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Attitudes toward Euthanasia and Suicide for the Terminally Ill: An Updated Analysis

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ATTITUDES TOWARD EUTHANASIA AND SUICIDE FOR THE TERMINALLY ILL: AN UPDATED ANALYSIS

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Replication of Monte's (1991) analysis of euthanasia and suicide correlates was the focus of this study. In addition, a right to die index was created and results were compared to the replication findings. The data used in the analyses were from the 1985 and 1991 General Social Surveys.

Cross-tabulation and multiple regression analysis were conducted to determine: (a) whether euthanasia and suicide approval increased significantly between 1985 and 1991, (b) which variables were significant predictors of euthanasia and suicide attitudes, (c) whether changes had occurred between 1985 and 1991, and (d) whether results obtained using the right to die index as the dependent variable differed from results of the replication.

Euthanasia and suicide approval increased significantly between 1985 and 1991. Attendance at religious services, race, and attitude toward suicide remained significant predictors of euthanasia attitudes in 1991. Age, attendance at religious services, education, and political identification remained significant predictors of suicide attitudes in 1991. Results using the right to die index as the dependent variable did not differ substantially from the results obtained from the replication.

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CHAPTER I

INTRODUCTION

Euthanasia and suicide for those who are terminally ill have become salient issues in modern U. S. society. Euthanasia and suicide have become prominent as a result of medical advances, a rapidly growing older adult population, societal desire to die with dignity, and mass media coverage of right to die issues. Due to medical advances and the greying of the population, we have a society in which more people are living with terminal illnesses. Many of those suffering are content living with their illness and the treatment that goes along with it. Others, however, are not content and want to take their life, either by themselves or with the help of another. States are being forced to confront and resolve right to die issues. For example, in Michigan, Jack Kevorkian, a retired pathologist, has assisted in the deaths of 20 people, prompting the governor and the state legislature to ban assisted suicide until further review of the issue. Furthermore, the states of Washington and California have had euthanasia-type proposals on their 1991 and 1992 ballots respectively. Although both were defeated, over 40% of voters in Washington supported the proposal, making it apparent that the debate and fight for the right to die had not been resolved.

Should people suffering from terminal illness have the legal right to take their own lives? Should physicians be legally permitted to take the life of a patient who asks to be euthanized? These

are important questions that need to be examined, as public opinion will likely play a significant role in policy formation. However, of equal importance, especially to the social sciences, is determining the characteristics of those who either approve or disapprove of euthanasia and suicide. While past research has examined both overall public opinion and the characteristics of euthanasia and suicide supporters, the most recent analysis was conducted using 1985 data. Since that time, euthanasia and suicide have become even more prominent, and therefore an updated analysis is worthy of investigation.

Reasons for a Replication

While reasons given above seem substantial enough to support an updated analysis of euthanasia and suicide attitudes, a brief examination of the two previous studies on which the current analysis is based, will lend further support.

The first person to analyze euthanasia and suicide attitudes among a representative national sample was B. K. Singh (1979). Singh's findings were based on data from the 1977 General Social Survey (GSS).

Singh reported, in 1977, that approximately 62% of the respondents approved of euthanasia, and approximately 40% approved of suicide for persons with terminal illness. Singh (1979) also concluded that those who approved of euthanasia were likely to be white, to attend religious services infrequently, to be less religiously committed, and to approve of suicide for the terminally ill. Singh

(1979) further concluded that those who approved of suicide for terminally ill persons were likely to be white, to live in urban rather than rural areas, to attend religious services infrequently, to be less committed to religion, to characterize themselves as liberals, and to support freedom of speech for atheists, militarists, and communists.

Monte (1991) analyzed the 1985 General Social Survey and found that numerous changes had occurred between 1977 and 1985. Monte (1991) found that the overall increase in euthanasia and suicide approval from 1977 to 1985 was not significant. In 1985, approval of euthanasia and suicide were 66% (up from 62% in 1977) and 46% (up from 40% in 1977), respectively. Monte, however, did find that changes in the predictive significance of some of the independent variables occurred. While race, attendance at religious services, and attitude toward suicide remained significant predictors of euthanasia attitudes in 1985, religious commitment was no longer significant. However, two variables, political identification and respondents' views toward freedom of speech, which were not significant predictors in 1977 became significant in 1985. Monte concluded that in 1985 people likely to approve of euthanasia were those who were white, who attended religious services infrequently, who characterized themselves as liberals, who approved of free speech for atheists, militarists, and communists, and who approved of suicide for the terminally ill. With respect to attitudes toward suicide for the terminally ill, Monte (1991) found that attendance at religious services, religious commitment, political identification, and

respondents' views toward freedom of speech remained significant, but race and place of residence were no longer significant in 1985. However, age and education became significant in 1985. People who were older and who were less educated were less likely to approve of suicide than those who were younger and more educated.

The results reported by Singh (1979) and Monte (1991) indicate that while approval of euthanasia and suicide increased between 1977 and 1985, the increase was not significant. In addition, the predictive significance of a number variables on euthanasia and suicide attitudes has been variable between 1977 and 1985. It is conceivable, given the steady increase in euthanasia and suicide approval since 1940, along with terminal illness and lingering death becoming more common, that approval may have increased by significant amounts, and that changes in the importance of the social indicators may have occurred again. It is the intention of this work, to replicate the analysis carried out by Singh (1979) and Monte (1991) to determine if such changes have taken place.

To determine the amount of change (or stability) in euthanasia and suicide approval, and of the selected independent variables on euthanasia and suicide attitudes, this study used data from the 1991 GSS. The 1991 GSS was used because it also contained the variables used by Monte (1991), and it is the most current survey available.

Beyond the Replication

While Singh (1979) and Monte (1991) each examined the attitudes toward euthanasia and suicide for terminally ill persons, neither of

them, nor anyone else has combined the two indicators to measure a general attitude toward the right to die. This is surprising, given the similarities between the two. First and foremost, both items in the GSS examine attitudes toward euthanasia and suicide for only those who are terminally ill. In addition, both euthanasia and suicide were measured nearly the same, the only difference was that a physician committed the act which killed the terminally ill person, as in the case of euthanasia. A terminally ill individual took their own life in the case of suicide. Lastly, regardless of who commits the act that brings about death, both concepts relate to an individual's right to die, as the intention and final outcome are the same. Therefore, the indicators of euthanasia and suicide for the terminally ill were combined to form a right to die index. The same independent variables were used to examine their relationship(s) with the right to die index. The results using the index as the dependent variable were compared to results from the replication to examine differences based on the measurement of the dependent variable.

CHAPTER II

REVIEW OF THE LITERATURE

This section will review the empirical literature on attitudes toward euthanasia and suicide for the terminally ill. First, the study conducted by Kalish (1963) is reviewed briefly, as he was the pioneer in studying death attitudes. Second, the studies by Singh (1979), Ostheimer and Moore (1981), and Monte (1991) are examined as the current study represents the fourth in the replication sequence. Finally, the remaining empirical research is reviewed to supplement the findings.

Examination of Kalish (1963)

Kalish (1963) was one of the first to study death attitudes, including attitudes toward euthanasia, abortion, capital punishment, and war-time killing. He surveyed students, and found a number of variables to be related to euthanasia attitudes. Kalish (1963) found that approval of birth control, abortion, and euthanasia were significantly and consistently correlated with one another. He also reported distinct differences in euthanasia approval based on religious affiliation, where Catholics were the least accepting, followed by Protestants, who were in turn followed by Jews, and lastly Atheists/Agnostics. Kalish (1963) also reported no significant relationships between attitude toward euthanasia and either the age or sex of the respondent. Although Kalish (1963) was the pioneer in

examining death attitudes, his findings were not generalizable beyond the student population he studied. Other researchers, as stated above, have examined the attitudes of the general public, and their findings are reviewed below.

Previous Research on Which the Current Analysis is Based

A number of researchers who have examined the attitudes of the general public used data from the General Social Survey (Finlay, 1985; Jorgenson & Neubecker, 1981; Monte, 1991; Ostheimer & Moore, 1981; Singh, 1979; Ward, 1980).

Singh (1979), Ostheimer and Moore (1981), and Monte (1991) all examined the same variables, as they replicated each others work. Since Singh (1979) was the pioneer in studying euthanasia and suicide attitudes using the GSS and provided the basis for the other's replications, his findings will be examined thoroughly first, followed by Ostheimer and Moore (1981) and finally Monte (1991).

Singh's Analysis Using 1977 Data

Singh (1979) examined data from the 1977 GSS. Twelve independent variables were chosen based on their previous usage in examining death and euthanasia attitudes (Beswick, 1970; Kalish, 1963). The variables analyzed by Singh (1979) included: region, age, race, sex, place of residence (metropolitan/nonmetropolitan), education, family income, religious affiliation (Catholic/Non-Catholic), attendance at religious services (ranging from never to several times a week), strength of religious commitment (self-reported as strong/not

strong), political ideology (self-reported liberal, moderate, or conservative), and a freedom of expression scale. The freedom of expression was a summed index of attitudes towards freedom of speech for atheists, militants, and communists. Respondents who would allow freedom of speech for all three were classified as permitting total freedom of expression, whereas, those who disapproved of freedom of speech for all three were classified as allowing no freedom of expression. Those who permitted freedom of speech for one or two groups made up the middle category (Singh, 1979). The two ideological dimensions, political ideology and freedom of expression, were included,

> based on the premise that attitudes toward euthanasia and suicide constituted part of one's political ideology and were related to attitudes toward freedom of expression. (p. 249).

The same variables were used to examine respondent's attitudes toward suicide.

Regional variations in euthanasia and suicide approval are shown in Table 1. As indicated in Table 1 below, wide geographic variations existed. Respondents from the West North Central region had the lowest approval rating for euthanasia (53%), while respondents in the Pacific region had the highest rate of approval (79%). The approval rating for suicide ranged from a low of 29.4% in the West South Central region to a high of 56.5% in the Pacific region. On the basis of these results, Singh (1979) concluded that geographic regions with larger urban populations were more likely to approve of euthanasia and suicide than those regions characterized as more rural. Therefore, Singh used only a metropolitan/non-metropolitan dichotomy in

Table 1

Regional Variations in Approval of Euthanasia and Suicide for Terminally Ill Persons

Geographic Region	No.	Percent Approving* Euthanasia	Suicide
New England.....	56	71.9	48.2
Middle Atlantic.....	212	60.4	45.3
East North Central.....	324	64.8	39.2
West North Central.....	100	53.0	31.0
South Atlantic.....	287	55.0	30.0
East South Central.....	65	56.9	32.3
West South Central.....	109	54.1	29.4
Mountain.....	59	67.8	44.1
Pacific**.....	186	79.0	57.5
All regions.....	1,398	62.4	39.6

*Percentages computed after exclusion of missing responses.
**Excluding Alaska and Hawaii.

subsequent analyses.

Singh used cross-tabulation analysis (see Tables 2 and 3) and found a number of variables to be significant predictors of euthanasia and suicide attitudes.

In examining the variations in the independent variables below, Singh reported that age is inversely related to attitudes towards euthanasia and suicide. This finding is relatively consistent with

Table 2

Percentage Approval of Euthanasia and Suicide for Terminally Ill Persons by Selected Independent Variables

Variables and Categories	No.	Percentage Approving Euthanasia	Suicide
Age*			
18-25	214	72.4	53.7
26-34	278	67.6	48.9
35-44	256	60.2	36.3
45-54	231	60.6	38.1
55-64	217	58.5	30.0
65 +	202	53.5	27.7
Sex*			
Male	637	67.5	43.6
Female	761	58.1	36.1
Race*			
White	1,238	65.4	42.0
Black	160	39.4	20.6
Place of Residence**			
Metropolitan	923	63.6	43.3
Non-metropolitan	475	60.0	32.2
Education*			
< High School	477	56.6	31.5
High School Graduate	691	64.3	41.2
> High School	226	69.5	51.8
Family Income*			
$9,999 or less	463	58.3	33.9
$10,000 to $19,999	475	66.7	44.6
$20,000 or more	356	64.6	42.1

*Chi-square significant at the 0.05 level for the variables indicated for both euthanasia and suicide.

**Chi-square significant at the 0.05 level for suicide, but not for euthanasia.

other reports on euthanasia attitudes (Finlay, 1985; Ostheimer, 1980;

Ward, 1980). It is conceivable that the differences in euthanasia and suicide approval are partly due to the threat that euthanasia and suicide (and the possible abuse of each) pose to older people. Ward (1980) also argues that older respondents' greater disapproval of euthanasia can be explained by their lower educational attainment and their higher religiosity.

Singh reported significant differences in euthanasia and suicide approval between males and females. Males were more likely than females to approve of both euthanasia and suicide. Others have reported similar findings (Finlay, 1985). Ward (1980), for example, found through path analysis, that females are less likely than males to accept euthanasia and suicide because of their greater religiosity.

Racial differences exist for both euthanasia and suicide (Table 2). Whites approve of both euthanasia and suicide at higher rates than do Blacks. Ward (1980), and Ostheimer (1980) found that blacks were less accepting of euthanasia due to their greater religiosity and lower educational attainment. Singh (1979), however, found race to be important in predicting euthanasia attitudes independent of education. Finlay (1985) argued that it is possible that racial differences in euthanasia acceptance exist, because non-whites are skeptical of legalized euthanasia (and possible abuses) because it gives power to physicians to make decisions that could have genocidal implications.

Singh (1979) found place of residence (measured in a metropolitan/non-metropolitan dichotomy) to be significant for suicide, but

not euthanasia. Respondents living in metropolitan areas were more likely to approve of suicide than those living in non-metropolitan areas.

Singh did find that education was directly related to euthanasia approval. Those who had the highest educational attainment approved of both euthanasia and suicide at higher rates. Other researchers have reported similar findings (Finlay, 1985; Ostheimer, 1980; Ward, 1980).

Significant differences in attitudes were also found on the basis of family income. Interestingly, those in the upper category approved of euthanasia and suicide at a slightly lower level than those in the middle category.

Religious affiliation, as measured by a Catholic/Non-Catholic dichotomy, was insignificant for both euthanasia and suicide (Table 3 below). However, significant differences on the basis of both religious commitment and attendance at religious services were found for both euthanasia and suicide. Those who were strongly committed to their beliefs approved of euthanasia and suicide to a lower degree than those whose religious commitment was not strong. Respondents whose attendance at religious services was high approved of euthanasia and suicide at rates lower than those whose attendance was moderate. However, those whose attendance at religious services was categorized as moderate approved of euthanasia and suicide at rates lower than those whose attendance was low. Other researchers have reported similar results (Ward, 1980). Finlay (1985), for example, argued that beliefs that life is sacred and that only God

Table 3

Percentage Approval of Euthanasia and Suicide for Terminally Ill Persons by Selected Independent Variables

Variables and Categories	No.	Percentage Approving Euthanasia	Suicide
Religious Affiliation			
Catholic	343	61.8	37.3
Non-Catholic	1,050	62.7	40.1
Religious Commitment*			
Strong	623	48.2	25.7
Not Strong	750	74.3	50.7
Religious Attendance*			
Low	313	79.6	55.0
Moderate	679	66.0	43.7
High	401	42.9	20.0
Political Identification**			
Liberal	397	66.3	47.4
Moderate	516	64.9	39.7
Conservative	427	59.0	33.7
Freedom of Expression*			
Total	548	71.8	54.9
Some	464	64.0	37.9
None	341	49.0	19.4
Suicide Approval			
Yes	553	87.3	N/A
No	845	46.0	N/A
Euthanasia Approval			
Yes	872	N/A	55.4
No	526	N/A	13.3

*Chi-square significant at the 0.05 level for the variables indicated for both euthanasia and suicide.

**Chi-square significant at the 0.05 level for suicide, but not for euthanasia.

has the power to take life are more likely to be held by those who are more committed to their religion and among those who frequently attend religious services, and therefore explain the lower level of acceptance of euthanasia and suicide.

While self-reported liberals approved of both euthanasia and suicide at higher rates than moderates, who in turn approved of both euthanasia and suicide at higher rates than conservatives, significance was achieved only for suicide.

The freedom of expression index was a significant indicator of both euthanasia and suicide attitudes. Those who approved of total freedom of expression were more likely to approve of euthanasia and suicide than those approving of either limited or no freedom of expression. Moreover, those who believed in limited freedom of expression were more likely to approve of both euthanasia and suicide than those approving of no freedom of expression.

Respondents who approved of suicide for terminally ill persons were also likely to approve of euthanasia. As Table 3 indicates, of those who approved of suicide, 87.3% approved of euthanasia. Interestingly, of those who approved of euthanasia, only 55.4% approved of suicide. According to Monte (1991), the differences may be explained by the fact that having someone else administer death, as in the case of euthanasia, removes some of the moral responsibility from the ill individual. Therefore, people have an easier time accepting euthanasia than self-inflicted death.

To understand the contributions of the above variables on

euthanasia and suicide attitudes, Singh performed a regression analysis, using list-wise deletion. Beta weights for the Singh's model are given in Table 4 below.

Table 4

Comparison of Beta Weights for Singh's Regression Models

Independent Measures	Euthanasia	Suicide
Age	0.03	0.04
Race	0.13*	0.10*
Sex	0.01	0.01
Place of Residence	0.02	0.10
Religious Affiliation	0.02	0.02
Attendance at Rel. Serv.	0.21*	0.14*
Religious Commitment	-0.12*	-0.08*
Education	-0.02	-0.04
Income	-0.07	-0.04
Political Identification	0.02	0.07*
Freedom of Expression	0.08*	0.18*
Suicide	0.31*	N/A
Sample n	1,292	1,292
Total R-square	0.286	0.151

*p = or < 0.05

Examining the beta-weights of his regression model, Singh (1979) found that race, attendance at religious services, religious commitment, and freedom of expression were significant predictors of both euthanasia and suicide attitudes in 1977. In addition, attitude toward suicide was a significant predictor of euthanasia attitudes, and political identification was a significant predictor of suicide attitudes. Furthermore, black respondents, respondents who reported

stronger levels of religious commitment, and respondents who attended religious services more frequently, were less likely to approve of euthanasia. Singh (1979) also reported that respondents who scored lowest on the freedom of expression scale were more likely to oppose euthanasia. Age, sex, place of residence, religious affiliation, education, and income had no direct effects on either euthanasia or suicide attitudes except for their contributions via other variables. Finally, Singh (1979) stated, "inclusion of suicide approval in the model increased the predictive efficiency considerably" (p. 252).

Ostheimer and Moore's Replication Using 1977 Data

The impetus for Ostheimer and Moore's replication of Singh (1979) was the lack of significance of religious affiliation in understanding euthanasia and suicide attitudes. Ostheimer and Moore (1981) hypothesized that important differences based on religious affiliation were hidden when using a Catholic/non-Catholic dichotomy. Their first step, however, was to replicate Singh's work to insure an analogous starting point.

Replicating Singh's methods, and using the same data, Ostheimer and Moore (1981) were able to reproduce the same frequencies, cross-tabulations, and chi-square procedures presented in Tables 1, 2, and 3. When they conducted the regression analysis, however, they were unable to replicate Singh's results (Table 5, below).

Using the same data and list-wise deletion, Ostheimer and Moore (1981) arrived at a different sample size than Singh (1979). They also

Table 5

Comparison of Beta Weights for Singh's (S), Ostheimer and Moore's (1981) Regression Models

Independent Measures	Euthanasia S	Euthanasia O & M	Suicide S	Suicide O & M
Age	0.03	0.01	0.04*	0.05
Race	0.13*	0.10*	0.10*	0.10*
Sex	0.01	0.01	0.01	0.02
Place of Residence	0.02	-0.00	0.10	0.07*
Religious Affiliation	0.02	0.02	0.02	-0.02
Attendance at Rel. Serv.	0.21*	0.14*	0.14*	0.17*
Religious Commitment	-0.12*	-0.10*	-0.08*	-0.10*
Education	-0.02	-0.02	-0.04	-0.05
Income	-0.07	0.00	-0.04	-0.03
Political Identification	0.02	-0.00	0.07*	0.06*
Freedom of Expression	0.08*	0.00	0.18*	0.17*
Suicide	0.31*	0.31*	N/A	N/A
Sample N	1,292	1,196	1,292	1,196
Total R-square	0.286	0.220	0.151	0.164

* p = or < 0.05
S = Singh (1979), 1977 General Social Survey
O & M = Ostheimer and Moore (1981), 1977 General Social Survey

found differences with Singh's reported beta-weights. For example, the beta weight for income, although not significant in either instance, changed from--.07 in the original to .00 in the replication.

More importantly, the freedom of expression index lost all predictive significance in the replicated analysis (Ostheimer & Moore, 1981). Finally, minor differences existed for several other variables (see Table 5).

According to Ostheimer and Moore (1981), with the exception of income and freedom of expression, their overall interpretation remained essentially the same as the one given by Singh (1979). Ostheimer and Moore (1981) stated that the discrepancies in beta-weights could be due to the differences in sample sizes.

Ostheimer and Moore (1981) further stated that due to the difference between their sample size and Singh's (1979), they were unable to precisely test the effect of religious affiliation through the use of dummy variable coding (Ostheimer & Moore, 1981). Therefore, they coded the 1,393 religious affiliation cases into the main NORC categories of Catholic, Jewish, Protestant, No Religion, and Other. Protestant and Other were then collapsed into one category (Protestant). According to Ostheimer and Moore (1981), the reasons given for the collapsing were:

> (1) in order to use all the data; (2) because Singh had collapsed all Non-Catholic categories together; and (3) because the proportion agreeing for both euthanasia and suicide questions was essentially the same. (p. 148)

Ostheimer and Moore (1981) found no significant differences between Jews and respondents with no religious preference on either euthanasia or suicide. Neither were significant differences found between Catholics and all Non-Catholics. However, differences between Protestants and a combined category of Non-religious respondents and

Jews were significant for both euthanasia and suicide questions.

While Singh (1979) led readers to believe that religious affiliation was not important in predicting euthanasia and suicide attitudes, Ostheimer and Moore (1981) found it to be an important variable. Ostheimer and Moore (1981) suggested that the use of dummy variable regression analysis may be better suited for analyzing the complexity of religious affiliation.

Monte's Analysis Using 1985 Data

In 1991, Monte also replicated Singh (1979), this time to examine the amount and the nature of changes in the predictive significance of the independent variables on euthanasia and suicide attitudes during the period 1977 to 1985. In addition, Monte followed Ostheimer and Moore's (1981) suggestion and used dummy variable analysis for religious affiliation. Monte (1991) first examined overall approval of both euthanasia and suicide in 1985. Second, he replicated Singh's (1979) regression model using the 1977 data (he did not replicate the cross-tabulation analysis). Finally, Monte (1991) examined religious affiliations impact on both euthanasia and suicide attitudes.

Monte (1991) reported that although there was an increase in levels of support for euthanasia and suicide between 1977 and 1985, the increase was not significant. Only a 3.1% increase in euthanasia approval occurred between 1977 and 1985. The percentage of those approving of euthanasia in 1985 was 65.5%, up from 62.4% in 1977. Suicide approval increased 39.6% in 1977 to 45.6% in 1985, representing

a 6% increase in suicide approval.

In replicating Singh (1979), Monte (1991) reported beta weights and a sample size identical to that reported by Ostheimer and Moore (see Table 5). He, therefore, used his and Ostheimer and Moore's (1981) results, rather than Singh's as the starting point. Monte next performed a parallel regression analysis on the 1985 data. Table 6 indicates the results of the regression analysis with 1977 data for comparison.

Replication of the euthanasia model revealed all variables which were significant in 1977 remained significant in 1985, except for religious commitment. Table 6 indicates, however, that some variables which were not significant in the original euthanasia model became significant in the updated analysis. Place of residence, political identification, and the freedom of expression index all became significant predictors for euthanasia attitudes in 1985. Age, sex, religious affiliation, education, and income remained insignificant in the 1985 euthanasia model.

In reference to the euthanasia model, Monte (1991) states that

> attendance at religious functions, political identification, freedom of expression, and suicide attitudes prove significant toward the ending of life in this manner was mostly explained [sic] by level of attendance and suicide attitudes (p. 272).

In examining Table 6, it is clear that only race, attendance at religious services and suicide approval are significant in both the 1977 and 1985 samples.

For the suicide model, attendance at religious services, religious commitment, political identification, and the freedom of

Table 6

Comparison of Beta Weights for 1977 and 1985 Regression Models

Independent Measures	Euthanasia 1977	Euthanasia 1985	Suicide 1977	Suicide 1985
Age	0.01	0.05	0.05	0.11*
Race	0.10*	0.08*	0.10*	0.05
Sex	0.01	0.03	0.02	0.03
Place of Residence	-0.00	0.07*	0.07*	0.02
Religious Affiliation	0.02	0.02	-0.02	0.00
Attendance	0.14*	0.11*	0.17*	0.26*
Religious Commitment	-0.10*	-0.04	-0.10*	-0.09*
Education	-0.02	0.01	-0.05	-0.14*
Income	0.00	-0.03	0.03	-0.04
Political Identification	-0.00	0.05*	0.06*	0.09*
Freedom of Expression	0.00	-0.06*	0.17*	0.09*
Suicide	0.31*	0.40*	N/A	N/A
Sample N	1,196	1,201	1,196	1,201
Total R^2	0.220	0.250	0.164	0.222

N/A = not applicable
* $p <$ or = 0.05
Table from Monte (1991)

expression index remained significant in 1985. Race and place of residence, however, lost their predictive significance in 1985, while age and education, insignificant in 1977, became significant.

According to Monte (1991), attitudes toward suicide were predominately explained by attendance at religious functions. Sex, religious affiliation, and income remained insignificant predictors of suicide attitudes in 1985.

Following Ostheimer and Moore's (1981) suggestion, Monte (1991) also carried out a dummy variable analysis for religious affiliation. Overall, all religious groups showed growing acceptance from 1977 to 1985, for both euthanasia and suicide. However, approval of suicide, grew more strongly than approval of euthanasia. Nevertheless, significant differences among religious groups were found with respect to both euthanasia and suicide approval. For example, people with no religious affiliation differed significantly from Protestants for euthanasia and suicide approval in 1977 and 1985. While Jews differed significantly from Protestants in euthanasia approval for 1985 only, they differed significantly from Protestants in suicide approval for both 1977 and 1985. Catholics and Protestants did not differ significantly from one another in any of the models. Monte (1991) concluded that Protestants and Catholics were less likely to approve of euthanasia and suicide than Jews and those in the No religion category. These findings support those of Ostheimer and Moore (1981), which indicate that the use of a Catholic/Non-Catholic dichotomy hides important differences in euthanasia and suicide approval. It should be noted though, while differences in euthanasia and suicide approval exist on the basis of religious affiliation, the use of dummy variable analysis increased the explained variance by less than 2%.

Summarizing Monte's analysis, blacks were less likely to approve of euthanasia. Respondents who report higher levels of church attendance were less likely to approve of euthanasia. Respondents who are liberal, who support freedom of expression for communists, atheists, and militarists, and who approve of suicide for terminally ill persons, were likely to approve of euthanasia. Furthermore, those who were older, who attend religious services frequently, who were more committed to their religious beliefs, who were less educated, who were conservative, and who oppose freedom of speech for either communists, atheists, or militarists, were less likely to approve of suicide.

Other Empirical Research on Euthanasia Attitudes

A number of other researchers have examined death attitudes, including euthanasia attitudes (Adams, Bueche, & Schvaneveldt, 1978; Beswick, 1970; Jorgenson & Neubecker, 1981; Kalish, 1963; Wade & Anglin, 1987) and both euthanasia and suicide attitudes (Finlay, 1985; Ostheimer, 1980; Ward, 1980). However, those of whom examined suicide attitudes did not use it as a dependent variable, but rather examined its impact on euthanasia attitudes. Their findings are reviewed here, to supplement the studies of Singh (1979), Ostheimer and Moore (1981), and Monte (1991).

Coinciding with Singh (1979), Ostheimer and Moore (1981), and Monte (1991), other studies have found that respondents who stated they were strongly committed to their religious beliefs are less

likely to accept euthanasia than people reporting low levels or no religious commitment (Adams et al., 1978; Finlay, 1985; Jorgenson & Neubecker, 1981; Kalish, 1963; Wade & Anglin, 1987; Ward, 1980). Others, have found that those who most frequently attend religious services are also likely to hold negative attitudes toward euthanasia (Adams et al., 1978; Finlay, 1985; Jorgenson & Neubecker, 1981).

While no differences were found when religious affiliation was coded in a Catholic/Non-Catholic dichotomy (Singh, 1979; Ostheimer & Moore, 1981; Monte, 1991), others, including Ostheimer and Moore (1981) and Monte (1991), have reported differences in euthanasia attitudes based on religious affiliation when coded differently. Others have found that Jews and Atheists-Agnostics tend to hold more positive attitudes toward euthanasia than Protestants, who in turn, approve of euthanasia more than Catholics (Beswick, 1970; Kalish, 1963; Ostheimer, 1980; Ward, 1980). Still, others have reported little or no differences in euthanasia attitudes based on religious affiliation (Wade & Anglin, 1987). Beswick (1970) found great differences between Catholics and Others, with Catholics less accepting of euthanasia than the others. Finlay (1985) found that dividing Protestants into subgroups provided insight into differences in euthanasia attitudes among the various Protestant groups. Fundamentalist Protestants were found to have the greatest opposition toward euthanasia, less than half of whom approved. They were followed by conservative Protestants, and in turn by Catholics, liberal

Protestants, Jews, and finally those reporting no religious preference.

Other Demographic Variables

As reported by Singh (1979), Ostheimer and Moore (1981), and Monte (1991), there appears to be racial differences in euthanasia attitudes. Jorgenson and Neubecker (1981) found whites to be more accepting of euthanasia than minorities. Others have reported similar findings (Finlay, 1985; Ostheimer, 1980; Wade & Anglin, 1987; Ward, 1980). Some researchers found that the greater opposition of minorities towards euthanasia is associated with their lower educational attainment and greater religiosity, and that minorities are suspicious about institutionally-controlled decisions regarding death (Finlay, 1985; Ward, 1980).

In a number of studies, no sex differences in euthanasia attitudes have been found (Kalish, 1963; Ostheimer, 1980; Wade & Anglin, 1987). However, others have found males to be somewhat more accepting of euthanasia than females (Beswick, 1970; Finlay, 1985; Jorgenson & Neubecker, 1981; Ward, 1980). This may be due to interaction with other variables. Ward (1980) and Finlay (1985), for example, reported that while females do in fact oppose euthanasia more than their male counterparts, it appears to be the result of their greater religiosity.

Age differences in euthanasia acceptance have also been found. Some researchers, like Singh (1979), have reported that age is inversely related to euthanasia approval (Finlay, 1985; Ostheimer, 1980;

Ward, 1980). Others have reported similar findings (Finlay, 1985; Ward, 1980). However, Ward (1980) found that among older people, those who were more dissatisfied with their lives and more anomic were more likely to accept euthanasia than those more satisfied and less anomic. Still others, have reported that age is insignificant in predicting euthanasia attitudes (Beswick, 1970; Kalish, 1963).

Educational differences have also been found. Those with more education tend to hold more positive attitudes toward euthanasia (Finlay, 1985; Ostheimer, 1980; Singh, 1979; Ward, 1980). While for most, education appears to be a liberating experience, Finlay (1985) found that education made the opposition of fundamentalist Protestants to euthanasia stronger, given that those who maintain their religious preferences, along with higher educational attainment, are especially strong in their religious commitment. Other researchers have reported little or no differences based on educational attainment (Beswick, 1970; Monte, 1991).

According to some researchers, other socioeconomic variables such as income (Ostheimer, 1980; Ward, 1980;) and occupation (Ostheimer, 1980) are related to euthanasia attitudes. Ward (1980) asserts, however, that age, religion, and educational differences are responsible for the impact of other variables related to socio-economic status. As mentioned earlier, Monte (1991) found that income was not significant in predicting euthanasia (or suicide) attitudes.

As reported by Singh (1979), regional variations in euthanasia attitudes have been found. The findings, however, are inconsistent. Adams et al. (1978) reported that a significant relationship exists

between geographic region and euthanasia attitudes. They further reported that respondents in the east are more accepting of euthanasia than those in the Midwest, who in turn, are more accepting of euthanasia than those in the west. However, their finding should be interpreted with caution, as the respondents were students attending the following universities: Brigham Young, Utah State, University of Montana, University of Nebraska, University of Texas, and Florida State and thus are not likely to be representative. Other researchers have found those in the Pacific region to be the most accepting of euthanasia, while those in the south the least (Finlay, 1985).

Researchers have indicated that other death-related issues are associated with euthanasia attitudes. A number of researchers have reported that a permissive attitude toward abortion is correlated with euthanasia acceptance (Beswick, 1970; Kalish, 1963; Finlay, 1985; Ward, 1980). Others have found that those who approve of suicide for terminally ill persons are more accepting of euthanasia (Finlay, 1985; Jorgenson & Neubecker, 1981; Ostheimer, 1980; Ward; 1980). Researchers have also reported that, overall, those who approve of capital punishment are likely to approve of euthanasia (Beswick, 1980; Finlay, 1985; Kalish, 1963; Ward, 1980).

A relationship between euthanasia attitudes and tolerance towards freedom of speech for various out-groups has been found. Some researchers have found that those in favor of free speech are more likely than others to support euthanasia (Finlay, 1985).

As indicated earlier, Monte (1991) found political identification significant in predicting euthanasia and suicide attitudes in

1985. However, Ward (1980) found a slight but significant negative relationship between political conservatism and euthanasia acceptance. The association, however, disappeared when education was controlled.

Conclusion

The literature supports the idea that approval for euthanasia and suicide approval have continued to increase over the years, although the increase has been more dramatic for suicide. Based on the review of the literature, it is also apparent that attitudes toward euthanasia and suicide have been in a state of flux. It is evident that one's attitude toward suicide has been the strongest predictor one's attitude toward euthanasia. Attendance at religious services and race have consistently been significant predictors of both euthanasia and suicide attitudes. However, the predictive significance of a number of variables on both euthanasia and suicide attitudes has been variable between 1977 and 1985.

Research Hypotheses

Based on the review of the literature, research hypotheses were formed. First, given the steady increase in support for euthanasia and suicide for terminally ill persons over the years, (H_1) it is predicted that a significant increase in euthanasia approval will occur between 1985 and 1991. In addition, (H_2) it is predicted that a significant increase in suicide approval will occur between 1985 and 1991.

Second, given the fact that Monte found the increase in suicide approval to be greater than euthanasia approval between 1977 and 1985, (H_3) it is predicted that suicide approval will increase more than euthanasia approval between 1985 and 1991.

As research by Singh (1979) and Monte (1991) has indicated, approval of suicide for the terminally ill was the strongest predictor of euthanasia attitudes. Therefore, (H_4) it is predicted that approval of suicide for the terminally ill will remain the strongest predictor of euthanasia approval in 1991.

As research by Singh (1979) and Monte (1991) has indicated, attendance at religious services was the strongest predictor of suicide (for the terminally ill) attitudes. Therefore, (H_5) it is predicted that attendance at religious services will remain the strongest predictor of suicide approval in 1991.

CHAPTER III

METHODOLOGY

Dataset

The data for this study were taken from the 1985 and 1991 General Social Surveys (GSS). The GSS is conducted annually by the National Opinion Research Center (NORC) at the University of Chicago. The data sets were purchased from Microcase, Inc.

Survey Instrument and Study Design

The General Social Survey was designed to represent the varied interests of social scientists and to assist researchers who are not affiliated with major research institutions. Question selection for the GSS is determined by two primary elements. First, questions from previous national surveys were used (e.g., Gallup) to enable researchers to measure social change or stability. Second, a number of social scientists reviewed the draft questionnaire and suggested additions and deletions of items and/or questions. Due to the varied interests of social scientists and the vast number of questions that were deemed important, many questions were placed on the survey on a rotation basis. While the main core of questions were asked each year, those questions that were on rotation were asked two of every three years. This design enabled a larger number of questions to be asked, without overburdening respondents. The rotation design was used from

1972 to 1988. However, since no surveys were conducted in 1979 and 1981, the rotation design left four year gaps in the data for many variables and six year lapses occurred for bivariate analysis between items from different rotations. Indeed, according to Davis and Smith (1992), the rotation design left gaps and lapses even when surveys were conducted annually.

To improve upon this situation, in 1988 the GSS switched from the rotation design to a split-ballot design, under which items on rotations one, two, and three are completed on random sub-samples within each survey. Each sub-sample represents one-third of the total sample. Items that were permanent on the rotation design are asked of all respondents. Under the split-ballot design, all questions are asked of two-thirds of the total sample, and no gaps or lapses appear as they did before.

Sampling

The General Social Survey employs a full-probability sampling of households in the continental United States. People living in institutions or group quarters and those under 18 years old are excluded. In 1985, this sampling covered about 97.3% of the resident population (Davis & Smith, 1992). In addition, interviewing is restricted to adults who can be interviewed in English. According to Davis and Smith (1992), 97-98% of the adult population is English-speaking. Therefore, selection criteria based on language has little or no impact on the sample's representativeness.

The selection of respondents within the households is determined with the use of a Kish table. The Kish table procedures have the interviewer list all eligible people from youngest to oldest, and based on a predetermined criteria (like last number in their street address), the criteria informs the interviewer to select the nth person on the list. "This ensures that all potential respondents within a household have an equal probability of selection" (Davis & Smith, 1992, p. 36).

Data Collection

Data were collected by NORC's trained interviewers. The interviews are conducted face to face. Prospective respondents are first notified, via mailed letter, that they have been selected into the GSS sample. The letter states that a interviewer will contact the household to conduct an interview. Information about NORC and the GSS is included in the mailing. Each interview lasts approximately one and a half hours. Monitoring and validation of a percentage of each interviewers completed surveys are done. Supervisors examine each completed interview to ensure that it is accurately and completely filled-out. In addition to monitoring field efforts and data quality, supervisors validate a percentage of each interviewer's completed interviews. Respondents are recontacted and asked certain questions to make sure that the interview took place and that it was completed in full. Each year, approximately 1,500 completed interviews are conducted.

Measurement of Variables Relevant to Current Analysis

Dependent Variables

The dependent variables used in the analysis include attitude toward euthanasia, attitude toward suicide for those suffering from a terminal disease, and a right to die attitudinal index which combines the euthanasia and suicide measures.

One question was used to indicate respondent's attitude toward euthanasia. The question was as follows: When a person has a disease that cannot be cured, do you think doctors should be allowed by law to end the patient's life by some painless means if the patient and his or her family request it?

Responses to the question were coded in a yes (0) and no (1) dichotomy. Answering yes indicated euthanasia approval, while answering no indicated disapproval.

Respondent's attitude toward suicide for those suffering from a terminal illness was measured by the following question: Do you think a person has the right to end his or her own life if the person has an incurable disease?

Responses to the question were coded in a yes (0) and no (1) dichotomy. Answering yes indicated suicide approval for those suffering a terminal illness, while answering no indicated disapproval.

The right to die index was created by combining the responses of the two questions into a three-point index. Those approving of both items indicate total support for an individual's right to die

and were coded 3. Those who approved of either one of the items but not the other indicate some support for an individual's right to die and were coded 2. Those who disapproved of both items indicate no support for an individual's right to die and were coded 1.

Independent Variables

The independent variables in this study were selected based on previous research by Singh (1979), Ostheimer and Moore (1981), and Monte (1991).

Age

Respondents' age was determined by asking respondents their date of birth. Responses were recoded into six categories: 1) 18 to 25 years, 2) 26 to 34, 3) 35 to 44, 4) 45 to 54, 5) 55 to 64, and 6) those 65 and older.

Race

Only those who were either white (0) or black (1) were selected for analysis. This selection follows criteria established by Singh (1977) and followed by Monte (1991).

Sex

Male respondents were coded 0, females were coded 1.

Place of Residence

Place of residence was coded in a metropolitan (0), non-metropolitan (1) dichotomy. Respondents classified as living in a metropolitan area were those who lived within a standard metropolitan statistical area (SMSA). Those classified as non-metropolitan lived outside a SMSA.

Education

Respondents were asked their highest educational degree earned. Responses were coded into three categories: (1) less than high school degree, (2) high school degree or its equivalent, or (3) any degree beyond high school.

Family Income

Respondents were asked their total family income from all sources, before taxes. Responses were coded into three categories: (1) less than $10,000, (2) $10,000 to $19,999, or (3) $20,000 and above.

Religious Affiliation

Respondents were asked what their religious preference was: Protestant, Catholic, Jewish, None, or Other. Responses were recoded into a Non-Catholic (0), Catholic (1) dichotomy as established by Singh (1977) for replication purposes. The reason for measuring religious affiliation as such, was: "since the frequency of attendance

in religious services is generally higher among Catholics, it is possible to hypothesize a difference between Catholics and non-Catholics on the issue of euthanasia" (Singh, 1979, p. 248).

Religious Commitment

Respondents were asked if they consider themselves to be strong, somewhat strong, or not very strong with respect to their religious affiliation. Those who considered themselves strong or somewhat strong were combined to form the strong category (0). Those who indicated no religious preference and those who considered themselves not very strong were combined to form the not strong category (1).

Religious Attendance

Respondents were asked to indicate the number of times they attend religious services, ranging from never to several times a week. The responses were recoded into three categories: (1) low, (2) moderate, or (3) high attendance. Those who were classified as low attended services less than once a year or never attended services. Those classified as moderate, attended services anywhere from once or twice a year to almost weekly. Those who attended services weekly or several times a week made up the high category.

Political Identification

Respondents were asked to place themselves on a seven-point continuum, which ranged from extremely liberal (1) to extremely conservative (7). Responses were then recoded into three groups:

(1) liberal, (2) moderate, or (3) conservative. Those recoded as liberal indicated that they were either extremely liberal, liberal, or that they leaned toward liberal. Those recoded as moderates indicated that they were moderates. Those who were recoded as conservatives indicated that they either leaned toward the conservative side, were conservative, or extremely conservative.

Freedom of Expression

The freedom of expression index is a summation of responses to three questions about whether the respondent believed that an admitted communist, someone who is against all churches and religion, or someone who advocates doing away with elections and letting the military run the country should be allowed to speak in the respondent's community. Those who answered yes to all three approved of total free speech and were coded (1). Those who answered no to all three disapproved of free speech and were coded (3). Those who approved of free speech for one or two groups made up the middle category and were coded (2).

CHAPTER IV

RESULTS

The results of the data analysis are presented in a way that parallels Singh's and Monte's where appropriate. Since Monte (1991) did not report findings for cross-tabulation analysis, cross-tabs from 1977, 1985, and 1991 are reported first. They are presented as Singh (1979) presented them and appear in Tables 7 and 8. Chi-square was run independently on each variable, and significance of the results at the .05 level is indicated. Second, regression results from replicating Monte (1991) are presented. Third, refinements were made to the study, including adjustments in variable coding and formulation of the right to die index. Results from regression analysis after coding adjustments were made are discussed. Lastly, results from multiple regression analysis are presented, where the right to die index was included as a dependent variable.

Replication of Singh's Cross-tabulation Analysis

From Table 7, it appears that an overall upward trend in approval of euthanasia and suicide for terminally ill persons has occurred. While Monte did not find the increase between 1977 and 1985 to be statistically significant, it was statistically significant between 1985 and 1991. Euthanasia approval grew 8.2%, from 65.6% in 1985 to 73.8% in 1991. Suicide approval increased by 13.1%, from 45.6% in 1985 to 58.7% in 1991. While both euthanasia and

Table 7

Percentage Approval of Euthanasia and Suicide for Terminally Ill Persons by Selected Independent Variables

Variables and Categories	Percentage Approving Euthanasia 1977	1985	1991	Suicide 1977	1985	1991
Overall Approval	62.4	65.6	73.8	39.6	45.6	58.7
Age*						
18-25.....	72.4	75.0	79.8	53.7	59.2	69.3
26-34.....	67.6	73.2	78.4	48.9	59.7	67.9
35-44.....	60.2	71.8	77.3	36.3	49.8	66.7
45-54.....	60.6	56.6	68.6	38.1	45.4	58.1
55-64.....	58.5	61.0	77.0	30.0	34.0	55.0
65 +.....	53.5	52.0	61.0	27.7	26.0	42.4
Sex*						
Male.....	67.5	69.5	77.1	43.6	49.9	67.0
Female.....	58.1	61.4	70.9	36.1	42.6	55.3
Race*						
White.....	65.4	67.0	76.9	42.0	47.6	63.1
Black.....	39.4	47.9	51.2	20.6	30.7	40.6
Place of Residence++						
Metropolitan.....	63.6	67.3	75.6	43.3	47.9	62.4
Non-metropolitan..	60.0	59.7	68.1	32.2	41.0	54.2
Education*						
< High School.....	56.6	51.9	63.6	31.5	28.7	46.7
High School Grad..	64.3	70.4	76.5	41.2	47.5	60.4
> High School.....	69.5	68.9	75.8	51.8	63.6	70.4
Family Income*						
$9,999 or less....	58.3	59.6	65.3	33.9	37.8	48.6
$10,000 to $19,999.	66.7	63.2	73.7	44.6	44.0	58.2
$20,000 or more....	64.6	69.9	76.5	42.1	51.7	65.4

*Chi-square significant at the 0.05 level for the variables indicated for both euthanasia and suicide.

++Chi-square significant at the 0.05 level for suicide but not for euthanasia for 1977 only; significant at the .05 level for both euthanasia and suicide in 1985 and 1991.

suicide increased, suicide approval grew considerably more than euthanasia approval. The amounts of relative increase for euthanasia and suicide were 12.5 and 28.7% respectively.

Table 7 indicates that in 1991 a number of significant relationships were found between the independent variables and euthanasia and suicide approval. Significant differences existed in euthanasia, as well as suicide attitudes on the basis of age. In general, as age increased, approval of both euthanasia and suicide decreased. This finding is consistent with the 1977 and 1985 data.

Significant differences between males and females also existed. Approximately 6% more males than females approved of euthanasia, and 12% more males than females approved of suicide. Although there were some differences between males and females, these findings are generally consistent with the 1977 and 1985 data.

Significant differences in euthanasia and suicide attitudes also existed on the basis of race. Whites approved of both euthanasia and suicide more than blacks. Approximately 25% more whites than blacks approved of euthanasia and approximately 23% more whites than blacks approved of suicide in 1991. These results are generally consistent with the 1977 and 1985 data, even though the differences between the races vary slightly.

While significant metropolitan/non-metropolitan differences in euthanasia attitudes did not exist in 1977, differences became significant in 1985 and 1991. Metropolitan/non-metropolitan differences in suicide approval remained significant in all three surveys.

In 1991, significant differences continued to exist in both

euthanasia and suicide attitudes on the basis of education. However, those earning a degree beyond a high school diploma approved of euthanasia at a slightly lower level than high school graduates in 1985 and 1991. Nevertheless, both high school graduates and those earning a degree beyond high school approved of euthanasia at considerably higher rates than those earning less than a high school degree. Suicide approval was highest among those with a degree beyond high school. They were followed by high school graduates (or its equivalent), who were in turn followed by those not finishing high school. This finding is consistent with the 1977 and 1985 data.

In examining total family income, there was a direct relationship between income and both euthanasia and suicide approval in 1991. Those in the highest income category approved of euthanasia and suicide more than those in the middle category, who in turn had higher approval ratings than those in the low income category. This finding is consistent with the 1985 data, but differs slightly from the 1977 data (see Table 7).

No significant differences in euthanasia and suicide attitudes were found between Catholics and non-Catholics in any of the years (Table 8 below). However, significant differences in euthanasia and suicide attitudes existed on the basis of religious commitment. In 1991, those who were strongly committed to their religion approved of euthanasia and suicide at rates substantially lower than those who were not strongly committed. These findings are comparable to the 1977 and 1985 findings. Moreover, in 1991, attendance at religious

Table 8

Percentage Approval of Euthanasia and Suicide for Terminally Ill Persons by Selected Independent Variables

Variables and Categories	Percentage Approving Euthanasia 1977	1985	1991	Suicide 1977	1985	1991
Religious Affiliation						
Catholic.....	61.8	63.4	75.6	37.3	43.4	60.7
Non-Catholic...	62.7	65.6	72.8	40.1	46.7	60.0
Religious Commitment*						
Strong.....	48.2	53.2	62.4	25.7	30.0	44.2
Not Strong.....	74.3	76.0	83.2	50.7	60.3	74.6
Religious Attendance*						
Low.....	79.6	81.4	88.6	55.0	67.5	79.6
Moderate.....	66.0	70.6	78.6	43.7	53.1	64.2
High.....	42.9	46.6	52.3	20.0	21.6	37.6
Political Identification++						
Liberal.....	66.3	71.8	81.2	47.4	55.9	72.3
Moderate.....	64.9	68.5	72.8	39.7	46.3	58.0
Conservative...	59.0	60.4	69.9	33.7	40.4	53.1
Freedom of Expression*						
Total.....	71.8	70.7	83.3	54.9	59.4	68.4
Some.....	64.0	66.4	61.9	37.9	43.0	46.3
None.....	49.0	57.5	62.5	19.4	27.4	43.8
Suicide Approval*						
Yes.....	87.3	89.9	93.0	N/A	N/A	N/A
No.....	46.0	44.0	43.9	N/A	N/A	N/A
Euthanasia Approval*						
Yes.....	N/A	N/A	N/A	55.4	63.4	76.2
No.....	N/A	N/A	N/A	13.3	36.6	23.8

*Chi-square significant at the 0.05 level for the variables indicated for both euthanasia and suicide.

++Chi-square significant at the 0.05 level for suicide but not for euthanasia for 1977 only; significant at the .05 level for both euthanasia and suicide in 1985 and 1991.

services was inversely related to both euthanasia and suicide approval. People who attend services frequently were more likely than either moderate or low attendees to disapprove of both euthanasia and suicide. This is also consistent with the 1977 and 1985 data.

Significant differences in euthanasia and suicide approval on the basis of political identification were found in 1991. Self-reported liberals were more likely to approve of both euthanasia and suicide than were moderates, who in turn approved of euthanasia and suicide more than conservatives. Although the same general pattern was found to occur in 1985 for both euthanasia and suicide, in 1977, differences in political identification were significant for suicide attitudes only.

In 1991, significant differences in euthanasia and suicide attitudes existed between those allowing for total, some, and no freedom of expression. While those allowing for total freedom of expression approved of euthanasia and suicide substantially more than those allowing for some or none, those allowing some freedom of expression approved of both euthanasia and suicide at rates comparable to those allowing no freedom of expression. However, euthanasia approval was lower among those allowing some freedom of expression than those allowing no freedom of expression. These findings depart from the 1977 and 1985 surveys, where attitudinal differences between the groups were more pronounced.

In 1991, significant differences in euthanasia attitudes existed based on whether or not respondents approved of suicide. Of those who approved of suicide for the terminally ill, 93.0% approved of

euthanasia. Of those who approved of suicide in 1977 and 1985, 89.9 and 87.3% approved of euthanasia respectively.

Significant differences in suicide approval existed based on whether or not respondents approved of euthanasia. Of those who approved of euthanasia in 1991, 76.2% approved of suicide. Of those who approved of euthanasia in 1977 and 1985, 55.4 and 63.4% approved of suicide respectively.

Replication of Monte's Regression Models

In order to examine the predictive significance and hence relative contributions of the above variables, multiple regression analysis was performed. Table 9 below, reports beta weights for the 1985 and 1991 euthanasia and suicide regression models. First, results from the regression of euthanasia on selected independent variables are discussed, followed by results from the regression on suicide.

From Table 9, attitude toward suicide remained the strongest predictor and had the greatest impact on one's attitude toward euthanasia. Attendance at religious services remained the next most important predictor of euthanasia attitudes, which was followed by race. It appears that in 1991, only race, attendance, and suicide approval remained significant predictors of euthanasia attitudes, even though race, place of residence, attendance, political identification, freedom of expression, and suicide approval were significant predictors of euthanasia attitudes in 1985. Age, sex, place of residence, religious commitment, education, income, political identification, and attitude toward freedom of expression had no direct

effects on euthanasia attitudes in 1991.

Table 9

Regression of Euthanasia and Suicide on Selected Independent Variables: Comparison of Beta Weights for 1985 and 1991

Independent Measures	Euthanasia 1985	Euthanasia 1991	Suicide 1985	Suicide 1991
Age.....	0.05	0.08	0.11*	0.10*
Race.....	0.08*	0.14*	0.05	0.04
Sex.....	0.03	-0.01	0.03	0.04
Pl. Res.....	0.07*	-0.02	0.02	0.04
Rel. Affil.....	0.02	-0.07	0.00	-0.01
Attendance.....	0.11*	0.18*	0.26*	0.26*
Commitment.....	-0.04	0.05	-0.09*	-0.07
Education.....	0.01	0.03	-0.14*	-0.17*
Income.....	-0.03	0.01	-0.04	-0.03
Pol. Ident.....	0.05*	0.04	0.09*	0.10*
Free Ex.....	-0.06*	0.09	0.09*	0.06
Suicide.....	0.40*	0.45*	N/A	N/A
Sample n	1,201	375	1,201	375
Total R^2	0.250	0.364	0.222	0.214
F	32.84	17.25	30.30	8.98

N/A = Not applicable
[a] 1985 results from Monte (1991)
* $p <$ or = 0.05

The 1991 regression model explained approximately 36% of the total variance in euthanasia attitudes. The 1991 euthanasia model explained 46% more of the variance than the 1985 model, largely due to the increase in the predictive significance of attitude toward suicide. Nevertheless, much of the variance remained unexplained.

From Table 9, attendance at religious services remained the strongest predictor of one's attitude toward suicide. Education remained the next most important predictor of suicide attitudes, which was followed by age and political identification. It appears that in 1991, only age, attendance, education, and political identification remained significant predictors of suicide attitudes, even though age, attendance, religious commitment, education, political identification and freedom of expression were significant predictors of suicide attitudes in 1985. Race, sex, place of residence, religious commitment, income, and attitude toward freedom of expression had no direct effects on suicide attitudes in 1991.

The 1991 regression model explained approximately 21% of the total variance in suicide attitudes, slightly less than the 1985 model. However, both 1985 and 1991 models left approximately 79% of the variance in suicide attitudes unexplained.

As mentioned earlier, due to changes in survey administration (shifting from a rotation to a split-ballot method), coupled with the use of list-wise deletion in the regression, the sample size was reduced considerably. The sample for 1991 ($\underline{n}$ = 375) is rather small compared to the sample in 1985 ($\underline{n}$ = 1201), which may explain why some variables that were significant in 1985 were insignificant in 1991.

To increase the sample size, regression was also performed with the freedom of expression index removed from the model. Table 10 below reports the beta weights for 1985 and 1991 when freedom of expression was omitted.

Table 10

Comparison of Beta Weights for 1985 and 1991 Regression Models++

Independent Measures	Euthanasia 1985	Euthanasia 1991	Suicide 1985	Suicide 1991
Age.....	0.04	0.02	0.13*	0.11*
Race.....	0.08*	0.10*	0.06*	0.11*
Sex.....	0.03	0.00	0.03	0.05
Pl. Res.....	0.08*	0.01	0.03	0.05
Rel. Affil.....	0.03	-0.03	0.00	-0.00
Attendance.....	0.10*	0.13*	0.26*	0.23*
Commitment.....	-0.03	0.00	-0.11*	-0.13*
Education.....	0.03	0.00	-0.16*	-0.14*
Income.....	-0.03	0.00	-0.05	-0.02
Pol. Ident.....	0.05	0.00	0.09*	0.10*
Suicide.....	0.39*	0.49*	N/A	N/A
Sample n	1,237	795	1,237	795
Total R^2	0.242	0.332	0.215	0.203
F	35.60	35.33	33.59	19.92

N/A = not applicable
[a] 1985 results from Monte (1991)
* p < or = 0.05
++ Freedom of Expression excluded.

Removing freedom of expression from the regression models produced the desired result, sample size more than doubled, from 375 to 795. In addition, removing the freedom of expression index from both models produced only minor changes in the euthanasia model and moderate changes in the suicide model.

The 1991 euthanasia model explained slightly less when freedom of expression was omitted than when freedom of expression had been included, leaving the overall interpretation unchanged. When freedom of expression was removed from the suicide model, race and religious commitment became significant in explaining suicide attitudes. Age, attendance, education and political identification were significant predictors in the 1985 suicide model (when freedom of expression was omitted), and they remained significant in 1991. Although race and religious commitment became significant predictors of suicide attitudes once freedom of expression was removed, the total explained variance remained virtually unchanged. The suicide model continued to explain only 20% of the variance in suicide attitudes.

Evaluation of Research Hypotheses

H_1 It is predicted that a significant increase in euthanasia approval will occur between 1985 and 1991.

Based on chi-square tests of significance, euthanasia approval was found to have increased significantly between 1985 and 1991. Therefore, the research hypothesis was supported.

H_2 It is predicted that a significant increase in suicide approval will occur between 1985 and 1991.

Based on chi-square tests of significance, suicide approval was found to have increased significantly between 1985 and 1991. Therefore, the research hypothesis was supported.

H_3 It is predicted that suicide approval will increase more than euthanasia approval between 1985 and 1991.

Euthanasia approval increased from 65.6% in 1985, to 73.8% in 1991. This increase represents an absolute difference of 8.2 percentage points, and a 12.5% relative increase in approval. Suicide approval increased from 45.6% in 1985, to 58.7% in 1991, an absolute difference of 13.1 percentage points and a 28.7% relative increase in approval. Therefore, the research hypothesis was supported.

H_4 Approval of suicide for the terminally ill will remain the strongest predictor of euthanasia approval in 1991.

As indicated in Table 10, attitude toward suicide was the strongest predictor of euthanasia attitudes in 1985 ($\underline{B}$ = .39), and it remained the strongest predictor of euthanasia attitudes in 1991 ($\underline{B}$ = .49). Therefore, the research hypothesis was supported.

H_5 Attendance at religious services will remain the strongest predictor of suicide approval in 1991.

As Table 10 indicates, attendance at religious services was the strongest predictor of suicide attitudes in 1985 ($\underline{B}$ = .26), and it remained the strongest predictor in 1991 ($\underline{B}$ = .26). Therefore, the research hypothesis was supported.

Beyond the Replication

The following section examines analyses beyond those of the

replication. First, alternative coding methods are discussed. Second, results from multiple regression analysis are presented where the right to die index was included as the dependent variable.

Alternative Coding Methods

Certain questions existed regarding the way in which some of the variables were coded. For instance, euthanasia and suicide approval were coded in an approve (0), disapprove (1) dichotomy. It seems logical to have the codes reversed, so that approval of either was coded 1, while disapproval was coded 0. Monte's (1991) metropolitan (0) and non-metropolitan (1) coding was also reversed. In addition, reversing the coding sequence of the categories for the freedom of expression index seemed appropriate. Seeing that the index is measuring respondent's attitude toward freedom of expression on a three point index, it seems only logical to reverse the coding of the categories to reflect the categories which range from low (none) to high (total). Lastly, Monte (1991) collapsed categories in many of the independent variables, thus decreasing the amount of potential variance. To remedy this, responses were disaggregated and coded into as many categories as possible. The variables that were disaggregated include the following: age, attendance at religious services, religious commitment, education, income, and political identification. These changes were applied to the 1991 data, and regression was performed. Results are shown in Table 11 below.

Results obtained from the regression did not differ substantially from those obtained in the replication. Monte's (1991) and

Table 11

Beta Weights for 1991 GSS After Adjustments Were Made**

Independent Measures	Euthanasia	Suicide
Age.....	-0.07	-0.11*
Race.....	-0.13*	-0.03
Sex.....	0.01	-0.04
Place of Residence.....	-0.02	0.03
Religious Affiliation.....	0.06	0.00
Attendance.....	-0.22*	-0.27*
Commitment.....	0.06	-0.06
Education.....	-0.04	0.16*
Income.....	-0.02	0.02
Political Identification...	-0.06	-0.10*
Freedom of Expression.....	0.09	0.04
Suicide.....	0.44*	N/A
Sample n	375	375
Total R^2	0.379	0.219
F	18.41	9.27

*p < or = 0.05
** Adjustments in coding of variables, see text above.

Singh's (1979) aggregating the data had an inconsequential impact on the results obtained using multiple regression. When the data were disaggregated, no changes occurred in the predictive significance of

any of the variables, only minor changes in the beta weights. In addition, the increase in the total R-squares for both models were inconsequential (e.g., the total R-square of the euthanasia model increased slightly more than one percent, while the suicide model increased even less). This supports the notion that other independent variables need to be examined, as much of the variance in euthanasia and suicide attitudes remained unexplained.

The Right to Die Index

Combining responses to the euthanasia and suicide questions formed the right to die index. Since both measure a general right to die attitude for people suffering from a terminal illness, the responses were added together. Respondents answering yes to both items were coded 3, while those answering yes to either one were coded 2, and those answering no to both items were coded 1. In addition, variable categories were not collapsed, as was done by Monte (1991). Regression analysis was performed. Beta weights are shown in Table 12 below, for 1985 and 1991 data respectively.

Table 11 indicates that in 1985, age, race, place of residence, attendance at religious services, religious commitment, education, income, and political identification were all significant predictors of right to die attitudes. Those that were significant predictors of right to die attitudes in 1985, remained significant predictors of right to die attitudes in 1991 except for place of residence and income. According to the 1991 regression model, those who were younger, white, infrequent attendees of religious services, less committed to

Table 12

Right to Die Index Beta Weights for 1985 and 1991

Independent Measures	1985	1991
Age	-0.12*	-0.11*
Race	-0.10*	-0.14*
Sex	-0.03	-0.04
Place of Residence	0.09*	0.05
Religious Affiliation	-0.03	0.01
Attendance	-0.30*	-0.28*
Commitment	-0.08*	-0.10*
Education	0.10*	0.10*
Income	0.05*	0.02
Political Identification	-0.10*	-0.10*
Sample n	1,237	795
Total R^2	0.244	0.225
F	39.61	22.75

* $p <$ or = 0.05

religion, more educated, and self-reported liberals, were more supportive of a terminally ill person's right to die. The regression models had total R-squares of .244 and .225, for 1985 and 1991 respectively, leaving much of the variance unexplained. Therefore, results obtained from combining the euthanasia and suicide items to form the right to die index did not differ substantially from the

results obtained from the replication of Monte (1991), when euthanasia and suicide attitudes for the terminally ill were examined separately.

CHAPTER V

DISCUSSION AND FUTURE RESEARCH

As the replication indicated, euthanasia approval increased significantly between 1985 and 1991, as determined using chi-square. Approximately 74% of respondents approved of euthanasia for people suffering from terminal illness, compared to approximately 66% in 1985. Suicide approval for the terminally ill also increased significantly between 1985 and 1991. Approximately 59% of people approved of suicide for the terminally ill in 1991, compared to 46% in 1985. Furthermore, suicide approval increased more than euthanasia approval between 1985 and 1991.

Additionally, the cross-tab analysis suggests that many of the variables included in the analysis were related to euthanasia and suicide attitudes. However, as the regression analysis indicated, a number of them had no apparent significant direct effects on attitudes toward euthanasia or suicide. In general, whites were more likely to approve of euthanasia than blacks, as were people who attended religious services less frequently. Those who approved of suicide for the terminally ill were more likely to approve of euthanasia than those opposed to suicide for the terminally ill. Indeed, one's attitude toward suicide remained the strongest single predictor of euthanasia attitudes in 1991. The 1991 regression model explained 36% of the variance in euthanasia attitudes, compared to only 24% of the variance in 1985. Although this represents an increase, much of the

variance remained unexplained by the model.

Multiple regression analysis also found that age, race, attendance at religious services, religious commitment, education, and political identification remained significant predictors of suicide attitudes in 1991. In general, people who attended religious services infrequently, were white, less committed to their religion, more educated, and politically liberal, were more likely to approve of suicide for the terminally ill. The 1991 suicide regression model explained 20% of the variance in suicide attitudes, roughly the same amount as in 1985.

Variable categories were disaggregated and the coding of a number of variables were reversed and regression was again performed. However, these changes had virtually no effect on the regression results. The increase in the total R-squares for euthanasia and suicide were inconsequential (less than 2% percent for euthanasia and less than one percent for suicide). Next, combining the answers to both the euthanasia and suicide questions to form the right to die index made a number of the independent variables significant predictors. The independent variables explained 22% of the variance in right to die attitudes in 1991. Therefore, much of the variance in right to die attitudes remained unexplained by the regression model, and did not improve upon the replication results.

Recommendations for Future Research

There are a number of recommendations which can be made for

future research in euthanasia, suicide for the terminally ill, and right to die attitudes. Below, are the recommendations which the current researcher feels are the most important issues to consider when examining these attitudes.

First, future efforts to explain right to die attitudes should consider examining intervening variables, such as seeing a loved one die after a long struggle with an illness, as they may help explain more of the variance in right to die attitudes. In addition, other independent variables should be examined. For example, ideological variables may help explain more of the variance in right to die attitudes.

Second, future research should consider examining euthanasia and attendant issues from a social movement perspective, given the similarities between social movement literature and the current state of right to die issues. This is especially obvious in Michigan, where Jack Kevorkian has emerged as a charasmatic leader who is trying to change the current norms and laws that govern people who are suffering from chronic illness and the medical community which treats these people.

Third, if multiple regression is used in future analyses, the dependent variables should be developed into continuous ratio variables, rather than dichotomous variables. According to DiLeonardi and Curtis (1988), one is better off not using a dichtomous dependent variable when performing multiple regression. One of the underlying assumptions of multiple regression, is the inclusion of a continuous interval or ratio level criterion variable.

Lastly, more recent data may provide fascinating information, as right to die issues, with the help of Dr. Jack Kevorkian and mass media coverage, have become even more prominent since 1991. One could speculate that approval of euthanasia and suicide for the terminally ill would continue to increase, given the trend found to date. If one is interested in the 1993 General Social Survey, the complete 1993 GSS should be available in July, 1994.

BIBLIOGRAPHY

Adams, G. R., Bueche, N., & Schvaneveldt, J. D. (1978). Contemporary views of euthanasia: A regional assessment. Social Biology, 26, 247-253.

Beswick, D. G. (1970). Attitudes to taking of human life. Australian and New Zealand Journal of Sociology, 6, 120-130.

Caralis, P. V., & Hammond, J. S. (1992). Attitudes of students, housestaff, and faculty physicians toward euthanasia and termination of life-sustaining treatment. Critical Care Medicine, 20(5), 683-690.

Davis, J. A., & Smith, T. W. (1985). General Social Surveys. Produced by the National Opinion Research Center, Chicago. Tape distributed by the Roper Public Opinion Research Center, Storrs, CT. Micro diskette and codebook prepared and distributed by Micorcase Corporation, Bellevue, Washington.

Davis, J. A., & Smith, T. W. (1991). General Social Surveys. Produced by the National Opinion Research Center, Chicago. Tape distributed by the Roper Public Opinion Research Center, Storrs, CT. Micro diskette and codebook prepared and distributed by Micorcase Corporation, Bellevue, Washington.

Davis, J. A., & Smith, T.W. (1992). The NORC general social survey: A user's guide. Newbury Park, CA: Sage.

DiLeonardi, J. W., & Curtis, P. A. (1988). What to do when the numbers are in: A user's guide to statistical data analysis in the human services. Chicago, IL: Nelson-Hall.

Finlay, B. (1985). To die: Some correlates of euthanasia attitudes. Sociology and Social Research, 69, 548-560.

Jorgenson, D. E., & Neubecker, R. C. (1981). Euthanasia: A national survey of attitudes towards voluntary termination of sife. OMEGA: The Journal of Death and Dying, 11(4), 281-291.

Kalish, R. A. (1963). Some variables in death attitudes. Journal of Social Psychology, 59, 137-145.

Monte, P. (1991). Attitudes toward the voluntary taking of life: An updated analysis of euthanasia correlates. Sociological Spectrum, 11, 265-277.

Nagi, M. H. (1990). Clinical imperatives versus ethical commitments in euthanasia: The perspectives of nurses. Loss, Grief, and Care, 4(1-2), 99-128.

Ostheimer, J. M. (1980). The polls: Changing attitudes toward euthanasia. Public Opinion Quarterly, 44, 123-128.

Ostheimer, J. M., & Moore, C. L. Jr. (1981). The correlates of attitudes toward euthanasia revisited. Social Biology, 28(1-2), 145-149.

Singh, B. K. (1979). The correlates of attitudes towards euthanasia. Social Biology, 26, 247-254.

Wade, C. H., & Anglin, M. D. (1987). Factors influencing decisions to terminate life. Social Biology, 34(1-2), 37-46.

Ward, R. A. (1980). Age and acceptance of euthanasia. Journal of Gerontology, 35(3), 421-431.