuity due to gaps, blocking, indefiniteness, and vagueness</td>
<td><strong>Communication:</strong> disrupted by inner and outer disruptions; poorly integrated thought</td>
</tr>
<tr>
<td><strong>Affect:</strong> flat and impoverished</td>
<td><strong>Affect:</strong> relatively alert and anxious, often with efforts to control the turmoil of powerfully intrusive thoughts, feelings, and impulses</td>
</tr>
<tr>
<td><strong>History:</strong> usually poor premorbid history with developmental failure rather than regression</td>
<td><strong>History:</strong> usually relatively good premorbid history, often with success and skills that have regressively been lost</td>
</tr>
</tbody>
</table>

Communication within a family works several ways, however, and Liem (1974) stated that schizophrenic offspring disturb their parents' and other's communication.
In a study of eleven families with a schizophrenic son and eleven families with a non-schizophrenic son, Liem found that schizophrenic sons tended to communicate in ways which not only confused their parents but also confused the parents of non-schizophrenic sons.

Liem had the twenty-two pairs of parents and the sons participate in a task that was presented as a word game. The task was to describe a common object (e.g., lamb, match) or a human concept (e.g., teacher, child) so that someone listening to the description could identify the object or concept. The parents, working in marital teams, and the sons all participated in this part of the task and served as respondents to others' descriptions. Parents responded to tapes of their son, a normal son, and a schizophrenic son. Offspring responded to their parents, a pair of parents of a normal or non-schizophrenic son, and a pair of parents of a schizophrenic son. Descriptions and responses were judged to be either appropriate or inappropriate.

Liem did not find any significant difference between the parents of schizophrenics and the parents of normals in terms of the communication of a focus of attention, which was contradictory to previous findings (Morris and Wynne, 1965; Wynne, et al., 1976; Singer, et al., 1978). All parents were more likely to misidentify what was described if the offspring was schizophrenic rather than non-schizophrenic.

Although Liem's (1974) findings that the problems in focusing attention are greater among schizophrenic sons than among the parents of schizophrenics or among the parents of non-schizophrenics contradicted other findings, several factors could account for this difference. Differences in the method of determining communication disorders could have affected the results as could differences in the samples, all of which were rather small. Obtaining large samples in family research is apparently quite difficult, and finding families with the proper criteria, e.g., families with a schizophrenic son or adoptive families with a schizophrenic
offspring of a particular age, adds to the difficulty. Thus these studies have been conducted with relatively small numbers of families, and the replicability and the ability to generalize from the studies are both reduced.

Poor quantification of results and incomplete reporting of results also plague these studies. Singer et al. (1976), for example, reported that communication deviance scores are lower for schizophrenic offspring than for their parents, but the scores themselves are not reported. Similarly, Liem (1974) made no effort to separate communication problems from the total verbiage, leaving a possibly contaminating factor. The fact that the schizophrenic sons had more communication problems might be a result of higher total word count than their parents.

At any rate, communication disorders, especially in terms of problems in focusing attention, seem to be a problem in the families of young adult schizophrenics. These problems in focusing attention do not appear to be limited to the parents of schizophrenics; offspring also have communication problems, and their problems further affect communication within the family.

The schizophrenic may communicate in ways which further disorder communication styles within the family and create a vicious circle. The young adult or adolescent may begin acting and communicating in a schizophrenic manner partly as a result of disordered parental communication. His or her schizophrenic communications confuse the persons with whom he or she communicates and further maintain the disordered styles of communication.

The research on disordered styles of communication and problems in focusing attention among families of schizophrenics not only has produced a different and perhaps more descriptive categorization of schizophrenia but also has implications for modification of communication styles and schizophrenics' communication and perhaps thought.
The categories of amorphous and fragmented communication can be seen as ends of a continuum rather than as discreet categories; these classifications are based upon objective data--actual communications--rather than upon inferred intrapsychic processes. This empirical way of classifying schizophrenics could conceivably result in higher reliability and validity of diagnoses.

Since communication problems as presented by Singer and Wynne (1966) may be empirically and quantifiably determined, the modification of communication patterns could conceivably be undertaken. Problems in communication styles could be identified and a reeducational process perhaps could be undertaken. This is not suggested as a panacea to the problem of schizophrenia but rather as a measure to prevent a schizophrenic person's returning from a period of hospitalization into the same sort of atmosphere that fostered the need for hospitalization.

Disordered communication styles should not be seen as a unitary and complete cause of schizophrenia but rather as an enduring environmental factor contributing to the way of acting that has come to be labeled as schizophrenic. Research has indicated that confusing communication, especially in terms of problems in focusing attention, tends to be present in the families of young adult or adolescent schizophrenics more than in the families of non-schizophrenics. This area seems to be a fertile field for further research; indeed, existing research on communication problems among families of schizophrenics is somewhat scarce. Existing research, however, appears to illuminate enduring factors in the development of schizophrenia and to offer an empirical way of studying schizophrenic communication with implications for changing communication and enduring factors leading to schizophrenia.
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DEVELOPMENT OF THE CONCEPTS OF INFINITY

by Valery Lee Brevit

Many advancements in mathematics were made during the seventeenth century. However, the development of the concepts of calculus toward the end of the century had the most powerful impact on the scientific world. With these concepts in hand, mathematical processes ceased to be a finite sequence of steps. Mathematicians could now handle what seemed to be impossibly difficult, that is, infinity. Though many men contributed to the discovery of calculus, it seems that Isaac Newton and Gottfried Wilhelm Leibniz are credited with its actual development. Yet its history begins many centuries earlier.

To begin the history of calculus, one must return to the ancient Greeks during the fifth century before our common era. Here we find the inception of the struggle with finite and infinite processes. This struggle brought about the proposal of the four paradoxes by Zeno of Elea (c. 496 to c. 429 B.C.).

To illustrate, the second paradox dealt with a race between Achilles and a tortoise. It proposed that if the tortoise were to begin the race with a head start, Achilles would never catch the tortoise even though he could run faster, because by the time Achilles could reach a point A where the tortoise had been, the tortoise would be at point B, and so on. Of course, these paradoxes claim that motion is impossible if we assume magnitude to be infinitely divisible rather than discretely divisible. Though such a problem may seem absurd, it demonstrated the difficulties the Greeks were having with the concept of infinity. They knew the problem, could illustrate it, but they could not solve it. Hence,
the further study of mathematical infinity was hindered.³

Before the close of the fifth century, another predecessor of the calculus was invented. This was the method of exhaustion, whose early developments are mainly credited to Antiphon the Sophist (ca. 430 B.C.) and the later developments to the mathematician Eudoxus (ca. 370 B.C.).⁴ Again, this was an attempt to evaluate an infinite process by finite means. The idea was to construct a square equal to the area enclosed by a circle. The method used involved repeatedly doubling the number of sides of an inscribed polygon until the difference in area between the circle and the polygon was at least exhausted.⁵

The method of exhaustion was put to extensive use by the experimentalist, Archimedes (287-212 B.C.).⁶ The basic idea of his method for finding an area or volume was to cut the unknown into many thin parallel layers and then balance these layers against those of a figure whose area was known.⁷ As a proof, Archimedes supplied a rigorous demonstration by the method of exhaustion. The point to be kept in mind is that Archimedes used infinitesimals as a means of finding the statements of his theorems, but he did not use them in establishing their truth. Yet, by these demonstrations, Archimedes came very close to actual integration.⁸

Finding that the work being done was essentially unproductive, and being bound by the tradition that "if the Greeks could not do it then nobody could," the mathematicians, philosophers, and experimentalists of approximately the next seventeen hundred years concentrated on developments basically unrelated to the calculus. It was not until about the year 1450 that Archimedes' works were translated from manuscripts found at Constantinople. The translations were then published in 1540.⁹ However, it was not until the beginning of the seventeenth century that we find Archimedes' ideas receiving further development.

These developments began with Cavalieri, a Jesuat (this is a lay order other than the modern Jesuit order), who studied under Galileo and was one of the most influential mathematicians of his time.¹⁰ Cavalieri made extensive use of the
idea of indivisibles, that is, of considering "a surface the smallest element of a solid, a line the smallest element of a surface, and a point that of a line." This concept led to the establishment of Cavalieri's famous theorem:

If between the same parallels, any two plane figures are constructed, and if in them, any straight lines being drawn equidistant from the parallels, the enclosed portions of any one of these lines are equal, the plane figures are also equal to one another; and if between the same parallel planes any solid figures are constructed, and if in them, any planes being drawn equidistant from the parallel planes, the included plane figures out of any one of the planes so drawn are equal, the solid figures are likewise equal to one another.

This method allowed Cavalieri to find the area under a curve and the volume of a solid, which today we accomplish by the process of integration—an extension of Cavalieri's principle.

Although it was not known at the time, the converse of the integration problem is the process now known as differentiation, in which the problem of finding tangents to and maxima and minima of curves is attacked. In this area, certain French mathematicians, in particular Pierre Fermat and René Descartes, laid the foundation for what Newton later called his fluxions.

Newton's immediate predecessors in England were John Wallis (1616-1703) and Isaac Barrow (1630-1677). Wallis generalized the formula for the area bounded by the curve \( y = x^n \), the x-axis, and the line \( x = h \). He also attempted to find \( \pi \) by finding the area of a semicircle.

Whereas Wallis' major contribution to calculus was toward integration, Barrow's most important contribution was in the theory of differentiation. He was the author of certain lectures on geometry in which he discussed construction for finding lengths, areas, and volumes which are now found by the methods of calculus. However, because he was lacking in certain symbolisms and algebraic analyses, he is not given credit for the invention of calculus. In 1669 Barrow retired his position at Cambridge University in favor of one of his students, Issac Newton (1646-
Isaac Newton, who is thought by many to be the greatest intellect ever to live, had an unfortunate childhood. He was born prematurely after the death of his father, and almost died himself. His mother remarried three years later and left him with his grandparents. While in school, he seemed rather slow at his work and only began to advance when forced to compete with the class bully who was also first in academics. His uncle, a graduate of Trinity College, was the first to recognize the mental aptitude of the boy and urged that he be enrolled at Cambridge University. This was done, and in 1665 Newton graduated with no particular honors. When a plague hit London, he returned to his mother's farm to avoid danger. It was here that he first began what was to become the calculus. In 1677 Newton returned to Cambridge, where he remained for thirty years. In 1669 he was named Lucasian professor of mathematics and spent most of his time in research as he only gave eight lectures a year.

Despite his being highly intellectual, or maybe as a result of such intellectualism, Newton was rather a strange man. He never married and, except for a short romance in his youth, seemed to be oblivious to the existence of women. He was painfully absentminded and continually preoccupied with matters other than the present. His sensitivity to criticism bordered on the pathological--contributing to the famous Newton-Leibniz controversy.

Perhaps as a result of the tremendous mental strain under which he placed himself, Newton had a nervous breakdown in 1692. He was never again quite the same, though his mental capabilities still surpassed those of anyone around him. For example, in 1692 a Swiss mathematician challenged the scholars of Europe to solve two problems. Newton, anonymously, forwarded the solutions the day after he saw the problem. In 1716, Leibniz sent a problem to him as a challenge. Newton solved it in one afternoon.
Newton's reputation as a scientist was great during his own lifetime, and has yet to be surpassed. After a long, painful illness, he died at the age of eighty-four and was buried in Westminster Abbey. The Latin inscription on his tomb ends with the sentence "Mortals! Rejoice at so great an ornament to the human race!".

Newton displayed the virtue of modesty (though some doubt he was as modest as his reputation suggests) in two well-known statements. In a letter to Robert Hooke in 1676, he wrote, "If I have seen further than other men, it is because I stood on the shoulders of giants." Also, he stated, "I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."

The codiscoverer of calculus, Gottfried Wilhelm Leibniz, was the son of a professor of philosophy and considered to be a premier philosopher himself. He was an infant prodigy, teaching himself Latin at the age of eight, Greek at fourteen, entering a university at fifteen, attaining his degree at seventeen, and qualifying for a degree in law before the age of twenty-one. In 1671 he devised a calculating machine that could multiply and divide as well as add and subtract. It was also capable of extracting roots. In 1673 he began to develop his methods of calculus which eventually resulted in a wicked controversy with Newton during which Leibniz was all but accused of plagiarism.

Trying to explain how these two men, Newton and Leibniz, would solve the problem that for two thousand years had baffled the best of minds is like trying to explain genius. Each, individually, without reference to the work of the other, came up with essentially the same results. Both felt the calculus was a natural extension of the work of their immediate predecessors, and yet both realized they had made a philosophical breakthrough. Newton's work is perhaps
easier to explain in that it was in response to a need in his work as a physicist; also, he had the advantage of Barrow's advancements. Leibniz, however, was almost totally a philosopher interested in mathematics. Whatever it was that inspired these two men, though, all of modern science is indebted to them. Without the calculus, much of the present and future work in physical and social sciences would be impossible.

Newton's first development of the calculus proceeded by means of the infinite series. Later he used the method on which most of his work was largely found—the method of fluxions. This study began in the year 1665. That same year, he developed the Binomial Theorem. Newton never published the binomial theorem, nor did he prove it; but he wrote out several accounts of his infinite series. The first of these was De analysi per aequationes numero terminorum infinitas, written in 1669 from ideas gathered in 1666 and published in 1711. From then on, infinite processes were a justifiable area of mathematics no longer to be avoided as they had been by the ancient Greeks.

De Analysi contained the first systematic account of Newton's calculus. As of 1666, he did not have his notation of fluxions, but he had formulated a method of differentiation. He could also find area through the inverse of differentiation because he used the inverse relationship between slope and area by his new infinite analysis.

As mentioned above, his most popular presentation of calculus was his method of fluxions. Here curves were products of moving points so that the x and y values of the point were changing quantities. A changing quantity was called a fluent, and its rate of change was called the fluxion of the fluent. By Newton's notation, if the fluent were represented by y, then the fluxion of the fluent was \( \dot{y} \) (what we today recognize as \( \frac{dy}{dt} \), the rate of change of y with respect to time t). Then, the fluxion of \( \dot{y} \) was denoted by \( \ddot{y} \), and so on. On the other hand, the fluent ("integral" in our present day terminology) of y was indicated by \( \dot{y} \), and the apostrophe could be doubled in the same fashion as the dot.
With this method of fluxions, Newton considered two types of problems. "In the first type we are given a relation connecting some fluents, and we are asked to find a relation connecting these fluents and their fluxions." This is the same as differentiation. "In the second type we are given a relation connecting some fluents and their fluxions, and we are asked to find a relation connecting the fluents alone." This is analogous to solving a differential equation. In these applications of fluxions, Newton was able to determine tangents to curves, maxima and minima, points of inflection, concavity of curves, and much more. In his works he also found a method of approximating the values of the real roots of an algebraic or transcendental numerical equation.

Newton's work showed a steady development from the idea of infinitesimals used in the Principia (1687) through the concept of fluxions set forth in Tractatus de Quadratura Curvarum (1704). This latter work also contained integration as the inverse of differentiation. His methods were distinguished from those of his predecessors by being general methods applicable to many cases by their algebra, rigor, and notation.

In the meantime, the German mathematician-philosopher Leibniz was developing a form of the calculus also. Whereas Newton was superior in mathematical rigor, Leibniz was superior in his form. Leibniz not only invented a convenient symbolism, such as the notation we use today--dx, dy, the latter representing a long letter S taken from the first letter of the Latin word summa (sum) to indicate the sum of Cavalieri's indivisibles--but he also set out definite rules of procedure.

From his own accounts, Leibniz began his work in 1674, but his first published paper did not appear until 1684. From his studies on the infinite series and the harmonic triangle, Leibniz began to read about other aspects of infinitesimal analysis. He realized that the determination of the tangent to a curve depended on the ratio of the differences in the ordinate and abscissas, as these became infinitely small, and that the process of finding area depended on the sum
of the ordinates or infinitely thin rectangles making up the area.\footnote{37}

By 1676 Leibniz had arrived at the same conclusion Newton had reached several years earlier. However, his method was highly important because of its generality. His choice of symbolism was especially useful because it not only simplified Newton's notation on fluxions but was more definite.\footnote{38}

In 1686 in Acta Eruditorum, Leibniz published an explanation of the integral calculus in which quadratures are shown to be special cases of the inverse method of the tangents. Here Leibniz emphasized the inverse relationship between differentiation and integration in the fundamental theorem of the calculus.\footnote{39}

With this theorem came the resolution of a problem that had baffled men from ancient times on. The problem of infinite processes had been solved. Today calculus is a work-a-day tool and is no longer a mystery to many work-related fields of study. It is imperative to the physicist, the chemist, the statistician and his continuous distributions, and even to the social scientist. In other words, the advances made in almost all types of research today could not be possible without the calculus. And the diligent, tireless efforts of many men made these concepts possible for our use.
NOTES


3 Sanford, p. 310.

4 Eves, p. 317.

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25 Asimov, pp. 142-143.


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KIM-1 CALCULATOR INTERFACE

by

Ken T. Cook
# KIM-1 Calculator Interface

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FOREWORD

As students become seniors in the technology program at Western Kentucky University, they are required to take a semester course called "Senior Project (ET 423)." The course requires the students to research, design, build, and document a project. It was determined by Mr. William Moore (advisor) and me that I could use the KIM-1 calculator interface as my senior project. As a secondary purpose this project will be used in the micro-processor laboratory as an educational aid.

The purpose of the report is to present support information in the design and operation of the interface and, also, to provide a limited user guide for programming the MM57109 number processor.
SUMMARY

The problem that this report faced was meeting the requirements of the senior project course.

Initial research on the design was performed using all available sources. After a working knowledge of making the number processor compatible with the KIM-1, I drew a schematic. The paper design had to be approved by advisor before the parts could be ordered.

After components were delivered, the circuit was temporarily bread-boarded and tested for faulty design of hardware or software.

After all bugs were removed, the circuit board was made. The components were then mounted and operation was reaffirmed and documentation was completed.
INTRODUCTION

The purpose of this report is to give information on the KIM-1 calculator interface and to provide a guide for using the interface. Presently, when using the KIM-1 microprocessor system, the user does not have the capability of performing math functions (sin x, ln x, floating point, etc.) without preprogramming them into the KIM-1 system. This peripheral processor gives the user all the functions found on most scientific calculators. By not having to write and keep canned programs, the user saves memory space and time with the number processor.

The KIM-1 calculator interface is composed of a MM57109 number-oriented processor, hardware support components, and software control routines. This report will first be directed toward a description of the interface and how it works, including all three of the above divisions. Then the discussion will turn to using and programming the interface to work different math problems.
NUMBER-ORIENTED PROCESSOR

The MM57109 number-oriented processor is a preprogrammed single chip micro-computer. The chip features scientific calculator instructions, flexible input/output, and interface simplicity. This processor could be used as a stand-alone processor, but in this case it is used as a microcomputer peripheral. The scientific calculator features seventy instructions which include floating point math, a four-level stack, internal memory register, direct digit entry, and reverse polish notation.

A block diagram of the MM57109 is shown in figure #1. Only the pin function used in this interface will be described.

![Functional Block Diagram of the Processor](image)

Figure 1: Functional Block Diagram of the Processor (National Semiconductor Corporation).
A basic requirement as described by National's data sheet ABG/W is that the MM57109 requires a 9-volt power supply which can be +5-volts and -4-volts for an easy TTL interface. Another requirement is a single-phase clock operating from VSS to VDD at a frequency of 400 kilohertz. This is internally divided by four and forms a basic timing unit called micro-cycle.

The processor receives instructions and data via the input lines, I1 through I6. Timing of an instruction or data fetch into the number processor is done by handshaking. This is done between the HOLD input and RDY output. After the MM57109 completes operation on previous data or instruction, it places the RDY output high. This states that data now on the input lines will be inputted into the processor unless the HOLD input is held high. If HOLD is high, the processor's operations will stop until the HOLD input goes low. This control of the number processor gives the KIM-1 micro computer an asynchronous method to prepare data or an instruction for outputting.

The POR input is used to reset the MM57109 after power is initially turned on. After a 2-microcycle high pulse at this input, the processor will generate three RDY signals. The first two should be ignored, and operation can begin on the third one.

The remaining control signals used are the ERROR and BR output signal. The ERROR output will go high to signal that an internal math error, such as MM division by zero, has happened. A complete listing of error conditions can be found in the processor's data sheet. The BR output goes low in response to an internal program branch.

The processor is a relatively simple support device featuring the HOLD-RDY relationship, internal error generation, and R/W signal for outputting.

HARDWARE DESIGN

The support components, or hardware, were designed and built around requirements designated in National Semiconductor's MM57109 data sheet. The basic
interface consists of a clock, an interface controller, an input latch, an output latch, R/W and BR latches, and write buffers. All components, except for the system's clock, are low-power Schottky TTL components. The clock device is a C-MOS device. The hardware interface was laid out and etched on a double-sided printed circuit board with an edge connector attached on one end for a quick connection into the KIM-1 system. Figure 2 shows a block diagram of the interface.

Figure 2: Interface Block Diagram
The system's clock is a single phase whose output varies from $+V_{SS}$ to $-V_{DD}$ at a frequency of 320 kilohertz. The processor then takes the clock's frequency and divides it by four and operates on this reduced frequency or a time of 12.5 micro-seconds per cycle. The clock is made from C-MOS CD4069 inverters to get the $V_{SS}$ to $V_{DD}$ voltage swing.

The next block of interface is the system controller. The controller receives control words from the KIM-1 and decodes them. This determines which control signal is selected. These control signals are for data latching, resetting HOLD, a POR reset, R/W flag reset, and enabling write buffers. The controller is made from 74LS04 inverters and two 74LS42 binary-coded decimal decoders.

The input and output latches of the interface are 74LS75 D-latches. These latches act as temporary storage points for information being transferred from KIM-1 to calculator and from calculator to KIM-1. The input data latch is controlled by the interface controller, while the output latch is controlled by the R/W pulse of the number processor.

The R/W and BR latches are 74LS76 dual J-K flip-flops used in direct mode. The R/W is used as a flag to signal when data is latched into the output latch. The BR latch is set when the processor takes an internal branch. Both flip-flops are reset by the system controller.

The output buffers are TRI-STATE 74LS125 quad buffers. They are used to isolate the output latches from the information lines (PORT A) during an input selection. When these devices are in the not-select mode their outputs are in a high impedance state.
SOFTWARE

The software interface used to control the number-oriented processor and support hardware is made up of one main routine and three subroutines. After the number processor's program is stored in the KIM-1, the main routine is fetched and started. This routine determines when the processor is reset by the RESET subroutine, when the data or instructions are inputed and executed by the EXEC subroutine, and when a number is outputted from the processor by OUTDIG subroutine. A complete listing of these programs is given in the appendices.

BASIC OPERATION

The basic operation of the interface is best described by following the software routines.

RESET

When first entered, the main program does a system reset of the peripheral circuit. Control of the interface is transferred to the RESET subroutine. Here RESET outputs to the interface controller a control word which raises the POR input of the processor high for at least two micro-cycles, while it lowers the HOLD input so that the processor can perform a power-on reset. The software is designed to ignore the first two RDY pulse and on the third RDY pulse bring the HOLD back to high, stopping the processor.

The number processor is completely reset with all internal registers equal to zero and outputs in reset states. Before returning the control to the main routine, the reset subroutine signals the controller and resets the R/w and BR flip-flops. Now, with a complete processor and interface reset, control is returned to the main program.
EXECUTE

The main program now fetches the first byte of the number processor's program and jumps to the EXEC subroutine. Here EXEC signals the interface controller to latch the data coming from KIM-1 (PORT A) into the processor's input latch. After latching data, the subroutine signals again to the interface controller to lower the HOLD input. The calculator recognizes this signal and begins to execute on data or instruction stored in the input latch. Next, the EXEC subroutine monitors RDY output signal (P_{BO}) until it goes low. It goes low when the processor has the inputted data internally stored and has begun to execute. Upon receiving the low RDY signal, the execute subroutine again signals the interface controller to raise HOLD high again so that the number processor will wait for the next byte of data or instruction. The control is now returned to main.

OUTPUT

After all number-processor instructions have been fetched and executed, the main program recognizes that an output from the number processor to the KIM-1 is next. Program control is transferred to the OUTDIG subroutine. The first step in OUTDIG is loading a number processor OUT instruction into the input latch and executing it. This is done by jumping to the execute routine and beginning to execute the out instruction. The out instruction is a two byte instruction. The second byte is ignored by the processor but is performed by the hardware and software support only to keep the proper RDY-HOLD relationship.

After the second high-ready signal the first digit of the number is placed on the D_{01} - D_{04} lines and is latched into the output latch by a R/\bar{w} output pulse from the processor. The R/\bar{w} pulse also sets the R/\bar{w} latch. After the second ready signal, the interface control is returned to the OUTDIG subroutine. OUTDIG is constantly monitoring the RDY output from the processor and the output of the R/\bar{w} latch. If ready output = 1, the out instruction is completed. If ready output \neq 1, then the output proceeds to check the R/\bar{w} flag to see if it is set.
If it is set, OUTDIG signals the interface controller to enable the TRISTATE buffer. OUTDIG takes the digit and stores it in KIM-1 memory. The interface controller disables the buffers and resets the R/w latch. OUTDIG goes back to monitoring RDY output and R/w flag until RDY = 1. After completion of out instruction, control is returned to the main program which disables the interface and returns to a previous program, in this case, the KIM-1 monitor program.

SUMMARY

Basic operation of the interface is broken into three divisions: reset, execute, and output data. Upon initialization, the system is completely reset and the interface then begins to receive data from the KIM-1. After the calculator has performed the necessary operations on all of the program, an OUT instruction is performed by the calculator and the answer is outputted into KIM-1.

**USING KIM-1 INTERFACE**

**INSTALLATION**

Before programming, the interface is attached to the KIM-1 application bus located on the KIM-4 Mother-board. Next, a -15 volt power line from the system's power supply is attached to the red banana plug located on the interface board to get the $V_{DD}$ supply for the calculator.

**LOADING INTERFACE PROGRAM**

The monitor, or control program, which is located from 0200 thru 020F, is loaded in KIM-1 using a punched paper tape listing and the teletype peripheral. Instruction on using the teletype is located in page 52 of the KIM-1 Hardware Manual.
PROGRAMMING THE CALCULATOR

Programs for the processor are written in a form called Reverse Polish Notation (RPN). This form makes use of the four-level stack requiring no parenthesis or memory storage as in most calculators. To write a program for the calculator, one first writes the program's instruction in its mnemonics. The mnemonics then are translated into hexadecimal operation code. The encoded program is loaded in the KIM-1 memory using the KIM-1 keyboard starting at 0130 (hex) with up to a maximum of 255 steps. After the program is written, a hex FF is placed after the last byte to indicate the program's end for the KIM-1.

To start a program after it is entered in KIM, the operator addresses location 02C4 and presses "go." When finished, the program returns to KIM monitor, and the answer can be found from location 00B0 thru 00BC, depending upon the mode of operation.

Example programs using the KIM-1 interface giving both processor mnemonics and hexadecimal op-codes are located in the appendix.
BIBLIOGRAPHY


### APPENDIX A

#### MM57109 INSTRUCTION TABLE

(courtesy National Semiconductor)

<table>
<thead>
<tr>
<th>CLASS</th>
<th>SUBCLASS</th>
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<th>UCTAL OP CODE</th>
<th>FULL NAME</th>
<th>DESCRIPTION</th>
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<td>Digit</td>
<td>Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>00</td>
<td>0</td>
<td>Minus or exponent digits. On first digit line, the following occurs: Z → T; Y → Z; X → Y; d → X.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>01</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>02</td>
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</tr>
<tr>
<td>DP</td>
<td></td>
<td>12</td>
<td>Decimal Point</td>
<td>Digits that follow will be mantissa fraction.</td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td></td>
<td>13</td>
<td>Enter Exponent</td>
<td>Digits that follow will be exponent.</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td></td>
<td>14</td>
<td>Change Sign</td>
<td>Digits that follow will be mantissa.</td>
<td></td>
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<td>PI</td>
<td></td>
<td>15</td>
<td>Constant #</td>
<td>CS causes Xm = Xm or Xe = Xe depending on whether or not an EE instruction was executed after last number entry initiation.</td>
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<tr>
<td>EN</td>
<td></td>
<td>41</td>
<td>Enter</td>
<td>X = Y; Y = Z; Z = X.</td>
<td></td>
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<tr>
<td>NOP</td>
<td></td>
<td>77</td>
<td>No Operation</td>
<td>Do nothing instruction that will terminate digit entry.</td>
<td></td>
</tr>
<tr>
<td>HALT</td>
<td></td>
<td>17</td>
<td>Halt</td>
<td>External hardware disrupts HALT op code and generates HOLD * 1. Processor waits for HOLD * 0 before continuing. HALT acts as a NOP and may be inserted between digit entry instructions since it does not terminate digit entry. Roll Stack. Roll Stack.</td>
<td></td>
</tr>
<tr>
<td>Move</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLL</td>
<td></td>
<td>43</td>
<td>Roll</td>
<td>Pop Stack.</td>
<td></td>
</tr>
<tr>
<td>POP</td>
<td></td>
<td>56</td>
<td>Pop</td>
<td>Pop Stack. Y → X; Z → Y; T → Z; O → T.</td>
<td></td>
</tr>
<tr>
<td>KEY</td>
<td></td>
<td>60</td>
<td>X exchange Y</td>
<td>Exchange X and Y.</td>
<td></td>
</tr>
<tr>
<td>XEM</td>
<td></td>
<td>33</td>
<td>X exchange M</td>
<td>Exchange X with memory.</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td></td>
<td>34</td>
<td>Memory Store</td>
<td>Store X in Memory.</td>
<td></td>
</tr>
<tr>
<td>MR</td>
<td></td>
<td>35</td>
<td>Memory Recall</td>
<td>Recall Memory into X. Stack is pushed. M → X → Y → Z → T.</td>
<td></td>
</tr>
<tr>
<td>LSH</td>
<td></td>
<td>36</td>
<td>Left Shift Xm</td>
<td>X mantissa is left shifted while leaving decimal point in same position. Former most significant digit is saved in link digit. Least significant digit is zero. Former link digit is lost.</td>
<td></td>
</tr>
<tr>
<td>RSH</td>
<td></td>
<td>37</td>
<td>Right Shift Xm</td>
<td>X mantissa is right shifted while leaving decimal point in same position. Link digit, which is normally zero except after a left shift, is shifted into the most significant digit. Least significant digit is lost.</td>
<td></td>
</tr>
<tr>
<td>CLASS</td>
<td>SUBCLASS</td>
<td>MNEMONIC*</td>
<td>OCTAL CODE</td>
<td>FULL NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Math</td>
<td>F (X,Y)</td>
<td>+</td>
<td>71</td>
<td>Plus</td>
<td>Add X to Y. X + Y → X. On +, −, ×, / and YX instructions, stack is popped as follows: Z → Y, T → Z, 0 → T. Former X, Y are lost.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>−</td>
<td>72</td>
<td>Minus</td>
<td>Subtract X from Y. Y − X → X.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>×</td>
<td>73</td>
<td>Times</td>
<td>Multiply X times Y. Y × X → X.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>÷</td>
<td>74</td>
<td>Divide</td>
<td>Divide X into Y. Y ÷ X → X. Raise Y to X power. YX → X.</td>
</tr>
<tr>
<td></td>
<td>F (X,M)</td>
<td>INV *</td>
<td>40,71</td>
<td>Memory Plus</td>
<td>Add X to memory. M + X → M.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INV −</td>
<td>40,72</td>
<td>Memory Minus</td>
<td>On INV +, −, × and / instructions, X, Y, Z, and T are unchanged. Former M is lost.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INV ×</td>
<td>40,73</td>
<td>Memory Times</td>
<td>Multiply X times memory. M × X → M.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INV ÷</td>
<td>40,74</td>
<td>Memory Divide</td>
<td>Divide X into memory. M ÷ X → M.</td>
</tr>
<tr>
<td>F (1) Math</td>
<td>1/X</td>
<td>67</td>
<td>One Divided by X</td>
<td>1/X → X. On all F (1) math instructions Y, Z, T and M are unchanged and previous X is lost.</td>
<td></td>
</tr>
<tr>
<td>F (1) Trig</td>
<td>SORT</td>
<td>64</td>
<td>Square Root</td>
<td>(\sqrt{X}) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>63</td>
<td>Square</td>
<td>(X^2) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10X</td>
<td>62</td>
<td>Ten to X</td>
<td>(10^X) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EX</td>
<td>61</td>
<td>e to X</td>
<td>(e^X) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN</td>
<td>65</td>
<td>Natural log of X</td>
<td>(\ln X) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOG</td>
<td>66</td>
<td>Base 10 log of X</td>
<td>(\log X) → X</td>
<td></td>
</tr>
<tr>
<td>F (1) Trig</td>
<td>SIN</td>
<td>44</td>
<td>Sine X</td>
<td>(\sin X) → X. On all F (1) trig functions, Y, Z, T, and M are unchanged and the previous X is lost.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COS</td>
<td>45</td>
<td>Cosine X</td>
<td>(\cos X) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TAN</td>
<td>46</td>
<td>Tangent X</td>
<td>(\tan X) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INV SIN</td>
<td>40,44</td>
<td>Inverse sine X</td>
<td>(\sin^{-1}(X)) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INV COS</td>
<td>40,45</td>
<td>Inverse cosine X</td>
<td>(\cos^{-1}(X)) → X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INV TAN</td>
<td>40,46</td>
<td>Inverse tan X</td>
<td>(\tan^{-1}(X)) → X</td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td>DTR</td>
<td>55</td>
<td>Degrees to radians</td>
<td>Convert X from degrees to radians.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RTD</td>
<td>54</td>
<td>Radians to degrees</td>
<td>Convert X from radians to degrees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCLR</td>
<td>57</td>
<td>Master Clear</td>
<td>Clear all internal registers and memory. Initialize I/O control signals. MODE = 8, MODE = floating point. (See INITIALIZATION.)</td>
<td></td>
</tr>
<tr>
<td>Branch</td>
<td>Test</td>
<td>ECLR</td>
<td>53</td>
<td>Error flag clear</td>
<td>Jump</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JMP*</td>
<td>25</td>
<td>Jump</td>
<td>Unconditional branch to address specified by second instruction word. On all branch instructions, second word contains branch address to be loaded into external PC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TJC*</td>
<td>20</td>
<td>Test jump condition</td>
<td>Branch to address specified by second instruction word if TJC (condition) is true (=1). Otherwise, skip over second word.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TERR*</td>
<td>24</td>
<td>Test error flag</td>
<td>Branch to address specified by second instruction word if error flag is true (=1). Otherwise, skip over second word. May be used for detecting specific errors as opposed to using the automatic error recovery scheme dealt with in the section on Error Control.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TX * 0</td>
<td>21</td>
<td>Test X = 0</td>
<td>Branch to address specified by second instruction word if X = 0. Otherwise, skip over second word.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TXF*</td>
<td>23</td>
<td>Test (X) &lt; 1</td>
<td>Branch to address specified by second instruction word if (X) &lt; 1. Otherwise, skip over second word. (i.e., branch if X is a fraction.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TXLTO*</td>
<td>22</td>
<td>Test X &lt; 0</td>
<td>Branch to address specified by second instruction word if X &lt; 0. Otherwise, skip over second word.</td>
</tr>
</tbody>
</table>
### MM57109 INSTRUCTION TABLE (cont.)

<table>
<thead>
<tr>
<th>CLASS</th>
<th>SUBCLASS</th>
<th>MNEMONIC</th>
<th>OCTAL OP CODE</th>
<th>FULL NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch</td>
<td>Count</td>
<td>IBNZ</td>
<td>31</td>
<td>Increment memory and branch if ( M \neq 0 )</td>
<td>( M + 1 \rightarrow M ). If ( M = 0 ), skip second instruction word. Otherwise, branch to address specified by second instruction word.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DBNZ</td>
<td>32</td>
<td>Decrement memory and branch if ( M = 0 )</td>
<td>( M - 1 \rightarrow M ). If ( M = 0 ), skip second instruction word. Otherwise, branch to address specified by second instruction word.</td>
</tr>
</tbody>
</table>
| I/O         | Multi-digit | IN*      | 27            | Multidigit input to \( X \) | The processor supplies a 4-bit digit address \((\text{DA}4-\text{DA}1)\) accompanied by a digit address strobe \((\text{DAS})\) for each digit to be input. The high order address for the number to be input would typically come from the second instruction word. The digit is input on \( \text{D}4-\text{D}1 \), using \( \text{ISEL} = 0 \) to select digit data instead of instruction. The number of digits to be input depends on the calculation mode (scientific notation or floating point) and the mantissa digit count (see DATA FORMATS and INSTRUCTION TIMING). Data to be input is stored in \( X \) and the stack is pushed \((X 
\to Y \leftarrow Z 
\to T)\). At the conclusion of the input, \( \text{DA}4-\text{DA}1 = 0 \). Addressing and number of digits is identical to IN instruction. Each time a new digit address is supplied, the processor places the digit to be output on \( \text{DO}4-\text{DO}1 \) and pulses the \( \text{R}6 \) low active low. At the conclusion of output, \( \text{DO}4-\text{DO}1 = 0 \) and \( \text{DA}4-\text{DA}1 = 0 \). A single digit is read into the processor on \( \text{DA}4-\text{DA}1 \). \( \text{ISEL} = 0 \) is used by external hardware to select the digit instead of instruction. It will not read the digits until \( \text{ADR} = 0 \) \( \text{ISEL} = 0 \) selects \( \text{ADR} \) instead of \( \text{I} \), indicating data valid. \( \text{F}2 \) is pulsed active low to acknowledge data just read. Set \( \text{F}1 \) high, i.e. \( \text{F}1 = 1 \). \( \text{F}1 \) is pulsed active high. If \( \text{F}1 \) is already high, this results in it being set low. |
### APPENDIX B

#### HEX OP CODE FOR MM57109 INSTRUCTION

<table>
<thead>
<tr>
<th>OP CODE</th>
<th>INSTRUCTION</th>
<th>OP CODE</th>
<th>INSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>0</td>
<td>20</td>
<td>INV</td>
</tr>
<tr>
<td>01</td>
<td>1</td>
<td>21</td>
<td>EN</td>
</tr>
<tr>
<td>02</td>
<td>2</td>
<td>22</td>
<td>TOGM</td>
</tr>
<tr>
<td>03</td>
<td>3</td>
<td>23</td>
<td>ROLL</td>
</tr>
<tr>
<td>04</td>
<td>4</td>
<td>24</td>
<td>SIN (SIN⁻¹)</td>
</tr>
<tr>
<td>05</td>
<td>5</td>
<td>25</td>
<td>COS (COS⁻¹)</td>
</tr>
<tr>
<td>06</td>
<td>6</td>
<td>26</td>
<td>TAN (TAN⁻¹)</td>
</tr>
<tr>
<td>07</td>
<td>7</td>
<td>27</td>
<td>SPI</td>
</tr>
<tr>
<td>08</td>
<td>8</td>
<td>28</td>
<td>PFI</td>
</tr>
<tr>
<td>09</td>
<td>9</td>
<td>29</td>
<td>SP2</td>
</tr>
<tr>
<td>0A</td>
<td>DP</td>
<td>2A</td>
<td>PF2</td>
</tr>
<tr>
<td>0B</td>
<td>EE</td>
<td>2B</td>
<td>ECLR</td>
</tr>
<tr>
<td>0C</td>
<td>CS</td>
<td>2C</td>
<td>RRD</td>
</tr>
<tr>
<td>0D</td>
<td>PI</td>
<td>2D</td>
<td>LTR</td>
</tr>
<tr>
<td>0E</td>
<td>AIN</td>
<td>2E</td>
<td>POP</td>
</tr>
<tr>
<td>0F</td>
<td>HALT</td>
<td>2F</td>
<td>MCLR</td>
</tr>
<tr>
<td>10</td>
<td>TJC</td>
<td>30</td>
<td>KEY</td>
</tr>
<tr>
<td>11</td>
<td>TX=0</td>
<td>31</td>
<td>e^x</td>
</tr>
<tr>
<td>12</td>
<td>TX&lt;0</td>
<td>32</td>
<td>10^x</td>
</tr>
<tr>
<td>13</td>
<td>TXF</td>
<td>33</td>
<td>x²</td>
</tr>
<tr>
<td>14</td>
<td>TERR</td>
<td>34</td>
<td>x</td>
</tr>
<tr>
<td>15</td>
<td>JMP</td>
<td>35</td>
<td>ln</td>
</tr>
<tr>
<td>16</td>
<td>OUT</td>
<td>36</td>
<td>LOG</td>
</tr>
<tr>
<td>17</td>
<td>IN</td>
<td>37</td>
<td>1/x</td>
</tr>
<tr>
<td>18</td>
<td>SMDC</td>
<td>38</td>
<td>y^x</td>
</tr>
<tr>
<td>19</td>
<td>IBNZ</td>
<td>39</td>
<td>+ (M+)</td>
</tr>
<tr>
<td>1A</td>
<td>DBNZ</td>
<td>3A</td>
<td>- (M-)</td>
</tr>
<tr>
<td>1B</td>
<td>XEM</td>
<td>3B</td>
<td>× (M×)</td>
</tr>
<tr>
<td>1C</td>
<td>MS</td>
<td>3C</td>
<td>÷ (M÷)</td>
</tr>
<tr>
<td>1D</td>
<td>XR</td>
<td>3D</td>
<td>PRW1</td>
</tr>
<tr>
<td>1E</td>
<td>LSH</td>
<td>3E</td>
<td>PRW2</td>
</tr>
<tr>
<td>1F</td>
<td>RSH</td>
<td>3F</td>
<td>NOP</td>
</tr>
</tbody>
</table>
APPENDIX C

DATA FORMATS

courtesy National Semiconductor

IN/OUT INSTRUCTIONS (A) MODE = SCIENTIFIC NOTATION

<table>
<thead>
<tr>
<th>IN:</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT:</td>
<td>D04</td>
<td>D03</td>
<td>D02</td>
<td>D01</td>
</tr>
</tbody>
</table>

Most significant exponent digit
Least significant exponent digit
Sm = 0
Se
Not used

Most significant mantissa digit (Decimal point follows this digit). This digit will always be non-zero on the OUT instruction, for non-zero numbers.
Second most significant mantissa digit.

Least significant mantissa digit

IN/OUT INSTRUCTIONS (B) MODE = FLOATING POINT

<table>
<thead>
<tr>
<th>DPX</th>
<th>IN:</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT:</td>
<td>D04</td>
<td>D03</td>
<td>D02</td>
<td>D01</td>
<td></td>
</tr>
</tbody>
</table>

Sm
DP POS

11 Most significant mantissa digit = 0-9. On the OUT instruction, this digit will be non-zero unless \( x 1 \), in which case it will be zero and DP POS will be 11. Leading zeroes are not blanked.

10 Second most significant mantissa digit

12-MDC Least significant mantissa digit = 0-9

Notes:
MDC = Mantissa digit count, set by SMDC INSTRUCTION, initially =8
Sm = Sign of mantissa, 0=positive, 1-negative
Se = Sign of exponent (Se=0 in floating point mode)
DP POS = Decimal point position indicator is a value in the range from down to 12-MDC, which indicates a digit, as given by the DPX column in the table. The decimal point is located immediately following this digit.
APPENDIX D

MM57109 PROGRAMS

Example 1

\[ R = \frac{R1}{R1 + R2} \]

let \( R1 = 100 \)
\( R2 = 200 \)

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>MNEMONICS</th>
<th>OP CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>02</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>03</td>
<td>EN</td>
<td>21</td>
</tr>
<tr>
<td>04</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>05</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>06</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>07</td>
<td>x</td>
<td>3B</td>
</tr>
<tr>
<td>08</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>09</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>0A</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>0B</td>
<td>EN</td>
<td>21</td>
</tr>
<tr>
<td>0C</td>
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<td>0D</td>
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<td>00</td>
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<td>0E</td>
<td>00</td>
<td>00</td>
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<tr>
<td>0F</td>
<td>+</td>
<td>39</td>
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<tr>
<td>10</td>
<td>-</td>
<td>3C</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>FF</td>
</tr>
</tbody>
</table>
Example 2

\[ x_c = \frac{1}{2} \pi \frac{c}{f} \]

let \( f = 300 \) kilo-hertz
\( c = 0.001 \) \( f \)

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>MNEMONICS</th>
<th>OP CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0100</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>01</td>
<td>EN</td>
<td>21</td>
</tr>
<tr>
<td>02</td>
<td>PI</td>
<td>0D</td>
</tr>
<tr>
<td>03</td>
<td>( x )</td>
<td>3B</td>
</tr>
<tr>
<td>04</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>05</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>06</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>07</td>
<td>EE</td>
<td>0B</td>
</tr>
<tr>
<td>08</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>09</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>0A</td>
<td>EN</td>
<td>21</td>
</tr>
<tr>
<td>0B</td>
<td>( x )</td>
<td>3B</td>
</tr>
<tr>
<td>0C</td>
<td>DP</td>
<td>0A</td>
</tr>
<tr>
<td>0D</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
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<td>00</td>
<td>00</td>
</tr>
<tr>
<td>0F</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>10</td>
<td>EE</td>
<td>21</td>
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<tr>
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## APPENDIX E

### INTERFACE PROGRAM

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ST. LUKE AS HISTORIAN

by Jeffrey A. Nash

The third gospel and the book of Acts clearly purport to be a true history of the life of Jesus and the early church. The rise of the Tubingen School of biblical criticism in Germany more than one hundred years ago led many to doubt the accuracy and trustworthiness of the two New Testament books traditionally ascribed to Luke. The Tubingen School taught that Luke-Acts was a second-century document that had emerged from the conflict over the place of Gentiles in the first-century church. Followers of the Tubingen School believed that Acts reflected the reconciliation of the followers of Peter and Paul in the church of the second century. The School claimed that Luke "was not writing history but was trying to produce a certain effect by his imaginative description of the early Church." Support for a second-century date for Luke-Acts seemed evident in the apparent historical inaccuracies of the work. Details mentioned in the books appeared to contradict what was thought to be true about the first-century world Luke was supposed to be describing.

Sir William Ramsay (1851-1939) provided strong support for the reliability of Luke's writings. Thanks to Ramsay's archaeological discoveries and his vast knowledge of Roman society in early Christian times, many claims of the Tubingen School were undermined, and the historical reliability of Luke's writings was confirmed. Ramsay was probably introduced to the views of the Tubingen School during his first or second year of college at Aberdeen in Scotland. After graduating from the University of Aberdeen, he studied at Oxford and then in
Germany. In 1880, Ramsay won a three year scholarship to travel and study in Asia Minor.

Ramsay went to Asia Minor totally controlled by the basic presuppositions of the Tubingen School. He was convinced that if he uncovered any information relevant to the biblical text, it would concern the second century. To his surprise, all of the evidence he uncovered contradicted the view that Luke's writings came from the second century. He reasoned that the only way he could do justice to his discoveries was to abandon the Tubingen prejudices against the historicity of Luke-Acts.

Ramsay first began to doubt his critical assumptions about the book of Acts as a result of his discovery of the remarkable historical accuracy of Luke's narrative in the fourteenth chapter of Acts. Ramsay perceived how unlikely it was that a writer so precise with regard to even the smallest details in one matter would be inaccurate in recording other matters. As Ramsay put it, "There is a certain presumption that a writer who proves to be exact and correct in one point will show the same qualities in other matters. No writer is correct by mere chance, or accurate sporadically. He is accurate by virtue of a certain habit of mind. Some men are accurate by nature; some are by nature loose and inaccurate." Ramsay abandoned his prejudices about the book of Acts and began to think that the entire work might be the product of a first-century eyewitness whose geographical and historical references were correct. Gradually, he became convinced that Luke was indeed the author of the third gospel and Acts and that Luke's work was remarkable for its historical accuracy.

Attention will be drawn to three major aspects of Ramsay's work on Luke-Acts. The first of these concerns the results of the very passage that first made him doubt the Tubingen theory. Acts 14:5-6 seems to suggest that the cities of Lystra and Derbe belonged to the district of Lycaonia while Iconium did not. In other words, the boundary dividing the respective districts to which the three cities belonged lay between Iconium on the one hand and Lystra-Derbe
on the other. However, it was commonly believed in Ramsay's day that Iconium belonged to the same geographical territory as Lystra and Derbe. If true, this would mean that the writer of Acts had made an error. In 1910 Ramsay made an important discovery that proved that however much the local boundaries had moved over the years, Iconium was indeed just across the boundary in a different district at the time of the events recorded in Acts 14. The writer of Acts was right and his critics were wrong. Ramsay concluded:

This passage in Acts is correct: the boundaries mentioned are true to the period in which the action lies: they are not placed through the mistaken application by a later author of ancient statements to a time when they had ceased to be pertinent: they are based on information given by an eye-witness, a person who had been engaged in the action described. The reader, if he reads the narrative rightly, can see with the eyes and hear with the ears of a man who was there and witnessed all that happened.³

In a later verse (Acts 14:12), the writer mentions in passing that the citizens of Lystra thought that Barnabas and Paul were the Roman gods Jupiter and Mercury. The significance of this was missed by earlier critics of the Acts account. Ramsay noted that these two Roman gods were closely associated with this particular region of Asia Minor. So once again, the text of Acts was found to contain an apparently innocent reference that lent an endorsement to its being a reliable first-century account.

A second example of the important bearing Ramsay's discoveries had on the historicity of Luke-Acts concerns the many instances where the writer refers to the titles of Roman officials. Three main disputes arose from Luke's use of titles. These involved the term "politarchs" in Acts 17:6 and the title "proconsul" in Acts 18:12 and 13:7. Because "politarchs" was unknown in any other literature, including ancient Greek writings, critical scholars assumed that the writer of Acts had invented the title. But once again, archaeology came to the defense of Acts. F. F. Bruce reports that at least nineteen inscriptions dating from before 100 B.C. to after 200 A.D. have been discovered that contain the title "politarch," most of them applying to the very region where Luke located the term.⁴
In Acts 18:12, Luke referred to a man named Gallio as proconsul of Achaia. Ramsay found that Achaia was governed by a proconsul from 27 B.C. to 15 A.D. and then again from 44 A.D. on. The use of "proconsul" in this historically correct way provided additional evidence for the historicity of the document. The third debate over Luke's use of a title involved the use of "proconsul" in Acts 13:7. The verse tells about a meeting between Paul and the proconsul Sergius Paulus. Critics questioned whether such a person ever was proconsul in that region. Some went so far as to suggest that even if such an individual had existed, Luke may have misspelled his name. While in Antioch in 1912, Ramsay uncovered a block of stone referring to a Lucius Sergius Paullus, a Roman official. This was either a reference to the same Paullus mentioned by Luke or, as Ramsay suggested, to the son of the proconsul. Either way, there was now evidence to substantiate the existence of the man. But what about the differences in the spelling of his name? Did Luke err in this matter? Absolutely not, Ramsay concluded. While the Latin spelling was always "Paullus," the Greeks always spelled the name with one "I." Thus, Ramsay found confirmation of Luke's accuracy even in orthography. The final confirmation of the account in Acts 13 came when it was discovered that "'proconsul' was the correct designation of the title of the ruler of Cyprus in the time that Paul and Barnabas were there. Cyprus was originally an imperial province in the Roman State, but in 22 B.C. it was transferred by Augustus to the Roman Senate, and it was therefore placed under the administration of proconsuls."5 Confirmation of this fact is found on Cyprus coins from that period. Of special importance is the fact that just as the rule of the Roman Senate over Cyprus began shortly before Paul's visit, the rule ceased soon afterward. Once again, the Tubingen School's claim that Luke-Acts was a second-century document was undermined. Only someone living during the short interval of Paul's visit would have known the correct title of the governing official during Paul's visit.
The last example of the significance of Ramsay's work concerns the Gospel of Luke, chapter two, verses one to three. This passage had long been under attack by critics of Ramsay's day. Joseph Free sums up the opposition's case: "In the past generation it was believed that Luke had made almost as many mistakes as could possibly be made in these few lines, for it was thought that he was in error with regard to (1) the existence of such an imperial census; (2) Cyrenius being Governor at that time (Luke 2:2); (3) everyone having to go to his ancestral home."6

Ramsay was by now convinced of Luke's reliability as an historian and believed the charges to be false. He began to study the matter in depth. The fact that regular censuses were taken has been supported by archaeological evidence found in Egypt. A papyrus dated about 175 A.D. shows that a census was taken about every fourteen years. The evidence was thought to be weak, however, since it was written almost two hundred years after the birth of Jesus. As the search for further evidence continued, three more documents were found that supported the existence of a regular census at fourteen-year intervals. These documents mentioned censuses in the reign of Nero, Tiberius, and Augustus, the emperor at the time of Christ's birth. Ramsay believed that Augustus began his imperial census about 10-9 B.C. Ramsay also believed that the taking of the census in Judah might have been delayed until as late as 6 B.C. because of the opposition of the Jews. This is close enough to include the time in which Jesus was born.

The fact that Joseph and Mary had to travel to Joseph's ancestral home of Bethlehem caused trouble in some critical circles. But a document found in Egypt, dated around 104 A.D., states that during a census people had to return to their home villages. From this document, a letter, it is clear that for those members of a family who had moved some distance away, the government sent out letters to remind them. Thus, considerable evidence exists to support Luke's claim that Mary and Joseph had to return to Bethlehem for the census.
The fact that Jesus was born there is, of course, very important because it fulfills the prophecies of his birth found in the Old Testament.

The biggest problem in Luke’s account of the birth of Jesus, liberal critics thought, was his naming of Cyrenius as governor of Syria. No record existed of a man with that name being in any place of leadership. Some suggested that Cyrenius was a Greek name used by Luke to refer to a man known officially as Publius Sulpicius Quirinius, a man who held positions in Syria at three different times (6-4 B.C., 3-2 B.C., and 6-9 A.D.). Critical scholars in Ramsay’s time knew only of the last date and found it easy to assume that Luke had simply made another historical blunder. Obviously, Jesus was not born as late as 9 A.D. But then Ramsay uncovered the evidence for the earlier governorship of Quirinius. A recent biblical dictionary explains:

Sir William Ramsay discussed the whole problem afresh, following out the clues offered by the ancient historians, and adopted as most probable the conclusion that Quirinius was given command of the foreign relations of Syria during the critical period of the war with the Cilician Hill tribe, the Homonadenses. Roman history provides analogies for such a dual control of a province at a time of crisis. The date at which this position would have been held by Quirinius was about 6 B.C.

Once again, Luke was found to be correct in his historical references. Hindsight reveals that biblical critics would have been much further ahead if they had simply treated Luke-Acts as an historically reliable first-century account of the events it records. When all of Ramsay’s work that has a bearing on biblical scholarship is considered, his support for the accuracy and reliability of the writings of Luke will probably endure as his most significant achievement. Ramsay was a rare combination of a classical scholar and archaeologist who, at the same time, was one of the foremost authorities on the New Testament. Few men are able to become masters in one field of study; Ramsay was master of two. And his work in both helped end the dominance of one of the most influential critical approaches to the New Testament.
NOTES


3 Ibid., p. 79.


6 Ibid., p. 285.

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THE RELIGIOUS THOUGHT OF RABINDRANATH TAGORE

by Philip Ray Roberson

One of the first things that one realizes when trying to assess the religious thought of Rabindranath Tagore is that Tagore was neither a systematic philosopher nor a theologian. Tagore was a creative artist, a poet who drew from the rich cultural and religious heritage of his native land to express symbolically his religious feelings. It is the interpreter, such as myself, who feels compelled to systematize Tagore's thought into an "orderly" structure. At all times, one should remember that such a structured approach was not Tagore's chosen medium of communication. His discursive patterns are evident in The Religion of Man, a series of lectures delivered at Oxford University in May of 1930, and Towards Universal Man, a collection of Tagore's essays. These two works will serve as the foundation for this paper. In addition, I will frequently draw upon a wide range of Tagore's literary works to show how his somewhat abstract ideas manifest themselves in his poetry. Indeed, his poetry catches his way of communicating ideas:

Some have thought deeply and explored the meaning of thy truth,
and they are great;
I have listened to catch the music of thy play,
and I am glad.¹

Tagore lacked the certificates of formal education. At age fourteen he dropped out of school but was educated far beyond this point with the help of tutors provided by his family.² It was not that young Ruby did not want to learn, for he was a good student and a voracious reader, but he despised the repetitive methods of instruction employed in the British schools in the Calcutta of his day. He later called such methods "parrot teaching"; the impression that they made upon
him was so great that he spent most of the money he received from his Nobel Prize and his lecture honorariums on his progressive educational institutions at Shantiniketan and Shriniketan.

A key figure in the formative period of young Tagore's life was his saintly father, the Maharishi Debedranath Tagore, one time leader of the Bramo Samaj. The Maharishi and his son, the young Rabi, took an extended journey to the Himalayas that seemed to have a profound influence on Tagore's religious thought. Tagore caught from this pious, free-thinking man a deep interest in the rich religious heritage of his native Bengal. Tagore was open to dialogue with other religions and drew freely upon whatever resources he deemed appropriate to create his poetic imagery. Tagore's religious tolerance can be seen in these lines from one of his poems that was destined to become the national anthem of India:

Day and night, thy voice goes out from land to land,
calling Hindus, Buddhists, Sikhs and Jains
round thy throne
and Parsees, Mussalmans and Christians.
Offerings are brought to thy shrine by
the East and the West
to be woven in a garland of love... 5

Tagore went beyond merely tolerating religions other than his own native Hinduism. He was open to truth and beauty in all religions. The only "religious" doctrine that he sought to fight was dogmatic self-righteousness:

The sectarian thinks
that he has the sea
ladled into his private pond. 7

Tagore's religious thought presents the student with an interesting blend of non-dualism and theism. This paper will first consider Tagore the non-dualist, then Tagore the theist, and, finally, will examine how such an apparent dichotomy is blended into a complementary whole. One will then see how this conceptual scheme is manifested in Tagore's ideas regarding religious action (sadhana).

The theme of unity in diversity permeates the Vaisnava literature that provides such a major portion of Tagore's religious background. 8 Many schools of
Indian philosophy consider the non-physical component of the individual (atman) to be in a microcosm-macrocosm relationship with the absolute (Brahman). Tagore wrote:

All development means the unfolding of diversity in unity. There is no diversity in the seed. In the bud all petals are fused together into one; it is only when they are differentiated from each other that the bud unfolds into a flower. The flower reaches fulfillment only when each of the petals fulfills itself in a different direction in its own distinctive way.9

Lengthy philosophical treatises have been written regarding the relationship of the parts to the unifying whole.10 As was noted earlier, though, Tagore was not himself a philosopher. Rather than attempt to tie Tagore steadfastly to a particular school of thought, one should continue to observe the religious symbolism expressed in Tagore's poetic imagery:

The same stream that runs through my veins
night and day runs through the world
and dances in rhythmic measures...11

In The Religion of Man Tagore articulated his own ideas about such unity. He viewed the entire process of biological evolution as a process of development and interrelationship. Man is frequently considered to be the culmination of the evolutionary process, but Tagore went a step further to contend that there is "a subtle body outside his (man's) physical system. He misses himself when isolated; he finds his own larger and truer self in his wide human relationship."12 Tagore saw "multipersonal humanity" (paramatman) as the immortal entity that provides the unity for the diverse world in which the individual finds himself (jivatman). Tagore sometimes called this entity Man the Eternal, sometimes the Eternal Spirit of Humanity, still other times God, but most frequently he simply referred to it as Man. He said of this entity Man: "The unity becomes not a mere subjective idea, but an energizing truth. Whatever name may be given to it, and whatever form it symbolizes, the consciousness of this unity is spiritual, and our effort to be true to it is our religion."13
As the tone of this last quotation indicates, Tagore, while not denying their validity, was not one to dwell on such abstractions. He explained: "My religion is a poet's religion, and neither that of an orthodox man of pitty nor that of a theologian." Indeed, this "poet's religion" cannot be tied exclusively to any particular orthodox doctrine or school of thought. Tagore claimed no source of authority other than his own personal religious experience. Nonetheless, Tagore was a member of a particular society, and as such he could not help but be influenced by his cultural heritage. He repeatedly borrowed from Vaisnava symbolism to create his own imagery. The following poem takes on a new significance when we consider that medieval Vaisnava poets used the crescent moon to symbolize the jivatman:

Perhaps the crescent moon smiles in doubt
at being told that it is a fragment
waiting perfection.

Tagore conceded that some individuals had obtained great spiritual awareness (samadhi) by contemplating such philosophical puzzles, but he contended that for the vast majority of people such means of fulfillment were not practicable:

It is only through the inner vision, which is love, that we apprehend the reality of others. When philosophy tells us that all beings are one, it is only an abstraction which helps little in equating all with one's self. That is achieved only through love, which is the power of the spirit, endless in patience, joyous in self-dedication.

Tagore's two apparently dissimilar modes of thought are linked through the concept of beauty, which Tagore equated with truth. According to Tagore, truth manifests itself as beauty, and, just as truth is inherently beautiful, so too is beauty inherently true.

Beauty is truth's smile
when she beholds her own face
in a perfect mirror.

A striking similarity exists between Tagore's conceptual framework and one of the more influential schools of orthodox Vaisnava philosophy. While it would certainly be inappropriate to assert a conscious adherence on Tagore's part, it
might prove enlightening to view how Tagore's cultural ancestors dealt with similar problems. The Acintya-Bhedabheda school of Vaisnava philosophy, founded by Sri Caitanya in Tagore's native Bengal, is structurally quite similar to the conceptual scheme professed by Tagore. This school begins, as does Tagore, with a non-dualist conception of the absolute (Brahman). Brahman is limitless, absolute, and eternal. It is, therefore, necessarily unqualified (nirguna), because in ascribing any characteristic to Brahman one would also be limiting it. In the process of saying what something is, one necessarily implies what it is not. Brahman is Sat (absolute existence), Cit (absolute intelligence or consciousness, implying non-materiality), and Ananda (absolute bliss). Tagore did not address himself directly to this conceptualization of Brahman, but, as the reader shall see shortly, something like it is implicit in his view of Man.\(^{19}\)

Brahman, in its unqualified (nirguna) state, is thought to be quite beyond the comprehension of the individual's limited thought. It is qualified (saguna) Brahman that is found manifested in the physical world. Thus, Sri Krishna (one of the major incarnations of Visnu) is the qualified epitome of the unqualified Brahman. Sri Krishna is the embodiment of Sat, Cit, and Ananda; he is the supreme attractor, the quintessence of truth and beauty, and the bestower of absolute bliss. Sri Krishna is the structural equivalent of Tagore's Man the Eternal.

It is hoped that this discussion of the Acintya-Bhedabheda school will help explain how Tagore could make the transition from a conviction that there is an underlying unity in the universe (in the non-dualist sense), to theistic worship of a quasi-personified divinity. While one ponders the possibility of a connection between Tagore and the Acintya-Bhedabheda school, it is interesting to note that in March, 1911, at a public address in the Mundir (religious assembly hall) of his school at Shantiniketan, Tagore paid homage to Sri Caitana, the school's founder.\(^{20}\)

For Tagore's Man the Eternal, just as is the case with Sri Krishna, beauty is the stimulus that triggers the response of love. Tagore felt that love is
the motivation for religious action, and religious action consists of a search for a greater realization of Man the Eternal (paramatman, or saguna Brahman) in one's own life. Although Tagore himself frequently spoke poetically of attaining truth, he thought that this was not exactly correct. To speak of attaining truth is to imply a duality between one's self (jivatman) and truth (paramatman). Tagore's non-dualist tendencies would not allow him to say such a thing except when he employed poetic license.

Tagore saw the individual's realization of his own dignity and worth as a prerequisite for further religious development: "It is only when he comes to feel the glory of his own individuality that man tries to reach greatness even though it means suffering. And it is only when they reach greatness that union among men becomes a reality." This is certainly not a call to an egotistical, self-righteous stance. It is, rather, a simple recognition that one cannot expect greatness from people who are convinced that their actions are of no consequences. Before one can expect active participation by his partners in the process of evolution towards Man the Eternal, he must allow them their own basic dignity. Without such dignity one is enslaved by his own feelings of impotence. Tagore was eternally optimistic regarding what would take place once such self-realization occurred: "I have complete faith in the human mind. Even if one starts in error, it is welcome: for start one must, else the error will not be righted." Closely associated with this concept of individual worth is the concept of individual freedom. Of this Tagore wrote: "To make mistakes is not as big a calamity as not to have authority. Only the freedom to make mistakes confers the freedom to attain truth. We would rather make mistakes than grow lifeless in the expectation of becoming faultless." Such a view is not inconsistent with the traditional Indian concept known as karma, the moral law of cause and effect. This view holds that circumstances (effects of past karma) dictate what options are open, while it is up to the individual to choose from the available alternatives.
(present karmic action, which affects future circumstances). Karma is often said to be analogous to the maxim "As ye sow, so shall ye reap." Another analogy that captures an aspect of what is meant by karma is that of the card player: the essence of the game lies in accepting the hand one is dealt and the skillful playing of that hand in the game.

I am able to love my God, because he gives me the freedom to deny Him. 25

Once the initial prerequisites of realizing one's own personal worth and freedom have satisfied, one is well on the road toward realizing his quest for Man the Eternal. The individual has realized His manifestation as truth/beauty in his own self; it is now time to seek such manifestations in the larger, multipersonal, human society.

Evolution is, by definition, a dynamic process that is ever changing. One must not only seek existing beauty/truth as an objective observer, but he must also aspire to create truth and beauty. Tagore's own prolific literary production attests to his creative spirit in the realm of truth manifested as beauty. Tagore perceived that there are many ways that the spirit of creativity may become manifest in this diverse world. He spoke of a dominant approach employed by the West in the pursuit of truth:

Fundamentally similar to the deliverance sought by ancient India in the spiritual sphere is the deliverance that modern Europe is trying to attain in the material sphere. Here, too, ignorance is bondage, and knowledge deliverance. The truths of science are leading the human mind from isolation to universality, and linking individual power to universal power. 26

In short, Tagore argued that it is not important what specific direction one's search for truth/beauty takes, but simply that one does search and that the object of the quest is the realization of Man the Eternal. He elaborated: "Wisdom does not become complete except through the full living of life; and thoughtless discipline is not true discipline, but merely the pursuit of custom, which is only the way of ignorance." Tagore would not claim that one need become a renowned
scientist, artist, or musician in order to create truth and beauty. Indeed, the most fundamental expression of human evolutionary creativity takes place every day in the most remote corners of the world, i.e., the love expressed in the relationship between a man and a woman. It takes place in the recognition of the innate beauty and divinity of another. The inevitable response of the union of one's life with the life of another is to bring about the creation of new life; this daily validates the claim of Man's eternal nature.

True end is not in the reaching of the limit but in a completion which is limitless.

Throughout this quest, it should be remembered, the motivation is love, not personal satisfaction or the desire to provide for one's posterity, but innate love for truth and beauty. It is a gradual process. By appreciation of the diverse manifestations of Man the Eternal in the form of truth and beauty, one's awareness of, and devotion to, Man the Eternal as a unified whole grows. It is by this process that talk of Man the Eternal ceases to be mere philosophical abstraction and becomes an intense personal relationship between the individual and his own divinity. Through this process a person becomes aware of both the greatness of the unified whole (paramatman) and the divinity of one's own self (jivatman). With such awareness dawns a devotional relationship between man the individual and Man the Eternal that does not subjugate the individual but instead leads him into the greater whole of his own divinity.

...When one knows thee, then alien there is none, then no door is shut.
Oh, grant me my prayer that I may never lose the bliss of the touch of the One in the play of the many.

Tagore does not easily fit any of the conventional categories of religious thought for he was neither a systematic philosopher nor a theologian. Likewise, he was not a sectarian: his thought combines both theistic and non-dualistic strains. Tagore was a creative artist who was exceptionally sensitive to the religious needs of man. He was never so presumptuous as to claim exclusive
authority in order to dictate specifics of what religious actions one must take. Tagore did, however, provide, in addition to a wealth of literature valuable in its own right, some valuable general guidelines for religious belief, action, and a symbolic world view. He himself was steeped in Vaisnava tradition and imagery, but he provides words of wisdom for people of all faiths.
NOTES


3 The Bramo Samaj was a progressive religious movement that sought to correlate aspects of Western and traditional Indian culture.

4 Dialogue, as used here, is a situation of mutual respect and two-way communication which is meant to help both parties achieve a sympathetic understanding of the other's convictions. For a more complete discussion, see Dr. Donald R. Tuck, "Religious Tolerance and Respect Based Upon Integral Understanding and Dialogue," W.K.U. Faculty Research Bulletin, VI, i (Bowling Green: W.K.U. Press, 1978).


6 Tagore distinguishes between the "spirit" and "form" of religion.

7 *Fireflies*, p. 209.

8 While living with his brother, Jyotirindranath, Tagore spent much of his time reading Vaisnava texts that he found in the library. Vaisnava themes are recurrent in Tagore's works, such as the theme of love in union/love in separation found in *The Wreck*.


10 Authors of such treatises include Samkara and Nigarjuna.

11 *A Tagore Reader*, p. 305.


13 ROM, p. 16.

14 ROM, p. 93.


16 *Fireflies*, p. 123.

18Fireflies, p. 123.


21ROM, p. 205.

22"Hindu University," TUM, p. 143.


27"WhatThen?," TUM, p. 178.

28Fireflies, p. 215.

29A Tagore Reader, p. 304.
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THE THEME OF INCEST IN DICKENS' HARD TIMES

by Irene Hansel Wood

During his lifetime, Charles Dickens saw England change from a Romantic, rural, agricultural nation into a commercialized world of factories and slums, characterized by human exploitation. In Hard Times Dickens attacks the ugliness of this mechanized existence and makes a sincere plea for the renewal of humanism, brotherhood, and the aesthetic pleasures in life. As part of his plan, Dickens carefully illustrates the tragedy which may ensue in the lives of children that are reared in the midst of an educational system which stifles any development of imagination, emotion, or fantasy. Specifically, Tom and Louisa appear in the novel as symbols of the moral and social failures of utilitarianism. As Daniel P. Deneau suggests in "The Brother-Sister Relationship in Hard Times," Tom's becoming a criminal and Louisa's failing in marriage are tragic consequences of Gradgrindism. But it is evident, although Dickens writes indirectly to avoid offending Victorian mores, that the author is describing an even greater resulting ethos: that is—an abnormal sibling relationship.¹

When Tom and Louisa make their first appearance in the novel, they have already left the years of childhood behind them—years that were spent chastized from emotion, exiled from dreams and the vitality of imagination. In their cold, dreary, factual world, they have learned that the only way to love, to feel, to touch is through affection for each other. As their father discovers them pecking into the forbidden circus tent, the painfully embarrassed, shamefaced reaction of the siblings suggests not only their feelings of guilt at being caught in their childish interest in clowns and acrobats, but also their newly-awakening awareness of
adolescent emotion. Through suggestive language and the symbolic image of the fire, Dickens illustrates the forbidden spark that is beginning to ignite between brother and sister—that Louisa is beginning to experience the feelings of a woman:

Mr. Gradgrind crossed to the spot where his family was thus disgraced ... and said, "Louisa! Tom!..." Both rose, red and disconcerted. But Louisa looked at her father with more boldness than Tom did...

"What do you do here?" asked Gradgrind.
"Wanted to see what it was like," answered his daughter. There was an air of jaded sullenness in both of them, and particularly the girl; yet struggling through the dissatisfaction of her face, there was a light with nothing to rest upon, a fire with nothing to burn... She was a child now of fifteen or sixteen; but at no distant day she would become a woman all at once....

Throughout this first episode, Dickens continues to subtly underline an awareness of the potentially dangerous brother and sister relationship. When Gradgrind visits Bounderby that afternoon, he tells the banker about the children's defiant interest in the circus, and with a faltering attempt to understand the situation, he adds: "It was as if something had crept into Thomas's and Louisa's minds which is, or rather which is not... which has never been intended to be developed..." (p. 14). Finally, Dickens points out that Louisa's emotional attachment and loyalty to Tom are so great that she finds overtures of affection from men other than her brother disgusting and repulsive. At this point in the story, Bounderby has come to speak to Louisa about her indiscreet display of interest in the circus. He promises to appeal to her father in her behalf and then kisses her on the cheek:

He went on his way, but she stood on the same spot, rubbing the cheek he had kissed with her handkerchief until it was burning red.
"What are you doing, Loo?" Her brother sulkily remonstrated.
"You'll rub a hole in your face." 
"You may cut the piece out with your penknife, if you would like, Tom. I wouldn't cry." (p. 16)

It is evident from Dickens' first portrayal of Tom and Louisa, that he is well aware of the moral tragedy that may result from belief in the life-denying, inhumane, utilitarian philosophy. In their industrialized wasteland, in the nightmare of dense fog and fact, the siblings have no alternative but to seek affectionate
companionship at the fireside with each other. Moreover, Dickens indicates that
as the years of adolescence pass, as the children's feelings of frustration and
futility grow, so does their need for each other. Sadly enough, Tom is not only
willing to carry on an illicit affair with his sister, but is also more than eager
to prostitute her love in order to fulfill his own selfish aspirations.

As the narrator explains, Tom and Louisa are alone, sitting before the symbolic
fire in comfort and privacy. Their conversation is more suggestive and intimate
as they declare their need and love for each other. By this time, at least in
Louisa's mind, the relationship seems to have become a fantasy of marriage in that
her attitude toward Tom is more wifely than sisterly:

"I am sick of my life, Loo. I hate it altogether, and I hate every­
body except you," said young Thomas Gradgrind . . . at twilight . . .
Thomas . . . sitting astride a chair before the fire . . . . . His
sister sat in a dark corner by the fireplace now looking at him.
now looking at the bright sparks as they dropped upon the hearth. . . . . "I don't know what . . . it would be like without you."

"Tom," said his sister, silently watching the sparks awhile, "as I get older, and nearer growing up, I often . . . think how unfor­
tunate it is for me that I can't reconcile you to a home better than
I am able to do. I don't know what other girls know. I can't play
for you, or sing to you . . . when you are tired . . . . It's a great
pity . . . a great pity, Tom . . . ." She came and kissed him . . . .
(pp. 39-40)

At this moment, Tom realizes the material value of his intimate tie with his sister.
Aware of her emotional vulnerability, he takes advantage of her misguided love and
adds further insult to her moral destruction. He announces his desire for a posi­
tion at the bank, but suggests that only Louisa's positive response to Boun­
derby's romantic overtures will secure his aspiration. Hence, Tom, the product of his cold,
calculated environment, plans to exploit his affectionate sister: "Not but what
I shall be very unwilling . . . to leave you, Loo. . . . But . . . I had better
take advantage of your influence . . . don't you see?" (p. 40) Louisa does not
answer. She is preoccupied with the future she hopes to have with her brother.
All is quiet as Louisa continues to stare into the burning embers, when finally,
Tom asks her if she does not see something in the fire. She replies: "I don't
see anything in it, Tom, particularly. But since I have been looking at it, I have been wondering about you and me growing up" (p. 41). Because of her misguided love for her brother, Louisa is about to become his victim. She cannot behave normally, as a young girl in love. She cannot publicly declare her feelings for her brother. But rather, she must act to satisfy the emotional demands of a love that is a social perversion. And as Dickens points out on subsequent occasions, Tom continues to manipulate his sister for his own selfish ends: "I say, look sharp for old Bounderby, Loo! Do look sharp for old Bounderby, Loo!" said Tom, with an impatient whistle. . . . 'He'll be off if you don't look sharp!'" (p. 47) Dickens begins to lament, even seems to chant the news that Louisa is no longer an innocent young girl.

Within the passionate image of fire and ashes the narrator suggests that of late there has been a notable change in Louisa Gradgrind:

All this while, Louisa had been passing on, so quiet and reserved, and so much given to watching the bright ashes at twilight as they fell into the grate and became extinct, that from the period when her father had said she was almost a woman—which seemed almost yesterday—she had scarcely attracted his notice again, when he found her quite a young woman. . . . "Quite a young woman," said Mr. Gradgrind. . . . (p. 71) "Louisa is becoming . . . almost a young woman. . . ." (p. 69) "My dear Louisa, you are a young woman!" (p. 71)

Perhaps insinuating that Louisa is suffering from guilt because of her affair with Tom, the narrator points out: "She answered with the old, quick, searching look of the night she was found at the circus; then cast down her eyes. 'Yes, father.'" (p. 71). Since the time Tom had made clear to her his desire to go to Bounderby's bank, Louisa has been receptive to the old man's attention, and Tom has moved away from home and into a position at Bounderby's. However, the selfish brother is still not satisfied, and again in the intimacy of suggestive firelight, he plays his sister's love to his own advantage; he wants her to marry Josiah Bounderby, even though he knows she finds the old man obnoxious. Tom even tempts Louisa with the idea that they will be together more often after she is married to Bounderby:
With her hand upon her brother's shoulder, Louisa stood looking at the fire. Her brother glanced at her face with greater interest than usual, and encircling her waist with his arm, drew her coaxingly to him.

"You are fond of me, aren't you, Loo?"

"Indeed, I am, Tom, though you do let such long intervals go by without coming to see me."

"Well, sister of mine," said Tom. "We might be so much oftener together--mightn't we? Always together, almost--mightn't we? It would do me a great deal of good if you would make up your mind to I know what, Loo. It would be a splendid thing for me. . . ." He pressed her in his arms, and kissed her cheek. She returned the kiss, but still looked at the fire. (pp. 72-73)

Tom's moral seduction of Louisa is complete. The next day when confronted by her father with Bounderby's marriage proposal, her misguided love for Tom forces her to accept. Moreover, Louisa realizes that she can never have a true marriage with her brother and resigns herself to the fact that she must accept what love Tom offers in secret. Caught in the smoke and ashes of her illicit fire, she can find no better alternative but to accept Bounderby's proposal:

"Louisa, my dear, you are subject of a proposal of marriage. . . ." Silence between them. (father and daughter) The deadly statistical clock very hollow. The distant smoke very black and heavy. . . . (p. 74) She sat so long looking silently towards the town, that he said at length: "Are you consulting the chimneys of the Coketown works, Louisa?"

"There seems to be nothing but the languid and monotonous smoke. Yet when the night comes, Fire bursts out, father!" she answered, turning quickly. (p. 76)

Louisa's father does not understand the underlying meaning of his daughter's words, so he replies: "Of course I know that, Louisa. I don't see the application of the remark" (p. 76). More discussion. Then silence. At last Louisa answers: "Let it be so. Since Mr. Bounderby likes to take me thus, I am satisfied to accept his proposal. . . ." (p. 77). Gradgrind is pleased. Observing his daughter's hesitation, he asks: "Louisa, I have not considered it essential to ask you one question. . . . But perhaps I ought to do so. You have never entertained in secret any other proposal . . . ?" (p. 77) Perhaps fearful that her guilt will betray her, she quickly answers: "'What do I know, father. . . . of tastes and fancies; of aspirations and affections . . . ?'" (p. 77) As she said it, she
unconsciously closed her hand, as if upon a solid object, and slowly released it as though she were releasing dust or ash..." (p. 77). And as the narrator points out, "from that moment on she was passive, proud, cold..." (p. 79). Within a few weeks, Louisa is married to Josiah Bounderby, but even as she leaves for her wedding trip, she is still emotionally tied to Tom; she still belongs to him; he is still manipulating her thoughts and feelings:

The bride, in passing downstairs, dressed for her journey, found Tom waiting for her—flushed... with his feelings. "What a game girl you are, to be such a first-rate sister, Loo!" whispered Tom.

She clung to him as she should have clung to some far better nature that day, and was a little shaken in her reserved composure for the first time.

"Old Bounderby's quite ready," said Tom. "Time's up. Goodbye; I shall be on the look-out for you, when you come back. I say, my dear Loo! An't it uncommonly jolly now!" (p. 83)

Throughout Book I, Dickens subtly illustrates the potentially explosive, possibly incestuous relationship between Tom and Louisa. Through suggestive, connotative language, and the seering, smoking image of fire, Dickens carefully alludes to the tragedy which may ensue when children's minds are denied the simple pleasures of fantasy, imagination, and vitality: the integral part of life symbolized in Sleary's circus. Dickens continues in Books II and III to indicate further the disastrous, immoral consequences that inevitably result in a totally mechanized world. Here the presence of Mr. James Harthouse further complicates the moral disintegration of both Tom and Louisa.

The gentleman comes to Coketown on political business and is invited to the newlywed Bounderby's house for dinner. He is immediately attracted to Louisa, but is curious about her extreme reserve and lack of facial expression. In fact, after observing her for quite a long while, he begins to wonder if anything will move her face—that is, until Tom arrives:

Yes, by Jupiter! There was something, and here it was in unexpected shape. Tom appeared. She changed as the door opened, and broke into a beaming smile.
A beautiful smile. Mr. James Harthouse might not have thought so much of it, but that he had wondered so long at her impressive face. She put out her hand... and her fingers closed upon her brother's, as if she would have carried them to her lips. (p. 100)

Hartthouse quickly notices the strong emotional attachment between brother and sister. He may even suspect that the two share more than an acceptable amount of affection as he thinks to himself: "This whelp is the only creature she cares for...! So! So!... the only creature she ever cared for" (p. 100). Tom is impressed by Mr. Harthouse, and later that evening offers to accompany him home.

Because he drinks too much, Tom soon supplies Harthouse with the marital information he needs to find his way into Louisa's confidence, to attempt to coax her into an adulterous affair. Not only does Tom say too much about his sister's marriage, but also he speaks rather openly about Louisa and himself. As Tom sits sipping a cool drink, he makes several derogatory remarks about Josiah Bounderby.

When Harthouse suggests that Tom should perhaps consider his sister's feelings before speaking so insultingly about her husband, the brother laughs and says:

My sister Loo?... She never cared for old Bounderby... she does not care.... Why, you won't tell me, Mr. Harthouse, that you really suppose my sister Loo does care for old Bounderby. (p. 102)

As if this were not enough, Tom goes on to further betray his sister's love. He not only tells Harthouse that Louisa does not love Bounderby, but also candidly tells Harthouse why she married him:

You needn't be surprised that Loo married old Bounderby. But she wouldn't have... if it hadn't been for me... I persuaded her... I told her my wishes and she came into them... She would do anything for me. (p. 103)

Perhaps realizing that he has revealed too much, and possibly trying to convince Harthouse of the innocence of his relationship with his sister, Tom repeats several times that Louisa never had another lover:

She never had another lover... She had no other lover--It wasn't as if she gave up another lover for old Bounderby... Besides, Loo is... not a common sort of girl... as I have known, often known her to sit and watch the fire--for an hour at a stretch. (p. 103)
James Harthouse is now aware that Louisa is married to a man she does not love. He senses her womanly frustration and realizes her intense attraction to her brother. By showing interest in Tom's welfare, he hopes to ingratiate himself to Louisa. The observant man is well aware that the way to Louisa's affections is through her brother when he says to her: "Pardon me ... the expression of your sisterly interest is so beautiful--Tom should be so proud of it. ... I am so compelled to admire" (p. 130). To further complicate the situation, Tom is in financial trouble which Louisa alleviates quite often. Harthouse also learns that Tom has been gambling and promises to take Tom under his wing. Eventually, Harthouse wins some of Louisa's admiration, but Louisa's attention quickly returns to Tom.

The news breaks in Coketown that the bank has been robbed by someone entering with a false key. Louisa secretly suspects her brother of the crime and lies awake waiting for his return so that she may question him. At last he arrives, and Louisa goes to his room. As Dickens describes the conversations of the siblings, he employs suggestive language and imagery that allude to passion and desire, to incestuous love:

She rose, put on a loose robe, and went ... in the dark ... up the staircase to her brother's room. His door being shut, she softly opened it ... approaching his bed with a noiseless step. She kneeled down beside it, passed her arm over his neck, and drew his face to hers. ... "Tom, have you anything to tell me? If you ever loved me in your life, and have anything concealed from everyone besides, tell it to me. ... My dear brother;" she laid her head down on his pillow, and her hair flowed over him as if she would hide him from everyone but herself: "is there nothing that you have to tell me ... ? you can tell me nothing that will change me. O Tom, tell me the truth ... ! As I am here beside you, barefoot, unclothed, undistinguishable in the darkness, so must I lie through all the night of my decay, until I am dust. In the name of that time, Tom, tell me the truth now! ... You may be certain;" in the energy of her love she took him to her bosom as if he were a child; "that I will not reproach you ... that I will be compassionate and true to you ... that I will save you at any cost ... and I shall understand you!" (pp. 144-145)
Nevertheless, her deceitful brother will tell her nothing; instead, he appeals to their physical attraction: "He sat up in bed and kissed her. . . . Kissing her again, he turned round, and drew the coverlet over his head. . . . She stood for some time at the bedside before she slowly moved away" (p. 146). Though he writes indirectly not to offend the Victorian mores, Dickens presents a vivid scene with an atmosphere of seduction, intimacy, sensuality, and immorality.

Louisa's moral status worsens as she becomes more involved with Mr. James Harthouse. Surprisingly, however, when the man finally declares his love for her, Louisa flees from him and returns to the home of her father whose utilitarian philosophy she reproaches for her abnormal upbringing and its disastrous results: the ruin of her life. Although her father does not understand, Louisa is not only speaking of her miserable marriage and her near adultery with Harthouse, but also of her incestuous love for Tom:

"Father, if you had known, when we were last together here, what ever I feared while I strove against it—as it has been my task from infancy to strive against every natural prompting that has arisen in my heart; if you had known that there lingered in my breast, sensibilities, affections, weaknesses capable of being cherished into strength. . . . If I had been . . . free to exercise my fancy. . . . I should have been a million times wiser, happier, more loving . . . more innocent and human in all good respects. . . . But Tom had been the subject of all the little tenderness of my life; perhaps he became so because I knew so well how to pity him. (pp. 165-266)

Thus, Louisa finally realizes the degree of her moral decay. She is by now physically ill with the knowledge and passes the night in the home of her father. Harthouse leaves town, and through gossip, Bounderby hears of Louisa's indiscretions with Harthouse. He rushes to Gradgrind to confront him with Louisa's perfidy, but is surprised to find that she is there. Ironically, it may well be that Gradgrind understands more about his children's personal involvement than he overtly admits, because when Bounderby demands to see Louisa, her father says: "Bounderby, you will be surprised to hear me say this—I think there are qualities in Louisa, which—which have been much neglected, and—and a little perverted" (p. 183). Louisa
chooses to remain permanently in the home of her father, never to remarry. As for Tom, he is eventually exposed as the robber of the bank, and he flees to the safety of Sleary's circus. Louisa goes to see him there, but his moral disintegration is so great that he accuses her of betraying him rather than sharing the blame and guilt that she now feels:

When Louisa opened her arms, he repulsed her . . . "Not you. I don't want to have anything to say to you."
"O Tom, Tom, do we end so after all our love!" cried Louisa.
"After all you love!" he returned, obdurately. "Pretty love! Leaving old Bounderby . . . and packing my best friend Mr. Harthouse off. . . . Pretty love that . . . ! Pretty love that! You have regularly given me up. You never cared for me. . . ." They . . . went out from the circus tent, Louisa crying to him that she forgave him, and loved him still. . . . (p. 217)

The circus master manages to help Tom to escape. Eventually, Louisa receives a letter that explains: "He died in a hospital, of fever . . . and died in penitence and love of you: his last word being your name" (p. 227).

It is evident throughout Hard Times that Dickens implicitly illustrates the perverted sibling relationship between Tom and Louisa. Through suggestive language, through the sensuous, seductive voice of Louisa, Dickens repeatedly implies that the intimacy the brother and sister share transcends the farthest boundaries of social acceptance: "As I am here beside you, barefoot, unclothed. . . ." (p. 145). Moreover, Dickens carefully illuminates the desires of Louisa in the burning, lustful, and self-destructive image of the fire: "Thomas Gradgrind . . . sitting before the fire . . . His sister . . . now looking at him, now looking at the bright sparks as they dropped upon the hearth . . . ." (pp. 39-40). The true ethos, the destined tragedy which must ensue in a world that denies normal development of the imagination, normal desires, childish fantasies of love, color, and vitality, is the very essence of a normal childhood that is the path to successful adulthood. In the end, the reality that Tom prostitutes his sister's incestuous love for him becomes a greater crime than his love of money. And, in Dickens' eyes, Tom's perversion is the true product of Victorian values. It is fitting that Thomas should die in
paradoxical penitence; that is, he both loves and hates his sister and of both he must repent. Louisa also lives according to her fated destiny. She is left with a dying passion, a black ash that is never to be rekindled. Although it may appear that Louisa suffers little enough for the crime, Dickens marks her as the epitome of Victorian female abnormality. That is, she remains, throughout her lifetime, a lonely spinster.
NOTES


2 Charles Dickens, Hard Times, ed. George Ford and Sylvère Monod (New York: W. W. Norton and Co., 1966), p. 10. All subsequent references are from this volume and will be included in the text of the paper.
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Francesco Petrarch, an Italian poet and scholar of the fourteenth century, is chiefly recognized for his collection of verses to Laura. These poems express the mood of the pining lover, bound within an overwhelming passion for some idealized woman. Sir Thomas Wyatt's translation of one sonnet of Petrarch should serve to indicate this state of mind:

The long love that in my thought doth harbor,  
And in my heart doth keep his residence,  
Into my face presseth with bold pretense  
And therein campeth, spreading his banner.  
She that me learns to love and suffer  
And wills that my trust and love's negligence  
Be reined by reason, shame, and reverence  
With his hardiness taketh displeasure.  
Wherewithal unto the heart's forest he fleeth,  
Leaving his enterprise with pain and cry,  
And there him hideth, and not appeareth.  
What may I do, when my master feareth,  
But in the field with him to live and die?  
For good is the life ending faithfully.  

One should note the persona's passivity, emotionality, almost irrational devotion. This appears to be love's classic frustrated heartache in which "a thousand lives each day I lose and gain:/ so far from all salvation is my soul!"2 The persona is so overruled by his passion for his object that the object loses all characteristics of individuality. This persona with his grief has today become familiar to so many that it is clichéd. Although the psychodynamics of such a form of love are not completely understood, the development of psychoanalysis in the twentieth century affords the first occasion to judge the merits and investigate the dynamics of the many varieties of literary love. Jungian psychology,
in particular, is especially well suited for the analysis of some peculiarities of medieval love and courtship into which were often integrated religious symbolism. In his exploration of the living processes of the psyche, Jung gave "Preference to a dramatic, mythological way of thinking and speaking, because this is not only more expressive but also more exact than abstract scientific terminology." More conventional techniques, such as Freudian, bear a disadvantage in their reliance on reducing motivational components of thought and action to traumas dating back to the individual's childhood within the family or to other external events. Such antecedents may not be available in existing biographies of Petrarch and are often simply not relevant to literary works. The images of a poem are more susceptible to a mythological analysis. In Jungian analysis, the only truly relevant cultural influences are in those institutions which reinforce the evocation of certain universal symbols, or "archetypes."

The passion Petrarch felt for Laura was so extraordinary as to attain religious intensity. During the twenty-one years from 1327 to 1348 that he knew her, and for ten more years after her death, he worshipped her with alternating hope and despair, joy and sorrow. In these years after her death, "he continued to cherish her image, still fluctuating and torn between grief at her death and hope that she would guide him to join her in Paradise. Finally, renouncing all earthly affections, he turned his thoughts wholly to God." While his affections lasted, Petrarch's love for Laura waxed so intense that she lost all characteristics of an individual. Her physical features were composed merely of "golden tresses," "fair limbs," and "angelic breasts." In the words of Anthony Mortimer, she became essentially "an object of contemplation, an aesthetic vision, not one form in the contrast of flesh and spirit, but hovering in between, equally threatened by both those non-aesthetic truths, the temporal concrete truth of the senses and the eternal abstract truth of science."
The answer to what Laura essentially was may be found by utilizing Jungian analysis. Carl Jung, after years of clinical observation and literary study, noted that it is possible to isolate various figures which recur in dreams and fantasies as well as in creative works and which can be related with historical parallels in myths and religious doctrine from all over the world. Jung described these as some of the principal archetypes affecting human thought and behavior. Among the most important are the persona, the shadow, the anima, the animus, the wise old man, the earth mother, and the self. Of particular importance here is the anima, the archetype of feminine nature.

"The anima is an inherited collective image of woman." By this, Jung meant that the anima is a collective body of images and experiences within the psyche, encompassing all that the feminine has represented to man in history along with the individual's specific experience with woman. Since a portion of the individual's knowledge of the feminine is retained internally, the externalized archetype of the anima has properties of evoking that intrinsic hidden knowledge. The anima thus exists as a "soul"; that is, it is that unconscious complement of man's psyche which may be evoked by symbols or archetypal expressions, such as what an individual or culture takes to be the perfect female. This may relate to H. G. Wells's concept of the community of will. The community of will often contains a female element in its religious institution. This feminine element, such as the Virgin Mary of Medieval Europe, may represent pity, compassion, passivity, and surrender—all normally associated with femininity. Such could also be considered a symbol of archetypal evocation. The anima provides the individual with those elements that he ought to know about himself. The psychic facts are always found outside his psychic domain in the form of projections.

Petrarch obviously had his psyche awakened by the image of Laura. Laura became a setting for the expression of the anima. Emotions and feelings within Petrarch that might have been normally suppressed now found expression. But
Petrarch's mistake was that he surrendered to the force of the anima. Petrarch projected a collective image from the unconscious onto Laura and thus mistakenly believed that Laura possessed this knowledge of the psyche which was actually hidden within himself. To some extent, every mother and every loved one is forced to become the carrier of this image which corresponds to the deepest, normally repressed reality in a man. But as Jung wrote:

It belongs to him, this perilous image of woman; she stands for the loyalty which in the interests of life he must sometimes forego; she is the solace for all the bitterness of life. And, at the same time, she is the great illusion of the seductress, who draws him into life with her Maya--and not only to life's reasonable and useful aspects, but into its frightful paradoxes where good and evil, success and ruin, hope and despair, counterbalance one another.11

Such clearly applies to the persona in Petrarch's poetry. Petrarch's devotion led him to these paradoxes. One might wonder how this would be--Petrarch seemed merely to be suffering from an incredibly strong variation of the first love that all feel. Jung would reply that this paradoxical feeling of polarities is in fact the evocation of the anima within the psyche through an external symbol but which has led the individual to become overly attached to the symbol. He should understand that the evoked feelings arise from within and should be integrated further with the consciousness.

A plain and simple example of Petrarch's conflict may be observed in this poem of his, translated by Wyatt:

I find no peace and all my war is done,  
I fear and hope, I burn and freeze like ice,  
I fly above the wind, yet can I not arise,  
And nought I have and all the world I seize on;  
That looseth nor locketh holdeth me in prison,  
And holdeth me not; yet can I 'scape nowise:
Nor letteth me live nor die at my device,  
And yet of death it giveth none occasion.
Without eyen I see; and without tongue I plain;  
I desire to perish, and yet I ask health;  
I love another, and thus I hate myself;  
I feed me in sorrow, and laugh in all my pain.  
Likewise displeaseth me both death and life,  
And my delight is cause of my strife.12
The expression of this poem is of the externalization and surrender to the anima as it is reflected on Laura. The persona does not realize his mistake. He perceives this externalized evocation as a privation within himself of some desperately necessary quality which another has ("and nought I have and all the world I seize on"). The prison he is in is that mistaken belief which is the bond of unresolved conflict. His self-hatred arises not out of mere frustration but also out of his feelings of inadequacy before a supposedly unattainable ideal.

One might be tempted to call the above a heightened version of the typical pain of frustration of the lover. If the theory of the psychologist Leon Festinger may be introduced at this moment, one might say that Petrarch was in a condition of "cognitive dissonance." He was unable to resolve the positive state of his desire with the negative state of her rejection. But if this be so, the abstraction of this poetry would not be of such high spiritual quality. Moreover, the expression of his love rarely hints of sexual desire. The only discovered instance of this in an examination of selected poetry is a highly sublimated stanza:

Could I be with her where we lose the sun,
Where none could spy on us except the stars,
One single endless night without a dawn!14

Possibly, even including this example, Petrarch's language of love lacks all sexuality. Perhaps the word "sublimation," which is a Freudian term, does not apply. On account of its religious ideals, this love and its language should be termed "evocative." It expresses urges and notions which are deeper than mere sexual frustration.

Still, Petrarch's surrender was destructive. It was only near the end of his life, ten years after Laura's death, that he realized that "of my ravings still the fruit is shame/and penitence." But while she lived, he often made the mistake of making her a minor deity:

She moved not like a mortal, but as though she bore an angel's form, her words had then a sound that simple human voices lack;
a heavenly spirit, a living sun
was what I saw; now, if it is not so,
the wound's not healed because the bow grows slack. 16

One should note that he believed he could gain fulfillment--healing the "wound"--if she remained a goddess, an externalized symbol. This, again, relates to the introduction of the feminine element in a religion in the communities of will. A feminine deity is needed as an evocative element, something which provides guidance. To such an individual as Petrarch, the externalized anima "may be the chaotic urge to life, something strangely meaningful clings to her, a secret knowledge of hidden wisdom. . . ." 17

Within Petrarch's poetry, there are a number of instances of his belief in her guidance. At one point he believed that "from her there comes the blithe and graceful mood/that show the fittest path to heaven above." 18 But at another point, he complained "how my feet untiringly travail/ in following your traces everywhere wasting so many steps to no avail." 19 As a goddess, Laura was imperfect. The problem appears to be that Petrarch could never entirely make her human nor fully abstract her into a real symbol of the anima, as Dante might have done for Beatrice. In sonnets written after her death, Petrarch constantly found need of reassurance that she was calling to him from Heaven: "she seems to wait/to see if I am following her there. . . ." 20

Petrarch would not force himself to stop surrendering to this archetypal image of the anima until near his death when he finally confessed that he had "allowed himself to be snared by 'that which is not,' but that the image of his Laura. . . detained him overlong from 'going after the Lord'." 21 It is difficult to ascertain whether he achieved any integration of the anima with his own consciousness in a process Jung called individuation. Jung noted that "it is just the most unexpected, the most terrifyingly chaotic things which reveal a deeper meaning. And the more this meaning is recognized, the more the anima loses her impetus and compulsive character. Gradually, . . . the meaningful divides itself from the meaningless." 22 Whether this turning to God represents final internalization or disgusted retreat
will require more research.

The study of Petrarchan poetry in Jungian terms is incomplete. Consideration must be given to historical, religious, and social factors existing in Petrarch's time. Apparently, both the Cult of the Virgin Mary and the mystical language of the Provencal troubadours of France contributed to Petrarch's thought or language. Comparison with Dante would be essential. Dante could be an individual who, in his love for Beatrice, came to grips with the anima. He might have come to realize that the anima's occasionally "chaotic capriciousness" can reveal "a purpose over and above her nature." Finally, Petrarch's own life should be studied in order to distill causes for his surrender. The importance of this study could have great significance, for Petrarch's love has been accepted as a convention of romantic love for centuries. An analysis of its psychodynamics may lead to the extraction of important variables in the changing norms of love through European history.
NOTES


4 Petrarch, p. 1.

5 Ibid., p. 2.

6 Ibid., p. 5.


8 Jung, VII, ii.


10 Jung, IX, i, 286.

11 Ibid., IX, ii, 13.

12 Abrams, p. 498.


14 Petrarch, p. 32.

15 Ibid., p. 21.

16 Ibid., p. 45.

17 Jung, IX, i, 30.

18 Petrarch, p. 25.

19 Ibid., p. 41.

20 Ibid., p. 17.


22 Jung, IX, i, 35.
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IN DEFENSE OF CAMUS

by Eugenia M. Porto

Despite the popular acclaim and recognition that Albert Camus' fiction and nonfiction have received, many people fail to grasp a fundamental point found throughout Camus' work. This misunderstanding is revealed when readers respond to the progression from the absurd to the humanistic ethics with an objection which is basically misconceived. This objection often takes the form of a question: if I accept Camus' depiction of the absurd, why shouldn't I commit suicide, lead a hedonistic life, or disregard the interests of others? In other words, given the absurd, why should I subscribe to Camus' humanistic ethic? The point of the objection is (I assume) this: if we believe that there are no absolute, objective values and that there are no absolute guarantees that justice will prevail, then everything is permitted. Rather than encumber oneself with a man-made ethical scheme (so the objection goes), the sensible individual will be concerned solely with him/herself. This objection, I will argue, is basically wrongheaded. It implicitly asks for an absolute ethical standard, and such a standard is precluded by Camus' starting point, i.e., by the absurd. Therefore, in this paper I would first like to examine the notion of the absurd as it is found primarily in _The Myth of Sisyphus_ and in _The Stranger_. I will then explain Camus' reason for claiming that the absurd does not justify suicide. Furthermore, I will retrace Camus' progression from the absurd starting point to an ethics of humanism as this development is found in _The Stranger_ and in _The Plague_. Last, I will explain how the objection cited above is misconceived and improper, given Camus' starting point.
The basic argument that Camus attempts to disprove (in *The Myth of Sisyphus*) runs as follows: in order to be worth living, life must have a guaranteed, transcendental meaning; the absurd reveals that there is no such meaning; therefore, life is not worth living and suicide is in order. Camus attacks the first premise, attempting to prove instead that life is to be all the more valued if it has no given meaning. The absurd results not in a justification for suicide but in a revolt against the irrationality of the world, in a freedom to define one's own life, and in a passion for that life.

Camus first asks, "Is there a logic to the point of death?"¹ Does the absurd dictate death or have men always allowed their emotions to overcome them in committing suicide? Camus thus reveals his attempt to hold to the tenets of logic regardless of the consequences. For Camus, the desideratum is to be logical: "act only on the basis of certain evidence; remain rational and in control. None of those who have committed suicide (because of the absurd) have held this course of rationality. Instead, when realizing the absurd, they allow their emotions to take control, and they commit suicide either physically or philosophically. The real challenge is to remain clear-sighted and to "examine closely the odd vegetation of those distant regions" (*Sisyphus*, p. 8).

Camus merely claims to examine and to analyze what experience and reason reveal; he offers more a description of what he finds than an argument to convince others. For Camus, the absurd is a given; the climate of the absurd, the feeling of nausea, the limits of knowledge are a starting point for which he does not argue. So, for those who have not experienced the feeling of the absurd or who have not questioned their day-to-day existence, *The Myth of Sisyphus* most likely will be uninteresting. For those, however, who have become aware of the madness of their routine or of the fact that they are going to die, the essay may provide new insights. Camus claims to describe what reason and logic, tenacity and acumen, in short, absurd reasoning, reveals.

¹
The absurd is a relationship, a confrontation between man's search for certainty or unity and the irrational world in which he lives. The history of mankind has been a continuous quest to understand man's body, his consciousness, and his world. So it is with the individual. Each seeks to imbue his life with a meaning and to understand as much as need be for a sense of security. Each attempts to guarantee a certain future or a definiteness to the days ahead. For the individual, this need for certainty is unquestionable.

When one examines the feeling of the absurd, one discovers its cause. Sartre explains this "nausea" (in a novel by the same name and in "An Explication of The Stranger") as due to a confrontation with the world once it has been stripped of its human terms or meaning. Despite certain progress and discoveries, man's knowledge is limited; barriers to his reasoning are insurmountable and likewise certain. The desire for guarantees and reasoned answers unfortunately does not automatically produce solutions. Instead, man confronts limits: science turns into poetry at the crucial moment of explanation, and visible evidence becomes atomic metaphor; the truths of logic end as inexplicable paradox; fictions of the self, of causation, and of induction remain structures of people's lives without themselves being explained or grounded. Moreover, in the end each of us will die, the world will perish, and all human effort will come to naught. These are the only certainties of life: man desires truth and unity, but the universe denies him satisfaction. He seeks rational answers and is certain only of an irrational world. He desires life and is assured of death. This confrontation is the absurd, is life itself, and this alone is certain.

The irony is clear. Man seeks certainty and so must preserve and maintain whatever solid ground he can acquire. However, the certainty he has found is a life of denial of gratification. Thus, to be consistent, he must keep alive this absurdity. He must carry the rock that crushes him, stare into the sun that blinds him; in short, he must face his life for what it is.
This struggle to remain logical and to keep alive the absurd implies three attitudes. First, there is no hope, i.e., there is no hope of a resolution of the conflict between the two terms of the absurd relationship. Judging only on the basis of evidence leaves one void of expectation of understanding the ground of the universe, leaves one with no room for hope in an afterlife. The struggle also implies a continued rejection of the absurd; the confrontation remains alive only if one recognizes the need for clarity and the denial of such in the world. The absurd nauseates the individual who wants security or wants to explain the world so as to be at home in a familiar environment. Last, a conscious dissatisfaction results. To remain logical requires one to be alert to deviations from reason or escapes into the "theyness"; avoiding the gratifications provided by escapes or by deviations, one remains dissatisfied and unconsummated. These three attitudes are a sort of gauge, warning if and when the absurd is eluded or ignored. The attitudes are a consequence of reasoning which has led to the absurd. To deny them is to deny their cause, and that cause is certain.

Here one should note that Camus is not claiming that all human effort to explain the world should cease. He is merely stating that this effort should be recognized for what it is and for what it has achieved. Science has explained much of nature; Camus is not saying that this progress is in vain. However, science does not hold all the answers, and any hope for complete explanations is unwarranted. The all-pervading scientisms provide some security—of a longer life, a more healthy and comfortable life—but they cannot explain beyond their limits. Science does not calm the terror of an inevitable (although now postponed) death. So despite its progress, science provides a limited rationale for the universe. It is this limit that must be recognized; although it may be extended, it must be acknowledged.

Before considering the consequences of the absurd reasoning in terms of the question of suicide, I wish to comment briefly on Camus' critique of the so-called
existentialists. Since this paper is not the place to analyze Camus' evaluation of these figures, his critique will merely be presented so as to further offset, in order to clarify, Camus' own response to the absurd. Camus disclaims the notion that he is an existentialist. He sees the existentialists, in particular Jaspers, Kierkegaard, Chestov, and Husserl, as denying one or the other of the terms of the confrontation. The religious existentialists recognize the irrationality of the world, the despair and the anguish of a human unable to clarify his own existence. However, instead of accepting this relationship, they deify the absurd, embracing and worshipping it. The need for reasoned argument and clarity based on evidence is left behind in the "leap" to God. Instead, the psychological need for security takes precedence. This leap negates the human term of the absurd relationship. Man conjures away the demand for clarity and embraces a scheme of irrationality and comfort as opposed to one of limited reason and despair. Thus, the struggle is eluded; hope is restored, the absurd is embraced, and satisfaction is guaranteed.

Husserl, on the other hand, does not deny the place of human reason but absolves the world of its irrationality. Each object is constituted through the intentionality of human consciousness. This explanation of the world is not psychological, a description that may retain its absurd base. Rather, the essence of each object is captured; the meaning of the world is restored and made clear through human consciousness. So for Husserl, the world is rational and the absurd is denied; there is no confrontation, separation, or gulf between man and his world. Camus rejects both types of existential reasoning. Rather than merely accepting the limits of reason, they negate that reasoning by leaping to God or by intuitively grasping essences. Camus insists on being consistent and persistent: "My reasoning wants to be faithful to the evidence that aroused it. That evidence is the absurd" (Sisyphus, p. 37).
Faced with this evidence, can one live with it? Nostalgia for a benevolent world leads one to commit suicide either physically or philosophically. The real question is whether one can remain on the crest—rational, consistent, and conscious of the absurd. The problem of suicide is thus the first and most important philosophical question. Until the question is answered, all others are unimportant and irrelevant, for if suicide is the logical consequence of the absurd evidence, then other questions remain unanswered. Thus, the consequences of the absurd must be set forth to decide if one can "live without appeal" (Sisyphus, p. 39).

We began with the question, "Does life need a meaning to be lived?" Camus next claims that life will be lived all the better if it has no given meaning. The absurd dictates not death but a full life. Given a life in which the absurd is certain, one can live a life of constant confrontation with the denying universe. Indeed, to be consistent, one must keep the absurd alive by recognizing both terms of the relationship. In other words, since one is faced with a life of the absurd, the fullest life consciously confronts the irrational world and death; given the absurd, one takes advantage of that unalterable fate by pushing the human potential to the limit. The most human life does not elude the absurd through faith in God nor does it seek relief from the absurd through suicide. Rather, only conscious, constant revolt realizes the limits of human reason, repudiates the obscurity of man, and denies his defeat. "Crushing truths perish from being acknowledged" (Sisyphus, p. 90).

In the revolt against the limits of reason and against death, the absurd man not only lives but lives a life of value. Each individual is burdened with his own rock, his own life; to take up that rock, i.e., to take responsibility for that life and consciously choose in the face of a meaningless world, imbues that life with dignity. The effort is a solitary one, for no one can live another's life for him or die his death. Each must confront the indifferent universe and
decide in the face of it. To defy such indifference is to assert the worth of a human life, to proclaim the value of human effort. In revolt, man creates values where he found none, confers his own meaning where none previously existed, and takes up a life where death is certain.

Along with revolt, a new-found freedom results from consciousness of the absurd. Heretofore, any meaning of life set up barriers beyond which the secure man could not explore. Society, religion, and employers expect certain behavior; security, a meaning to life, and a definite future are the rewards for such behavior. With the realization that there is no afterlife and no God, all future rewards and justifications dissipate. Instead, death and the absurd are the only certainties one cannot deny; they are "the principles of the only reasonable freedom" (Sisyphus, p. 44). The liberty to act takes on a new meaning, for that freedom is not eternal. Death will one day foreclose future possibilities; in so doing, death awakens the possibilities of life. My possibilities, not those of others, will end with my death; therefore, I am free to choose among those possibilities in my life as I see fit. Societal norms are seen to be just that—norms one may accept or reject. As Meursault of The Stranger notes at the end of the novel, death "had levelled out all the ideas that people tried to foist on me in the equally unreal years I was then living through." My death and absurd life reveal that I am free to choose the rest.

The new-found freedom does not authorize all actions. To claim that "everything is permitted" is not to encourage a life of pilfering, destruction, and murder (Sisyphus, p. 50). Camus warns us not to understand the phrase in its vulgar sense. The phrase does not mean that nothing is forbidden in even a relative sense of the term (forbidden). Rather, everything is permitted in that there is no absolute justification or condemnation of any act. Man is, and has always been, free to choose any action. To recognize man's freedom is "a better acknowledgement of a fact" (Sisyphus, p. 50). The choice between a God giving
meaning to life and absurd freedom would not be difficult to make, for man craves
the certainty a God would provide. However, there is no choice, and man is bound
to freedom. A choice made in the midst of the absurd freedom constitutes human
dignity.

The third consequence of the absurd reasoning is a passion for life, i.e.,
a passion for the present moment and indifference to the future. Meaning comes
not from a future goal or justification but from the present struggle. These
passing moments of life, once lived through, will never be recaptured. Here we
must clarify what Camus means by the following statement:

If I convince myself that this life has no other aspect than that of
the absurd, if I feel that its whole equilibrium depends on that per-
petual opposition between my conscious revolt and the darkness in which
it struggles, if I admit that my freedom has no meaning except in
relation to its limited fate, then I must say that what counts is not
the best living but the most living. (Sisyphus, p. 45)

For Camus, "the most living" includes the element of consciousness, i.e., the
conscious revolt and recognition of individual freedom. When he speaks of quan-
tity, he speaks not merely of the number of days or years of life, but of conscious
moments of life. Due to the certain finality of death, the succession of moments
is imbued with a passion which provides each moment with a depth heretofore impos-
sible. The quantity is in terms of depth of experience, i.e., consciousness of
experience, as well as numerical succession. "Being aware of one's life, one's
revolt, one's freedom, and to the maximum, is living. and to the maximum (Sisyphus,
p. 46).

For the absurd man "there will never be any substitute for twenty years of life
and experience," i.e., for passionate life and experience of conscious revolt
and freedom (Sisyphus, p. 47). Meursault, once imprisoned, realizes he could be
happy living in the trunk of a dead tree, for one can get used to anything in life--
a tree trunk, the absurd--for it is life that matters. As his mother had always
said, no matter how miserable one is, there is always something for which to be
thankful, i.e., life.
I should emphasize that in rejecting the hope of an afterlife or ideas of ultimate justice, the absurd man is not turning to a life of crass hedonism. He, rather, appreciates this life (in the face of its absurdity), for it is the only one of which he can be certain. He is not seeking merely sensual pleasures or pleasures in general. Instead, he attempts, consciously and knowingly, to experience his human possibilities—those sensual, emotional, and intellectual. He must be aware of his life, of his revolt, and of his freedom in order to live to the maximum. "The point is to live" (Sisyphus, p. 48).

The most living counts as opposed to "the best living" where 'best' refers to those standards of society, employers, or religion that are unquestioningly accepted by the individual. Any notion of the "best life" based on a divine order, society's norms, or ideal principles are meaningless to the absurd man, for such standards are grounded in a faith he does not have and in a denial of a freedom he does have. He is indifferent towards these values that are (for him) unfounded and illusory. For him, the purest of joys is not eternal salvation but "feeling, and feeling on this earth," "the present and succession of presents before a constantly conscious soul" (Sisyphus, p. 47). The passion for life, then, along with revolt and freedom, is the result of the absurd reasoning.

Early in the essay Camus states that usually those who answer "no" to the question of suicide act as if they meant "yes," and those who commit suicide are most assured of the meaning of life (Sisyphus, p. 6). We can now see what Camus meant by that claim. Those who unquestioningly say that life is fine or that there is no possible reason to commit suicide live without realizing the transitoriness of their lives. There is no urgency in their actions, no consciousness of their freedom, no passion for what they do. Routine is unquestioned; norms are assimilated; life is not cherished. Also, those who say "no" to suicide because it is a sin or because this life is a preparation for an afterlife likewise live as if they meant "yes." For these individuals, ultimate meaning and fulfillment
is found not in this life but in a next life. The urgency and dignity of this life is mitigated, or overshadowed, by an afterlife. On the other hand, those who confront an irrational world and inevitable, final death often lose control and commit suicide. If they had remained rational to the end, as the absurd reasoning attempts to do, they would recognize that this life is the only one that is certain, that can be loved, and that has value. Without hope of an afterlife or guarantees of final rewards, this life and its freedom become crucial, valuable, beloved. Faced with the absurd, the consistent man passionately says "yes" to life and to freedom and revolts against the ignominy of death and obscurity.

Although the absurd man lives without hope of resolving the absurd confrontation, he does not necessarily live a life of despair. In an interview in 1945, Camus was asked if the philosophy of the absurdity of the world runs the risk of driving people to despair. He answered as follows:

All I can do is reply on my own behalf, realizing that what I say is relative. Accepting the absurdity of everything around us is one step, a necessary experience: it should not become a dead end. It arouses a revolt that can become fruitful. An analysis of the idea of revolt could help us to discover ideas capable of restoring a relative meaning to existence, although a meaning that would always be in danger.

In recognizing the indifference of the universe, the absurd man does not despair and remain paralyzed. He recognizes his freedom to decide his own meaning for life and so may create that life all the more passionately. His life becomes a work of art which he is free to mold and to define within certain limits. The meaning and value thus created are no longer assured or guaranteed. Rather, they are tenuous, for they depend on the individual. His hope is of this world and the present moment; he looks not toward future possibilities but takes up those of this life.

The revolt of Camus' absurd man is not a revolt against the human lot, it is merely an integral part of the human lot. To forego this revolt is to forego a part of one's humanity, the part we are most tempted to abandon because we are solicited by our nostalgia for eternity, our need for total understanding. Camus' absurd man can be said to be without hope only in terms of the two human dreams of eternity and total understanding; he is not without hope in life itself. He is not without
faith in the reality of his experience within the prison walls, nor is he without joy. Life offers him inexhaustible possibilities which, within the limits of his mortality, he is free to accept.5

From the individual recognition of the absurdity of life emerges a happiness which is neither sensual nor transcendent, but which is the affirmation of the dignity and unique value of human life.6 The absurd precludes hope of an eternal life, an absolute justice, and a transcendent meaning to life; it does not prohibit (but rather, makes possible) the value of this life.

Camus has thus claimed that the absurd does not dictate death but a life of value. Of course, not everyone will feel challenged by such reasoning, and Camus seems willing to acknowledge such a possibility. One may feel that life "is not worth the trouble" (Sisyphus, p. 5). However, this response is not the logical outcome of solely the recognition of the absurdity of life and should not be professed as such. One cannot give a justification for suicide consistent with the absurd and its consequences. In other words, one cannot "blame" one's suicide on the absurdity of life, for if one reasons from the absurd situation, one is compelled to live, not to acquiesce to death. If one can remain rational, one is challenged to live; the real effort is to remain in control.

Unfortunately, it is difficult to remain logical "to the bitter end," and Camus recognizes that where logic stops, "emotional inclination" leads to suicide (Sisyphus, p. 7). At that moment when emotion reigns, the absurd reasoning will not necessarily be persuasive. The individual is always free to choose which reasons will be "reasons for" his action. So it appears that the absurd reasoning will not be persuasive unless it offers a "reason for" the individual to live, i.e., unless he wants to remain rational and in control.

Camus' discussion does not claim that there is never any justification for committing suicide. For example, he excludes consideration of political suicide. One may also, it seems, argue that suicide may be justified in cases of terminable disease where extreme, unrelenting pain precludes the possibility of all other
thoughts, feelings, or emotions. In such a case, it seems unlikely that the absurd reasoning will lead to revolt, to freedom, and to a passion for life, for these result only when they are physically and psychologically possible. In other words, it is difficult to imagine a revolt against death when death will bring the end of constant agon; to imagine a desire for the "freedom" to do nothing but suffer, and to imagine a passion for life when that life is solely ceaseless, excruciating pain. Although suicide may be justified in these cases, they are not counter-examples to Camus' thesis. He claims that life need not have a given meaning to be lived and to be valued; therefore, the absurdity of life need not obsess and paralyze the individual or warrant suicide. In the case of some terminable diseases, the absurd could not and would not be cited as reason for suicide. Rather, the debilitating pain and suffering (perhaps) could be seen to justify suicide. These examples are beyond the scope of Camus' discussion, and while raising interesting questions themselves, they do not undermine the argument of The Myth of Sisyphus. In these cases, other factors (e.g., the extent of the pain, the chance of remission or cure, other persons involved) would need to be considered in an argument; such reasoning would not disprove the general thesis that the absurd (alone) does not dictate death.

Camus emphasizes that, at this initial stage, the absurd man is amoral or free of ethical judgments. The absurd man would accept a God and a subsequent moral code if evidence proclaimed its certainty. Insofar as he lives outside such a God, however, the absurd man is innocent. He has not chosen his situation, but reason and tenacity prohibit his denying what he has originally discovered. In a sense, his ignorance of the absurd cannot be regained; he can confront the absurd, elude it or deny it, but he cannot be naive.

For the absurd man, then, absolute ethical values are non-existent; all actions, in one sense, come to the same in the end, for there is no absolute standpoint from which to judge. The absurd reasoning does not lead to absolute ethical imperatives;
the absurd man is merely trying to be consistent. Camus here seems to stress the solitary path of each individual life. The absurd man judges no one and is oblivious to the judgments of others. He attempts to be consistent in his life with the absurdity of which he is certain. He thus far does not move beyond his solitary revolt; he sees others not as agents like himself but as objects to be manipulated and to be used. In a sense, for others he is a "moral monster"; for himself, the absurd man is consistent.

Hence, in The Myth of Sisyphus and in The Stranger, the realization of the absurd results not in suicide but in a new value on life. The absurd hero revolts against death and obscurity, remains aware of his transitory freedom, and has a passion for this life. His is a solitary revolt that remains free of ethical judgments and merely attempts to be consistent with the evidence he has found.

In his discussion of the absurd, Camus has laid the groundwork for a subsequent ethics of humanism. The absurd discloses that, as far as man can tell, objective ethical standards do not exist. The absurd "wipes the slate clean" and thus reveals to man his moral freedom and autonomy. Man begins anew to construct whatever he chooses. In Nietzsche's terms, God is dead; man is left to fend for himself, to make of himself what he will. The question now remains as to what man will do with this freedom.

The initial reaction to the absurd may be one of shock, confusion, passivity, and indifference to life. Meursault until the time of his sentencing illustrates well a possible reflex response to the absurd. At one time, before the novel begins, Meursault was an ambitious, striving student, i.e., an entirely different person from the passive, indifferent clerk of the novel. Now, although the reader is not told how, Meursault has come to see the futility of life, that there is no reason to do one thing rather than another. He is honest to himself in not feigning any emotions and in not professing belief in the standards of his society (i.e., in its religion, its norms, and its occupational roles). These traits do indeed
follow from the absurd life. With Meursault, Camus is clearing the ground of traditional values, standards, and beliefs. Once the foundation of traditional ethics and action is undermined, the next step is not necessarily immediately clear or certain. One may become obsessed with the absurd and paralyzed by its impact; Meursault represents such a passive, immobile figure.

However, as Camus points out, "accepting the absurdity around us is one step, a necessary experience: it should not be a dead end." The realization of the absurd makes possible a sort of lucid understanding of life and of the humanly-created meaning it can have; The Myth of Sisyphus describes this revolt, freedom, and passion for life that result. Meursault at the end of The Stranger and the characters of The Plague illustrate this next step. While conscious of the absurd, they have a passion for life that defies death and conquers fate. Their "crushing truths perish from being acknowledged."

Of the absurd heroes portrayed, Dr. Rieux (of The Plague) and Meursault (once he is condemned to death) best provide clues to the possible development of a future ethics. Points these two figures have come to realize and voice can be used consistently as the basis of a humanistic ethics. Camus does not claim that the absurd reasoning will necessarily result in such an ethical stance but that (admittedly) this view is one among possible responses. (Indeed, The Plague depicts a number of different possible reactions to the absurdity of life and death.7)

Such an ethics will not be based on any ideal principle, for the absurd man rejects all of which he cannot be certain. Instead, death and the absurd life are the foundation, for of these alone can man be assured. Meursault explains to the priest that his life and his death are the only certainties he has; certainties of this life (e.g., "one strand of a woman's hair") are worth far more than hopes of an afterlife (i.e., the "certainties" of the prison chaplain) (The Stranger, p. 151). With the certainty of an absurd life comes the certainty of an impending death. The people of Oran (in The Plague) cannot escape from the plague (i.e., from the absurd life and death). The town gates are closed, and no special dispensations allow anyone to avoid his fate.
The certainty of death is depicted metaphorically by Meursault: "From that dark horizon of my future a sort of slow, persistent breeze had been blowing toward me all my life long..." (The Stranger, p. 152). Meursault chose not this fate; it, rather, chose him. Such are the certainties of man—an absurd life and an inevitable death.

Faced with the certainty of death, life (according to Camus) takes on new value. To understand the possible situation of a man condemned to death (e.g., the situation of Meursault or of the people of Oran), I, the reader, must subjectively confront my own death. I must realize that I cannot escape death; I cannot choose another path or retract a fatal decision. I cannot hide behind the numerous metaphors that speak of a slow, persistent breeze, a breath on my face, or a shadow that haunts my life. No story, verse, or cliche expresses the subjective character of the blunt fact that I will die.

With this admission, my life takes on new meaning. The finitude of time I have upon this earth recasts the way in which I experience each moment. For the absurd man, "death exalts injustice"; "it is the supreme abuse" (Sisyphus, p. 66). It was seen that revolt follows from the recognition of the absurd—man confers value on a life that has no given meaning. Likewise, in the face of death, life takes on a new worth precisely due to its transitoriness, its finite nature. In man's revolt, his constant struggle to live in the midst of absurdity, he will one day suffer "the supreme abuse," i.e., a death over which he has no control and through which his efforts will terminate. The absurd life and death are man's only certainties, and he abhors both. Death must be overcome; "it too must be conquered" (Sisyphus, p. 66). Dr. Rieux dispises death and disease; he refuses to love a scheme of things in which innocent people die. Even though Meursault "couldn't stomach this brutal certitude of death," he refused to hope in an afterlife. "It is better to burn [for the so-called sins of human pride and disbelief] than to disappear [through hope and faith]" (The Stranger, p. 151). My revolt is not only against the inscrutability of the world but against my death as well.
In that death confers a new value on my life, it gives value to activities and relationships within that life. Again, Camus does not speak here of a crass hedonism but a passion for all forms of experience of this life. Meursault misses the "surest, humblest pleasures" of this life: "warm smells of summer, my favorite streets, the sky at evening, Marie's dress and her laugh" (The Stranger, p. 132).

Dr. Rieux cherishes certain relationships within his finite life:

...a loveless world is a dead world, and always there comes an hour when one is weary of prisons, of one's work, and of devotion to duty, and all one craves for is a loved face, the warmth and wonder of a loving heart. 8

This life, with its activities and relationships, is man's only certainty and his only happiness.

Moreover, just as "accepting the absurdity...is one step, a necessary experience" and "should not become a dead end," so the lucidity that results can also "become fruitful." Meursault, Dr. Rieux, and the citizens of Oran have recognized certain further points that subsequently may develop into an approach to life. This possible development should not be ignored and indeed is not precluded by the acceptance of the absurd, i.e., by the acceptance of the fact that man is the ground of existing values.

Perhaps the reader should first note that the realization of the lack of a given value scheme does not logically entail the violation of traditional values. The acceptance of the absurd does not by itself sanction all activity; previous so-called "wrongs" are not thereby encouraged or endorsed. Again, Camus warns not to understand "everything is permitted" in the vulgar sense. If God is dead, all is indeed permitted, i.e., possible, but it has been so all along. In a sense, the extent to which such action and freedom appear attractive reflects the extent to which individual restraint is lacking and outside authority maintains control. Thus, with the denial of such objective values and external authority, no individual rationale is left to maintain order. This imprudent behavior indeed may be an initial response to the absurd, but it need not be permanent and is certainly not necessarily entailed by the absurd. It represents more a psychological reaction, much like that of a child whose parents are gone (permanently); he can now raid the cookie jar for all it's worth, but sooner
or later he must grow up and realize that he has to learn to control himself in order to live a healthy, happy life.

So the individual is left on his own, and man has the freedom of "remaking man and the earth" (Sisyphus, p. 64). The certainties with which he can begin are the absurdity of life and the certainty of death. He revolts against the irrational world and against death. However, in this revolt and awareness comes the realization that not only am I condemned to death but all humans are likewise dying. This equality is as certain as death itself. All are condemned to die one day; all are so privileged. Meursault acknowledges that "slow, persistent breeze" blowing towards him all his life long. This breeze, "this one and the same fate was bound to 'choose' not only me but thousands of millions of privileged people" (The Stranger, p. 152).

Each person faces that same fate; each lives a life that will one day end. No one can escape from the plague; neither money nor status will buy exit passes. Because of this universality of death, humans are at this base level equal. No one can deny this fundamental equality of men. All are doomed to the same absurdity and death.

The realization of the fact that all humans face this one and the same fate, i.e., that all are condemned to die, may induce one to a further step beyond the acceptance of the absurd. If all are condemned to die and all desire to preserve their own lives, a communal attempt will most likely be more effective than individual efforts. The people of Oran volunteer for the sanitation squads and so keep the plague under minimal control. Their shared plight and their common desire for survival bind them in a joint effort to combat death. Camus does not claim here that people must take this further step, but that this step of communal effort is the more reasonable approach in a battle against death.

Pre-historic men initially grouped together out of the desire to survive; the necessity was blatant at that time, for animals and climate posed a direct threat to life. Yet, modern man faces the same hostile environment and the same indifferent universe, although the need for communal effort has been camouflaged. Life is now too easy for many, and the threat of death has been assuaged. Death has been
objectified, even honored and glorified. The benefits of joining together in the attempt to survive have been overshadowed and underplayed. The confrontation with one's own death, however, and the realization that all will face that same end strip the comfortable life of its illusions or cushions and reveal the naked need for others.

One may add a different dimension to the need to bind together if one understands one's own revolt against death to be an objection to death in general. The individual revolt encompasses a concern for other humans in that all are confronting that same absurdity and supreme injustice. The absurd constitutes not only the individual's existence but all life that may be conscious of its transitoriness and ultimate death. One's revolt against death remains only partial and incomplete if he acknowledges its victory elsewhere. The struggle against death and the passion for life should not be compromised through unprotested destruction of other life. A struggle against death to keep the absurd alive is all the more victorious if it persists beyond a single life and conquers the supreme injustice elsewhere. Thus, the confrontation with death provides the transition from a solitary revolt to a revolt of solidarity.

Dr. Rieux illustrates well this transition from a solitary revolt against death to a revolt of solidarity. The doctor detests death and disease while knowing "that the plague bacillus never dies or disappears for good" (The Plague, p. 278). He cherishes his human relationships and knows that "a loveless world is a dead world." His is a humanism that is a love of men in the concrete flesh and blood. Man is not an ideal to be worshipped but a fellow-sufferer to be treated with "common decency." Dr. Rieux reacts to the plague by doing all he can do, i.e., by doing his job (The Plague, p. 150). In this way, Dr. Rieux recognizes and struggles against "a never ending defeat" (The Plague, p. 118).

The revolt against death, the passion for life, and the freedom to create values consistent with these consequences provide the basis for a new humanism. The attempt
to subvert death makes the preservation of life man's most valiant effort. This revolt against a death common to all humans stands as the basis of a dignity and equality among men. Likewise, the freedom to create values consistent with these ends bestows a sort of dignity on man heretofore impossible.

Such a humanistic ethics, if left undefended, may be undermined and eventually negated. Even in recognizing its relative standpoint as one of many possible responses to the absurd, to abandon it in the face of conflicting views is tantamount to denying even its relative meaning and worth. In choosing one value scheme as opposed to another, one must profess and defend it in order to maintain it. To remain indifferent to opposition guarantees the subversion of one's own choice.

Meursault's passivity until the time of his sentencing illustrates what happens when one remains indifferent to conflicting schemes. Meursault, it appears, has chosen to be honest, not to feign emotions, and to reject traditional standards unless he honestly decides they are worthwhile. However, in his initial indifference to life and failure to see even a relative value in one action as opposed to another, he loses control over his own life and so denies the value of honesty that he has chosen. He becomes a pawn of others. He writes the deceitful letter for Raymond, untruthfully agrees when bored in conversations, lies in saying Raymond's mistress cheated on him, and eventually kills a man. Meursault has chosen and so created the value of honesty, but in acquiescing to the choices of others, he negates the very value he attempts to instigate. Not until Meursault confronts the priest does he actively defend his position and refuse to compromise. Camus himself insists that the book (The Stranger) is misunderstood unless one "takes into account" this scene of outrage against the priest. Without such attack or criticism, an attitude, even one recognized as a relative stand, loses its value.

Hence, the humanistic scheme must also be defended against opposition. Antithetical views must be undermined if the humanistic scheme itself is to avoid its own subversion. The creation of such a scheme cannot appeal to any absolute justification or any eternal system of justice; such guarantees would be comforting indeed.
The absurd man has not chosen his plight; he merely honestly describes what he has found. His certainty that justice either reigns or perishes in this life and in this world imbues his defense with all the more passion. For him, no eternal life will balance the scales; no omnipotent being will guarantee that justice is done. Man is his only end. Man is free to preserve his life as a species and as an individual, or to perish at his own hand.

One can finally understand why the objection to Camus' ethics is wrongheaded. The objection, as was stated above, claims that Camus has not convinced us that we must adopt his ethical scheme. An individual (so the objection goes) may always respond to the absurd by leading a hedonistic or egoistic life. Camus' arguments are not compelling in the sense that one may always reject Camus' conclusions and may always opt for a different lifestyle. Thus, Camus has failed to provide us with an adequate (i.e., compulsory) way to deal with the absurd.

This objection is misconceived for one fundamental reason: the objection implicitly seeks an absolute standard of values and rules. The interlocutor asks for ethical imperatives, i.e., declarations of what each individual must do. Such a requirement, in essence, demands that Camus provide reasons why each individual is not free, i.e., why each individual must "choose" a certain lifestyle.

Camus (admittedly) does not provide such an imperative, for he cannot do so. If one reasons from the absurd, no absolute ethical standards are possible, i.e., no commandments result. When one realizes the absurdity of life and death, one realizes one's freedom. This freedom is precisely the freedom to choose or to reject any offered ethical scheme (including Camus'). Thus, Camus does not evoke the help of a God, for such a God does not evidently exist; he does not threaten with eternal damnation, for such threats are idle; he does not cajole with promises of eternal bliss, for such promises are empty. With the absurd, Camus eliminates all existing ethical claims, for these views are seen as shams and as illusions. He then begins anew with a tabula rasa of standards. Nothing (save the absurd) is a given. No objective ethical schemes can make absolute demands on the individual.
Hence, Camus does the best he can do given the absurdity of life. He reasons from the absurd, cautious never to deny or contradict his original premise. Death and the absurd life are man's certainties; from these origins certain points follow (viz., the equal, shared plight noted above). Camus can only attempt to persuade others; he can only reason and argue. He cannot force others to accept his outlook on life. He gives reasons why we should work together (as in The Plague), but he cannot choose for us. So, in a sense, everything is permitted. Each individual is free to choose any path, be it Camus' path or not.

There is an ironic tinge to this objection against Camus. Those who object to Camus' option do so on the basis of their need for moral absolutes. Camus fails them because he does not provide moral imperatives; indeed, he admits that there are no such commandments. However, those who reject Camus' scheme in search of objective moral/religious laws are (in fact) in the same situation as is Camus; their supposed imperatives are also only man-made. The difference between their choice and that of Camus is that Camus realizes and acknowledges that man is the basis of, and so responsible for, any moral laws.

Thus, to complain that Camus has failed in proposing an adequate ethical scheme (because one can always reject Camus' offer) is to miss Camus' fundamental point. Any view can be rejected; given the absurd, no objective standards are possible. Camus does not fail when he provides no absolute imperatives; he rather remains consistent and honest. His honesty reveals a fact of life which many people do not want to acknowledge. Camus argues from this fact (i.e., the absurd) and tries to develop a humanistic ethical scheme. Ironically, those who reject Camus' scheme (and opt for a life guided by solely sensual pleasures or by religious imperatives) are merely exercising the freedom Camus emphasizes. They are doing nothing more than constructing alternative man-made ethical schemes, schemes which each one of us may accept or may reject. Camus, however, undertakes a more ambitious task in recognizing this freedom. Rather than cling to the solid structure of religious/ethical guarantees in the attempt
to deny man's freedom, Camus tries to conquer that human condition. Thus, Camus says (through the voice of Dr. Rieux) that "heroism and sanctity" don't really appeal to him. Instead,

"What interests me is being a man."
NOTES


10 Camus, Lyrical and Critical Essays, p. 335.

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