Beliefs About Death and Immortality Observed by Opinion Scaling in Students at Two Midwestern Catholic Medical Schools

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BELIEFS ABOUT DEATH AND IMMORTALITY OBSERVED
BY OPINION SCALING IN STUDENTS AT
TWO MIDWESTERN CATHOLIC
MEDICAL SCHOOLS

by
Jean F. Gagan

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment of
the Requirements for the Degree of
Master of Arts

February
1971
Jean Frances Gagan was born on March 27, 1928, in Oak Park, Illinois.

She was graduated from Oak Park and River Forest Township High School in June, 1946, and earned the degree of Bachelor of Arts from Rosary College, River Forest, Illinois, in June, 1950.

From 1955 to 1958 she taught Catholic primary grades. She worked as an editorial and technical research assistant in the Department of Surgery, Loyola University Stritch School of Medicine, from 1958 to 1969.

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CHAPTER I

INTRODUCTION

The death experience of each individual human being is a persistent embarrassment to the philosophy of progressive evolutionism which dominates American life. The believer of this philosophy must pretend that the collective destiny which it extrapolates for the human species is somehow his own. In this pretense, innately aware that his own individual dignity demands an individual destiny, such a believer can only falsely deny his own death. The true denial of death which his entire nature seeks can be found only in the Resurrection of Jesus Christ.

Since a dying man does not fulfill the expectations of our society, those around him are likely to experience and communicate to him a sense of frustration and failure. Even if a person has not fallen victim to society's false denial of death, the susceptibility of the medical profession to such denial may lessen his opportunity to continue his resistance to it as a patient.

The attitudes a physician brings to the deathbed may well be influenced by his belief about, and extent of willing conscious awareness of, the inevitable eventuality of death. Reflection on death has been seen as critical to the well-being of both doctor and patient, since a doctor's greater fear of death
tends to be accompanied by his avoidance of dying patients. His very motivation in entering medicine—the desire to help patients get well—is likely to prejudice him against care of the dying. Medical students' overemphasis on tangible results, since it foreshadows inevitable frustration, is a sharp challenge to medical educators. The doctor who has faced and has humbly come to terms with his own fear of death is able to engage in honest dialogue with a patient who is trying to do the same but needs his support.

It is in a function-centered society, which is denying the presence of evil within itself, that the medical student is called to the practice of direct dealing with physical evil. Moreover, his environment does not encourage honest reflection on this predicament. Certainly the experiences of medical practice, bringing together as they do the most highly technical and deeply personal aspects of human life, demand that a physician be a person of reflection. Reflection helps a person transcend experience and rise gradually to a realization that he is not his own. He only can accept evil at its worst who ultimately accepts God at His best.


A society, like an individual, has a preconceived image of itself which it tends to enhance and protect by a process of selection and denial. The dominant or core value system which helps to define the image of our American society has its roots in religious and political history. With the early migrations from Western Europe came cultural trends toward rationality in science and theology and in mastery of self and environment to bring about the Kingdom of God on earth. The prevailing Calvinist doctrine stressed active mastery and concern for this world, leaving little room for any influence of human will or faith or meditation or obedience to bring about spiritual union with God. Attainment of worldly success was considered a sign of eternal destiny. Such success in individualistic enterprises replaced regard for the beauty of inner spirit. The reason of things came to be sought for oneself and in oneself. One's social salvation, judgment and reward by the industrial society, has become the secular parallel to immortality; and social Darwinism, survival of the fittest, has become the secular statement of Calvinist predestination. Both heaven and evil are denied in the name of Christianity, and the de-emphasis on reflective thought results in a greater soaking up of environmental values.

The value system resulting from these basic trends in American society quite naturally concludes that everything can be explained and that nothing transcends the limits of human understanding. In such a system the mystery of death is considered "purely natural." This proud world of function perceives

itself as full of problems which it can eventually solve. Such a world has no room for mysteries to be reflected upon, and death is one of the great mysteries of man's existence.\(^7\)

The purpose of this present study is to attempt to observe beliefs about death and immortality in students of different religious backgrounds as they progress through medical education in a Catholic institution. It is hoped that such a study can offer insight into some particular cultural influences either fostering or threatening that Christian belief which renders the false denial of death unnecessary and irrelevant.

One author concluded to the desirability of such a longitudinal study of changes in belief from freshman to senior year. Responses to his survey of senior medical students' religious beliefs included reference to death. He asked seniors whether there had been any change in their religious beliefs during medical school, whether during that time any religious conflicts had been intensified or lessened, and what were the bases of their beliefs. He also asked whether their undergraduate college education had affected their beliefs, whether they felt there was a conflict between religion and science, and what major religious problems they had. The sample was about 75 percent Protestant, 11 percent Jewish, only 5 percent Catholic, and 9 percent other.\(^8\)

To the question about the basis of belief, half gave a subjective answer, emphasizing their need to explain what they did not understand, especially fears and questions about death. The other half gave the objective answer

\(^7\)Marcel, op. cit., p. 13.

\(^8\)James A. Knight, "A Study of Religious Beliefs and Attitudes of Senior Medical Students," Journal of Medical Education, XXXVI (Nov., 1961), 1557-64.
that their belief was based on divine revelation. To the question about effect of undergraduate college on religious belief, 35 percent said it strengthened and 30 percent said it weakened belief; 22 percent reported no effect. Those who said their belief improved in college tended to emphasize that it progressed from blind obedience to reasoning acceptance. When asked about changes during medical school, the Catholics and Baptists tended to respond that their beliefs had been firmly fixed and that there had been no change and no conflict. Protestants other than Baptist tended to respond that they had become more religious but had also experienced more conflict. Most Christians stated, however, that there was no conflict between religion and science, whereas Jewish students were divided half and half on this question.9

Of the entire sample, 60 percent expressed personal commitment to religious faith and stated they felt it an important part in the physician's role. For 50 percent medical training seemed to make religious belief more positive. Only 4 percent said it made them less religious. Several raised the question of how a good God can permit so much suffering in the world. Many said they had a greater understanding of life and death through medical education and of the role played by religion in helping man adjust to thoughts of death; they expressed a feeling of being closer to ultimate things.10

Two thirds of these students said they enjoyed responding to the questionnaire. To some it revealed a vagueness of their own religious concepts, to others the enjoyment of witnessing to belief, to others the peace of a spiritual review, and to still others the relief of confessing lack of

9Ibid., pp. 1559-61.
10Ibid., pp. 1561-2.
faith. One third stated they did not enjoy answering the questionnaire; they felt resentment, confusion, or limitation of expression.11

The problem of facing up to death in a technological death-denying culture led Dr. Elisabeth Kübler Ross, a psychiatrist, to develop a seminar program in which the dying teach medical and theological students, nurses, and social workers about death.12 Dr. Ross contrasts the perverse death-denying outlook in American society with the outlook in Europe, where death is talked about and not hidden from children.13 She describes five successive stages or levels of death: the last of these is acceptance, characterized by passivity and slow, peaceful detachment from the world.14

The data on medical students' beliefs employed in the present investigation were obtained from a longitudinal study on attitudes toward cancer.15 The opinion scale on death to be used in this study was included in the Cancer Attitude Survey (CAS) administered to medical students at freshman orientation and again toward the end of sophomore year, since results of a previous study had implicated attitudes toward death in some doctors' attitudes toward cancer.16 The subjects of the parent study, from twelve classes

11Ibid., pp. 1563-4.
12The New World (Chicago), Nov. 28, 1969, p. 9.
representing seven medical schools, will be retested as seniors and as physicians on three CAS opinion scales derived by means of factor analysis. CAS Factor III is the scale exploring beliefs about death.

This study analyzes the Factor III responses of 128 members of the 1971 classes of two midwestern Catholic medical schools, 68 at School A and 60 at School B. Students were tested at freshman orientation in fall, 1967, and retested as sophomores in spring, 1969. Variances will be observed among Catholic students of different educational backgrounds and Protestant and Jewish students as to scale scores and test-retest changes.

Group results on eleven unscaled Cancer Attitude Survey statements related to the theme of this study will be reported by percentages; test-retest results will be included where changes are observed.
CHAPTER II

INSTRUMENT

Factor III of the Cancer Attitude Survey (CAS) explores belief in acceptance of and preparation for death and in immortality as individual, personal existence after death. The eight statements of this scale are interspersed among the total of 52 CAS statements related to care of cancer patients and doctors' attitudes toward them (Appendix). Responses are on a 1-to-9 continuum ranging from absolute disagreement to absolute agreement.

The Factor III statements had been selected by distributional and factor analyses of physicians' responses to about thirty statements on this subject selected by the investigators from an original pool of about a hundred such statements gleaned from oral and written remarks of physicians and students and from literature, experience, and knowledge. The proposition underlying a high score on this scale is: "Everyone must accept and live with death." A number of the statements were suggested by a psychiatric symposium. A work edited by a psychologist was also used as background material.

17 Haley, Juan, and Gagan, op. cit.
Frequency distributions of responses by 96 physicians given the CAS in 1968 showed the Factor III statements to be of unequal stimulus weights and to elicit different patterns of response. It was therefore considered advisable to derive scale values better qualitatively suited to the subjects than the inflexible quantitative 1-to-9 scoring pattern. A method of dichotomized scoring was considered feasible for more sensitive discrimination between high and low scorers on the Factor III scale. Statement weights were obtained from response distributions of the criterion group of 96 physicians by Thurstone's method of successive intervals. Then nine response weights for each statement, to be superimposed on the 1-to-9 continuum, were obtained by applying Guilford's adaptation of the Phi coefficient to the upper and lower 50 percent of the physicians' 1-to-9 summation scores on Factor III. The new weight given each response is equivalent to the product of these statement and response weights. A constant was added to make all scores positive. The score on the opinion scale is the sum of these weighted products.

The statements comprising Factor III, with statement weights in descending order, are shown in Table 1. When response weight was combined with statement weight, the sixth statement moved up to third rank because of strong absolute disagreement by high scorers; the other statements remained in the same order. The unequal-interval continua resulting from combined statement and response

---


weights ranged from a 1-to-7 span for the first- and second-ranked statements to a 2-to-5 span for the statement ranking last.

**TABLE 1**

STATEMENT WEIGHTS FOR FACTOR III

<table>
<thead>
<tr>
<th>Weight</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.590</td>
<td>To be realistic a man has to accept that he cannot exist after death.</td>
</tr>
<tr>
<td>1.566</td>
<td>* There is a possibility of a beautiful death for the cancer patient.</td>
</tr>
<tr>
<td>1.415</td>
<td>* Those patients who are terminal and have not realized it should be told so that they can prepare spiritually for death.</td>
</tr>
<tr>
<td>1.185</td>
<td>A person should live out his life without concerning himself that death will come.</td>
</tr>
<tr>
<td>1.120</td>
<td>A man can be happily reconciled to belief in his own nonexistence after death.</td>
</tr>
<tr>
<td>1.114</td>
<td>A person's immortality consists in lingering on in some way through material goods, example, reputation, offspring.</td>
</tr>
<tr>
<td>1.079</td>
<td>* By detachment from the things of this world a person can have a more real and effective relationship with others and a readiness for death.</td>
</tr>
<tr>
<td>1.000</td>
<td>The dying patient has to be kept happy since he has nothing to look forward to.</td>
</tr>
</tbody>
</table>

* Statement favorable to belief in personal immortality and to acceptance of and preparation for death; agreement scores high.

The effect of the new scaling method is more sensitive discrimination between certain belief and wavering belief or doubt. Among strong believers there is little uncertainty—that is, few scores in the original 4-to-6 range—
except on statements of low stimulus weight. As a result, in the new method, uncertainty scores very low on statements of high stimulus weight and rather high on statements of low stimulus weight. The rationale behind this scoring system is use of the physician judging group as a criterion since the students in the longitudinal study are becoming doctors and the development of the opinion scale was also based on a physician criterion.

The Factor III statements, which have been shown empirically to form an opinion scale on death, will not be analyzed separately. Rather, summation scores of test groups will be compared by analysis of variance in a series of factorial designs. Responses of test groups to eleven other separate but related CAS statements will then be shown in percentage comparisons.
CHAPTER III

ANALYSES

On a questionnaire accompanying the Cancer Attitude Survey the students were asked, "How much importance do you think religion has in a person's life?" Response choice was "Very much," "Some," "A little," or "None." The objective orientation of the Catholic toward his faith usually prompts the response "Very much," a projection based on the conviction that the Catholic faith is true for everyone whether he has received it or not. Groupings of Catholic subjects according to educational background will take into consideration their perception of religion as revealed in response to this question.

Table 2 shows the subject groupings, group designations, and numbers in School A and School B. Although it may reasonably be expected that the samples from the two midwestern Catholic medical schools are from the same population, except in the case of the very small Groups II(2) and II(3) the schools are considered separately in the experimental design to eliminate from the error term any possible difference between them. The Catholic subjects are from the Middle West, with the following exceptions. In Group I, 5 students in School A and 4 in School B are from the East; one in School B is from the South. In Group II(1), 4 students in each school are from the East. Three of the 10 students in each of Groups II(2) and II(3) are from the East.

Desirable for this study are comparisons between religious groups, between test and retest results, and between schools. The data are adaptable to five
factorial designs: Catholic Group I (Table 3)
2 factors: school and test-retest

Catholic Groups I and II (Table 4)
2 factors: group and test-retest

Catholic Groups II(2) and II(3) (Table 5)
2 factors: group and test-retest

Catholic Group II(l) and Protestant Group (Table 6)
3 factors: school, test-retest, and religion

Catholic II(l), Protestant, and Jewish Groups (Table 7)
3 factors: school, test-retest, and religion

TABLE 2
SUBJECT GROUPINGS

<table>
<thead>
<tr>
<th>Student Designation</th>
<th>Numbers</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School A</td>
<td>School B</td>
</tr>
<tr>
<td>Catholic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I Catholic college</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Religion of very much importance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II(1) Catholic college</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Religion of some importance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II(2) Catholic high school</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Secular college</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II(3) Secular high school</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Secular college</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Jewish</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Totals</td>
<td>68</td>
<td>60</td>
</tr>
</tbody>
</table>
Scattergrams revealed no clear proportional relationship between the standard deviation and the mean or its square or between the variance and the mean or its square in any of the designs described above. The ratio of the highest to lowest variance in each set of data was within the limits of homogeneity required for analysis of variance.  

The highest possible score on Factor III is 49, the lowest possible 17. Scores of the 128 subjects ranged from 48 to 19. Descriptions of subjects preceding each table are based on the questionnaire administered with the CAS at their freshman orientation in fall, 1967. The tables show the mean scores (M) and standard deviations (SD) descriptive of each factorial design, with results of the analysis of variance following.

The 42 Group I subjects (Table 3) were young men between the ages of 20 and 23. All but 3 in School A and 4 in School B had bachelor's degrees. One in School A and 6 in School B attended secular high school. Three in School B were married; all the rest were single. In School A, 18 were from a big city or suburb and 3 from smaller cities; in School B, 9 were from a big city or suburb, 9 from smaller cities, and 3 from towns.

TABLE 3

GROUP I (CATHOLIC COLLEGE, RELIGION OF VERY MUCH IMPORTANCE)

SCHOOL AND TEST-RETEST COMPARISONS ON FACTOR III

<table>
<thead>
<tr>
<th>School</th>
<th>Test '67</th>
<th>Retest '69</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
</tr>
<tr>
<td>A</td>
<td>37.86 5.29</td>
<td>35.48 5.43</td>
</tr>
<tr>
<td>B</td>
<td>36.38 3.76</td>
<td>35.81 5.60</td>
</tr>
</tbody>
</table>

Analysis of variance of the data of Table 3 revealed no significant difference between schools, between test and retest, or between interactions of school and test-retest. The only F ratio greater than unity was in the overall test-retest comparison, but this value of 1.78 fell far short of the 3.96 required for significance at the 5 percent level. It may be concluded that the 42 Catholic students who attended Catholic college and perceived religion to be very important did not differ by medical school attended nor change significantly from freshman to sophomore year in their belief in personal immortality and in acceptance of death. Their average is high on the Factor III opinion scale. It may be noted from the standard deviations shown in Table 3 that School B widened its opinion spread considerably on the retest.

In Table 4, all 42 subjects in Group I are compared with all 42 in Group II with regard to test and retest. The Group II subgroups are described below.
The 22 Group II(1) subjects were between the ages of 20 and 24 and included one woman student in each school. All had bachelor's degrees except for 2 in School A. Three in School A and 2 in School B attended secular high school. One in School A was married; all the rest were single. In School A, 7 were from a big city or suburb, 3 from smaller cities, and one from a town; in School B, 5 were from a big city or suburb and 6 from smaller cities. These students from Catholic colleges perceived religion as of only some importance; one in School B marked "A little" in response to this question.

The 10 Group II(2) subjects were between 20 and 24 and included one woman. Two had no bachelor's degree. Two were married. Of these Catholic students who attended Catholic high school and secular college, 5 perceived religion as very important, 3 marked "Some," and 2 marked "A little." Six were from a big city or suburb, 4 from smaller cities.

The 10 Group II(3) subjects were young men between 20 and 24. One had no bachelor's degree, and 2 were married. Of these Catholic students who attended secular high school and secular college, 2 perceived religion as very important, 7 marked "Some," and one marked "A little." Three came from a big city or suburb, 5 from small cities, and 2 from towns.
TABLE 4

GROUP I (CATHOLIC COLLEGE, RELIGION OF VERY MUCH IMPORTANCE) AND GROUP II (CATHOLIC COLLEGE, RELIGION OF SOME IMPORTANCE; OR SECULAR COLLEGE)

GROUP AND TEST-RETEST COMPARISONS ON FACTOR III

<table>
<thead>
<tr>
<th>Group</th>
<th>Test '67 M</th>
<th>SD</th>
<th>Retest '69 M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>37.12</td>
<td>4.60</td>
<td>35.64</td>
<td>5.45</td>
<td>(42)</td>
</tr>
<tr>
<td>II</td>
<td>31.93</td>
<td>5.98</td>
<td>30.02</td>
<td>5.95</td>
<td>(42)</td>
</tr>
</tbody>
</table>

Highly significant difference (p < .001), indicated by an F ratio of 40.21, was found between scores of Groups I and II, the latter showing less belief in personal immortality and in acceptance of death (Table 4). Also significant, at the 5 percent level, was the overall test-retest difference. While for Group I the drop from test to retest had been found not significant in Table 3, here the consistency of the pattern in both groups, combined with 164 degrees of freedom for error, revealed a significant difference. The F ratio for interaction was again less than unity, indicating that the test-retest difference was the same in both groups. It may be concluded that Catholics in general tended to score lower on Factor III as sophomores than they did as freshmen. On both test and retest, however, Catholics from Catholic colleges who perceived religion as very important manifested far stronger belief in immortality than those who perceived religion as of only some importance or who attended secular colleges.
Table 5 shows test-retest comparisons between Groups II(2) and II(3) to observe whether any effect of Catholic high school could be noted in Factor III scores of Catholics from secular colleges. Since there are only 10 students in each group, medical schools could not be compared in this analysis.

**TABLE 5**

**GROUP II(2) (CATHOLIC HIGH SCHOOL, SECULAR COLLEGE) AND GROUP II(3) (SECULAR HIGH SCHOOL, SECULAR COLLEGE)**

<table>
<thead>
<tr>
<th>Group</th>
<th>Test '67 M</th>
<th>SD</th>
<th>Retest '69 M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>II(2)</td>
<td>31.70</td>
<td>5.60</td>
<td>27.90</td>
<td>6.89</td>
<td>10</td>
</tr>
<tr>
<td>II(3)</td>
<td>31.10</td>
<td>5.63</td>
<td>28.20</td>
<td>5.03</td>
<td>10</td>
</tr>
</tbody>
</table>

The only F ratio greater than unity was 3.31 for overall test-retest difference. While this clearly represents the trend found significant in Table 4, for the data of Table 5 an F ratio of 4.11 would be required for significance at the 5 percent level. It may be concluded that there is no evidence attendance at Catholic high school made a difference in belief in immortality in Catholics from secular colleges, that test-retest decrease cannot be ascertained in this small sample, and that the groups did not differ on test-retest comparison.

The 22 Group II(1) Catholics were selected for comparison with the Protestant group. They are clearly representative of Group II (Table 4),
providing 4 of its highest and 6 of its lowest scorers. On test '67 the mean of Group II(1) is 32.41 (SD 6.51); on retest '69 it is 31.82 (SD 5.55).

Table 6 shows the three-factor design for comparison between Catholic Group II(1) and the Protestant group on school, test-retest, and religion.

The Protestant subjects were young men from the Middle West, with the exception of 2 in School A and 3 in School B who were from the West. Eight in School A were 21, and 3 were 22. The School B group was a little older, ranging from 21 to 24, with only one 21 and 3 over 22. This age difference is evident in the fact that, whereas all 11 subjects in School B had bachelor's degrees, 6 in School A did not. Four in School B were married, 2 in School A. Four Protestant students in School A perceived religion as very important, 6 marked "Some," and one marked "A little." Similarly, in School B, 5 marked "Very much" and 6 "Some." In School A, 8 were from a big city or suburb, 2 from small cities, and one from a town; in School B, 3 were from a big city or suburb, 4 from smaller cities, and 4 from towns.

### TABLE 6

<table>
<thead>
<tr>
<th>Religious Group</th>
<th>School</th>
<th>Test '67</th>
<th>Retest '69</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Catholic II(1)</td>
<td>A</td>
<td>30.73</td>
<td>6.36</td>
<td>30.91</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>34.09</td>
<td>6.50</td>
<td>32.73</td>
</tr>
<tr>
<td>Protestant</td>
<td>A</td>
<td>31.82</td>
<td>6.68</td>
<td>29.36</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>30.64</td>
<td>5.22</td>
<td>31.18</td>
</tr>
</tbody>
</table>
No significant differences were found in the factorial design shown in Table 6. Only the F ratios on comparisons between schools and between the two religious groups were greater than unity, and these (1.32 and 1.16 respectively) were far short of the 3.96 required for significance at the 5 percent level. There was no overall test-retest difference. No first-order interactions were observed between religion and school, religion and test-retest, or school and test-retest; nor was there a second-order interaction between religion, school, and test-retest. It may be inferred that in beliefs about death as observed by Factor III the Catholic II(1) and Protestant groups do not differ; also, that the Protestant group scores very significantly lower than Catholic Group I.

Table 7 repeats the factorial design of Table 6 with inclusion of the Jewish group. The Jewish subjects were young men from the Middle West, with the exception of 2 in School A and 5 in School B who were from the East. Eight in School A were 20 or 21, and 2 were 22. In School B the age range was 20 to 24, with 5 between 20 and 21. Four in School A and 2 in School B had no bachelor's degree. Two in School B were married; all the rest were single. In School A, 3 perceived religion as very important, 5 marked "Some," and 3 "A little"; similarly, in School B, 3 "Very much" and 8 "Some." In School A, 10 were from a big city or suburb and one was from a small city; in School B, 6 were from a big city or suburb, 5 from smaller cities.
### Table 7

**Catholic Group II(1) (Catholic College, Religion of Only Some Importance) and Protestant and Jewish Groups**

**School, Test-Retest, and Religion Comparisons on Factor III**

<table>
<thead>
<tr>
<th>Religious Group</th>
<th>School</th>
<th>Test '67 M</th>
<th>SD</th>
<th>Retest '69 M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic II(1)</td>
<td>A</td>
<td>30.73</td>
<td>6.36</td>
<td>30.91</td>
<td>6.25</td>
<td>(11)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>34.09</td>
<td>6.50</td>
<td>32.73</td>
<td>4.88</td>
<td>(11)</td>
</tr>
<tr>
<td>Protestant</td>
<td>A</td>
<td>31.82</td>
<td>6.68</td>
<td>29.36</td>
<td>6.25</td>
<td>(11)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>30.64</td>
<td>5.22</td>
<td>31.18</td>
<td>5.04</td>
<td>(11)</td>
</tr>
<tr>
<td>Jewish</td>
<td>A</td>
<td>25.27</td>
<td>2.19</td>
<td>25.64</td>
<td>4.68</td>
<td>(11)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>25.73</td>
<td>3.93</td>
<td>27.36</td>
<td>3.91</td>
<td>(11)</td>
</tr>
</tbody>
</table>

Highly significant difference (p<.001), indicated by an F ratio of 15.97, was found between religious groups shown in Table 7. Since no difference was found in Table 6 between the Catholic II(1) and Protestant groups, this difference is obviously between Christian and Jewish subjects. The only other F ratio greater than unity was for difference between schools, but it was 2.07 and the ratio required for significance at the 5 percent level is 3.92. There was no test-retest difference. First-order interactions between religion and school, religion and test-retest, and school and test-retest were absent, as was any second-order interaction between religion, school, and test-retest. Results seem to indicate Jewish disbelief in personal immortality and in acceptance of and preparation for death, in comparison with belief of Christian subjects.
According to the results shown in Tables 3 to 7, Catholic subjects from Catholic colleges who consider religion of very much importance have strongest belief in personal immortality and in acceptance of and preparation for death, Jewish subjects express strong disbelief, and other Catholics and Protestants score in between. Belief of Catholics tends to decrease somewhat during the first two years of medical school. Of the small number of Catholic subjects from secular colleges, those who attended Catholic high school did not express stronger belief than those who attended secular high school.

Eleven CAS statements not included in Factor III relate to the theme of this study. Four which elicited differences of opinion between the test groups are shown in Tables 8 to 11. The results shown for each group are test-retest percentages of disagreement or agreement, whichever is indicated in the table heading, based on the number (N) in that group.

Results from the criterion group of physicians are included for comparison with the student groups of this study. The 96 physicians tested in 1968 are those referred to in Chapter II. The total of 257 physicians also includes 161 of the original CAS criterion group tested in 1966.24

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TABLE 8
DISAGREEMENT PERCENTAGES

STATEMENT: No one who realizes he is going to die in the near future can remain in a state of mental well-being.

<table>
<thead>
<tr>
<th>Group Description</th>
<th>Test '67</th>
<th>Retest '69</th>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic college</td>
<td>92</td>
<td>88</td>
<td>I &amp; II(1)</td>
<td>(64)</td>
</tr>
<tr>
<td>Secular college</td>
<td>70</td>
<td>70</td>
<td>II(2&amp;3)</td>
<td>(20)</td>
</tr>
<tr>
<td>Protestant</td>
<td>86</td>
<td>91</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Jewish</td>
<td>67</td>
<td>82</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td></td>
<td>Percentage of Total</td>
<td>83</td>
<td>84</td>
<td>(128)</td>
</tr>
<tr>
<td>Physicians '66 &amp; '68</td>
<td>77</td>
<td></td>
<td></td>
<td>(257)</td>
</tr>
</tbody>
</table>

With the statement of Table 8, only Catholics from secular colleges had on both test and retest a lower percentage of disagreement than physicians. While Jewish disagreement increased considerably on the retest, it did not reach a percentage as high as those on both test and retest of Protestants and of Catholics from Catholic colleges.
TABLE 9

AGREEMENT PERCENTAGES

STATEMENT: The cancer patient may consider himself fortunate to have time to prepare for death rather than having to face it suddenly.

<table>
<thead>
<tr>
<th>Group Description</th>
<th>Test '67</th>
<th>Retest '69</th>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic college</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion of very much importance</td>
<td>83</td>
<td>76</td>
<td>I</td>
<td>(12)</td>
</tr>
<tr>
<td>Religion of some importance</td>
<td>45</td>
<td>64</td>
<td>II(1)</td>
<td>(22)</td>
</tr>
<tr>
<td>Secular college</td>
<td>65</td>
<td>75</td>
<td>II(2)</td>
<td>(20)</td>
</tr>
<tr>
<td>Protestant</td>
<td>59</td>
<td>45</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Jewish</td>
<td>45</td>
<td>59</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Percentage of Total</td>
<td>63</td>
<td>66</td>
<td></td>
<td>(128)</td>
</tr>
<tr>
<td>Physicians '66 &amp; '68</td>
<td>68</td>
<td></td>
<td></td>
<td>(257)</td>
</tr>
</tbody>
</table>

On the statement of Table 9, Catholics from Catholic colleges who perceived religion as very important had the highest percentage of agreement, followed by Catholics from secular colleges. Those from Catholic colleges who perceived religion as of only some importance, along with Protestant and Jewish students, showed a lower percentage of agreement than the physicians.
TABLE 10

DISAGREEMENT PERCENTAGES

STATEMENT: Therapeutic attempts to control a cancer's progress should continue for as long as the patient can be kept alive.

<table>
<thead>
<tr>
<th>Group Description</th>
<th>Test '67</th>
<th>Retest '69</th>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic college</td>
<td>34</td>
<td>52</td>
<td>I &amp; II(1) (64)</td>
<td></td>
</tr>
<tr>
<td>Secular college</td>
<td>15</td>
<td>45</td>
<td>II(2&amp;3) (20)</td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>23</td>
<td>36</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Jewish</td>
<td>18</td>
<td>23</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Percentage of Total</td>
<td>27</td>
<td>43</td>
<td></td>
<td>(128)</td>
</tr>
<tr>
<td>Physicians '68</td>
<td></td>
<td>57</td>
<td></td>
<td>(96)</td>
</tr>
</tbody>
</table>

In both schools disagreement increased from test to retest on the statement of Table 10. The most notable increase, not evident in the table, was from 9 to 73 percent in the School A group who had attended Catholic college but considered religion of only some importance. Jewish students showed the lowest percentage of disagreement and Catholics the highest, yet not so high as that of the physicians.
TABLE 11
DISAGREEMENT PERCENTAGES

STATEMENT: A patient will not do well unless he has hope of recovery from illness in this life.

<table>
<thead>
<tr>
<th>Group Description</th>
<th>Test '67</th>
<th>Retest '69</th>
<th>Group</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic college</td>
<td>50</td>
<td>58</td>
<td>I &amp; II(1)</td>
<td>(64)</td>
</tr>
<tr>
<td>Secular college</td>
<td>35</td>
<td>40</td>
<td>II(2&amp;3)</td>
<td>(20)</td>
</tr>
<tr>
<td>Protestant</td>
<td>36</td>
<td>41</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Jewish</td>
<td>9</td>
<td>27</td>
<td></td>
<td>(22)</td>
</tr>
<tr>
<td>Percentage of Total</td>
<td>38</td>
<td>47</td>
<td></td>
<td>(128)</td>
</tr>
<tr>
<td>Physicians '66 &amp; '68</td>
<td>51</td>
<td></td>
<td></td>
<td>(257)</td>
</tr>
</tbody>
</table>

Catholics from Catholic colleges showed the highest percentage of disagreement with the statement of Table 11; on retest their disagreement was slightly higher than that of the physicians. Catholics from secular colleges and Protestants were somewhat lower, and Jewish students lowest, in disagreement.

On the following five statements, which elicited fewer differences between groups, the response considered favorable by the investigator tended to be stronger in the students than in the physicians.
STATEMENT: An adult patient can make some satisfactory adjustment to the present possibility of his death.

Of all 128 students, 93 percent agreed at test and 98 percent at retest, as compared with 94 percent of physicians. At retest, agreement of the students was almost unanimous. Catholics had also agreed almost unanimously at first test, while Protestant students rose from 82 and Jewish students from 81 percent agreement, changes consistent in both medical schools.

STATEMENT: The subject of death, if discussed at all with patients, should be left in the hands of priests, ministers, rabbis, and psychiatrists.

Total student disagreement increased from 83 to 91 percent, somewhat higher than the 87 percent for physicians. Groups were on the same level at first test, but in both schools Protestant and Jewish groups rose to almost unanimous disagreement, while under 90 percent of Catholics disagreed at retest.

STATEMENT: Dealing directly with a patient's feelings about death is to be avoided.

Disagreement increased in both schools, rising for the total from 73 to 94 percent. No change was seen in Catholic students who had attended secular colleges, those from Catholic high schools remaining at 70 and those from secular high schools at 90 percent disagreement. Catholics from Catholic colleges, Protestant students, and Jewish students disagreed almost unanimously at retest. In both schools the least change was seen in Protestants (from 86 percent) and the greatest change in Jewish students (from 57 percent). Of the 257 physicians, only 76 percent had disagreed.
STATEMENT: A custom of never informing patients about the seriousness of their illness and of avoiding discussion of death is professionally wrong for the doctor.

Students agreed 91 percent at first test and 88 percent at retest. Of the 257 physicians, 86 percent had agreed with this statement.

STATEMENT: Children should be protected from the thought of death.

At both test and retest every student group disagreed more than the physicians, percentages increasing from 79 to 85 for the total, as compared with 60 percent of physicians.

On the following two statements, which also elicited fewer group differences, the response considered favorable by the investigator tended to be somewhat weaker in students than in physicians.

STATEMENT: The doctor must keep hoping for the cancer patient's recovery until the patient dies.

At both test and retest a little over half the students in School B disagreed with this statement. In School A, however, only a third disagreed at first test and only a fourth at retest. Within each school there was no notable difference between groups. Of the 257 physicians, 48 percent had disagreed. Of the student total, 42 percent disagreed at first test and 38 percent at retest.

STATEMENT: Man may someday control by science the genetic factor that causes death.

Protestant and Jewish students in School A showed the greatest increase in disagreement with this statement, raising total percentage for Protestant students from 45 to 59 and for Jewish students from 43 to 54. Test-retest
percentages of Catholics were surprisingly lower, 41 and 48 for those from Catholic colleges, 45 and 35 for those from secular colleges. Of the 257 physicians, 60 percent had disagreed with this statement.

The above data show that at retest students were almost unanimous in the following opinions: (1) that an adult patient can adjust to the present possibility of his death; (2) that the subject of death should not be left to priests, ministers, rabbis, and psychiatrists; and (3) that dealing directly with a patient's feelings about death need not be avoided. The first result represents a substantial change in Protestant and Jewish students of both medical schools, while Catholic students had held this opinion almost unanimously as freshmen. The second result represents a change in both schools in all religious groups, who were equal in opinion as freshmen; however, while Protestant and Jewish students rose to unanimity in this opinion, under 90 percent of Catholic students held it at retest. The third result represents a great change in Jewish students, a much smaller change in Catholics from Catholic colleges, and the least change in Protestants; Catholics from secular colleges, averaging at first test between those from Catholic colleges and Protestants, did not change toward unanimity. These three opinions were held respectively by 94, 87, and 76 percent of physicians; the corresponding nearly unanimous student percentages are 98, 91, and 94.

According to the above data, test groups did not differ on the following opinions: (1) that a custom of never informing patients about the seriousness of their illness and of avoiding discussion of death is professionally wrong; and (2) that children need not be protected from the thought of death. The
first opinion was held by 86 percent of physicians, and by 91 percent of students at first test and 88 percent at retest. The second opinion was held by only 60 percent of physicians, while for students it rose from 79 to 85 percent.

Differences between religious groups were shown on the following opinions: (1) that a person realizing death is near can maintain mental well-being (Table 8); and (2) that a cancer patient may consider himself fortunate to have time to prepare for death (Table 9). The first opinion all groups except Catholics from secular colleges held more strongly on the retest than the physicians, percentage for the total student group being 84 as compared to 77 for physicians. While this result represents a considerable change in Jewish students, Catholics from Catholic colleges and Protestants held this opinion far more strongly than the others on both test and retest. The second opinion was held much more strongly by Catholic than by Protestant and Jewish students. With the exception of those from Catholic colleges who considered religion of only some importance, who held this opinion just a little more than non-Catholics, three fourths of Catholics held it, two thirds of physicians, and a little over half of Protestant and Jewish students.

A statement intended to endorse extraordinary means of prolonging life (Table 10) brought increased disapproval by all student groups, although not to the level of the 57 percent disagreement by physicians. Catholics rose to about half disagreement, Protestants to a substantially lower, and Jewish students to a still lower percentage. A similar pattern of increased disagreement by all groups was seen on the statement that a patient requires hope of recovery in this life (Table 11). Of Catholics from Catholic colleges, 58 percent disagreed at retest, exceeding the 51 percent disagreement of the
physicians, while disagreement of Catholics from secular colleges and of Protestants was substantially lower, and that of Jewish students very low.

School differences were found in responses to three statements. In School B a little over half the students, at both test and retest, disagreed that the doctor must keep hoping for the cancer patient's recovery until the patient dies. This disagreement had been expressed by 48 percent of physicians. However, while there was no group difference within either school, only a third in School A disagreed at first test and only a fourth at retest. On the other hand, Protestant and Jewish students in School A showed the greatest increase in disagreement that man may someday control by science the genetic factor that causes death, resulting in increases of total Protestant disagreement from 48 to 59 and of total Jewish disagreement from 43 to 54 percent. Of physicians, 60 percent had disagreed. For Catholics from Catholic colleges, disagreement changed from 41 to 48 percent; for those from secular colleges, from 45 to 35 percent. On the statement intended to endorse extraordinary means of prolonging life (Table 10), the School A group from Catholic colleges who considered religion of only some importance had increased its disagreement from 9 to 73 percent.
CHAPTER IV

SUMMARY AND CONCLUSIONS

This thesis analyzed responses of 128 students of the 1971 classes of two midwestern Catholic medical schools to Cancer Attitude Survey Factor III, an opinion scale exploring beliefs about death and immortality. Variances were observed among Catholics of differing educational backgrounds, Protestants, and Jews as to scale scores and changes from freshman orientation in fall, 1967, to spring of sophomore year, 1969. Other attitudinal and background information on these students was incorporated into the study. In view of American society's tendency to deny or avoid the fact of death as an individual human experience, the investigator hoped to gain insight into some bases of medical students' opinions. The Christian victory over death, expected to influence students who chose a Catholic medical school, was a premise of this investigation.

The student entering medical school brings with him his significant past experiences and his reactions to them. These, his individual personal dignity, and his resultant unique personality make his medical education different from that of the next student. Both may acquire the same technical skills, but when and how each applies these will depend on how effectively he acts with the whole of his own unique past. His progress in medicine, like the progress of the medical profession itself, will depend on application of old relationships to new situations. If the old relationship that comes to mind in a particular
clinical situation is colored by a striking episode that has left a deep impression in his personality, it may help or hinder his effectiveness in that situation.

A presumption in our American culture is that the patient's physical problem can be solved by the physician's application of scientific method. If a patient is not cured, the spoken inference often is simply that physicians should know more—the implication being that, if they did, there would be no chronic illness and no death.

In one study a group of sophomore medical students expressed satisfaction that the problem of death could be narrowed down to keeping the heart beating, the lungs breathing, and the brain unharmed. Experience soon revealed to some of these students the uncertainties surrounding death and physicians' limitations of knowledge and lack of control over death.

Responses to one statement in this present study revealed strikingly to the investigator how a scientific orientation can cause man to make presumptions contrary even to experience of his own nature. The CAS statement "Man may someday control by science the genetic factor that causes death" was intended as a clumsily masked reference to the disorder in man's nature due to his original disobedience to God. When man in his pride chose to experience evil as well as good, he chose for his inheritance the physical consequences of this abuse of freedom—illness, death. Psychiatrists have observed that


26 Ibid., pp. 216-7.
man in his unconscious perceives himself as immortal and death as a malicious intervention from outside associated with a bad act calling for punishment.27 Divine revelation is in complete accord with this observation. Man shifted the blame to woman, and woman to the serpent; but man brought death upon himself, and it has never seemed proper to him since. That is because God never intended death for man; it is not in accord with his spiritual nature, made in the image and likeness of God, capable of knowing universals that transcend time and space. This doctrine of man's fall from original justice, then, while a matter of faith, comes as no surprise to human reason. It is obvious to all men, and certainly no less to the physician, that all is not as it should be in the nature of man.

Frequently it is observed that a child views death as impermanent.28 Perhaps this is because a child is more receptive to God's poetry in nature than to science. To the mature Christian, also, nature's autumn death and spring rebirth are Calvary and Resurrection. It is in Christ that man's integrity is restored and the Creator reveals what He has in mind for all men from the beginning. Only this mystery can satisfy the fact that man sees no upper limit to himself.

Perhaps any statement beginning "Man may someday" should not have been expected to be read through before eliciting agreement. In any case, it was surprising that fewer than half of Catholic students disagreed, while Protestant and Jewish students, especially in School A, approached the 60

28 Ibid., p. 3.
percent disagreement of the doctors. Unless this result should be attributed to the poor quality of the statement, it may be inferred that Catholic students are not immune from a modernism which can hold one opinion by faith and its opposite by science. Catholic students did seem more concerned with a patient's need to prepare for death. They also seemed to oppose more strongly than Protestant students, and still more strongly than Jewish students, the tendency to prolong death and the idea that a patient requires hope of recovery in this life.

Of the 128 subjects, 84 were Catholic, 22 Protestant, and 22 Jewish. Religion was admitted to be of very much importance in a person's life by 58 percent of Catholic, 41 percent of Protestant, and 27 percent of Jewish subjects. Between 4 and 5 percent of Catholic or Protestant subjects and 11 percent of Jewish subjects perceived religion as of only a little importance.

There was no evidence of difference between the two medical schools in analyses of variance on the opinion scale, and only in the large Catholic group could a significant change be observed from test to retest. While remaining significantly highest of the religious groups on belief in personal immortality and in acceptance of and preparation for death, Catholic students tended to be somewhat less positive in this belief as sophomores than as freshmen.

Catholics from Catholic colleges who perceived religion as very important manifested on Factor III far stronger belief in personal immortality and in acceptance of and preparation for death than Catholics who perceived religion as of only some importance or who had attended secular colleges. There was no evidence that attendance at Catholic high school made a difference in Factor III results of Catholics from secular colleges.
Protestants scored similarly on Factor III to Catholics from Catholic colleges who considered religion of only some importance—very significantly lower than those who considered it very important. Jewish students scored yet very significantly lower than Protestants, manifesting disbelief in personal immortality and in acceptance of and preparation for death.

Jewish students changed most to reach the level of Catholics and Protestants in support of openness to dealing with death and recognizing a patient's ability to do so. While in the same direction Protestant students showed more change than Catholics on the separate statements, on two statements upholding patients' inner resources they were consistently high on both first test and retest.

Especially on the retest, students expressed stronger belief than doctors in the need to approach the subject of death. Whether this represents a difference between generations, or whether the students will change in the direction of the doctors, remains to be seen. Dr. Ross observed that medical students were most cooperative in her study with dying patients, while the physicians in training seemed less ready to become involved the farther along they were in their training.29 Young physicians with meaningful personal experiences related to death were cooperative, as were some older physicians with realistic attitudes.30

The reflective physician will regard death as a mystery of his own and the patient's being rather than as a frustration of his own and the patient's function. The Calvinist influence in our society suggests that work, active

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29 Ibid., p. 218.
30 Ibid., p. 219.
mastery of a situation, is the measure of a man's worth. As a result, both doctor and patient feel compelled to produce according to what they think others demand from them. Beyond his response to the functional demands made upon him, the reflective doctor will respond to an inner demand to transcend the present situation and his function in it. He will be unwilling to limit himself to the definition "doctor," since what he is is greater than what he does.

In the doctor-patient relationship, spiritual values are implicit in what is said, in what is not said, in what is done, in what is not done. The essential trust exerts a mutual influence, since experience of truth deepens realizations in both. Hope is necessary, but not necessarily of recovery; hope too is transcendent. The dying person is a living person, dynamic rather than static. The patient's present real situation is his opportunity for effective living. Some terminal patients freed from fighting for physical survival have been drawn closer to others by accepting death. Dying can be an integrative experience in which long-felt problems are solved for the patient. Unlike the angel, man has his being a little at a time and reaches his totality only at death.

One may object that a society rapidly descending to destruction on the slippery rungs of contraception, abortion, and euthanasia had better not be confronted with affirmation of a man's right to die. However, it follows

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33 Ibid., p. 197.
paradoxically that a society with so little regard for the mystery of being will have no regard for the mystery of dying. And it is only by accepting the death sentence he has brought upon himself that man can find the life he is intended for. Dedicated to life, the responsible physician recognizes the limits of his profession and, to make death itself bearable, withdraws adjuvant therapy when it is no longer effective.\textsuperscript{34}

The Factor III statement recommending "detachment from the things of this world" had low stimulus weight. It sounds more like Thomas à Kempis than like Vatican II, which emphasized the basic goodness of the world. This implies no contradiction, however, for if the world were not good and attractive there would be no need to detach oneself from it. As it is, death requires this detachment and wisdom anticipates it. Dr. Ross describes such detachment in a patient at the final stage of acceptance.\textsuperscript{35} This stage, described as an existence without fear and despair, she observed in the majority of patients at death.\textsuperscript{36}

If the instrument of this study can be considered a measure of intrinsic faith, then Catholic college education was a most effective influence in Catholic medical students. Catholic high-school education, when followed by attendance at secular college, was observed to be less effective. It was evident from all results that, despite some current theological assumptions to the contrary, religion is meaningful to the believer in proportion as it solves

\textsuperscript{35}Ross, \textit{op. cit.}, p. 102.
\textsuperscript{36}\textit{Ibid.}, p. 106.
the problem of death. True presence of the Risen Christ in the Eucharist is a Catholic's tangible assurance of his own resurrection from the dead.

While belief in personal immortality should mean that these medical students have a positive attitude toward death, it unfortunately may not guarantee their positive attitude toward the dying. Accomplishment of the desired effect in a dying patient is more dependent on the doctor's sensitivity and positive approach to the patient's dynamics than on his own religious orientation. Openness to the potential of the patient apparently does not depend on content of belief.\(^{37}\) In this particular clinical situation, as God's instrument, any doctor can resemble Him by becoming somewhat more artist than scientist, more poet than mechanic.

Positive changes on some responses by Protestant and Jewish subjects did seem to reflect the environment of a Catholic medical school. No breakdown was available on Protestant or Jewish denominations in this study, nor would the small number in each group have permitted consideration of these. Results should be compared with those of students participating in the Cancer Attitude Survey at secular medical schools. Choice of a Catholic medical school may well define a population of Protestant and Jewish students as well as of Catholics.

The senior retest in spring, 1971, will reveal more about the nature of the changes observed in this study. Of particular concern will be whether belief in life after death continues to decrease in Catholic medical students. With increasing orientation to the mysteries of life and death, science and

faith complement each other more and more. If to some they seem apparent rivals, it is only because man made himself a paradox by originally rejecting his own creaturehood. The more now he recognizes the mystery of that basic dependence on God, the greater his human and divine potential in Christ; the more empty he becomes, the more full; finally, reduced to nothing in death, he becomes everything.
BIBLIOGRAPHY

A. BOOKS


B. PROCEEDINGS


C. PERIODICAL ARTICLES


Knight, James A. "A Study of Religious Beliefs and Attitudes of Senior Medical Students." Journal of Medical Education, XXXVI (Nov., 1961), 1557-64.


D. NEWSPAPER ARTICLES


DIRECTIONS

In determining how doctors develop the attitudes they hold, opinions at every level of education and experience are needed. Your opinion at your present stage of experience is important. On the following pages are statements that have been made by practicing physicians, medical students, and other persons. Some of these statements may not apply to you directly, but where you have any opinion at all please indicate it according to the following instructions.

To the right of each statement is a series of squares:

<table>
<thead>
<tr>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

NEUTRAL

-4 -3 -2 -1 0 +1 +2 +3 +4

DECIDE FIRST WHETHER YOU AGREE OR DISAGREE WITH THE STATEMENT.

If you AGREE, check +1, +2, +3, or +4 according to your degree of agreement, +4 indicating strongest and +1 mildest agreement.

If you DISAGREE, check -1, -2, -3, or -4 according to your degree of disagreement, -4 indicating strongest and -1 mildest disagreement.

Use squares +4 and -4 only if you agree or disagree ABSOLUTELY.

Try to make a choice of agreement or disagreement for every statement, but if this is impossible check the 0 square.

It is very important to the study that you do not omit any item. There are no right or wrong answers, so answer according to your opinion.
1. Complete history and physical is usually unnecessary in everyday practice.

2. Any psychological stress on a patient should be avoided.

3. Proctoscopic examinations should be required in routine physical examinations despite their difficulty for the doctor and discomfort for the patient.

4. A man can be happily reconciled to belief in his own nonexistence after death.

5. Pelvic exenteration is such a mutilating procedure and has such a low cure rate that there is very little indication for its use.

6. Knowledge of a dreaded prognosis is detrimental to the patient.

7. The smaller the cancer, the better the chances are for cure.

8. The dying patient has to be kept happy since he has nothing to look forward to.

9. Too often doctors are so busy working with sick people that they can't be expected to do screening procedures and routine complete physical examinations on all who walk into their offices.

10. The harmful reaction of a patient to the news he has cancer usually overshadows the good of his being told.

11. The doctor doesn't have time to communicate much with his patients.

12. A person's immortality consists in lingering on in some way through material goods, example, reputation, offspring.

13. Only some cancer patients should be treated aggressively.

14. Since it is hard enough to do a good job on the cancer, it is not wise to risk having to deal with a depressed patient by telling him his diagnosis.

15. Some doctors are so pessimistic about the outlook for cancer patients that they subconsciously avoid making diagnoses of cancer.

16. There is a possibility of a beautiful death for the cancer patient.
17. Every person should have a complete physical check-up annually.

18. The patient would be psychologically damaged by knowing of his incurable cancer.

19. A physician can be so discouraged by the low cure rate of cancer that he will not feel the need to do routine “cancer tests,” especially when he is so busy working with sick people.

20. Those patients who are terminal and have not realized it should be told so that they can prepare spiritually for death.

21. Aggressive treatment of cancer frequently subjects the patient to illness, pain, and expense without much actual benefit to him.

22. The cancer patient may consider himself fortunate to have time to prepare for death rather than having to face it suddenly.

23. The subject of death, if discussed at all with patients, should be left in the hands of priests, ministers, rabbis, and psychiatrists.

24. By detachment from the things of this world a person can have a more real and effective relationship with others and a readiness for death.

25. Patients with cancers of low five-year survivals (e.g., esophagus, lung, stomach, pancreas) are not improved by aggressive treatment.

26. A patient generally deteriorates if he knows he has cancer.

27. Therapeutic attempts to control a cancer’s progress should continue for as long as the patient can be kept alive.

28. A person should live out his life without concerning himself that death will come.

29. Radical surgery for cancer is rarely indicated in patients over 70 years of age.

30. A patient will not do well unless he has hope of recovery from illness in this life.

31. Children should be protected from the thought of death.

32. To be realistic a man has to accept that he cannot exist after death.

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ACORN 2930
33. Obtaining routine Pap smears is more the patient’s responsibility than the doctor’s.

34. Experience shows that, since cancer patients who say they want to know their condition have adverse reactions to knowing, patients do not really want to know they have cancer.

35. In patients with prostatic cancer the results of estrogen therapy are so good that if side effects occur they should be disregarded.

36. Man may someday control by science the genetic factor that causes death.

37. No one who realizes he is going to die in the near future can remain in a state of mental well-being.

38. X-ray therapy gives significant relief of pain caused by metastatic bone tumors.

39. Anxiety in cancer is relieved when physical pain is relieved.

40. Dealing directly with a patient’s feelings about death is to be avoided.

41. The choice of radical procedures in treatment of cancer can be decided on the basis of statistics.

42. If presence of cancer seems likely, it is usually wise to tell the patient of this possibility.

43. Doctors’ attitudes are influenced more by personal experience with a few cases than by statistics and generalizations.

44. Trying to communicate with relatives of an incurable cancer patient can take a lot of the doctor’s energy that should be spent in trying to cure the patient.

45. It is better not to use the word CANCER when answering a cancer patient about his condition.

46. Amputation of an extremity may be well tolerated physically but is frequently psychologically crippling.

47. An adult patient can make some satisfactory adjustment to the present possibility of his death.

48. The doctor must keep hoping for the cancer patient’s recovery until the patient dies.

49. In most cases the course and fate of cancer is unchanged by the doctor’s intervention.
50. A custom of never informing patients about the seriousness of their illness and of avoiding discussion of death is professionally wrong for the doctor.

51. The doctor who withholds a patient’s diagnosis from him does so because he has been severely struck by the bad effect of telling that diagnosis to other patients.

52. In only a minority of cases is loss of a breast a major psychological problem to the patient.

Below are some incomplete sentences. Please complete them with the first thought that comes to your mind.

53. Cancer is ____________________________________________________________

54. Since the doctor can perform screening procedures on hundreds of patients without discovering even one cancer, ____________________________________________________________

55. As an attempt to cure some cancer patients, mutilative surgery ____________________________________________________________

56. Dealing with cancer patients affects most physicians by ____________________________________________________________

57. Check which statement is more true: 
   a. Cancers of poor prognosis (e.g., lung and stomach) metastasize so early that any diagnoses are too late.
   b. For cancers of poor prognosis (e.g., lung and stomach) great efforts should be made to make early diagnoses before they have spread.

58. The increasing use of insecticides, food additives, and other potent chemicals ____________________________________________________________

59. The general practitioner ____________________________________________________________

60. The specialist ____________________________________________________________
APPROVAL SHEET

The thesis submitted by Jean F. Gagan has been read and approved by two members of the faculty of Loyola University.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

January 18, 1971

Sister Mary Constantine, S.J.