

A Multivariate Analysis of European Death Ritual

INTRODUCTION

THE PURPOSE OF THIS PAPER IS to analyze elements of death ceremony throughout Europe in order to determine whether or not there are any underlying patterns to this ritual.

Death has long been recognized as an important aspect of cultural existence. Hertz (English translation 1960), in 1907 asserted that death had a specific meaning for the social consciousness, and was the object of a collective representation. Van Gennep (English translation 1960), in his classic work "The Rites of Passage" saw funeral ceremonies as a rite of separation, with all the regulations and prohibitions of mourning acting as rites of reintegration back into the society. Aveling (6th ed. 1902: 226—227) maintained that dreams were the basis of beliefs in the afterlife; a view later used and expanded upon by Tylor (1865) when he associated dreams with the body-soul dichotomy. The association helped to formulate ancestor worship as the archetypal form of primitive religion. Durkheim (1947) as well as his associates (Hertz, Van Gennep, etc.), criticized Tylor and Herbert Spencer while trying to find a more inclusive definition of religious phenomena.

Both Tylor and Frazer (1924, 1936) perceived the ancestors as hostile to the living. Frazer's examinations were concerned with the precautions taken by groups to prevent the return of the dead to this world, and the actions adopted to protect survivors from hostility by the departed should they succeed in coming back. Malinowski (1954), like Frazer, considered the fear of the corpse instinctive and was also concerned with the importance of reactions to death as a source of religion.

Freud (1952) attempted to show the inadequacy of explaining the institutionalized treatment of death in terms of an instinctive fear of the corpse. He relates mourning and ruthlessness of ancestors to guilt that survivors experience as a reaction against hostile elements in any close relationship (Goody 1962:22).

More recently (since Opler's work in the 1930's), there has been a shift in the examination of death from that of evolutionary associations to "correlative factors with which to associate the ambivalence, that is, for relations of interdependence" (Goody 1962: 23). For example, in two studies, the factors of ambivalence toward relatives have been found to be matrilocality (Opler's Apache study) and filial ties in a patrilineal society (Fortes' study of Talensi ancestor worship). Mead, in "An Ethnologists Footnote to *Totem and Taboo*", basically summed up the general reasoning behind this approach by stating that cultures emphasize different aspects of this ambivalent attitude, which are culturally stressed and depend on historical causes (Goody 1962: 23). The change in the methods of examination of death seem to have been concomitant with the increase in 'holistic' ethnography done on specific groups. This is apparent when one examines what work has been done on death ritual throughout Europe.

Studies of death ritual in Europe have been confined to what is presented in the ethnographic literature. No synthetic cross-cultural investigations or multi-

variate examinations are known to this author (although there have been ethno-historical and archaeological comparisons of European death ritual as well as patterns of Christian iconography). This lack of any grand synthesis might be due to the sheer magnitude of the project and the lack of any firm controls on the data. These are the same problems that have occurred during this investigation and will be made apparent during the presentation of the analysis.

PATTERNS OF DEATH RITUAL

DEATH IS NOT AN INSTANTANEOUS ACT but rather a lengthy process involving many people in ritualized behavior patterns. Death ritual can be subdivided into a distinct sequence of events starting from when there are indications of an individual dying to a mourning period signifying the end of the sequential chain. Each group in Europe seems to follow a sequence, with culture-specific variation, and more importantly for this investigation, shifts of emphasis on what are thought to be key diagnostic attributes of probable alternative actions during the death ritual sequence. These are outlined in a systems model (Fig. 1).

The Dying Process: Death omens or black magic might signal the imminent death of an individual. Certain groups prepare for death by purchasing coffins and other material well in advance of any death indication. While the person is dying, villagers may come to the house to make reconciliations. A priest may also be present to administer final rites.

Death: At death certain concepts are set in motion. The soul of the person may be conceived of as smoke or a cloud, and it may linger in the local vicinity until burial, or for some other designated time period. The corpse may have an inherent 'death power' whereby a person's touching of the deceased might promote good or evil for that living individual. At the moment of death the doors and windows may be opened or closed either to let the soul out on its journey or to contain it within the house. Church bells may toll for the death of a villager. To guide the soul, candles are placed at the bedside, at church, or on the coffin. The significance of these past actions has much to do with whether or not the dead are feared (along with a strong belief in the duality of an afterlife), and a belief in the body's retention of sensation until burial.

The body is prepared for burial (and display) by first being washed in water or wine and then dressed in what is considered appropriate clothing. A feast may follow the preparation of the body. Sometimes as part of an act of purification no food preparation or cleaning may take place in the house until after burial.

The time the body has been prepared for burial until removal of the coffin from the house is called the 'death watch'. It is at this time that there might be the first in a series of ritualized wailings (done exclusively by women and children) and a gathering of villagers to see the displayed coffin. The death watch

varies from less than twenty-four hours through to two days and may be inversely proportional to the strength in fear of the dead.

The Funeral Procession: Ritualized wailing may follow the removal of the body from the house. A funeral procession composed of relatives and villagers, with the coffin transported by any of a number of different methods may proceed directly to the cemetery. The procession might first proceed to a church service with resumption of the procession after the services. The procession may take a very structured route and stop at designated spots, so the deceased may 'take a last view' of his village.

Burial: At the time of burial or during the preparation of the body, certain objects of personal significance to the deceased may be placed in the coffin. At the same time, money 'for the journey' may be placed in the coffin or thrown into the grave. Boiled wheat and special funeral breads, both symbolic of resurrection may be placed on the graves as offerings. Ritualized wailing may accompany the grave-side service.

Mourning: Directly following the burial there is usually a funeral feast at the home of the deceased. The prototype for this funeral feast may have been celebrated at the grave, in the belief that the deceased was acting as host. In any case, postburial feasting activity seems to be related to protecting the living against the deceased by 'pleasing the dead'. It is an act of self-defense.

During whatever may be the official period of public mourning there usually are church masses, graveyard visitations, and a series of post-burial feasts (separate from the one that is held directly after the burial) at specific intervals. During mourning, living mourners and the deceased form a special group seemingly situated between the living and the world of the dead (Vernon 1970: 137). The social functions of mourning are that the people involved may finally validate the fact of death and make the awareness public.

The sequence of death ritual should be seen as involving an effort by the living somehow to benefit the deceased, whether out of kindness or out of fear (Vernon 1970: 61). Funeral matters seem to be considered sacred to the participants. They are supported by sanctions believed to be supernatural in nature and by a strong belief that sacred matters must not be tampered with.

Most importantly, death behavior serves a very definite social function. As Firth stated (in Mandelbaum 1959: 189), a funeral rite's ostensible object is the dead person, but it benefits the living. The death ritual is a symbolic assertion that the deceased person is important to the whole group. Village and family solidarity becomes reinforced, as well as the death ritual acting as a device to insure the continuation of established religious beliefs and practices that act as the framework for human emotions.

ANALYTIC OBJECTIVES

The first objective: is to determine the patterns of interrelationship among selected European communities and generalized elements of death ritual.

The second objective: is to test the hypothesis that the most important elements of death ritual that shape belief cross-cut the formalized religions of European countries.

The third objective: is to determine how important death ritual is as a social function of village solidarity.

The final objective: is to examine the relationship between European social organization and death ritual.

THE DATA

THE DATA USED IN THE MULTIVARIATE ANALYSIS consisted of sixty-nine elements of European death ritual and ten forms of social organization that were distributed in varying degrees among twenty-seven communities representative of differing political, religious, or social units in Europe. The death ritual and social organization elements used in the analysis are found in Table Two as the *case list*. The representative regions of Europe, or *variables*, are found in Table One.

One large data set is from ethnographic studies that form the European Section of the Human Relations Area Files (HRAF). Whenever possible, studies were selected that conformed to arbitrary controls of: 1) ethnographic accounts during the period 1930—1965, and 2) studies of village-size communities with populations not exceeding five thousand inhabitants. The regions selected from the HRAF are as follows:

Serbia (Halpern 1956)
Malta (Brockman 1938, Cremons 1923)
Czechoslovakia (Bartos 1897)
Greece (Sanders 1962, Friedl 1962)
Rural Ireland (Arensberg & Kimball 1968)

Turkey (Stirling 1965)
Ukraine (Koenig 1937, 1938)
Poland (Benet 1951)
Lapland (Collinder 1949)

Additional supporting data comes from a sourcebook "Funeral Customs the World Over" (Haberstein & Lamers 1963) that included information on the following countries:

Hungary
Romania
Russia
Austria
Denmark

Germany
Belgium
Netherlands
France
Sweden

Switzerland
Portugal
Spain
Italy

Ethnographic studies of the Jews (Morgenstern 1966), Spanish Basques (Douglass 1969), Georgian Highlanders (Gricola 1939), and English (Gorer 1965)

complete the data set. The elements of social organization were extracted from the "Ethnographic Atlas" (Murdock 1967) or from the specific ethnography.

It is evident therefore, that controls were not as strong as one would wish, since in most cases one community was used as representative of the pervading death ritual and major organized religion of the country, region, or social grouping under consideration.

ANALYSIS

AFTER MUCH DELIBERATION as to an appropriate technique of correlating the material, it was decided to take all of the reported death ritual elements from each community as a representative sample of that social group or geographical region's total amount of patterned ritual elements. Then each of these elements would be coded on a presence-absence basis with the known death ritual elements found throughout all of the chosen communities. The matrix for coding was as follows:

| | EUROPEAN COMMUNITIES | | | | | n |
|-----|----------------------|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | |
| 1 | + | + | — | + | — | |
| 2 | + | — | — | — | + | |
| 3 | — | — | + | — | + | |
| 4 | + | + | + | — | — | |
| 5 | — | — | — | + | + | |
| ... | | | | | | |
| . | | | | | | |
| . | | | | | | |
| n | | | | | | |

+ = Element Present
— = Element Absent

Factor analysis (Dixon 1970: 90—103) was the multivariate procedure used in this study. The actual type used is the Q-technique, whereby the European communities are the variables or columns, and the death ritual elements are the cases in rows. During the course of coding, if an attribute is present at all, or all but one of the communities it was rejected as appropriate for inclusion into the analysis. The same requirements must have been met death ritual elements that were absent (rejected if absent from all or all but one community). For example, the element 'white as mourning color' was not included in the analysis since it occurred in only one community. However 'black as mourning color' was included since it occurred in all but two communities. If these requirements were not used, these previously unacceptable elements would cut-down on the amount of variation that could be explained in the data.

Factor analysis uncovers the independent sources of data variation. It is quite a versatile technique that can be used to test deductive hypotheses with the resulting factors applied inductively to a new data set (Rummel 1970). In this analysis the elements were used to group death ritual throughout Europe on the basis of patterns of occurrence and to provide a value that indicates each com-

munity's degree of association with the pattern, or *factor* underlying each grouping of elements.

THE FACTORS WERE ROTATED TO ORTHOGONAL SIMPLE STRUCTURE utilizing the varimax criterion. In other words, the first unrotated factor delineates the most general pattern of relationships in the data, the second factor delineates the second most general pattern that is uncorrelated (orthogonal) with the first, and so on until all of the significant variation is accounted for. Thus, the amount of variation in the data described by each factor decreases successively with each factor. Rotation of the factors to simple structure attempts to maximize the number of high loadings (Loadings measure which variables are involved in what factor to what extent. They are correlation coefficients between variables and factors.) on each factor, while minimizing the number of factors with high loadings for each variable (Rummel 1970: 137). This tends to make each factor uniquely define a distinct cluster of intercorrelated variables (Rummel 1970: 145).

In order to determine the cut-off for the number of factors accounting for most of the non-random variance two criteria were used. The first was the possession of an eigenvalue of 1.0 or greater. As shown in Table Three, five factors had eigenvalues of 1.0 or greater. Since the next highest eigenvalue (Factor 6) was 0.63, it was felt that a maximum of five factors would account for the variance.

The scree test, devised to determine the possible minimum number of factors important for analysis was also performed on the data. The plot of the eigenvalues against the proportion of variance (Table Three) that each extracts indicated that either four or five factors would account for most of the data.

From these two methods, it is felt that five factors accounting for 45 % of the total variance and including high loadings for 19 of the 27 communities would represent the best model of the data.

The rotated factor matrix with the factor loadings for each of the communities is included in Table Four. The variables loading high in each factor are italicized. The determination of what constitutes a high loading (positive or negative) is based on what seems to be significant gaps between the highest sets (usually over .40) and the next highest grouping of loadings (usually below .35).

For Factor One, the cut-off was a loading of .39 or higher which included the communities in Poland, Hungary, Spain (Basques), Ireland, and Georgia.

The highest loadings for any of the variables were found in a grouping of three communities in Factor Two. A cut-off of .90 determined the inclusion of the Netherlands, Belgium, and Switzerland.

Factor Three (cut-off .58) included the following countries: England, Sweden, Denmark, Germany, and Austria.

Factor Four included the most negative loadings of any of the factors. The Jewish community was the only variable with a high loading, that of $-.52$.

There was a distinct gap between this variable and the next highest clustering of variables, in the .30 range.

Factor Five, with a loading cut-off of .47, included the following variables: the Ukraine, Italy, Portugal, and Spain.

Eight communities did not figure as loading high in any of the five factors. However, there is a question of the significance of certain variables with relatively high negative loadings in Factor Four. The position of these communities will be discussed in the interpretation section of this study.

The factor scores for each of the cases of the factor matrix are presented in Table Five. A factor score cut-off of 1.0 (positive or negative) represented an important case for each of the five factors. Tables 6—10 show the relationship of the significant variables and cases for each of the five factors.

INTERPRETATION

BASING ALL INTERPRETATION ON THE ASSUMPTION that temporal variation is being held constant and that the patterning of the factor analysis is due to spatial behavior differentiation, there seems to be distinct and significant groupings of communities. Factors will be given a 'label' so as to possibly act as a heuristic device (Rummel 1970: 475), in order to hopefully stimulate further hypothesis testing by other researchers.

Factor One has been named a *Church Domination* factor. Each of the five communities that loaded high have a great fear of death and of the dead. The corpse is seen as embodying a dichotomy of good and evil at death, and must be treated with a great deal of respect (accompanied by elaborate funeral services) so as not to anger the soul.

An important distinction in this case must be made between religion as a general life-principle and the village church as the embodiment of the religion. The Basques (as well as the Hungarians) are Roman Catholic and adhere to basic Catholic doctrine. But their (Basque) emphasis on a "fundamentalist brand of religion" (Douglass 1969: 209) is a direct manifestation of the local priest acting as the church, and his interpretation of religion as the doctrine (Douglass 1969: 209—210). There is a nationalized Polish Catholic Church, but the Polish villager is more interested in the local church than religion (Benet 1951: 247). This would seem to corroborate the naming of the factor. Rural Irish society also exhibits localized forms of the state religion.

Therefore, "Church Domination" must be viewed as the localized religious beliefs of the village community and cross-cutting the different organized religions of Europe. This implies village uniformity of belief, thus helping to promote group solidarity. The organization of the village should contain few or a singular socio-economic class.

Factors Two (Table 7) and Three (Table 8) are somewhat similar in overall characterization of death ritual. The eight communities included under the two factors exhibit a patterning of death ritual that is based on an absence of death fear and fear of the deceased. There is also a lessening of the time sequence that is involved with death preoccupation (decrease in mourning time, etc.).

However, there are aspects that seemingly separate the two factors. First, although communities included under both factors have complex village stratification into social classes, the urban-industrial orientation of Factor Three communities is stronger (Based upon comparative regional demography of rural to urban centers and Gross National Product.). The entire sequence of death ceremony in Factor Three communities is not lengthy or with elaboration, and without any symbolic fear concerning the deceased. The preparation of such items as coffin and grave monument purchase well in advance, and the possible large economic aspect involved, may be a direct outgrowth of the village class system or relative expenditures caused by urbanism. It is for these reasons that this has been labeled the *Urban Orientation* factor.

In Factor Two, patterns of social organization, most importantly the strength of extended family relationship, seems to be the significant process that cross-cuts geographical boundaries. Death ritual activities are carried out to reinforce family relationship; not village solidarity or appeasement of the deceased. Although there is a lack of fear of the dead and a short mourning period, ties between family and the deceased are maintained through periodic grave visitations and church masses. The labeling of this factor as *Family Solidarity* is tentative, since the relationship between social organization and death ritual in Europe needs more supportive data to give validity to the hypothesis.

Factor Four (Table 9) is a *Jewish* factor. The highest loadings for this factor was by the Jewish communities of Eastern Europe. Other high loadings (although below what was considered significant for this study) were by the Moslem Turks, Georgian Highlanders, and the Ukrainians. The high loading for Turkey is understandable since Moslem death ritual is closely aligned with that of the Jewish religion. (Again, it should be stated that Turkey and the Jewish communities were used in this study as representative of the overall religious beliefs of Moslem and Jewish elements in European life.) The Georgians and Ukrainians retain much of a remnant 'pagan' belief, having been converted to Christianity comparatively late.

Factor Five (Table 10) is quite similar in many of the important characteristics to Factor One. This fifth factor has been labeled *Formal Religious Domination*. The important difference between Factor One and Five is in the lack of death fear (not to be confused with fear of the dead, which is significant only in Factor One, and not an important element in this factor) among the five communities in Factor Five. It is the State religion, strictly adhered to by both local religious officials and the populace, that is represented in these communities.

CONCLUSION

BASED UPON THE RESULTS OF THIS FACTOR ANALYSIS certain of the initial research objectives have been realized. Multivariate analysis has been shown to be an effective technique in discovering significant patterns of interrelationship that cross-cut the different religions; with differences based upon the strength of local or formal doctrines among the selected European communities. How far back these death elements have been held in common by some of these communities is unknown at this time, and is a question that might warrant archaeological investigation. Another important analytic result is that village solidarity seems to be correlated with localized church domination and a homogeneous socioeconomic class.

The investigation can only be considered preliminary in nature, primarily due to a lack of a coherent data set and loose temporal and spatial controls. The analysis' main function is hopefully to act as a generator; to stimulate more field research to validate what has already been detected here, or to uncover alternative hypotheses in what is a rarely studied topic in Europe.

SUMMATION

THE MULTIVARIATE ANALYSIS OF EUROPEAN DEATH CEREMONY uncovered five basic factors operating to structure the ritual. These were: 1) local church domination, 2) degree of urbanism, 3) State religious control, 4) strength of family solidarity, and 5) the Jewish religion operating within Europe.

TABLE ONE

Variable List

- | | |
|------------------------|-------------------|
| 1. Serbia | 15. Basque |
| 2. Greece | 16. Rural English |
| 3. Turkey | 17. Sweden |
| 4. Romania | 18. Denmark |
| 5. Poland | 19. Germany |
| 6. West Central Russia | 20. Austria |
| 7. Georgia | 21. France |
| 8. Czechoslovakia | 22. Italy |
| 9. Hungary | 23. Spain |
| 10. Jews | 24. Portugal |
| 11. Ukraine | 25. Netherlands |
| 12. Malta | 26. Belgium |
| 13. Rural Irish | 27. Switzerland |
| 14. Lapps | |

TABLE TWO

Case List

1. Fear of death
2. No fear of the dead
3. Resigned fatalism at death
4. Preparation of material for death well in advance
5. Black magic and death omens
6. Vampire belief
7. Death not personified as male or female
8. Death as a male
9. Death power (touching of corpse promotes good or evil)
10. Soul as smoke, breath, or cloud
11. Soul hovers near until burial
12. Crossing of water by the soul
13. Reconciliation with villagers before death
14. Strong belief in the duality of an afterlife
15. Dichotomy of good and evil at the bedside within person dying
16. Large (significant and prohibitive) economic factor in the death service
17. Administration of services by a priest at the bedside
18. Candles placed at the bedside
19. Door, windows, etc. open at moment of death
20. Door, windows, etc. closed at moment of death
21. Tolling of church bells at death
22. Mirrors covered or clock stopped at the time of death
23. Notification to the animals after death
24. Feast directly following death
25. No cleaning of the house until removal of the deceased
26. No food preparation in the house until the removal of the deceased
27. Body preparation for burial by women relatives
28. Gathering of villagers at home only after the death
29. Retention by body of sensation until burial (treatment by living as though alive)
30. Ritualized wailing at death watch by women and children
31. Body laid on bench or floor after death
32. Food, drink, and other paraphernalia at bedside after death
33. Death watch only by relatives
34. Frivolity at death watch
35. Death watch less than one day
36. Death watch one day
37. Death watch more than one day
38. Candle on coffin
39. Purification of the house and people after the removal of the body

40. Ritualized wailing at removal of body from the house by women and children
41. Door, windows, etc. opened when the body is removed from the house
42. Priest first in funeral procession
43. Relatives before coffin in funeral procession
44. Villagers after relatives in funeral procession
45. Coffin first in funeral procession
46. Coffin carried by pallbearers
47. Coffin carried by a wagon
48. Coffin carried by a sled
49. Stoppage of funeral procession at designated spots
50. Placement of money in coffin
51. Placement of other articles in the coffin
52. Mourners sprinkle earth on the grave or coffin
53. Boiled wheat as a grave offering
54. Special funeral bread prepared
55. Funeral feast at the home directly after burial
56. Frivolity at funeral feast
57. All Soul's feast
58. Specific interval of post-burial feasts
59. Specific interval of church masses
60. Candle burned at church
61. Communal village feasts (other than All Soul's or All Saint's) during the Spring
62. Mourning period one year
63. Mourning period less than one year
64. Black as the mourning color
65. House marked by a black banner during mourning
66. Short period of intensified mourning as a subset of the mourning period
67. Christmas visitation to the grave
68. Lent period visitation to the grave
69. Graveyards tended
70. Independent nuclear families with monogamy
71. Small extended families
72. Neolocal residence
73. Agamous communities with localized clans
74. Absence of patrilineal kin groups with patrilineal exogamy
75. Lineages of modest size
76. Absence of cognative kin groups
77. Bilateral descent
78. Kindreds
79. Complex stratification into social classes

TABLE THREE
Determination of Factor Cut-Off Point

| Factor | Eigenvalue | Cumulative Proportion of Total Variance |
|--------|------------|--|
| 1 | 5.73 | 0.21 |
| 2 | 3.05 | 0.32 |
| 3 | 1.51 | 0.38 |
| 4 | 1.05 | 0.42 |
| 5* | 1.00 | 0.45 |
| 6 | 0.63 | 0.48 |
| 7 | 0.49 | 0.49 |
| 8 | 0.45 | 0.51 |
| 9 | 0.38 | 0.53 |
| 10 | 0.31 | 0.54 |

* First five factors were determined to account for the significant variation in the data.

TABLE FOUR
Loadings of Twenty-Seven Communities on Orthogonal Factors*

| Community | Orthogonally | | Rotated | Factor | Matrix |
|------------------------|--------------|-------|---------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Serbia | 0.06 | 0.03 | 0.21 | 0.32 | -0.10 |
| 2. Greece | -0.28 | 0.27 | 0.19 | 0.02 | 0.17 |
| 3. Turkey | -0.04 | 0.15 | 0.08 | -0.32 | -0.14 |
| 4. Romania | 0.28 | -0.01 | -0.18 | 0.06 | 0.39 |
| 5. Poland | 0.54 | 0.02 | -0.01 | 0.10 | 0.31 |
| 6. West-Central Russia | 0.12 | 0.36 | 0.26 | -0.09 | 0.19 |
| 7. Georgia | 0.39 | -0.32 | 0.06 | -0.18 | 0.02 |
| 8. Czechoslovakia | 0.19 | 0.15 | -0.04 | -0.20 | 0.30 |
| 9. Hungary | 0.44 | 0.07 | 0.01 | 0.30 | 0.16 |
| 10. Jews | 0.01 | 0.05 | 0.13 | -0.52 | 0.06 |
| 11. Ukraine | 0.22 | 0.01 | 0.02 | -0.38 | 0.52 |
| 12. Malta | 0.11 | 0.03 | 0.14 | -0.11 | 0.47 |
| 13. Rural Irish | 0.40 | -0.02 | 0.03 | -0.04 | 0.06 |
| 14. Lapps | -0.03 | 0.17 | 0.18 | -0.09 | 0.38 |
| 15. Basque | 0.59 | -0.07 | 0.21 | 0.04 | 0.15 |
| 16. Rural English | 0.31 | 0.20 | 0.62 | -0.13 | -0.05 |
| 17. Sweden | 0.04 | 0.07 | 0.85 | -0.06 | 0.16 |
| 18. Denmark | 0.06 | 0.31 | 0.66 | 0.04 | 0.15 |
| 19. Germany | -0.03 | 0.09 | 0.71 | -0.16 | 0.28 |
| 20. Austria | -0.17 | 0.20 | 0.58 | 0.14 | 0.37 |
| 21. France | 0.21 | 0.32 | 0.29 | 0.21 | 0.40 |
| 22. Italy | 0.07 | 0.14 | 0.24 | 0.20 | 0.74 |
| 23. Spain | 0.30 | -0.05 | 0.36 | 0.12 | 0.52 |
| 24. Portugal | 0.16 | -0.05 | 0.44 | 0.02 | 0.62 |
| 25. Netherlands | 0.05 | 0.90 | 0.21 | -0.09 | 0.01 |
| 26. Belgium | -0.14 | 0.95 | 0.12 | -0.07 | 0.08 |
| 27. Switzerland | -0.14 | 0.95 | 0.12 | -0.07 | 0.08 |

* Italicized factors loadings were determined to be significant for analysis.

TABLE FIVE
Factor Scores of Seventy-Nine Death Ritual Elements on Orthogonal Factors*

| Death Ritual Elements** | Orthogonally | | Rotated | Factors | |
|----------------------------|--------------|-------|---------|---------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| 1 | 1.51 | -0.66 | -0.54 | -0.99 | 0.66 |
| 2 | -1.03 | 1.18 | 1.38 | -0.23 | -1.38 |
| 3 | -0.63 | 1.32 | 1.00 | -0.16 | -0.36 |
| 4 | 0.16 | -0.88 | 1.41 | -1.05 | -1.70 |
| 5 | 1.23 | -0.48 | 0.78 | 0.63 | 1.10 |
| 6 | 0.29 | -0.55 | -0.83 | -0.11 | -0.41 |
| 7 | 0.88 | 1.23 | 1.16 | -0.81 | 0.88 |
| 8 | -1.26 | -0.60 | -0.48 | -0.16 | -0.96 |
| 9 | 0.50 | -0.66 | -0.78 | -0.02 | 0.93 |
| 10 | 0.06 | -0.51 | -0.81 | -0.30 | -0.64 |
| 11 | 0.86 | -0.59 | -1.07 | -1.52 | -0.17 |
| 12 | -1.13 | -0.59 | -0.66 | -0.72 | -0.63 |
| 13 | -0.86 | 1.10 | 0.92 | 0.08 | -0.36 |
| 14 | 0.72 | -0.74 | -0.11 | -0.45 | 1.58 |
| 15 | 0.87 | -0.71 | -1.16 | -0.79 | 1.58 |
| 16 | -0.52 | -0.84 | -0.63 | -0.05 | -0.90 |
| 17 | 0.57 | -0.76 | 1.84 | 1.06 | -0.01 |
| 18 | 0.74 | -0.62 | 1.01 | 1.37 | 0.40 |
| 19 | 0.83 | -0.35 | -1.05 | 0.28 | -0.58 |

| Death Ritual Elements** | Orthogonally Rostated Faktors | | | | |
|----------------------------|-------------------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| 20 | -0.92 | 1.53 | -1.24 | -0.01 | 0.28 |
| 21 | 0.65 | 1.43 | 0.15 | 0.35 | 1.05 |
| 22 | 0.20 | -0.31 | -0.87 | 0.65 | -0.57 |
| 23 | 0.14 | -0.42 | -0.96 | 0.06 | -0.55 |
| 24 | 0.43 | -0.51 | -0.58 | 0.37 | -1.04 |
| 25 | 0.78 | -0.49 | -0.64 | 1.34 | 1.28 |
| 26 | -0.29 | -0.45 | -0.74 | -0.17 | -0.41 |
| 27 | -0.21 | -0.47 | -0.80 | 1.25 | 0.50 |
| 28 | -0.12 | 1.74 | -0.17 | -0.32 | -1.00 |
| 29 | 0.05 | -0.79 | -1.12 | -1.57 | 0.58 |
| 30 | 1.30 | 1.40 | -0.23 | -0.35 | 0.48 |
| 31 | 0.29 | -0.34 | -1.04 | 0.22 | -0.50 |
| 32 | 0.97 | -0.58 | -1.08 | -0.18 | -0.36 |
| 33 | -0.70 | -0.68 | -0.53 | -0.78 | -0.88 |
| 34 | 0.64 | -0.22 | -0.83 | 0.60 | -0.40 |
| 35 | -1.31 | -0.65 | -0.50 | -0.77 | -0.87 |
| 36 | 1.99 | 0.21 | 1.25 | 0.76 | -1.76 |
| 37 | -1.97 | 0.57 | -0.73 | -0.75 | 1.79 |
| 38 | -0.18 | -0.91 | 1.34 | 0.21 | 0.64 |
| 39 | 0.80 | -0.24 | 0.76 | -0.80 | 0.81 |
| 40 | 0.21 | -0.69 | -0.43 | 0.04 | 0.74 |
| 41 | -0.19 | 1.66 | -0.84 | 0.36 | -1.12 |
| 42 | 0.19 | -0.72 | -0.37 | 1.33 | 0.31 |
| 43 | -0.83 | -0.99 | 1.43 | 0.34 | -1.20 |
| 44 | -0.47 | 1.51 | 0.86 | 0.63 | 1.00 |
| 45 | -0.29 | 1.54 | 0.22 | -1.32 | -0.97 |
| 46 | 1.03 | -0.34 | -0.20 | -0.24 | -1.43 |
| 47 | -1.09 | 1.13 | -0.73 | -0.74 | 1.31 |
| 48 | -0.92 | -0.67 | -0.47 | 0.19 | -0.86 |
| 49 | 0.87 | -0.55 | -0.90 | -0.49 | -0.32 |
| 50 | 0.22 | -0.33 | -0.75 | 1.30 | 0.10 |
| 51 | 0.46 | -0.70 | 0.07 | 1.56 | 0.77 |
| 52 | 1.01 | 1.75 | 0.83 | 0.85 | -0.14 |
| 53 | -0.99 | -0.63 | -0.71 | 0.34 | -0.55 |
| 54 | -0.39 | -0.69 | -0.78 | -0.52 | -0.35 |
| 55 | 0.99 | -0.57 | 0.91 | 0.31 | 0.90 |
| 56 | 1.15 | 1.77 | -1.02 | 0.55 | 0.33 |
| 57 | 0.22 | -0.93 | 0.87 | -0.01 | 0.25 |
| 58 | -0.28 | -0.44 | -0.42 | 1.39 | 0.21 |
| 59 | 0.08 | 1.29 | 1.32 | -0.67 | 0.86 |
| 60 | -0.20 | -0.95 | 1.51 | -0.17 | 1.13 |
| 61 | -0.59 | -0.48 | -0.62 | 0.21 | -0.76 |
| 62 | 0.57 | -0.95 | 1.32 | -1.70 | 0.44 |
| 63 | -0.32 | 1.70 | -0.65 | 0.91 | -0.75 |
| 64 | 0.64 | -0.82 | 1.29 | -1.05 | 0.97 |
| 65 | -0.66 | -0.48 | -0.48 | 1.34 | 0.04 |
| 66 | -1.25 | -0.69 | -0.62 | -1.43 | -0.51 |
| 67 | -2.17 | 1.05 | -0.45 | 1.38 | 0.30 |
| 68 | -1.34 | -0.78 | -0.01 | 1.46 | 0.53 |
| 69 | -0.51 | 1.44 | 1.23 | 0.26 | 0.63 |
| 70 | -1.48 | -0.84 | 1.14 | 0.38 | 1.19 |
| 71 | 0.67 | 1.65 | -0.23 | -0.46 | -1.65 |
| 72 | -0.21 | -0.90 | 0.73 | -0.22 | 1.53 |
| 73 | 0.49 | 1.81 | -1.23 | -0.99 | -0.28 |
| 74 | 0.70 | 1.50 | 0.95 | 0.18 | 1.19 |
| 75 | -0.88 | -0.70 | -0.38 | 0.10 | -1.23 |
| 76 | -0.72 | -1.03 | 1.93 | -0.37 | -1.37 |
| 77 | 0.84 | -0.82 | 1.25 | 0.20 | -0.48 |
| 78 | -1.09 | 1.69 | -0.75 | -0.59 | 0.56 |
| 79 | -0.14 | 1.20 | 1.30 | -0.59 | 0.51 |

* Italicized scores were determined to be significant for analysis.

** Numbers refer to the death ritual elements in Table 2.

TABLE SIX
Factor One-„Church Domination“

| Factor Loading* | Community | Factor Score* | Death Ritual Element |
|-----------------|----------------|---------------|--|
| 0.59 | Spanish Basque | 2.17 | Absence of Christmas visitation to grave |
| 0.54 | Poland | 1.99 | Death watch one day |
| 0.44 | Hungary | 1.97 | Absence of death watch of more than 1 day |
| 0.40 | Rural Irish | 1.51 | Fear of death |
| 0.39 | Georgians | 1.48 | Absence of nuclear families |
| | | 1.34 | Absence of Lent visitation to the grave |
| | | 1.31 | Absence of less than one day death watch |
| | | 1.30 | Ritualized wailing at death watch |
| | | 1.26 | Death not personified as male |
| | | 1.25 | Absence of short intensified subset period of mourning |
| | | 1.23 | Black magic & omens |
| | | 1.15 | Frivolity at funeral feast |
| | | 1.13 | Absence of belief in soul crossing water |
| | | 1.09 | Absence of coffin carried by wagon |
| | | 1.09 | Absence of kindreds |
| | | 1.03 | Coffin carried by pallbearers |
| | | 1.03 | Fear of the dead |
| | | 1.01 | Earth sprinkled on grave |

* Loadings and scores are absolute values.

TABLE SEVEN
Factor Two-„Family Solidarity“

| Factor Loading* | Community | Factor Score* | Death Ritual Element |
|-----------------|-------------|---------------|---|
| 0.95 | Switzerland | 1.81 | Agamous communities with localized clans |
| 0.95 | Belgium | 1.77 | Frivolity at funeral feast |
| 0.90 | Netherlands | 1.75 | Mourners sprinkle earth on grave |
| | | 1.74 | Gathering of villagers at home only after death |
| | | 1.70 | Mourning less than 1 year |
| | | 1.69 | Kindreds |
| | | 1.66 | Door, windows opened when body removed |
| | | 1.65 | Small extended families |
| | | 1.54 | Coffin first in procession |
| | | 1.53 | Door, windows closed at death |
| | | 1.51 | Villagers after relatives in funeral procession |
| | | 1.50 | Absence of patrilineal kin groups |
| | | 1.44 | Graveyards tended |
| | | 1.43 | Tolling of church bells at death |
| | | 1.40 | Ritualized wailing at death watch |
| | | 1.32 | Resigned fatalism at death |
| | | 1.29 | Church masses after death |
| | | 1.23 | Death not personified |
| | | 1.20 | Complex village stratification |
| | | 1.18 | No fear of the dead |
| | | 1.13 | Coffin carried by wagon |
| | | 1.10 | Reconciliation with villagers at bedside |
| | | 1.05 | Christmas visitation to grave |
| | | 1.03 | Cognitive kin groups |

* Loadings and scores are absolute values.

TABLE EIGHT
Factor Three--„Urban Orientation“

| Factor Loading* | Community | Factor Score* | Death Ritual Element |
|-----------------|-----------|---------------|--|
| 0.85 | Sweden | 1.93 | Absence of cognitive kin groups |
| 0.71 | Germany | 1.84 | Administration of rites by priest |
| 0.66 | Denmark | 1.51 | Candles in church services |
| 0.62 | England | 1.43 | Relatives before coffin in funeral procession |
| 0.58 | Austria | 1.41 | Preparation for death well in advance |
| | | 1.38 | No fear of the dead |
| | | 1.34 | Candles on coffin |
| | | 1.32 | Interval of church masses |
| | | 1.32 | One year mourning period |
| | | 1.30 | Complex village stratification |
| | | 1.29 | Black as mourning color |
| | | 1.25 | Bilateral descent |
| | | 1.25 | One day death watch |
| | | 1.24 | Absence of door, windows, etc. closed at moment of death |
| | | 1.23 | Absence of agamous communities |
| | | 1.23 | Graveyards tended |
| | | 1.16 | Death not personified |
| | | 1.16 | Absence of goods vs. evil dichotomy |
| | | 1.14 | Nuclear families with monogamy |
| | | 1.12 | Absence of body retaining sensation |
| | | 1.08 | Absence of food, etc. at bedside |
| | | 1.07 | Absence of belief in soul hovering |
| | | 1.05 | Door, windows, etc. open at moment of death |
| | | 1.04 | Absence of body on floor or bench after death |
| | | 1.02 | No frivolity at funeral feast |
| | | 1.01 | Candles at bedside |
| | | 1.00 | Resigned fatalism at death |

* Loadings and scores are absolute values.

TABLE NINE
Factor Four--„Jewish“

| Factor Loading* | Community | Factor Score* | Death Ritual Element |
|-----------------|-----------|---------------|---|
| 0.52 | Jewish | 1.70 | Mourning one year |
| | | 1.57 | Retention of sensation in body belief |
| | | 1.56 | Absence of placing articles in coffin |
| | | 1.52 | Soul hovers until burial |
| | | 1.46 | Absence of Lent grave visit |
| | | 1.43 | Intensified subset of mourning period |
| | | 1.39 | Absence of post-burial feast intervals |
| | | 1.38 | Absence of Christmas grave visit |
| | | 1.37 | Absence of candles at bedside |
| | | 1.34 | Absence of house cleaning restrictions |
| | | 1.34 | Absence of house marked by black banner during mourning |
| | | 1.33 | Absence of priest first in funeral procession |
| | | 1.32 | Coffin first in funeral procession |
| | | 1.30 | Absence of money and other articles in coffin |
| | | 1.25 | Absence of body preparation by women relatives |
| | | 1.06 | Absence of bedside services by priest |
| | | 1.05 | Black as mourning color |
| | | 1.05 | Preparation well in advance for death |

* Loadings and scores are absolute values.

TABLE TEN
Factor Five-„Formal Religious Domination“

| Factor Loading* | Community | Factor Score* | Death Ritual Element |
|-----------------|-----------|---------------|--|
| 0.74 | Italy | 1.79 | Death watch more than 1 day |
| 0.62 | Portugal | 1.76 | Absence of one day death watch |
| 0.52 | Spain | 1.70 | Absence of preparation well in advance for death |
| 0.52 | Ukraine | 1.65 | Absence of small extended families |
| 0.47 | Malta | 1.58 | Dichotomy of goods vs. evil in dying person |
| | | 1.58 | Duality belief in afterlife |
| | | 1.53 | Neolocal residence |
| | | 1.43 | Absence of coffin carried by pallbearers |
| | | 1.38 | Fear of the dead |
| | | 1.37 | Absence of cognative kin groups |
| | | 1.31 | Coffin carried by wagon |
| | | 1.28 | No cleaning of house until removal of body |
| | | 1.23 | Absence of lineages |
| | | 1.20 | Absence of relatives before coffin in funeral procession |
| | | 1.19 | Absence of patrilineal kin groups with patrilineal exogamy |
| | | 1.19 | Nuclear families |
| | | 1.13 | Candles at church |
| | | 1.12 | Absence of doors, windows opened with removal of body |
| | | 1.10 | Black magic and death omens |
| | | 1.05 | Tolling of church bell at death |
| | | 1.04 | Absence of funeral feast after death |
| | | 1.00 | Villagers after relatives in funeral procession |
| | | 1.00 | Absence of villagers gathering at home only after death |

* Loadings and scores are absolute values.

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