Content analysis of genuine and simulated suicide notes using Foulkes's scoring system for latent structure.

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CONTENT ANALYSIS OF GENUINE AND SIMULATED SUICIDE NOTES
USING FOULKES'S SCORING SYSTEM FOR LATENT STRUCTURE

by

Brenda L. McLyster

M. A. University of Windsor, 1985

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ABSTRACT

The purpose of the present study was to compare genuine and simulated suicide notes using Foulkes' s (1978) Scoring System for Latent Structure. This scoring system classifies verbal material into subject-verb-object relationships. Two judges practiced scoring until they achieved 90% agreement in their assignment of subject, verb, and object terms of interactive statements. Interactive statements are subject-verb-object relationships in which the verbs are classified as Moving Toward, Moving From, Moving Against, or Creating behaviour. The judges then independently scored a sample of 33 genuine and 33 simulated suicide notes (Shneidman & Farberow, 1957a), and then met to reconcile their differences in scoring. The reconciled protocol was employed in the data analysis. The genuine suicide notes contained more interactive statements than the simulated suicide notes (z=2.46, p < .05). The genuine and simulated suicide notes did not differ in the frequency with which each interactive verb category was employed. The genuine suicide notes contained more references to Father (F(1,63)=4.48, p < .05) and to male peers (F(1,63)=4.24, p < .05), whereas the simulated suicide notes contained more frequent references to abstract concepts (F(1,63)=8.39, p < .005). The genuine suicide notes contained more references to characters and objects that were considered to represent other characters (t(63)=1.93, p < .05). These
character substitutions implied that the manifest content of the notes was a distorted expression of an unconscious wish. Contrary to prediction, the genuine suicide notes did not contain significantly more expressions of ambivalence as indicated by more negatively modified interactive verbs, more ambivalent assertions, and more ambivalent evaluations. The simulated suicide notes significantly more frequently contained negative evaluations of nouns and verbs ($F(1,63) = 4.49, p < .05$). These results are not consistent with the findings of researchers who reported that genuine suicide notes express more ambivalence than simulated suicide notes; the differences may be attributable, however, to data reduction with different scoring systems. The present data suggest that those who kill themselves are influenced by motives they are not fully aware of. These motives involve wishes for affiliation and affection, particularly wishes for involvements with a spouse or a father. The results of the present study support the validity of Foulkes's Scoring System for Latent Structure as a method for detecting indirect expression of unconscious wishes. Important issues for future investigation include whether one can generalize the results of the present study to other demographic groups of suicides, such as females and suicides who do not leave notes, and whether the results of the present study reflect qualities that distinguish suicides from other persons experiencing psychological distress.
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CHAPTER I
INTRODUCTION

Each year in Canada, there are approximately 15 deaths by suicide per 100,000 population (Statistics Canada, 1983). The official suicide rate probably provides an underestimate of the number of suicides. In addition, suicide statistics for each province are reported by different agencies which use different procedures and may vary in accuracy (Syer-Solursh, 1986).

It can be difficult to determine whether a specific death is the result of suicide. Official documents often classify cause of death according to four modes: natural causes, accident, homicide, and suicide. According to Shneidman (1973a), the mode of death is equivocal in 10 to 15% of all cases, and most often the ambiguity involves discriminating between suicide and accident.

Suicide has been viewed from various perspectives throughout history. Until the early 1900's, the predominant view was that suicide was a crime or a sin, and therefore was a legal or moral issue rather than a psychological issue (Jackson, 1957; Shneidman, 1973a). The development of the sociological and psychological perspectives of suicide, which dominate modern attitudes about suicide, began at the turn of the century.

The beginning of the sociological perspective of suicide is associated with Emile Durkheim, who published
Le Suicide in 1897. Durkheim (1897/1951) investigated suicide rates in relation to social variables such as religious affiliation, marital status, and economic status. Durkheim described three types of suicides in terms of individuals' relationship with their social milieu: egoistic, altruistic, and anomic. According to Durkheim, egoistic suicides occur when social groups are not strongly integrated, resulting in excessive individuation. Under these circumstances, an individual's wish to commit suicide to escape from suffering may overcome social constraints against suicide. Altruistic suicides, on the other hand, occur when there is insufficient individuation, and suicide is considered to be a duty or means of avoiding disgrace. Ritual suicide such as harakiri and suttee are examples of altruistic suicide. Anomic suicides occur when individuals experience a disruption of social constraints, such as sudden loss of economic status or loss of a significant relationship. Durkheim's study is primarily important because it has provided a model for subsequent sociological investigations of suicide (Shneidman, 1973a).

Sigmund Freud attempted to explain suicide in terms of psychodynamic theory, and is credited with beginning the psychological investigation of suicide. Freud never published a comprehensive paper on suicide, but an overview of his contributions to a theory of suicide has been written by Litman (1968). Freud (1901/1960) proposed that
an instinct for self-destruction contributes to suicidal behaviour. He emphasized the role of unconscious motives in suicidal behaviour, and suggested that apparently "accidental" self-injury may reflect unconscious suicidal impulses. Freud's (1917/1957) best known hypothesis concerning motives for suicide is that murderous wishes toward a loved one are turned against an aspect of the self which is identified with the loved one.

Interest in research concerning the psychology of suicide increased dramatically during the proliferation of suicide intervention services during the 1950's and 1960's. Suicide intervention services were first established at that time as part of the community mental health movement. In order to provide effective intervention, it was considered necessary to develop a better understanding of suicidal behaviour. Suicide intervention services also provide a means for gathering information about suicidal behaviour. Controlled investigation of suicide, however, is complicated in a number of ways.

One issue described by Shneidman (1973a) concerns the definition of suicide. Shneidman defined suicide as a conscious wish to die and an action to fulfill this wish. He pointed out, however, that the present system of classifying mode of death in terms of natural causes, accident, homicide, and suicide is inadequate in some respects. This classification system does not account for
the role of the individual in the events that result in death from natural causes, accident, and homicide. Furthermore, this classification system does not account for the possibility that unconscious motives may influence the role of the individual in the events that result in death. For example, death resulting from reckless driving, drug abuse, or medical complications arising from anorexia nervosa could be considered to be suicide. Shneidman suggested that classification of all deaths as intentioned, subintentioned, and unintentioned would provide a more accurate description of the mode of death. This system would not, however, eliminate the difficulty in classification related to lack of information regarding the intentions of the deceased, which may be impossible to resolve in some situations since only the deceased could have provided the required information.

According to Maris (1981), there are presently no reliable methods for predicting suicide. In order to conduct prospective studies, it would be necessary to monitor large numbers of individuals to obtain a sample of suicides. The practical and ethical problems involved in conducting such a study are prohibitive (Maris, 1981).

Retrospective studies are less difficult to implement (Maris, 1981), however, data are often scarce or biased. Third party informants, such as family members, friends, and health professionals have incomplete information and
have different perspectives depending on their relationship with the deceased (Maris, 1981). Hood (1970) reported that subjects rated the same case history material as indicating more lethal intent when they were told the individuals committed suicide than when they were told the individuals died of natural causes. Information reported by third parties may be subject to this type of retrospective bias and these informants may reinterpret the past behaviour of individuals when they know the individuals have committed suicide.

Official records provide another source of data for retrospective studies. According to Maris (1981), however, demographic information alone is of limited value in clarifying factors that contribute to suicide, and case histories and clinical notes, while rich in information, are unstandardized and nonrepresentative of suicides in general.

An alternative procedure is to investigate individuals who have survived suicide attempts and generalize the results to suicides. Suicide attempters are at high risk of subsequent suicide compared to the total population (Maris, 1981). Shneidman and Farberow (1957b) reported that 75% of the suicides in their sample had made prior suicide attempts. Hood (1970) reported that estimates of the proportion of suicides who made at least one prior attempt ranged from 30% to 80% for individuals who had been
hospitalized, and from 7 to 16% for individuals who had not been hospitalized. There are approximately eight times as many suicide attempts as suicides (Shneidman & Farberow, 1961) and 80 to 95% of suicide attempters do not ultimately die as a result of suicide (Máríis, 1981). Although the populations of suicides and suicide attempters overlap, there are large discrepancies between them. Many suicide attempters never die from suicide, and many suicides are not known to have survived prior attempts. There is also evidence that suicide attempters as a group differ in important ways from suicides.

For example, the average age of suicides is about 40 years, and the average age of suicide attempters is about 30 years (Beck, Morris & Lester, 1974; Shneidman & Farberow, 1961). More suicides are male than female, and more suicide attempters are female than male (Beck et al., 1974; Shneidman & Farberow, 1961; Syer-Solursh, 1986; Dominion Bureau of Statistics, 1960). Beck et al. (1974) reported that a larger proportion of suicide attempters than suicides belonged to races other than caucasian. More important, it is likely that suicides and suicide attempters have different psychological characteristics (Shneidman, 1985). In view of the differences between suicides and suicide attempters, it has generally been considered inappropriate to generalize results of research with suicide attempters to suicides.
Lester, Beck and Trexler (1975) and Lester, Beck and Mitchell (1979) investigated a group of 453 individuals who had been hospitalized following suicide attempts. Fourteen of these individuals later committed suicide. Lester et al. (1975, 1979) reported that scores on depression and hopelessness scales were correlated with intent to die. The scores obtained by individuals who later committed suicide were significantly higher than scores obtained by individuals who stated that they did not intend to die or were uncertain of their intent. In addition, individuals who later committed suicide obtained depression and hopelessness scores similar to those individuals who stated that they intended to die. It is not known, however, whether the data obtained from these individuals within a few days following suicide attempts is comparable to that which would be obtained just prior to death by suicide (Lester et al., 1979).

The results of this research suggest that it is possible to identify a subgroup of suicide attempters who are most similar to suicides. If additional research supports this conclusion, investigation of suicide attempters with the most lethal intent will provide useful information about suicide as well as an opportunity to allocate suicide intervention services more effectively.

In summary, research concerning suicide is complicated because the individuals who commit suicide are not available
to provide information about their intentions, affective state, and reasons for suicide. The reports of third party informants may be subject to bias (Hood, 1970). Information available from official records tends to fall within two extremes: demographic information which is of limited value in explaining suicide, and case histories which have limited application to suicides in general (Maris, 1981). It may be possible under certain circumstances to generalize information concerning suicide attempters to suicides (Lester et al., 1975, 1979), but additional research is necessary to clarify this issue.

There is an important source of data that has been the subject of a significant number of studies during the past 30 years: suicide notes. Suicide notes may be obtained in quantity and provide certain advantages as a source of data. Suicide notes provide a source of data directly from individuals who commit suicide. The presence of a suicide note eliminates ambiguity about the individuals' intent to die, and is a criterion for determining that the mode of death was suicide (Beck et al., 1974; Edland & Duncan, 1973). Suicide notes are presumed to be written in the moments preceding the suicidal act (Shneidman, 1973a), and may provide clues for understanding the individuals' subjective state at that time (Chynoweth, 1977; Fredrick, 1969; Shneidman, 1973a). The results of the research concerning suicide notes will be reviewed in the following pages.
Suicide is a multidetermined, complex behaviour, and this complexity is reflected by the research results, which defy simplistic summary.

Thomas (1980) described details of a document he considered to be the earliest suicide note on record, although it is not known whether the author of this document actually committed suicide. The document is estimated to have been written between 1991 and 1786 B.C. in Egypt:

Lo, my name is abhorred,
Lo, more than the odour of carrion
On summer days when the sky is hot.
Lo, my name is abhorred,
Lo, more than the odour of crocodiles,
More than sitting under a bank of crocodiles.
Lo, my name is abhorred,
Lo, more than a woman
Against whom a lie is told her husband. (p. 284)

The author of the document described himself as abhorred by others. He described others as evil. He described death as a pleasurable state and expressed the belief that after death, he would be powerful and would take revenge against others. Thomas compared the sentiments expressed in the document to those expressed by depressed individuals in the present day.

De Boismont published the first analysis of suicide
notes in 1856, and discussed the notes from a moral perspective (Shneidman, 1973a; Wagner, 1960). In the first English language publication on the subject of suicide notes, Wolf (1931) included the text of 14 suicide notes. Wolf did not attempt to analyze these notes from a psychological point of view, but suggested that they could be used for this purpose.

Only five articles on the subject of suicide notes were published prior to Shneidman and Farberow (1957b, 1957c, 1957d) and Farberow and Shneidman's (1957) pioneering efforts to introduce controls to the study of suicide notes. Approximately 60 articles on suicide notes have been published since, including several literature reviews (Frederick, 1969; Lester, 1983; Shneidman, 1973).

The Representativeness of Suicide Note Writers

An important methodological consideration in the study of suicide notes concerns the question of whether suicide note writers are representative of suicides in general. Considering the difficulty in determining the suicide rate, as well as the likelihood that not all suicide notes come to the attention of the authorities, it is difficult to determine the proportion of suicides who leave notes. Factors such as sample size, regional and temporal differences between samples, also contribute to the variability of estimates. Estimates of the proportion of suicides who leave notes range from 15% (Shneidman &
Farberow, 1957b) to 36% (Shneidman & Farberow, 1961). Most of the estimates fall between 20 and 25% (Beck et al., 1974; Chynoweth, 1977; Cohen & Fiedler, 1974; Edland & Duncan, 1973). Of a sample of 30 suicides aged 14 years and younger described by Shaffer (1974), 14 left suicide notes.

Cohen and Fiedler (1974) reported that a significantly higher proportion of female suicides left notes than male suicides, and other authors have reported differences in this direction. Capstick (1960) reported that 18.2% of female suicides and 14.1% of male suicides left notes, but did not indicate whether this difference was statistically significant. Shneidman and Farberow (1961) also reported that a higher proportion of female suicides than male suicides (39% and 35% respectively) left notes, but this difference was not significant. Tuckman, Kleiner, and Lavell (1959), however, found no sex differences between suicides who left notes and those who did not.

Cohen and Fiedler (1974) found significant differences between female note writers and non-note writers with respect to marital status. Separated and divorced women were most likely to leave notes, and widowed women were least likely to leave notes. The proportion of single and married women who left notes fell between these extremes. Male note writers and non-note writers did not differ in terms of marital status. Shneidman and Farberow (1960)
reported that note writers and non-note writers did not differ with respect to marital status, and interactions between marital status and sex were not reported.

There is some evidence that women are overrepresented among suicide note writers. Women's traditional role as primary caretakers of children may contribute to this trend. There may be more ambiguity concerning who will care for the children of separated or divorced women in the event of their death than for women in intact marriages. Separated and divorced women may feel a greater responsibility to leave instructions and make requests concerning the care of their children. Single women less commonly have children than women who have been married, and widowed women are more likely to be older and not have dependent children.

Cohen and Fiedler (1974) reported that the notes of female suicides contained instructions more often than the notes of male suicides, and the notes of separated and divorced suicides were more likely to contain instructions than the notes of single, married, or widowed suicides. The specific contents of the instructions were not described.

Other demographic comparisons between suicide note writers and non-note writers have been investigated. Capstick (1960) reported that the proportion of suicides who left notes decreased with age. Tuckman et al. (1959) and Cohen and Fiedler (1974), however, found no age differences between suicide note writers and non-note
writers. Cohen and Fiedler (1974) reported that caucasians were more likely than individuals of other races to leave suicide notes. Tuckman et al. (1959) found no race differences between suicides who left notes and those who did not.

Fishbain, D'Achille, Barsky and Aldrich (1984) reported that individuals who made suicide pacts were more likely than other suicides to leave notes. Suicide pacts are extremely rare. For example, suicide pacts are involved in .007% of suicides in the United States (Fishbain et al., 1984). This difference would not contribute significantly to overall differences between suicide note writers and non-note writers.

Cohen and Fiedler (1974) reported that female suicides who left notes were more likely to choose overdose of drugs as a method of suicide than female suicides who did not leave notes. They also reported that married note writers committed suicide by overdose of drugs more often than would be predicted by chance. Tuckman et al. (1959) reported that both male and female note writers were more likely than non-note writers to choose overdose of drugs as a method of suicide.

Cohen and Fiedler (1974) reported that female note writers were more likely to choose asphyxiation as a method of suicide than female non-note writers. Tuckman et al. (1959) reported that note writers were significantly less
likely to hang themselves than non-note writers. Differences in the categories chosen for these studies may contribute to the apparently contradictory results. For example, hanging is one member of the category asphyxiation, which also includes methods such as carbon monoxide poisoning. Since Cohen and Fiedler (1974) did not report separate figures for hanging, it is impossible to determine whether the note writers in their sample were more likely to hang themselves than were the non-note writers or to use some other method of asphyxiation. Tuckman et al. (1959) reported that there were no significant sex differences between note writers and non-note writers and did not report data concerning interactions between sex and method of suicide. Sex differences related to choice of method for suicide are commonly reported. Consideration of the choice of method for suicide for the total sample of note writers compared with the total sample of non-note writers may mask sex differences in choice of method for suicide among note writers and non-note writers.

Tuckman et al. (1959) and Chynoweth (1977) found that note writers were more likely than non-note writers to use firearms. This difference was considered to reflect more lethal intent in note writers. Cohen and Fiedler (1974), however, found no significant overall differences between note writers and non-note writers with respect to use of firearms as a method of suicide. They did report, however,
that married note writers were less likely than would be predicted by chance to use firearms, and widowed note writers were more likely than widowed non-note writers to use firearms.

Lester (1971a) reported that note writers did not differ from non-note writers with respect to choice of active versus passive method of suicide. Lester classified methods such as cutting, hanging, jumping, and shooting as active methods, and methods such as overdose of drugs, gas, and poisoning as passive methods.

Shaffer (1974) investigated all documented suicides of individuals aged 14 years and younger in England and Wales during a seven year period during the 1960's. Thirty children committed suicide, and 14 of them left notes. According to Shaffer, the note writers and non-note writers were similar with respect to age, intelligence, personality, and method chosen for suicide.

Some researchers have also investigated notes left by suicide attempters. It is more difficult to obtain accurate information about the notes of suicide attempters than the notes of suicides because the notes written by suicide attempters generally do not come to the attention of authorities. Shneidman and Farberow (1957b) reported that one percent of suicide attempters left notes, and Beck et al. (1974) reported that 14% of suicide attempters left notes. Tuckman and Youngman (1968) found that suicide attempters
who wrote suicide notes had a higher rate of subsequent suicide than suicide attempters who did not write notes. Cohen, Motto and Seiden (1966), however, reported that the rate of subsequent suicide did not differ between suicide attempters who wrote notes and those who did not. Lester et al. (1975) and Beck et al. (1974) found that suicide attempters who wrote notes tended to have higher suicide intent scores than suicide attempters who did not write notes.

Although initial comparisons between suicide note writers and non-note writers indicated that these groups were similar demographically (Shneidman & Farberow, 1961; Tuckman et al., 1959), other researchers have reported significant differences between these groups. In addition to demographic differences, it is possible that there are psychological differences between suicide note writers and non-note writers. Individuals who leave suicide notes may be generally more communicative than individuals who do not leave suicide notes. According to Gottschalk and Gleser (1960), when suicides leave notes, this implies a greater drive to communicate with others, which may reflect differences in personality or feelings about suicide between note writers and non-note writers. In the absence of more definite information regarding psychological differences between suicide note writers and non-note writers, conclusions based on research with suicide notes
applied to suicides in general should be considered tentative.

Methods Used in the Investigation of Suicide Notes

Although not specifically mentioned in Allport's (1942) review of the use of personal documents in psychological research, suicide notes are certainly a type of personal document. According to Allport, personal documents may provide a valuable source of data concerning the characteristics of the authors of these documents. In the present case, it may be argued that suicide notes provide a unique opportunity to investigate the subjective state of individuals immediately prior to suicide.

Investigation of suicide notes involves retrospective or ex post facto research designs. The primary weakness of this type of study is that, since the phenomena being investigated has already occurred, experimental controls, such as random assignment of subjects to groups and control of independent variables, cannot be employed. It is therefore more difficult to interpret the nature of the relationship between the independent and dependent variables (Kerlinger, 1964). This is especially true of research in the area of suicide since suicidal behaviour clearly does not lend itself to experimental manipulation.

Kerlinger (1964) described a number of ways in which available data, such as personal documents and other records, may be used in research, and most of these approaches have
been employed in the literature concerning suicide notes. For example, anecdotal studies (Shneidman, 1980; Wolf, 1931) that present the text of suicide notes with general discussion of this material are intended to explore and gain insight regarding the content of suicide notes. Bjerg (1967) studied a large number of suicide notes in order to develop a phenomenological model of suicide, and this is an example of the use of available data to develop hypotheses. Available data may also be used to test hypotheses, and this approach has often been employed in research concerning suicide notes. For example, Leenaars and Balance (1984) developed a set of predictive statements based on Freud's theories of suicidal behaviour, and judges classified suicide notes according to whether or not the notes were consistent with these statements. In addition, available data may be used to test the validity of data obtained from other sources, as in a study conducted by Tuckman, Kleiner and Lavell (1960) comparing the reasons for suicide stated in suicide notes with reasons given by third party informants.

As mentioned earlier, Shneidman and Farberow (1957b, 1957c, 1957d) and Farberow and Shneidman (1957) introduced control procedures to the study of suicide notes. These authors employed content analysis and compared the content of suicide notes with the content of a control sample of simulated suicide notes. Many variations on these two
control procedures are present in subsequent studies of suicide notes. The content analysis procedures that have been employed range from classification of suicide notes into general categories, such as stated reason for suicide (Bjerg, 1967; Chynoweth, 1977; Edland & Duncan, 1973; Shaffer, 1974; Tuckman et al., 1960) to detailed analysis of language used in suicide notes (Edelman & Renshaw, 1982; Gottschalk & Gleser, 1960; Henken, 1976; Ogilvie, Stone & Shneidman, 1966; Osgood & Walker, 1959; Spiegel & Neuringer, 1963). Suicide notes have been compared to a variety of written material, including ordinary letters (Osgood & Walker, 1959), and documents written by individuals facing imminent, involuntary death, such as execution or terminal illness (Henken, 1976). The sample of suicide notes and comparison material that has been used most frequently is a set of 33 genuine and 33 simulated suicide notes (Shneidman & Farberow, 1957a). The simulated suicide notes were written by non-suicidal individuals under instructions to write the note that they would leave if they were about to commit suicide.

Two general types of data have been reported in studies of suicide notes. Descriptive data provide information about the prevalence of various content categories in suicide notes, as well as the relative frequencies with which these content categories occur in subgroups of suicide notes. Data comparing suicide notes
with other samples of written material provide information about content that discriminates between suicide notes and comparison material. Since descriptive and comparative data provide different types of information about suicide notes, these results will, for the most part, be discussed separately.

Description of Suicide Notes

The following section is, with a few exceptions, a summary of descriptive data concerning suicide notes. Descriptive studies have focussed on the general categories of content present in suicide notes, stated reasons for suicide, expressed affect, and logical styles. Results of some comparative studies are described in the discussions of expressed affect and logical styles in suicide notes. In the case of expressed affect, some descriptive and comparative studies employed the same methods for scoring content. In the case of logical styles, disturbance of reasoning is more clearly evident in contrast with "normal" reasoning.

Content of Suicide Notes

Suicide notes vary in length from a brief statement to several pages (Wagner, 1960). Suicide notes are generally addressed to a specific individual, such as a family member (Wagner, 1960). Cohen and Fiedler (1974) rated the content of 220 suicide notes according to 26 categories derived from research results. Content categories used most
frequently included instructions, advice, and requests concerning distribution of property, funeral arrangements, care of dependents, and warnings to survivors. Thirty-one percent of all statements in this sample belonged to this category, and this category of content was present in 84% of the notes. Twenty-two percent of the suicide notes in a sample described by Capstick (1960) included instructions, and 10% included warnings. Fifty-eight percent of the notes in Capstick's sample cited reasons for suicide.

Jacobs (1967) studied a sample of 112 suicide notes and attempted to develop a generalized outline of the content of suicide notes. Jacobs proposed the following outline to describe what he labelled "first form" suicide notes. Authors of first form notes indicated that they were not responsible for causing their difficulties. They described a history of problems that had recently escalated to an intolerable level. They considered death to be their only available solution to their problems. They assumed that they had made the best decision, but also assumed that others would misunderstand them. All first form notes requested forgiveness or understanding from survivors. Thirty-five of the 112 notes were classified as first form.

Jacobs (1967) also described common variations in the content of suicide notes. A large number of the notes in this sample, 34 of 112, cited illness as the reason for suicide. "Illness notes" did not necessarily request
forgiveness from survivors. Authors of 10 of the notes blamed specific individuals for their suicides. These "direct accusation" notes tended to be very brief and did not include requests for forgiveness. Twenty-eight of the notes were essentially instructions or wills, usually concerning the distribution of property.

In general, suicide notes focus on concrete, practical issues. This has been interpreted as expression of a wish to maintain contact with others and ambivalence about suicide (Shneidman & Farberow, 1957c).

Stated Reasons for Suicide

Capstick (1960) reported that 58% of suicide notes stated reasons for suicide. Seventy percent of a sample of suicide notes described by Chynoweth (1977) and 100% of a sample of suicide notes described by Shaffer (1974) stated reasons for suicide. Darbonne (1969b) reported that the notes of suicides aged 60 years and older focussed more on the reasons for suicide than the notes of younger suicides. Tuckman, Kleiner and Lavell (1960) compared the reasons for suicide as stated in suicide notes with those reported by third party informants and found significant agreement between these sources.

Younger suicides tended to attribute their suicides to rejection by a loved one (Darbonne, 1969b). Eismaars, Balance, Wenckstern and Rudzinski (1985) reported that at least 30% of suicide notes cited rejection as a reason for
suicide. Wagner (1960) reported that interpersonal problems were described in 50% of suicide notes and implied in others, and Chynoweth (1977) reported that 15% of suicide referred to marital or family problems. Thirty percent of a sample of suicide notes described by Leenaars et al. (1985) referred to interpersonal difficulties.

Older suicides tended to cite illness as a reason for suicide (Capstick, 1960; Darbonne, 1969b). Illness was the stated reason for suicide in 11% of a sample of suicide notes described by Chynoweth (1977) and five percent of a sample of suicide notes described by Wagner (1960).

Leenaars et al. (1985) reported that 70% of suicide notes referred to adult trauma. Adult trauma included crises such as illness and rejection.

According to Capstick (1960), about 10% of suicide notes indicated that suicide was motivated by malice toward others. These notes had similar content to the direct accusation notes described by Jacobs (1967) and accounted for the same proportion of the total sample.

Edland and Duncan (1973) classified 330 suicide notes in terms of seven categories of motives derived by the authors based on psychodynamic theories: retaliatory abandonment, retroflexed murder, reunion, rebirth, self-punishment, punishment of society, and justifiable solution. It was concluded that most of the notes were clearly consistent with one of the seven categories, however, no
information was provided regarding the number of notes classified as belonging to each category.

Shaffer (1974) reported that five out of a sample of 14 suicide notes written by children aged 14 years and younger stated that the children committed suicide because they had recently gotten into trouble. Shaffer did not describe the specific difficulties referred to in the notes: Three of the children attributed their suicides to rejection by a boyfriend or girlfriend, two to fear of a peer, two to their parents' behaviour, one to depression, and one described suicide as an escape.

Bjerg (1967) studied a sample of 568 suicide notes in terms of the reasons for suicide suggested in the notes, and attempted to establish generalized categories of reasons. Eighty-one percent of the note writers referred to frustration of a wish, and attributed the responsibility for this frustration to their situations (40%), to others (40%), or to themselves (37%). Fifty-nine percent of the note writers referred to intolerable affective states, and in many cases indicated that they expected these states to continue into the future. Thirty-eight percent of the note writers referred to an inclination toward suicide because death was seen as a desirable state, they felt compelled to commit suicide, or they perceived no barriers to prevent them from committing suicide. Seventeen percent of the notes contained self-evaluation which was almost exclusively
negative. When positive self-evaluation was present, it was expressed in past or future tense. Six percent of the notes indicated that suicide was what others expected, and six percent indicated that others drove them to suicide. The note writers also referred to anticipated consequences of their suicides. Four percent indicated that they hoped their suicides would be hurtful or harmful to others, 17% expressed hope that others would benefit from their suicides, and seven percent expressed hope that their suicides would lead to gratification of some wish.

**Affect Expressed in Suicide Notes**

Leenaars et al. (1985) reported that suicide notes were characterized by expression of a variety of strong emotions. Cohen and Fiedler (1974) reported that suicide notes more often expressed positive affect than hostility. Fifty percent of the notes in a sample studied by Tuckman et al. (1959) were considered to express positive affect, 25% to express neutral affect, and 16% to express ambivalent affect. Leenaars et al. (1985) reported that at least 70% of the notes in their sample expressed ambivalence. Multiple notes were reported to contain a combination of hostility and positive affect more often than single notes, and single notes more often contained neutral or positive affect (Tuckman & Ziegler, 1968).

Cohen and Fiedler (1974) reported that suicide notes more often expressed hostility toward self than hostility
toward others. According to Wagner (1960), suicide notes were equally likely to express hostility toward self or others, and each was present in one third of the notes in his sample. Leenaars et al. (1985) reported that at least 70% of suicide notes expressed shame, and at least 30% expressed self-depreciation. Tuckman et al. (1959) found that only five percent of the notes in their sample expressed hostility toward others, and only one percent expressed hostility toward self. Shaffer (1974) rated a sample of 14 suicide notes written by children aged 14 years and younger using the procedure described by Tuckman et al. (1959). Five of the notes expressed hostility toward others, and two of the notes expressed hostility toward self.

A number of studies have considered suicide notes in terms of Mower's Discomfort-Relief Quotient. In order to calculate this quotient, verbal material is divided into thought units. Thought units are rated as Discomfort if they express negative or unpleasant affect, Relief if they express positive or pleasant affect, or neutral if they express no affect (Shneidman & Farberow, 1957b). Shneidman and Farberow (1957b) reported that genuine suicide notes contained more thought units and more neutral thought units than simulated suicide notes. Genuine and simulated suicide notes did not differ with respect to Relief thought units. Genuine suicide notes contained more Discomfort
thought units than simulated suicide notes, but this
difference was not significant. The authors suggested that
the Discomfort expressed in the genuine suicide notes was
more intense than the Discomfort expressed in the simulated
suicide notes, but this qualitative difference was not
reflected by the Discomfort scores. Subsequent research
results indicate that suicide notes obtain higher
Discomfort-Relief Quotients than ordinary letters (Osgood &
Walker, 1959), and Discomfort-Relief Quotient is not
correlated with age of suicide (Lester & Reeve, 1982) or
choice of active versus passive method of suicide (Lester,
1971a).

Menninger's theory that suicide is motivated by a
combination of the wish to kill, the wish to be killed, and
the wish to die (hostility toward others, hostility toward
self or guilt, and despair, respectively) has been applied
to research with suicide notes. Farberow and Shneidman
(1957) reported that hostility toward others and guilt were
expressed more frequently in the notes of younger suicides,
and despair was expressed more frequently in the notes of
older suicides. These trends were less pronounced in their
sample of notes written by female suicides than in their
male sample. Other researchers have reported less frequent
expression of hostility toward others (Capstick, 1960;
Lester & Hummel, 1980) and less frequent expression of
guilt or self-depreciation (Leenaars & Balance, 1984c) in
the notes of older suicides compared with the notes of younger suicides. Lester and Hummel (1980), however, reported that age was not correlated with guilt or despair.

**Logic in Suicide Notes**

Peck (1983) proposed that suicide was chosen by young persons as a response to problems in part as a result of fatalistic attitudes. Peck examined 132 notes written by suicides aged 35 years and younger. Thirty-three percent of the notes were considered to express fatalism.

Shneidman and Farberow (1957c) referred to the presence of instructions to, and requests made of survivors in suicide notes, and suggested that this content implied confusion between self as experienced by self with projections concerning how self is experienced by others. For example, one motive for suicide may be a wish to elicit some reaction from others, although the suicides will not experience this reaction. Shneidman and Farberow referred to this type of logical error as "catalogic." Shneidman and Farberow described three other types of reasoning characteristic of suicidal individuals. Shneidman and Farberow considered "normal" logic to involve expression of awareness of death as a termination of self, such as when individuals commit suicide as a means of escaping illness and suffering. "Contaminated" logic refers to belief in afterlife such that self is expected to continue after death, as well as to extreme emphasis on social attitudes
evident in ritual suicides such as harakiri and suttee. In some cases, individuals who commit suicide are psychotic, and Shneidman and Farberow referred to psychotic reasoning as "paleologic."

Leenaars et al. (1985) described suicide notes as characterized by constricted, dichotomous reasoning. At least 50% of the notes were considered to lack insight or clear communication. Errors in logic tended to involve semantic rather than deductive errors. Thirty percent of the notes, however, were considered to be consistent with normal logic.

In a review of the literature concerning suicidal reasoning, Neuringer (1976) attempted to integrate the results of research with suicidal individuals and individuals with related symptoms, such as depression. Neuringer cited evidence from studies of suicide notes to support this conclusion that the reasoning of suicidal individuals is dichotomous. For example, Osgood and Walker (1959) reported that suicide notes contained more absolute terms such as "always" and "none" than ordinary letters. Spiegel and Neuringer (1963) reported that genuine suicide notes were disorganized more often than simulated suicide notes, and Neuringer (1976) concluded that cognitive disorganization leads to dichotomous reasoning by undermining judgement.

Tripodes (1976) compared genuine and simulated suicide
notes using a detailed logic analysis system. Genuine suicide notes were characterized by a lack of continuity of ideas. Genuine notes tended to contain a number of examples of situations described. The writers of genuine suicide notes were emphatic but did not justify their positions. One particularly salient feature of the genuine suicide notes was the tendency of the writers to present their subjective states as objective facts. This may be related to the tendency of suicidal individuals to think in constricted, absolute terms, described by Leenaars et al. (1985) and Neuringer (1976).

Comparison Samples

One of the difficulties in research with suicide notes involves obtaining appropriate comparison samples (Lester, 1983; Shneidman & Farberow, 1957b). It is assumed that, based on samples of verbal material, inferences can be made about the individuals' subjective state at the time the material was written. This assumption is fundamental to the investigation of suicide notes. Depending on the verbal material that suicide notes are compared with, the subjective state of the suicide is seen from a different frame of reference.

Fredrick (1968) matched each of 45 handwritten suicide notes with three notes containing the same message written by other individuals. Graphologists, detectives, and secretaries were asked to rank the notes in each set.
according to the likelihood that each note was the genuine suicide note in the set. Only graphologists correctly identified genuine suicide notes more frequently than would be predicted by chance. Graphologists correctly identified 62% of the notes in cases where firearms were used, and 49% of the notes in cases where poison was used as a method of suicide. When asked to describe how they made their selections, the graphologists referred to affective and cognitive states suggested by the handwriting, but were unable to articulate the specific cues they were responding to.

Osgood and Walker (1959) compared suicide notes with ordinary letters. These authors hypothesized that individuals are in a high drive state prior to suicide, and that this would be reflected in suicide notes in the use of more stereotyped language, more conflict, greater disorganization, and a more directive state.

Suicide notes were significantly different from ordinary letters on a number of measures of stereotypy. Suicide notes contained more repetitions of words and phrases than did ordinary letters. Suicide notes tended to make simple assertions and were less likely to qualify nouns and verbs with adjectives and adverbs, and were more likely to use absolute expressions such as "everything" and "always" than were ordinary letters. To obtain one measure of stereotypy, words were systematically omitted from
the suicide notes and ordinary letters, and then males were asked to fill in the blanks of the suicide notes and ordinary letters written by males, and females were asked to fill in the blanks of those written by females. A score was obtained to represent the predictability of the content. Predictability scores did not differentiate between suicide notes and ordinary letters written by females. Suicide notes written by males, however, received higher predictability scores than did ordinary letters written by males.

Suicide notes were considered to express more conflict because they contained more ambivalent constructions using words such as "if," "however," and "probably," more qualified verbs, and more often applied both positive and negative evaluations to the same objects. Suicide notes were considered to be more directive because they more often contained requests for some action from others than did ordinary letters. Suicide notes also obtained higher Discomfort-Relief Quotients, and contained more evaluative terms and more negative evaluation of significant others than did ordinary letters. In order to determine the degree of disorganization, Osgood and Walker considered the length of thought units and number of errors in suicide notes and ordinary letters. Suicide notes did not contain more errors than ordinary letters as predicted. Suicide notes written by males contained significantly longer
thought units than ordinary letters written by males, and this difference was opposite to the predicted direction.

Henken (1976) compared suicide notes with documents written by individuals who believed they were about to die, such as individuals who had terminal illnesses, or who had been sentenced to death. The suicide notes and forced-death documents were all written by males. Compared to a base sample of verbal material, forced-death documents contained more references to self and inclusive self, political rules, actions, and medical terms such as injury and treatment. Compared to suicide notes, forced-death documents contained more references to male roles and abstract objects. The suicide notes, however, contained more references to female roles, sex, positive relationships, and submissiveness than the forced-death documents. Henken suggested that the emphasis in suicide notes on female roles and sexual relationships reflected lack of success in establishing satisfying heterosexual relationships.

The studies conducted by Frédrick (1968) and Osgood and Walker (1959) provide information about differences between the subjective states of suicides and the subjective states of non-suicidal individuals under ordinary circumstances. Henken's (1976) study provides information about differences between the subjective states of suicides and those of individuals facing imminent, involuntary death. Another comparison group that would obviously be of interest
is suicide attempters, but no studies comparing the notes of suicides with the notes of suicide attempters have been reported. This is likely due to the difficulty in obtaining a sample of notes left by suicide attempters. Darbonne (1969a) attempted to address this issue using a sample of simulated suicide notes.

Darbonne (1969a) compared genuine suicide notes with simulated suicide notes written by outpatients who had threatened suicide and by non-suicidal individuals. Compared with non-suicidal individuals, suicides expressed more expectations or demands that others gratify their wishes, and more need for emotional support. Suicides more often expressed feelings of social isolation and concern for others than did non-suicidal individuals. Suicides used more action than thought and feeling verbs, and used more verbs than adjectives than did non-suicidal individuals, which suggests that suicides are more action oriented. Suicides were also more likely than non-suicidal individuals to blame others for their difficulties, express veiled hostility, and name specific targets by addressing their notes to specific individuals or requesting that specific individuals be notified of their suicides. Compared with individuals who threatened suicide, suicides expressed more expectations or demands of others, greater action orientation, and more often named specific targets. Both suicides and individuals who threatened suicide were
more likely than non-suicidal individuals to express need for emotional support and feelings of social isolation, express concern for others, blame others for their difficulties, and express veiled hostility.

Comparisons Between Genuine and Simulated Suicide Notes

The sample of suicide notes and comparison material that has been used most frequently by researchers is a set of 33 genuine and 33 simulated suicide notes published by Shneidman and Farberow (1957a). Thirty-three suicide notes were selected from a large sample obtained from the Los Angeles County Coroner's Office. Individuals were matched to the suicides according to demographic characteristics such as age and occupation, and each of these individuals was asked to write the suicide note he would leave if he was about to commit suicide. Interviews and tests were employed in order to screen out individuals who might be distressed by this task. The authors of the genuine and simulated suicide notes were all male.

Several researchers have investigated the ability of various judges to discriminate between the genuine and simulated suicide notes. The criteria employed by judges in making these discriminations is a valuable source of information for suicide research. Inaccurate judges may make their discriminations based on misconceptions about suicidal behaviour, or they may respond to content that is similar in both genuine and simulated suicide notes.
Similarities between the genuine and simulated suicide notes suggest that, in some respects, non-suicidal individuals are able to accurately empathize with suicidal individuals. Accurate judges, on the other hand, respond to systematic differences between genuine and simulated suicide notes. The criteria employed by accurate judges in making their discriminations may clarify characteristics unique to suicidal individuals and which may be more difficult for non-suicidal individuals to empathize with. It is also important to understand the criteria employed by judges since this may introduce confounding variables to research comparing genuine and simulated suicide notes. Judges may respond to cues other than those under investigation.

Hood (1970) presented this set of notes with statements concerning cause of death to a group of undergraduate psychology students. The students were told that the authors of all the notes survived the suicide attempt, but had since died of one of two causes. Half of the set of notes was randomly assigned to each category of cause of death: a subsequent suicide attempt, and natural causes. The students were asked to rate the notes according to the lethality of the authors' intent. The students assigned higher lethality ratings to the notes when they were told that the authors died from suicide than when they were told that the authors died of natural causes. The genuine and simulated suicide notes did not receive significantly
different lethality ratings. The students in this study were apparently not making their ratings regarding lethality of intent based on characteristics that discriminate between the genuine and simulated suicide notes. Since the judges in this study were undergraduate students, Hood suggested that the results may not be generalizable to clinicians.

Arbeit and Blatt (1973) investigated the relationship between level of clinical training and accuracy of discrimination between genuine and simulated suicide notes. Undergraduate students, therapist trainees, and practicing clinicians were asked to rate the notes according to the likelihood that they were genuine suicide notes. There was no significant relationship between level of training and accuracy. Only 13 of the 93 judges were accurate more often than would be predicted by chance. The group of 13 accurate raters included both therapist trainees and practicing clinicians. Accurate and inaccurate judges were compared with respect to the criteria they used in rating the notes. Accurate judges tended to consider longer notes more likely to be genuine than inaccurate judges. Accurate judges considered the wish to punish or manipulate others, and awareness of how suicide would reflect on survivors to be more consistent with genuine suicide notes than inaccurate judges. Accurate judges attributed less importance to expression of despair and self-deprecation as indicators of genuine suicide notes than inaccurate
judges, and were less likely to consider positive affect to be inconsistent with genuine suicide notes. Accurate judges emphasized statements that suicide was the only solution to problems less than inaccurate judges, and considered suicidal thoughts of recent origin to be a contraindication of suicide. Accurate judges were more likely to consider the presence of instructions to indicate that the notes were genuine. All judges considered depression to be an important aspect of genuine suicide notes, but accurate judges assigned less importance to this factor than inaccurate judges.

Leenaars and Balance (1984a) presented this set of 66 notes in random order to two practicing clinicians. The clinicians were requested to classify each note as genuine or simulated. The clinicians correctly classified 76.5% of the notes, and their accuracy was better than would be predicted by chance. When judges are able to discriminate accurately between genuine and simulated suicide notes using clinical judgement, the possibility must be considered that clinical judgement may influence the performance of the judges in any studies in which they are requested to rate the notes according to some specified criterion. That is, the judges decisions may be based in part on their personal theories of suicidal behaviour, and the judges would not necessarily be fully aware of this process. It would be helpful to know more about the cues that judges respond to
in order to assess the influence of this type of confounding variable. Also, as mentioned above, cues that lead to accurate discrimination between genuine and simulated suicide notes may provide the basis for research hypotheses.

The method of comparing genuine and simulated suicide notes has been criticized since the results may indicate more about the ability of various groups of individuals to accurately fake suicide notes than about the subjective state of suicides (Lester, 1983). Leenaars and Balance (1984a, 1984b) and Leenaars et al. (1985) noted that content that occurs frequently in both genuine and simulated suicide notes would not significantly discriminate between genuine and simulated suicide notes. This frequently occurring content may reflect important aspects of suicidal behaviour, although significant discrimination between genuine and simulated suicide notes may provide stronger evidence that the content reflects important aspects of suicidal behaviour (Leenaars & Balance, 1984a, 1984b; Leenaars et al., 1985).

In addition, similarities between genuine and simulated suicide notes suggest that non-suicidal individuals are able to accurately empathize with suicidal individuals in some respects, and differences may indicate those aspects of the suicides' subjective state that are most difficult for non-suicidal individuals to understand.

In the original study using this set of 66 notes, Shneidman and Farberow (1957b, 1957d) contrasted the
genuine and simulated suicide notes according to the Discomfort-Relief Quotient. The genuine suicide notes in this sample contained more thought units and more neutral thought units than the simulated suicide notes, but did not receive significantly different Discomfort-Relief Quotients from the simulated suicide notes. Shneidman and Farberow concluded that the genuine suicide notes contained more intense expressions of Discomfort than the simulated suicide notes, but this qualitative difference was not reflected by the scores.

Lester (1971b) rated the genuine and simulated suicide notes according to whether they contained expressions of need for affiliation. He reported that the genuine suicide notes were not rated as expressing need for affiliation significantly more often than the simulated suicide notes.

A number of studies comparing genuine and simulated suicide notes involved content analysis of the language used in the notes. The genuine suicide notes in this sample tend to be longer than the simulated suicide notes (Edelman & Renshaw, 1982). The genuine suicide notes have consistently been reported to contain more references to specific persons, places, and objects than the simulated suicide notes, and have been described as concrete (Edelman & Renshaw, 1982; Gottschalk & Glezer, 1960; Ogilvie, Stone & Shneidman, 1966). The genuine suicide notes contain more instructions than the simulated suicide notes (Lester, 1973;

Tuckman and Ziegler (1966) reported that the genuine and simulated suicide notes did not differ significantly in proportion of self-reference to other-reference pronouns. According to Tuckman and Ziegler, a higher proportion of self-reference pronouns suggests social immaturity.

Spiegel and Neuringer (1963) reported that the genuine suicide notes were more disorganized than the simulated suicide notes according to judges ratings of disorganization of thought quality. Tripodes (1976) described the genuine suicide notes as more lacking in continuity of ideas than the simulated suicide notes. Osgood and Walker (1959), however, reported that the genuine suicide notes were not more disorganized than the simulated suicide notes when errors and length of thought units were considered as measures of disorganization.

The genuine suicide notes have been reported to contain more references to females (Ogilvie, Stone & Shneidman, 1966), male and female roles, sex, interpersonal
and family relationships (Henken, 1976). The word "love" is more often used in the genuine than the simulated suicide notes (Ogilvie, Stone & Shneidman, 1966). These results are consistent with observations that suicide notes contain frequent references to difficulties in relationships.

The genuine suicide notes contain more conditional constructions than the simulated suicide notes (Edelman & Renshaw, 1982; Lester, 1973; Osgood & Walker, 1959). Lester (1973) suggested that this conditional mood may reflect greater involvement with fantasy among suicidal individuals.

The genuine suicide notes have been reported to contain fewer references to the future than the simulated suicide notes (Edelman & Renshaw, 1982). Lester (1973), however, reported that the genuine and simulated suicide notes did not differ significantly with respect to verb tense.

Gottschalk and Gleser (1960) reported that the genuine suicide notes in this sample contain more references to spatial relationships than the simulated suicide note. The genuine suicide notes have been reported to contain fewer words synonymous with the word "suicide" and to be less specific about suicidal intent than the simulated suicide notes (Spiegel & Neuringer, 1963).

Leenaars and Balance (1981, 1984a, 1984b) and Leenaars et al. (1985) investigated theories of suicidal behaviour in terms of their ability to discriminate between genuine and simulated suicide notes. In each of these studies,
sets of predictive statements were derived from theories, and two independent judges were requested to classify the notes according to whether or not they were consistent with each statement.

Leenaars and Balance (1981) developed statements from theories of suicide described by Binswanger, Freud, and Kelly. Two statements based on Binswanger's theory, describing suicide as an act to isolate and free oneself from life, problems, and dread, were more often associated with the simulated suicide notes. One statement based on Freud's theory describing suicide as a regressive behaviour was more often associated with simulated suicide notes. Three statements based on Freud's theory were significantly more often associated with genuine suicide notes. The authors of genuine suicide notes more often referred to loss of or rejection by a significant person, were preoccupied with the lost or rejecting person, and in some way identified with the lost or rejecting person.

Leenaars and Balance (1984b) developed a more extensive set of predictive statements from Freud's theory of suicide in order to further test the efficacy of this theoretical model in discriminating between genuine and simulated suicide notes. Other statements from this set were significantly more often associated with genuine suicide notes in addition to the statements described in the previous study (Leenaars & Balance, 1981). Authors of
genuine suicide notes more often expressed ambivalence toward the lost or rejecting person, and were considered to be turning against themselves the aggression and murderous impulses they felt toward others. Suicide was more often described as self-punishment in the genuine than in the simulated suicide notes.

Leenaars et al. (1985) developed a set of statements derived from theoretical formulations of suicide described by Shneidman. Simulated suicide notes were more frequently considered to be logical and to express wishes to escape. Genuine suicide notes were characterized by expression of strong emotions and constricted reasoning, and were more often considered to have unconscious psychodynamic implications. Genuine suicide notes more often described adult trauma; and more often described difficulties in relationships, rejection by a significant person, and a significant person was considered to have a role in precipitating the suicide. Finally, genuine suicide notes more often expressed ambivalence and expressed both love and hate.

Demographic Variables in Relation to Suicide Note Content

There are differences in suicide rates of different demographic groups. For example, in Canada, the suicide rate for males is about 3.5 times greater than the suicide rate for females (Statistics Canada, 1983). Suicide rates also vary across age groups. The suicide rates for the
provinces and territories range from about six per 100,000 population in Newfoundland to about 44 per 100,000 population in the Northwest Territories (Statistics Canada, 1983). It seems unlikely that differences in procedures for reporting suicide statistics could account for all the variability. An understanding of the factors that affect the vulnerability of various demographic groups would contribute greatly to the understanding of suicidal behaviour in general. If there are systematic differences in the circumstances that lead to suicide and in the subjective state of suicides from different demographic groups, these differences should be reflected in the content of suicide notes. A number of researchers have considered the relationship between content of suicide notes and demographic and situational variables. The following research results, some of which have been described above in other contexts, are summarized here according to reported relationships between the content of suicide notes and demographic and situational variables.

**Sex**

Chynoweth (1977) reported that depression alone was most commonly expressed in the notes of female suicides who were married, separated, divorced, and widowed. The notes of female suicides have been reported to express depression more often than the notes of male suicides (Cohen & Fiedler, 1974; Osgood & Walker, 1959). Osgood
and Walker (1959) also found that ordinary letters written by females more often expressed depression than ordinary letters written by males. Cohen and Fiedler (1974) reported that the notes of female suicides more often contained humour and sarcasm than the notes of male suicides. Chynoweth (1977) reported that the notes of male suicides expressed more hostility toward others than the notes of female suicides. Since sarcasm and depression may be considered to be indirect expressions of hostility, these sex differences appear to reflect the different styles of expression of anger associated with female and male social roles. Tuckman et al. (1959), however, found no sex differences with respect to type of affect expressed, and Lester and Hummel (1980) found no sex differences in expression of hostility toward others, guilt, and despair in suicide notes.

Cohen and Fiedler (1974) reported that the notes of female suicides more often expressed concern for others than the notes of male suicides. Gottschalk and Gieser (1960) reported that genuine suicide notes written by males contained more references to spatial relationships than a sample of simulated suicide notes written by males. Notes written by female suicides contained fewer references to spatial relationships than notes written by male suicides, and this difference has also been observed in ordinary speech samples taken from females and males (Gottschalk &
Gleser, 1960). Lester and Reeve (1982) reported that notes written by male suicides contained more negative thought units and were less often rated as disorganized than notes written by female suicides.

Chynoweth (1977) reported that neutral affect was most common in the notes of male suicides who chose violent methods of suicide. Lester (1971a), however, found no sex differences with respect to choice of active versus passive method of suicide.

**Age**

Farbrome (1969b) reported that the notes of older suicides contained less emphasis on affect than the notes of younger suicides. Tuckman et al. (1959) reported that older suicides expressed more neutral affect than younger suicides and that expression of both positive and negative affect decreased with age. Lester and Reeve (1982), however, compared the relative proportions of feeling verbs and action verbs and found that the notes of older suicides contained a higher proportion of feeling verbs, suggesting a greater emphasis on affect.

Farberow and Shneidman (1957) reported that older suicides were more likely to express despair than younger suicides, however, Lester and Hummel (1980) found no significant relationship between age and expression of despair. The notes of younger suicides have been found to express more hostility toward others than the notes of
older suicides (Capstick, 1960; Farberow & Shneidman, 1957). Farberow and Shneidman (1957) reported, however, that hostility and age were not correlated for their female sample. Lester and Hummel (1980) found no significant correlation between age and expression of hostility. Younger suicides have consistently been found to express more guilt and self-deprecation than older suicides (Leenaars & Balance, 1984; Lester & Hummel, 1980; Farberow & Shneidman, 1957). Cohen and Fiedler (1974) reported that younger suicides expressed more love for others than older suicides.

Capstick (1960) reported that older suicides made more references to the hereafter and expressed more concern for survivors than younger suicides. Notes of older suicides have been reported to contain more instructions to survivors than notes of younger suicides (Capstick, 1960; Darbonne, 1969b), although Lester and Hummel (1980) found no relationship between age and presence of instructions.

Younger suicides more often stated that rejection by a loved one was the reason for their suicides (Darbonne, 1969b). Older suicides more often cited illness as the reason for their suicides (Capstick, 1960; Darbonne, 1969b; Shneidman & Farberow, 1960). Tuckman et al. (1959) described younger suicides as more concerned with interpersonal and intrapsychic conflict, and older suicides as more concerned with practical issues beyond personal
control, such as illness, decreased income, and other problems of old age.

**Marital Status**

Tuckman and Ziegler (1968) reported that separated and divorced suicides were more likely than single, married, or widowed suicides to leave more than one note. Tuckman et al. (1959) reported that separated and divorced suicides expressed the most hostility toward others, and married suicides expressed more positive affect than other suicides. Cohen and Fiedler (1974) reported that more single, separated, and divorced than married and widowed suicides made unintelligible remarks, used metaphors, and denied previous remarks. More formerly married than never married suicides gave advice and instructions and made requests (Cohen & Fiedler, 1974).

**Socio-economic Status**

Shneidman and Farberow (1960) investigated the content of 721 suicide notes in terms of socio-economic status of the authors as indicated by type of residential area. Notes written by suicides from various residential areas differed significantly in stated reasons for suicide and expressed affect.

Suicides from most advantaged suburbs cited reasons for suicide and gave reasons such as being tired of life more frequently than suicides from other residential areas. Suicides from most advantaged residential communities cited
rejection and illness as reasons for suicide with relatively low frequency. Suicides from most advantaged apartment areas often cited illness as the reason for suicide and often requested forgiveness from survivors.

Suicides from moderately advantaged suburbs more frequently expressed affect than other suicides. Their notes most often contained expressions of love or positive statements about others, and tended not to express guilt or self-deprecation. Suicides from moderately advantaged residential communities cited specific reasons for suicide with relative frequency. The reasons mentioned often involved rejection by others. These notes contained few expressions of love. Suicides from moderately advantaged apartment areas referred to rejection by others relatively infrequently.

Suicides from least advantaged apartment areas infrequently stated reasons for suicide. Suicides from both least advantaged apartment areas and least advantaged industrial communities expressed little affect in general and rarely expressed love.

The populations in the residential areas differed in terms of demographic characteristics such as age and race, and the suicide rates for these areas ranged from three to 22 per 100,000 population. The suicides from various residential areas also differed in demographic characteristics from the total population of suicides. For
example, suicides from the most advantaged apartment areas were more often female, and suicides from least advantaged industrial communities and apartment areas were more often male than would be predicted based on the total population of suicides. Shneidman and Farberow did not report statistical analyses of interaction effects between residential areas and other demographic characteristics associated with content of suicide notes.

Method of Suicide

Tuckman and Ziegler (1968) reported that suicides who left only one note did not differ from multiple note writers with respect to choice of method of suicide. According to Fredrick (1968), graphologists correctly discriminated genuine from simulated suicide notes in 62% of cases where method of suicide was gunshot and in 49% of cases where method of suicide was poisoning.

Chynoweth (1977) reported that hostility toward others was more commonly expressed by suicides who chose overdose of medication compared to those who chose other methods of suicide. Neutral affect was most commonly expressed by males who chose violent methods of suicide (Chynoweth, 1977).

Lester (1971b) compared individuals who chose active methods and individuals who chose passive methods of suicide with respect to demographic variables, content of suicide notes, and need for affiliation and found no significant differences. Lester and Reeve (1982) also reported that
age was not significantly related to choice of active versus passive method of suicide.

Conclusions

It is difficult to make general comments summarizing the results of research on suicide notes. Reported results are inconsistent and often contradictory. Differences between samples of suicide notes may account for some of this variability. Differences between methods of study and operational definitions employed seem to account for much of the variability, and also lead to difficulties in making direct comparisons between the results of studies. Consider, for example, the different strategies employed in classifying methods of suicide. Tuckman et al. (1959) treated hanging as a separate category, while Cohen and Fiedler (1974) considered hanging as one member of the category asphyxiation, which also includes methods such as carbon monoxide poisoning. Lester (1971a, 1971b) and Lester and Reeve (1982), on the other hand, classified methods of suicide as active, which includes hanging, and passive, which includes carbon monoxide poisoning.

Many variables of interest in research on suicide involve abstract concepts, and operational definition of terms is essential to facilitate replication as well as integration of data reported across studies. For example, Cohen and Fiedler (1974) reported that 30% of suicide notes expressed hostility toward others, while Tuckman et al.
(1959) reported that only five percent of suicide notes expressed hostility toward others. It is difficult to interpret the discrepancy between these estimates without knowledge of the operational definitions employed by these researchers.

One advantage related to the use of different methods and operational definitions is that when results are confirmed, greater validity may be attributed to the results. For example, ambivalence has been variously defined as both positive and negative affect expressed toward the same individual (Osgood & Walker, 1959; Tuckman et al., 1959), qualified verb phrases (Osgood & Walker, 1959), use of conditional terms such as "if" and "however" (Osgood & Walker, 1959), and judges' ratings concerning whether or not suicide notes expressed ambivalence (Leenaars & Balance, 1984b; Leenaars et al., 1985).

Despite the inconsistencies in procedures and reported results, a number of observations concerning suicide notes have been generally supported. The content of suicide notes tends to be concrete and practically oriented. That is, suicide notes contain more references to specific persons, places, and objects, employ more stereotyped language, are more action-oriented, and contain more instructions than do comparison samples of verbal material. This may be related to the cognitive constriction often attributed to suicide notes. The concrete references and
instructions contained in suicide notes have also been interpreted as expression of a wish to continue living as well as evidence of logical errors. Suicide notes also appear to be characterized by disorganization of ideas and logical errors such as dichotomous reasoning. The content of suicide notes suggests that suicide is associated with personal crises, particularly loss of significant relationships. Suicide notes generally express a variety of affect, such as hostility, depression, love, and guilt, and are often characterized by ambivalence.

Suicide is a complex behaviour and it seems unlikely that any single model will account for all suicides. The data suggest that variables contributing to suicide vary systematically with demographic variables. For example, in the notes of younger suicides, loss of significant relationships is more often cited as a motive for suicide, while in the notes of older suicides, illness is more often cited as a motive for suicide. In addition, the notes of younger suicides express more guilt and self-deprecation than do the notes of older suicides.

Some authors have expressed disappointment in the results of research with suicide notes. The content of suicide notes has been described as "banal" and concrete, disorganized, and lacking in insight. According to Lester (1983) interest in research with suicide notes has declined since the 1970's. Disappointment in the results of
research with suicide notes may be attributed to unrealistic expectations regarding the information that may be obtained from suicide notes. Researchers appeared to expect profound insights from individuals on the brink of death, but instead found these individuals preoccupied with concrete, practical details, and characterized by rigid, constricted thought. The greatest advantage of suicide notes as a source of data is that they provide clues to the subjective state of the suicides at the time these notes were written. If the distress experienced by individuals during a suicidal crisis impairs their ability to communicate their subjective experiences clearly, the challenge for researchers is to find methods for understanding these communications effectively. The information obtained in the study of suicide notes is limited, not only by the content of the notes themselves, but by the methods used for investigating this content. Psychological theories of suicidal behaviour, as well as the results of some recent studies, suggest a specific direction for methodological developments.

Statement of the Problem

It has been suggested that suicide notes may be treated as projective material (Shneidman & Farberow, 1957a; Tuckman, Kleiner & Lavell, 1959). Projective techniques are associated with psychodynamic theories and are considered to be sensitive to unconscious processes (Lindzey,
1961; Pervin, 1975). The results of some recent studies provide support for the hypothesis proposed by Freud (1917/1957) that unconscious impulses play an important role in suicidal behaviour, and suggest that information concerning these unconscious impulses may be available in suicide notes.

In a series of studies reported by Leenaars (1986a, 1986b) and Leenaars et al. (1985), independent judges were requested to rate whether suicide notes had unconscious psychodynamic implications. The judges more frequently rated the genuine suicide notes as having unconscious psychodynamic implications than they did the simulated suicide notes. They rated at least 50% of the genuine suicide notes as having unconscious psychodynamic implications (Leenaars et al., 1985). Leenaars (1986a) and Leenaars et al. (1985) have also reported interrater and test-retest reliability for judges' ratings concerning whether the notes have unconscious psychodynamic implications. In addition, at least two-thirds of a sample of suicide notes written by both males and females, and suicide notes written by adults ages 18 to 25 years were judged to have unconscious psychodynamic implications (Leenaars, 1986b). The suicide notes in this sample written by adults over age 25 were judged to have unconscious psychodynamic implications in less than 70% of the cases, but in more than 50% of the cases.
The primary difficulty in conducting research using projective material is that observation and interpretation of projective material tends to be subjective (Kerlinger, 1974). For example, in the studies reported by Leenaars (1986a, 1986b) and Leenaars et al. (1985), judges' decisions whether notes had unconscious psychodynamic implications were made intuitively. The judges' criteria for determining whether the notes had unconscious psychodynamic implications are not known, and different judges offered different interpretations of these unconscious psychodynamic implications (Leenaars, 1986a). Reflection on this research led the present author to propose as a next step in this line of research the development of an operational definition of unconscious psychodynamic material.

Freud proposed that impulses that are objectionable to the ego are frequently repressed, i.e., actively prevented from entering conscious awareness. The unconscious is composed of this repressed material. According to Freud (1917/1963), repressed material may be expressed in such behaviour as neurotic symptoms and dreams. In the case of dreams, unconscious impulses are recoverable from latent content of a dream. The latent content of a dream is distorted as it is transformed into the manifest content (those aspects of the dream that become conscious) (Freud, 1917/1963). This process permits the repressed impulses some form of expression while protecting the ego from
conscious awareness of these impulses.

Although mental processes during sleep are likely to be different in important respects from waking mental processes, Freud (1917/1963, 1901/1960) proposed that unconscious impulses may be expressed in waking behaviour in distorted forms, just as they are in dreams. Freud (1901/1960) cited as evidence for this hypothesis behaviour such as slips of the tongue, forgetting, and accidental self-injury.

The unconscious impulses that belong to the latent content cannot be accessed directly (Freud, 1915/1957). In order to trace the links between the distorted, manifest content and the latent content, Freud (1916/1963) developed the method of free-association. When a person generates free-associations to the manifest content of a dream, the associations provide clues to the distortion that took place, and clues to the latent content.

In the case of suicide notes, free-association material is obviously not available, and investigators cannot test assumptions concerning the latent content of suicide notes using this traditional method. When judges rate suicide notes according to whether the notes have unconscious psychodynamic implications, they have not taken the manifest content of the notes at face value. They have assumed that the manifest content of the notes represents a distorted expression of unconscious impulses. Although
free-association may be the most effective and accurate method for inferring the latent content from the manifest content, it may be possible to develop general principles to describe the types of distortions that commonly occur. The judges have, in fact, employed such principles in rating the notes. In order to test the validity of these principles, the principles must be stated explicitly. Foulkes (1978) has attempted to do so.

Foulkes (1978) developed a Scoring System for Latent Structure, an objective scoring system for dream reports and free-association material, based on some general assumptions of psychodynamic theory. Foulkes proposed that unconscious motive are represented in linguistic form in psychologically meaningful units, namely subject–verb–object relationships. Foulkes reported significant interrater reliability for this scoring system, with agreement ranging from 83 to 99.6%. According to Foulkes, this scoring system is completely objective, and variation in scoring between raters is attributable to deviation from the scoring rules. It is important to note that this scoring system has not been demonstrated to be valid. Such a demonstration would require additional research testing the validity of the assumptions on which the scoring system is based. Nevertheless, this scoring system represents an important step toward developing valid measure because "these rules may be controversial, but at least they are explicit."
Foulkes (1978) distinguishes between two basic types of relationships: interactive and associative. In general terms, interactive relationships are motives, and associative relationships are thoughts. Foulkes considers both motives and thoughts to be cognitive processes since both are abstract and representational and are expressed in linguistic form. They differ, however, in that motives are relationships involving intentions or behaviour of a motor variety, while thoughts are relationships that are perceptual or symbolic in nature. Motives and thoughts interact, i.e., one's motives direct one's thoughts, and one's thoughts, in turn, modify the expression of one's motives. Foulkes suggested that interactive relationships correspond to what Freud referred to as essential dream thoughts, and described associative relationships as reflecting the associative network that determines the nature of the distortions that occur in the transformation from latent to manifest content. In other words, "interactive sentences represent the dreamer attributes we wish to know, and... associative sentences are the means by which we can achieve such knowledge." (Foulkes, 1978, p. 205).

Interactive relationships are defined by classes of verbs derived by Foulkes based on Horney's formulations of styles of interaction: moving toward, moving from, and moving against. Moving Toward relationships include
expressions of affection and interest, and giving help, in addition to actual physical movement toward some character or object. Moving From relationships include escape or withdrawal. Moving Against relationships include any behaviour toward a character or object that is hostile or intended to cause harm. Foulkes also proposed a fourth class of interactive relationships, creating, which includes behaviour such as making, discovering, and teaching.

Three classes of associative relationships are considered in this scoring system. With relationships, by far the most inclusive associative class, include comparisons between characters and objects, physical proximity, part/whole relationships, and are also scored when characters and objects are simply mentioned one after the other in the text. Means relationships are scored when some interactive relationship is mediated by a third party or object. Equivalence relationships include cases in which characters and objects are identified as being identical to or functioning in the role of other characters and objects.

Foulkes's Scoring System for Latent Structure anticipates distortions of the latent content in the transformation to the manifest content involving substitution of characters by other characters or objects. Foulkes considers associative relationships to provide the most accurate basis for identifying and reversing these
substitutions. Foulkes also described a set of decision rules which provide provisional hypotheses concerning the identification and reversal of substitutions, to be employed when relevant associative material is not available. These decision rules are based on psychodynamic theory. For example, every interactive statement is considered to be a self-statement, so either the subject or the object of the statement is scored as Ego. When Ego is not explicit in the statement and cannot be inferred from the associative relationships, Ego is inferred based on a hierarchy of decision rules including the use of active voice, sex role identification, and age role identification. Other decision rules involve scoring characters in terms of family relationships. For example, persons of an older generation than Ego, authority figures, and nurturant figures are scored as parents.

The purpose of the present study was to apply the scoring system described by Foulkes (1978) to the content of genuine and simulated suicide notes. The principal hypothesis of the present study was derived from research reported by Leenaars (1986a, 1986b) and Leenaars et al. (1985), who reported that judges considered genuine suicide notes to have unconscious psychodynamic implications more often than simulated suicide notes. In the present study, it was predicted that latent content would be present in the genuine suicide notes more frequently than in the
simulated suicide notes. Latent content was assumed to be present in the notes when distortion was assumed according to the scoring rules. This was evident in two ways. First, distortion was assumed when interactive statements could not be scored directly from the text of the notes, such as when the decision rules were employed for determining whether self should be scored in the position of subject or object, or when an authority figure was scored as Father. Second, distortion was assumed when associative statements resulted in transformations of interactive statements.

The data reduction involved in applying this scoring system limits the issues that may be investigated. In addition to coding subject-verb-object relationships, the scoring system allows for dynamic modification of nouns and verbs, and previous research suggest specific predictions in this regard.

Nouns are given a positive score when they are described in terms that are positive or enhance the adequacy of the nouns to carry out the relationship scored. Nouns are given a negative score when they are described in terms that are negative or diminish the adequacy of the nouns to carry out the relationship scored. For example, characters described as intelligent or attractive would receive positive scores. A character described as angry would receive a negative score in a moving toward relationship, but would receive a positive score in a
moving against relationship.

Verbs are also scored as positive or negative depending on whether they are described in terms that enhance or diminish the relationship. For example, verbs receive negative scores when they are negated, when conditional constructions are employed, and when a verb tense other than present, simple past, or past progressing is employed.

Genuine suicide notes have been reported to express more ambivalence than simulated suicide notes, and ambivalence has been defined in a number of ways that may be reflected in the scoring system employed in the present study. Ambivalence has been defined as contradictory feelings and attitudes expressed toward some person (Leenaars & Balance, 1984a, 1984b; Leenaars et al., 1985). In the present study, it was predicted that both positive and negative modifiers would be scored for the same characters more frequently in the genuine than the simulated suicide notes.

Ambivalence has also been defined as expression of contradictory relationships between the same characters. Osgood and Walker (1959) reported that such "ambivalent assertions" occurred more frequently in the genuine suicide notes. In the present study, it was predicted that both moving toward/creating and moving from/moving against relationships would be scored between the same characters
more frequently in the genuine than in the simulated suicide notes.

Osgood and Walker (1959) reported that the simulated suicide notes contained more qualified verbs, however, Edelman and Renshaw (1982) reported that the genuine suicide notes contained more conditional constructions and more often asserted "not" than the simulated suicide notes. All of these criteria would result in negative modification of interactive verbs in the scoring system employed in the present study. Since the research results are equivocal, the prediction made in the present study was made in favour of the hypothesis that genuine suicide notes would express more ambivalence than the simulated suicide notes. It was predicted that the interactive verbs of the genuine suicide notes would receive negative scores more often than the interactive verbs of the simulated suicide notes.

In addition to modifiers related to the issue of expression of ambivalence, Edelman and Renshaw (1982) investigated the more general issue of positive versus negative evaluation of nouns. These authors reported that the genuine suicide notes contained more negative evaluations of specific persons, places, and objects, and the simulated suicide notes contained more positive evaluations overall. Based on these results, it was predicted in the present study that the nouns in the genuine suicide notes, such as self and spouse, would more
frequently be scored negatively, and that the nouns and the verbs in the simulated suicide notes would more frequently be scored positively.
CHAPTER II

METHOD

Judges

In the present study, the notes were scored by two volunteer judges. One of the judges was a doctoral student in psychology, and the other had recently completed a doctoral program in psychology.

Material

The text of 63 suicide notes published by Jacobs (1967), Peck (1983), Shneidman (1980), Shneidman and Farberow (1960), and Wolf (1931) were used by the judges for practice scoring.

A set of 33 genuine and 33 simulated suicide notes published by Shneidman and Farberow (1957a) were used in the present study. The 33 suicide notes were selected from a sample of 721 suicide notes. Non-suicidal persons were matched to the authors of the suicide notes based on demographic characteristics such as sex, age, and occupation. Each of the non-suicidal persons was requested to write the suicide note he would leave if he were about to commit suicide. Interviews and tests were employed in order to screen out persons who might be distressed by this task. The authors of the genuine and simulated suicide notes were all male.

Procedure

The judges received instructions concerning the scoring of interactive and associative statements and practiced
scoring samples of suicide notes until they had achieved a specified level of interrater reliability. Foulkes (1978) reported interrater reliability in terms of the percentage of items assigned identical scores by pairs of judges. In the present study, the judges practiced scoring samples of suicide notes until they achieved at least 90% agreement in their scoring of interactive statements. The judges were considered to agree if they had assigned the same subject, verb, and object terms to a given interactive statement.

The judges were then asked to score the 66 notes (Shneidman & Farberow, 1957a). The notes were presented in random order. According to the scoring procedures recommended by Foulkes (1978), the judges scored the notes independently and then met to reconcile their scoring to minimize deviation from the scoring rules.

Instructions

The judges read Foulkes's (1978) description of his Scoring System for Latent Structure. Foulkes explains that interactive statements are scored for subject-verb-object relationships including the verb categories Moving Toward, Moving From, Moving Against, and Creating. Associative statements are scored when nouns are linked by relationships defined as With, Means, and Equivalence. Verbs modified in terms that enhance the intensity of the relationship are scored "+", and verbs modified in terms that diminish the intensity of the relationship are scored "−"
Foulkes lists the various noun categories. Self is scored as Ego. Persons older than Ego, and persons who are described as authority figures or nurturant figures are scored as Father, Mother, or Parent if sex is not specified. Persons of the same generation as Ego are scored as Sibling, Spouse, Peer Male, or Peer Female depending on their sex and relationship to Ego. Persons younger than Ego are scored as Child. There is also a noun category that includes animals, inanimate objects, and concepts. Nouns described in terms that are positive or enhance their adequacy to fulfill the relationship indicated are scored "+," and nouns described in terms that are negative or diminish their adequacy to fulfill the relationship indicated are scored "−."

The decision rules for scoring Ego are described by Foulkes (1978). Every interactive statement is considered to be a self-statement, so either the subject or object must be scored as Ego. Every interactive statement is considered to describe an interpersonal relationship, so Ego may be the subject or the object, but may not be both. Reflexive statements modify Ego but do not constitute interactive statements. When neither the subject nor the object is explicitly described as Ego, the following decision rules are applied to infer Ego: If the subject and the object are of the same generation and are the same sex, the active voice is assumed, and the subject is scored
as Ego. If the subject and object are opposite sexes, sex role identification is assumed, and Ego is scored in the position of the character of the same sex as Ego. If the subject and object are of the same sex but different generations, age role identification is assumed, and Ego is scored in the position of the character of the same generation as Ego.

Foulkes also explains that under certain circumstances, associative statements lead to transformation of interactive statements. Transformations refer to the replacement or supplementation of nouns in interactive statements with nouns that have been linked with them in associative statements involving with relationships. For example, animals and inanimate objects are replaced by character nouns they have been linked with. Character nouns, however, are not replaced by animals or inanimate objects.

Foulkes's scoring rules were employed by the judges in the present study without modification, with one exception. According to Foulkes's suggestions, all animals, inanimate objects, and concepts would be scored "S" (Symbolic) with subscripts to indicate membership in various lexical classes. For example, in one of the notes, the author provides a list of possessions he wishes his wife to have, "...a Magic Chef stove, a large mattress, an Electrolux cleaner..." The development of lexical classes significantly complicates the process of scoring material.
particularly since there are no clear guidelines concerning how nouns should be categorized. The objects listed above might all be scored as household items "Sy1A," "Sy1B," and "Sy1C." Alternatively, the stove and vacuum cleaner may be classified as a subcategory of household items, appliances, "Sy1A1" and "Sy1A2," and the mattress as a subcategory of household items, furniture, "Sy1B1." Since there were no hypotheses concerning lexical classes in the present study, and since the sample of verbal material from each subject was so brief it was unlikely that development of lexical classes would provide useful information, the judges did not employ this procedure. Nouns within the category of Symbolic content were simply named, as in the above example, "stove," "mattress," and "vacuum cleaner."

Readers wishing a more detailed description of Foulkes's Scoring System for Latent Structure are directed to Appendix A. In addition, examples of notes and the scoring of these notes are contained in Appendix B. Any readers wishing to learn this scoring system for use in clinical practice or in research should of course consult Foulkes (1978).
CHAPTER III

RESULTS

In a sample of the text of suicide notes scored during a training session, 91.13% of the interactive statements scored were scored for the same content and were assigned the same subject, verb, and object terms by both judges. The judges then proceeded to score the genuine and simulated suicide notes used in the present study. For the total sample, the judges' scoring was in agreement for 85.40% of the interactive statements scored. The judges' scoring was in agreement for 86.13% of the interactive statements scored in the genuine suicide notes, and 84.06% of the interactive statements scored in the simulated suicide notes.

The judges' scoring of dynamic modifiers was compared in all cases where interactive statements were scored for the same content. Ego was assigned the same dynamic modification by both judges in 95.46% of cases for the total sample. Nouns other than Ego were assigned the same dynamic modification by both judges in 92.11% of cases for the total sample. Interactive verbs were assigned the same dynamic modification by both judges in 88.76% of cases for the total sample.

All of the genuine and simulated suicide notes used in the present study were assigned at least one complete interactive statement, so all of the notes were included in
the data analysis. The reconciled scores were employed in
the data analysis.

The number of interactive statements per note was
computed. The results of a Wilcoxon rank sum test indicated
that the genuine suicide notes contained significantly more
interactive statements than the simulated suicide notes
($z = 2.46, p < .05$). The mean number of interactive
statements per note was 11.55 for the genuine suicide notes
and 6.15 for the simulated suicide notes.

The number of transformations per note was computed.
The genuine and simulated suicide notes were compared with
respect to whether or not they contained transformations.
The results of a $\chi^2$ analysis for independent groups using
the Yates correction for continuity (Ferguson, 1976)
indicated that the genuine and simulated suicide notes did
not differ significantly ($\chi^2(1, N=66) = .12$, n.s.). Of the
genuine suicide notes, five contained transformations, and
transformations were associated with 7.87% of the
interactive statements. Of the simulated suicide notes,
three contained transformations, and transformations were
associated with 5.42% of the interactive statements.

Since transformations occurred infrequently and did
not discriminate between genuine and simulated suicide
notes, these data were not subjected to additional
statistical analysis. Subsequent references to distortions
in the notes refer only to the second type of distortion.
considered in the present study. That is, distortion refers to cases in which interactive statements could not be scored directly from the text of the notes, such as when the decision rules were employed for determining whether Ego should be scored in the position of subject or object, or when an authority figure was scored as Father.

The number of distortions per note was computed. The genuine and simulated suicide notes were compared with respect to whether or not they contained distortions using a $\chi^2$ analysis for independent groups using the Yates correction for continuity. The genuine suicide notes contained distortions significantly more frequently than the simulated suicide notes ($\chi^2(1, N=66) = 3.88, p < .05, \text{ C=.24}$).

The slopes of the regressions of the number of distortions per note on number of interactive statements per note were computed for the genuine and simulated suicide notes. The results of a $t$-test (Cohen & Cohen, 1975) indicated that the slopes of the regressions did not differ significantly ($t(62) = .11, \text{ n.s.}$). The data indicated that there was no significant interaction effect between type of note and length of note on number of distortions.

The genuine and simulated suicide notes were compared with respect to the frequency of distortions. An analysis of covariance was employed in order to control for the effect of number of interactive statements. The genuine suicide notes did not contain significantly more distortions
than the simulated suicide notes ($F(1,63)=3.72, p < .06$). A summary table of the results of this analysis of covariance is shown in Table 1. The adjusted mean number of distortions per note was 2.20 for the genuine, and 1.32 for the simulated suicide notes. Since the results of the analysis of covariance barely missed significance in the predicted direction, a one-tailed t-test was computed. The results of this comparison indicated that the genuine suicide notes contained significantly more distortions than the simulated suicide notes ($t(63)=1.93, p < .05$).

Of the genuine suicide notes, 21 contained distortions, and distortions were associated with 25.20% of the interactive statements. Of the simulated suicide notes, 12 contained distortions, and distortions were associated with 11.82% of the interactive statements. A large proportion of the distortions in both the genuine and simulated suicide notes involved the employment of the decision rules to determine whether Ego should be scored in the position of the subject or object of an interactive relationship between two third persons or between a third person and an object. This type of distortion accounted for 86.40% of the distortions in the genuine, and 80.77% of the distortions in the simulated suicide notes.

The number of times each interactive verb was employed per note was computed. Creating relationships were scored in fewer than one percent of the interactive statements in
Table 1
Analysis of Covariance of Number of Distortions in Genuine Versus Simulated Suicide Notes Adjusted for Number of Interactive Statements.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Note</td>
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<td>1</td>
<td>11.57</td>
<td>3.72*</td>
</tr>
<tr>
<td>Error</td>
<td>195.79</td>
<td>63</td>
<td>3.11</td>
<td></td>
</tr>
</tbody>
</table>

*p < .06

Note: In the above comparison, the effect of the covariate, number of interactive statements, was significant at p < .001.
both the genuine and simulated suicide notes, so these data were not included in statistical analysis. Table 2 illustrates the frequency with which Moving Toward, Moving From, and Moving Against relationships were scored in the genuine and simulated suicide notes. Frequency is expressed as the number of notes that employed each interactive verb at least once, and as the percent of interactive statements in which each interactive verb was employed. Moving Toward relationships were employed most frequently in both the genuine and simulated suicide notes, and accounted for 67.45% of the interactive statements in the genuine, and 59.11% of the interactive statements in the simulated suicide notes.

The genuine and simulated suicide notes were compared with respect to whether or not they employed each interactive verb. The results of a $\chi^2$ analysis for independent groups using the Yates correction for continuity indicated that the genuine and simulated suicide notes did not differ significantly in use of Moving Toward ($\chi^2(1, N=66)=.27$, n.s.), Moving From ($\chi^2(1, N=66)=.26$, n.s.), and Moving Against ($\chi^2(1, N=66)=1.64$, n.s.) relationships. The genuine and simulated suicide notes were also compared with respect to whether or not they contained both Moving Toward and Moving From or Moving Against relationships. The genuine and simulated suicide notes did not differ significantly ($\chi^2(1, N=66)=.65$, n.s.) in use of such
<table>
<thead>
<tr>
<th>Verbs</th>
<th>Genuine</th>
<th></th>
<th></th>
<th>Simulated</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>% Statements</td>
<td># Notes</td>
<td>% Statements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving Toward</td>
<td>32</td>
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<td>30</td>
<td>59.11</td>
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<td>Moving From</td>
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<td>11.81</td>
<td>22</td>
<td>19.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moving Against</td>
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<td>20.21</td>
<td>18</td>
<td>20.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ambivalent assertions.

The slopes of the regressions of the frequency of each interactive verb per note on number of interactive statements per note were computed for the genuine and simulated suicide notes. The slopes of the regressions for the frequency of Moving Toward ($t(62) = .05$, n.s.), Moving From ($t(62) = .008$, n.s.), and Moving Against ($t(62) = .04$, n.s.) relationships did not differ significantly between the genuine and simulated suicide notes. These data indicated that there were no significant interaction effects between type of note and length of note on frequency of each interactive verb.

The genuine and simulated suicide notes were compared with respect to the frequency with which each interactive verb was employed. The results of analysis of covariance indicated that the genuine and simulated suicide notes did not differ significantly in frequency of Moving Toward ($F(1,63) = 2.39$, n.s.), Moving From ($F(1,63) = 0.10$, n.s.), and Moving Against ($F(1,63) = 1.44$, n.s.) relationships. A summary of the results of the analysis of covariance is shown in Table 3.

The number of times each noun category was employed in the interactive statements of each note was computed. Table 4 illustrates the frequency with which each noun was employed in the genuine and simulated suicide notes. In accordance with the scoring rules, Ego was scored as the
Table 3

Analysis of Covariance of Frequency of Interactive Verbs in Genuine Versus Simulated Suicide Notes Adjusted for Number of Interactive Statements

<table>
<thead>
<tr>
<th>Verb</th>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td>Moving Toward</td>
<td>Type of Note</td>
<td>10.23</td>
<td>1</td>
<td>10.23</td>
<td>2.39</td>
</tr>
<tr>
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<td>Error</td>
<td>269.65</td>
<td>63</td>
<td>4.28</td>
<td></td>
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<tr>
<td>Moving From</td>
<td>Type of Note</td>
<td>1.77</td>
<td>1</td>
<td>1.77</td>
<td>1.10</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>101.79</td>
<td>63</td>
<td>1.62</td>
<td></td>
</tr>
<tr>
<td>Moving Against</td>
<td>Type of Note</td>
<td>3.83</td>
<td>1</td>
<td>3.83</td>
<td>1.44</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>167.79</td>
<td>63</td>
<td>2.66</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Note. In all of the above comparisons, the effect of the covariate, number of interactive statements, was significant at p < .001.
Table 4

Frequency of Nouns in Interactive Statements of Genuine and Simulated Suicide Notes

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Genuine</th>
<th></th>
<th>Simulated</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Notes</td>
<td>% Statements</td>
<td># Notes</td>
<td>% Statements</td>
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<tr>
<td>Father</td>
<td>13</td>
<td>5.77</td>
<td>4</td>
<td>2.46</td>
</tr>
<tr>
<td>Mother</td>
<td>7</td>
<td>4.20</td>
<td>2</td>
<td>1.97</td>
</tr>
<tr>
<td>Sibling</td>
<td>3</td>
<td>1.57</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spouse</td>
<td>32</td>
<td>57.22</td>
<td>24</td>
<td>51.72</td>
</tr>
<tr>
<td>Peer Male</td>
<td>12</td>
<td>6.30</td>
<td>5</td>
<td>2.46</td>
</tr>
<tr>
<td>Peer Female</td>
<td>4</td>
<td>2.36</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Child</td>
<td>10</td>
<td>9.71</td>
<td>11</td>
<td>9.85</td>
</tr>
<tr>
<td>Symbolic</td>
<td>22</td>
<td>12.86</td>
<td>29</td>
<td>31.53</td>
</tr>
</tbody>
</table>
subject or object in 100% of the interactive statements, and these data are not included in Table 4 and were not subjected to statistical analysis. Of the remaining noun categories, Spouse was employed most frequently. Relationships between Ego and Spouse accounted for 57.22% of the interactive statements in the genuine, and 51.72% of the interactive statements in the simulated suicide notes.

The genuine and simulated suicide notes were compared with respect to whether or not each noun category was employed in the interactive statements using $\chi^2$ analysis for independent groups using the Yates correction for continuity. The genuine and simulated suicide notes did not differ significantly in use of Mother ($\chi^2(1, N=66)=2.06$, n.s.), Sibling ($\chi^2(1, N=66)=1.40$, n.s.), Peer Male ($\chi^2(1, N=66)=2.85$, n.s.), Peer Female ($\chi^2(1, N=66)=2.40$, n.s.), Child ($\chi^2(1, N=66)=0$, n.s.), and Symbolic ($\chi^2(1, N=66)=3.12$, n.s.) noun categories. Father was employed in significantly more of the genuine suicide notes ($\chi^2(1, N=66)=5.07$, $p < .05$, C = .27), and was employed in 13 of the genuine suicide notes and four of the simulated suicide notes. Spouse was also employed in significantly more of the genuine suicide notes ($\chi^2(1, N=66)=5.78$, $p < .05$, C = .28), and was employed in 32 of the genuine suicide notes and 24 of the simulated suicide notes.

The slopes of the regressions of the frequency of each noun per note on the number of interactive statements per
note were computed for the genuine and simulated suicide notes. The slopes of the regressions for the frequency of Father ($t(62) = .001$, n.s.), Mother ($t(62) = .03$, n.s.), Sibling ($t(62) = .02$, n.s.), Spouse ($t(62) = .04$, n.s.), Peer Male ($t(62) = .01$, n.s.), Peer Female ($t(62) = .07$, n.s.), Child ($t(62) = 0$, n.s.), and Symbolic ($t(62) = .13$, n.s.) noun categories did not differ significantly between the genuine and simulated suicide notes. These data indicated that there were no significant interaction effects between type of note and length of note on frequency of each noun category employed in the interactive statements.

The genuine and simulated suicide notes were compared with respect to the frequency with which each noun category was employed in the interactive statements. The results of analysis of covariance indicated that the genuine and simulated suicide notes did not differ significantly in frequency of Mother ($F(1, 63) = .03$, n.s.), Sibling ($F(1, 63) = 1.41$, n.s.), Spouse ($F(1, 63) = .10$, n.s.), Peer Female ($F(1, 63) = .24$, n.s.), and Child ($F(1, 63) = .01$, n.s.). The genuine suicide notes contained more references to Father ($F(1, 63) = 4.48$, $p < .05$), and the adjusted mean number of references to Father per note was .64 for the genuine, and .21 for the simulated suicide notes. The genuine suicide notes also contained more references to Peer Male ($F(1, 63) = 4.24$, $p < .05$), and the adjusted mean number of references to Peer Male per note was .67 for the genuine,
and .21 for the simulated suicide notes. The simulated suicide notes contained more references to Symbolic nouns \( (\bar{F}(1,63)=8.39, p<.005) \), and the adjusted mean number of references to Symbolic nouns per note was 1.19 for the genuine, and 2.23 for the simulated suicide notes. A summary of the results of the analysis of covariance is shown in Table 5.

The number of positively and negatively modified interactive verbs per note was computed. Table 6 illustrates the frequency with which the interactive verbs were positively and negatively modified in the genuine and simulated suicide notes. Frequency is expressed as the number of notes that employed positive or negative modification of interactive verbs at least once, and as the percent of interactive verbs that were positively or negatively modified.

The genuine and simulated suicide notes were compared with respect to whether or not positive or negative modification of verbs was employed using \( \chi^2 \) analysis for independent groups using the Yates correction for continuity. The genuine and simulated suicide notes did not differ significantly in use of positive \( (\chi^2(1, N=66)=.90, \text{n.s.}) \) or negative \( (\chi^2(1, N=66)=.18, \text{n.s.}) \) modification of interactive verbs.

The slopes of the regressions of the frequency of positively and negatively modified interactive verbs per
Table 5

Analysis of Covariance of Frequency of Nouns in Interactive Statements of Genuine Versus Simulated Suicide Notes

Adjusted for Number of Interactive Statements

<table>
<thead>
<tr>
<th>Noun</th>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father</td>
<td>Type of Note</td>
<td>2.83</td>
<td>1</td>
<td>2.83</td>
<td>4.48*</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>39.84</td>
<td>63</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>Type of Note</td>
<td>0.01</td>
<td>1</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>32.03</td>
<td>63</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Sibling</td>
<td>Type of Note</td>
<td>0.28</td>
<td>1</td>
<td>0.28</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>12.59</td>
<td>63</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Spouse</td>
<td>Type of Note</td>
<td>0.57</td>
<td>1</td>
<td>0.57</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>366.64</td>
<td>62</td>
<td>5.82</td>
<td></td>
</tr>
<tr>
<td>Peer Male</td>
<td>Type of Note</td>
<td>3.11</td>
<td>1</td>
<td>3.11</td>
<td>4.24*</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>46.15</td>
<td>63</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Peer Female</td>
<td>Type of Note</td>
<td>0.07</td>
<td>1</td>
<td>0.07</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>17.74</td>
<td>63</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>Type of Note</td>
<td>0.04</td>
<td>1</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>235.11</td>
<td>63</td>
<td>3.73</td>
<td></td>
</tr>
<tr>
<td>Symbolic</td>
<td>Type of Note</td>
<td>15.95</td>
<td>1</td>
<td>15.95</td>
<td>8.39**</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>119.75</td>
<td>63</td>
<td>1.90</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  **p < .005

Note: In the above comparisons, the effect of the covariate, number of interactive statements, was significant at p < .05 except Father (F(1,63)=2.24, n.s.) and Sibling (F(1,63)=2.93, n.s.).
<table>
<thead>
<tr>
<th>Modified Terms</th>
<th>Genuine</th>
<th></th>
<th>Simulated</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Notes</td>
<td>% Statements</td>
<td># Notes</td>
<td>% Statements</td>
</tr>
<tr>
<td>Verb</td>
<td>29</td>
<td>27.03</td>
<td>25</td>
<td>27.59</td>
</tr>
<tr>
<td>Ego</td>
<td>5</td>
<td>2.37</td>
<td>6</td>
<td>2.96</td>
</tr>
<tr>
<td>Ego</td>
<td>28</td>
<td>13.91</td>
<td>30</td>
<td>26.60</td>
</tr>
<tr>
<td>Nouns + Other Than Ego</td>
<td>22</td>
<td>19.95</td>
<td>21</td>
<td>23.15</td>
</tr>
<tr>
<td>Nouns Other Than Ego</td>
<td>6</td>
<td>4.46</td>
<td>3</td>
<td>1.48</td>
</tr>
</tbody>
</table>
note on number of interactive statements per note were computed for the genuine and simulated suicide notes. The slopes of the regressions for the frequency of positively \((t(62) = .05, \text{n.s.})\) and negatively \((t(62) = 0, \text{n.s.})\) modified interactive verbs did not differ significantly between the genuine and simulated suicide notes. These data indicated that there were no significant interaction effects between type of note and length of note on frequency of positive or negative modification of interactive verbs.

The genuine and simulated suicide notes were compared with respect to the frequency with which interactive verbs were positively or negatively modified. The results of analysis of covariance indicated that the genuine and simulated suicide notes did not differ significantly in frequency of positive \((F(1,63) = .23, \text{n.s.})\) modification of interactive verbs. The difference in frequency of negative modification of verbs barely missed significance \((F(1,63) = 3.20, p < .07)\), and the adjusted mean frequency of negative modification of interactive verbs per note was 3.11 for the genuine, and 3.89 for the simulated suicide notes. A summary of the results of the analysis of covariance is shown in Table 7.

The number of positively and negatively modified nouns in the interactive statements of each note was computed. Table 5 illustrates the frequency with which the nouns were positively and negatively modified in the genuine and
Table 7
Analysis of Covariance of Frequency of Dynamic Modifiers in Interactive Statements of Genuine Versus Simulated Suicide
Notes Adjusted for Number of Interactive Statements

<table>
<thead>
<tr>
<th>Modified Terms</th>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>Type of Note</td>
<td>0.50</td>
<td>1</td>
<td>0.50</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>135.39</td>
<td>63</td>
<td>2.15</td>
<td></td>
</tr>
<tr>
<td>Verb</td>
<td>Type of Note</td>
<td>9.13</td>
<td>1</td>
<td>0.13</td>
<td>3.20+</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>179.66</td>
<td>63</td>
<td>2.85</td>
<td></td>
</tr>
<tr>
<td>Ego</td>
<td>Type of Note</td>
<td>0.48</td>
<td>1</td>
<td>0.48</td>
<td>2.19</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>13.79</td>
<td>63</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Ego</td>
<td>Type of Note</td>
<td>2.91</td>
<td>1</td>
<td>2.91</td>
<td>3.49+</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>52.50</td>
<td>63</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Nouns Other Than Ego</td>
<td>Type of Note</td>
<td>1.19</td>
<td>1</td>
<td>1.19</td>
<td>0.30</td>
</tr>
<tr>
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<td>248.89</td>
<td>63</td>
<td>3.95</td>
<td></td>
</tr>
<tr>
<td>Nouns Other Than Ego</td>
<td>Type of Note</td>
<td>0.36</td>
<td>1</td>
<td>0.36</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>41.08</td>
<td>63</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>Type of Note</td>
<td>1.40</td>
<td>1</td>
<td>1.40</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>413.20</td>
<td>63</td>
<td>6.56</td>
<td></td>
</tr>
<tr>
<td>Total Negative</td>
<td>Type of Note</td>
<td>27.35</td>
<td>1</td>
<td>27.35</td>
<td>4.49*</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>383.95</td>
<td>63</td>
<td>6.09</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  +p < .07  ++p < .06

Note. In all of the above comparisons, the effect of the covariate, number of interactive statements, was significant at p < .001.
simulated suicide notes. Frequency is expressed as the number of notes that employed positive or negative modification of Ego or nouns other than Ego at least once, and as the percent of interactive statements in which Ego or nouns other than Ego were positively or negatively modified.

The genuine and simulated suicide notes were compared with respect to whether or not positive or negative modification of nouns was employed using $\chi^2$ analysis for independent groups using the Yates correction for continuity. The genuine and simulated suicide notes did not differ significantly in use of positive modification of Ego ($\chi^2(1, N=66)=0$, n.s.), negative modification of Ego ($\chi^2(1, N=66)=.14$, n.s.), positive modification of nouns other than Ego ($\chi^2(1, N=66)=0$, n.s.), and negative modification of nouns other than Ego ($\chi^2(1, N=66)=.51$, n.s.). The genuine and simulated suicide notes were also compared with respect to whether or not they contained both positive and negative modifiers applied to the same characters. The genuine and simulated suicide notes did not differ significantly in use of such ambivalent evaluations ($\chi^2(1, N=66)=0$, n.s.).

The slopes of the regressions of the frequency of positive and negative modification of nouns in interactive statements on number of interactive statements were computed for the genuine and simulated suicide notes. The slopes
of the regressions for the frequency of positive modification of Ego ($t(62) = .02$, n.s.), negative modification of Ego ($t(62) = .04$, n.s.), positive modification of nouns other than Ego ($t(62) = .05$, n.s.), and negative modification of nouns other than Ego ($t(62) = .10$, n.s.) did not differ significantly between the genuine and simulated suicide notes. These data indicated that there were no significant interaction effects between type of note and length of note on frequency of positive or negative modification of nouns.

The genuine and simulated suicide notes were compared with respect to the frequency with which the nouns in the interactive statements were positively or negatively modified. The results of analysis of covariance indicated that the genuine and simulated suicide notes did not differ significantly in frequency of positive modification of Ego ($F(1, 63) = 2.19$, n.s.), positive modification of nouns other than Ego ($F(1, 63) = .30$, n.s.), and negative modification of nouns other than Ego ($F(1, 63) = .56$, n.s.). The difference in frequency of negative modification of Ego barely missed significance ($F(1, 63) = 3.49$, $p < .06$), and the adjusted mean frequency of negative modification of Ego per note was 1.40 for the genuine, and 1.84 for the simulated suicide notes.

A summary of the analysis of covariance is shown in Table 7.

Finally, the total number of positively and negatively modified terms in the interactive statements of each note was computed. The genuine and simulated suicide notes were
compared with respect to whether or not any positive or negative modifiers were employed using \( \chi^2 \) analysis for independent groups using the Yates correction for continuity. The genuine and simulated suicide notes did not differ significantly in use of positive \( (\chi^2(1, N=66)=.14, \text{n.s.}) \) or negative \( (\chi^2(1, N=66)=1.40, \text{n.s.}) \) modifiers.

The slopes of the regressions of the frequency of positively and negatively modified terms per note on number of interactive statements per notes were computed for the genuine and simulated suicide notes. The slopes of the regressions for the frequency of positively \( (t(62)=.05, \text{n.s.}) \) and negatively \( (t(62)=.008, \text{n.s.}) \) modified terms did not differ significantly between the genuine and simulated suicide notes. These data indicated that there were no significant interaction effects between type of note and length of note on frequency of positive or negative modification of terms.

The genuine and simulated suicide notes were compared with respect to the frequency with which positive and negative modification of terms in interactive statements was employed. The results of analysis of covariance indicated that the genuine and simulated suicide notes did not differ significantly in frequency of positive modification of terms \( (F(1,63)=.21, \text{n.s.}) \). The simulated suicide notes contained significantly more negatively modified terms \( (F(1,63)=4.49, p < .05) \), and the adjusted
mean frequency of negatively modified terms per note was 4.73 for the genuine and 6.09 for the simulated suicide notes. A summary of the analysis of covariance is shown in Table 7.

The criterion for rejecting the null hypothesis in comparisons between the genuine and simulated suicide notes was statistical significance at $p < .05$. It must be noted, however, that the data analysis in the present study frequently involved multiple comparisons, which increases the probability of drawing conclusions that will not be replicable. Given the exploratory nature of the present study, however, it was considered important to present any differences between the genuine and simulated suicide notes which may lead to hypotheses for future research.
CHAPTER IV

DISCUSSION

In order for researchers and clinicians to employ Foulkes's (1978) Scoring System for Latent Structure, a considerable commitment is required from the judges. Although the scoring rules are clearly articulated, they are numerous, and scoring the written material is time consuming, particularly for beginners. The results of the present study indicate, however, that the judges were able to learn the scoring system well enough to achieve a high degree of agreement in their scoring of the interactive statements. The data are consistent with reports that the scoring system is reliable (Foulkes, 1978).

In the present study, the genuine suicide notes were found to contain significantly more interactive statements than the simulated suicide notes. Other researchers have reported that the genuine suicide notes in this sample are longer than the simulated suicide notes judged by word-count (Edelman & Renshaw, 1982) and by number of thought units (Shneidman & Farberow, 1957b, 1957c). Edelman and Renshaw (1982) attributed this difference to greater cognitive energy experienced by the authors of the genuine suicide notes, and this greater cognitive energy may reflect subjective distress. Shneidman and Farberow (1957b), on the other hand, attributed this difference to a stronger motive to communicate on the part of the authors of the
genuine suicide notes. While a stronger motive to communicate with survivors would be consistent with the conclusion that the suicide has incorporated the idea of his imminent death and appreciates that the suicide note is his final opportunity for communication, it may also reflect a wish to maintain contact with others and ambivalence concerning his decision to commit suicide (Gottschalk & Gleser, 1960).

The results of the present study are also consistent with the primary hypothesis of the present study that the genuine suicide notes would contain more frequent indications of latent content than the simulated suicide notes. The data are consistent with Freud's (1917/1957) hypothesis that unconscious motives play an important role in suicidal behaviour, and also with research results reported by Leenaars et al. (1985) and Leenaars (1986a) that the genuine suicide notes were judged to have unconscious psychodynamic implications more frequently than were the simulated suicide notes.

Latent content was assumed to be present in the notes when distortion was indicated according to the scoring rules. This scoring system anticipates distortions that involve substitution of characters by other characters and objects. Foulkes (1978) proposed that all interactive statements are self-statements, therefore, interactive relationships between two third persons and between a third
person and an object are considered to imply distortion involving substitution of Ego by another character or an object. Foulkes (1978) also proposed that characters of different generations from Ego should be considered in terms of family relationships, so, for example, older males and authority figures are considered to be substitutes for father. These indications of distortion were present in more of the genuine than simulated suicide notes, and were present more frequently in the genuine than simulated suicide notes.

One measure of distortion considered in the present study occurred rarely in both the genuine and simulated suicide notes and did not discriminate significantly between these groups: transformations. Although the provisional rules proposed by Foulkes (1978) for scoring nouns are intended to provide hypotheses for interpreting the manifest content based on general principles of psychodynamic theory, transformations are intended to provide information for interpreting the manifest content based on the person's own associations. This Scoring System for Latent Structure was developed for use with dream reports and free associations to the dream reports. The conditions necessary to generate transformations may be more commonly met by the free association material. If so, the infrequency of transformations in the scoring of the genuine and simulated suicide notes may be attributed
to the lack of free association material to the content of the notes.

Distortions are expected to occur when persons repress certain thoughts and feelings about which they experience conflict (Freud, 1917/1963). Any person may employ repression at times, and so produce distortions. The authors of the simulated suicide notes may well have experienced anxiety related to their task, and so may have produced more distortions than would have been apparent in other samples of verbal material, such as ordinary letters. They would not, however, be expected to produce as many distortions as persons experiencing a suicidal crisis. Foulkes's (1978) Scoring System for Latent Structure is apparently sensitive to such differences.

The greater frequency of distortions in the genuine suicide notes implies that suicides are driven by motives they are not fully conscious of. In addition to crisis intervention, persons at risk of suicide may benefit from psychotherapy which emphasizes the development of insight concerning these unconscious motives. Such insight may be an important factor in the establishment of a less fragile adjustment.

A large proportion of the distortions in the notes were cases in which the decision rules were employed to determine whether Ego should be scored as the subject or object of interactions between two third persons or between
third persons and objects. This implies that the distortion in the translation from the latent to the manifest content generally involved disguising the role of Ego in the relationship. Perhaps the most sweeping assumption of the scoring system is that every interactive statement is a self-statement. The relative frequency of this type of distortion can likely be attributed to this bias in the scoring system rather than to some aspect of suicidal behaviour.

While 67.45% of the total number of interactive statements in the genuine suicide notes were Moving Toward relationships, 86.46% of the interactive statements containing distortions were Moving Toward relationships. This suggests that the repressed material tends to involve wishes for affiliation or affectionate relationships with others. The data are consistent with Freud's (1917/1957) hypothesis that suicide is a reaction to the loss of a significant relationship, however, it is not consistent with Freud's (1917/1957) hypothesis that suicide represents an indirect expression of aggressive feelings toward others.

The advantage of using this Scoring System for Latent Structure to identify distortions is that the assumptions of the scoring system are clearly articulated, which is not necessarily true of the assumptions that provide the basis for clinical judgement. It would be interesting to compare the decisions concerning whether notes contain distortions
based on this Scoring System for Latent Structure with
decisions based on clinical judgement to investigate the
extent of agreement between these two methods. The ability
of this scoring system to discriminate significantly between
the genuine and simulated suicide notes provides support for
the validity of the provisional rules for interpreting the
manifest content. There are, however, two obvious
objections to the use of this scoring system to investigate
the content of the genuine and simulated suicide notes.

The first objection pertains to the limitations of the
scoring system in detecting distortions. This Scoring
System for Latent Structure is insensitive to types of
distortion other than substitution of characters with other
characters or objects, which is only one of a number of
types of distortion believed to occur in translation from
latent to manifest content. As a result, this scoring
system would provide an underestimate of the frequency of
distortion. For example, distortion may involve reversal
(Freud, 1916/1963). That is, a repressed wish may be
expressed in manifest content as its opposite. A more
comprehensive method for inferring distortion based on the
manifest content would have to account for these other
types of distortion as well.

It is difficult to imagine, however, how some types of
distortion could be detected when free association material
is not available. For example, how would a reversal be
distinguished from an undistorted expression of a wish? The possibilities for interpreting the manifest content are limited by the nature of the available data, and any set of assumptions for interpreting manifest content will be incomplete in some respects.

The second objection pertains to the question of whether it is appropriate to generalize this Scoring System for Latent Structure to verbal material other than dream reports. For example, Foulkes (1978) adopts the position that dreams are egocentric, and Ego is assumed to be involved in every interactive relationship. In waking consciousness, statements of interactive relationships between two third persons or between third persons and objects may not invariably imply substitution of Ego by other characters or objects. The scoring system would, therefore, provide an overestimate of the frequency of this type of distortion.

Although dreaming and waking consciousness appear to be qualitatively different (Freud, 1916/1963), the same unconscious is involved in each state. Freud (1916/1963, 1917/1963, 1901/1960) proposed that the same processes are involved in distortion of the latent content of dreams as in distortion that occurs in waking behaviour, evident in neurotic symptoms and slips of the tongue.

It seems unlikely that the types of errors associated with these objections would affect the scoring of the
genuine or simulated suicide notes disproportionately. Despite these types of errors, the scoring system discriminated significantly between the genuine and simulated suicide notes, suggesting that the provisional rules for scoring nouns provide an effective means for identifying distortions and may be applied to verbal material other than dream reports. Foulkes's (1978) Scoring System for Latent Structure represents an important step toward the development of a set of testable hypotheses concerning how latent content is inferred from manifest content. This set of hypotheses may be expanded and refined through application of information from psychodynamic theory and research results.

In addition to frequency of distortion, the genuine and simulated suicide notes in the present study were compared with respect to the content of the interactive statements. Comparisons were made regarding the frequency with which interactive verbs, noun categories, and dynamic modification of nouns and verbs were employed.

Foulkes (1978) developed the interactive verb categories based on the work of Horney. Horney (1945) suggested that basic anxiety develops from a child's feeling of helplessness and isolation in a potentially hostile environment. Horney described three basic strategies for coping with this anxiety: Moving Toward involves compliance to insure the good will of others, Moving
Against involves aggression to defend against hostility from others, and Moving From involves detachment from others. Each of these strategies may be adaptive and appropriate under certain circumstances. When a child's environment produces insecurity, however, persons may overemphasize one strategy and employ it indiscriminately and compulsively. These dominant defensive strategies develop into stable personality characteristics.

For example, a wish for affection and approval from others is necessary to the development of intimate relationships. A Moving Toward character, however, has an excessively strong wish for affection and approval from others, particularly from a special relationship with someone who he expects to provide him with complete gratification. A Moving Toward character is uncomfortable acknowledging angry feelings toward others since expression of these feelings may jeopardize the positive regard of others.

While it is possible to imagine suicide motivated by overt hostility toward others or by feelings of isolation, theories of suicidal behavior and the results of research investigating the content of suicide notes are most consistent with a Moving Toward style of interaction. For example, loss of or threat to a significant relationship has often been cited as a motive for suicide (Chynoweth, 1977; Darbonne, 1969b; Edland & Duncan, 1973; Leenaars
et al., 1985; Leenaars & Balance, 1981, 1984b; Shaffer, 1974; Wagner, 1960). Darbonne (1969a) reported that notes written by suicides and persons who threatened suicide were considered to express a need for emotional support and veiled hostility more often than notes written by non-suicidal persons. In addition, notes written by suicides were considered to express demands and expectations that others gratify their needs more often than notes written by persons who threatened suicide and non-suicidal persons.

Depression is considered to be an important aspect of suicide and may be interpreted as repressed anger. The act of suicide may be interpreted as an indirect expression of murderous wishes toward others (Edlan & Duncan, 1977; Freud, 1917/1957; Leenaars & Balance, 1984b).

In the present study, the genuine and simulated suicide notes did not differ significantly in the frequency with which each interactive verb category was employed. Moving Toward relationships were scored most frequently of all the interactive verbs in both the genuine and simulated suicide notes. It is possible that the authors of the simulated suicide notes were able to accurately empathize with suicides in this regard. Development of normative data would provide an important basis for comparison. For example, it is likely that Foulkes's (1978) Moving Toward category is simply more inclusive than the other interactive verb categories and is employed more commonly in verbal
samples in general.

The results of the present study suggest that suicides do not differ from non-suicidal persons in interactive style according to the model described by Horney (1945). In order to draw this conclusion, however, it must first be determined whether the interactive verb categories of the scoring system provide a valid measure of a person's interactive style.

The genuine and simulated suicide notes differed significantly in the frequency with which several noun categories were employed. Significantly more of the genuine suicide notes contained references to Spouse. The genuine suicide notes did not contain significantly more frequent references to Spouse, however, so this difference may be attributed to the relatively greater length of the genuine suicide notes. Spouse was employed more frequently in both the genuine and simulated suicide notes than the other non-Ego noun categories. The authors of all the genuine and simulated suicide notes were married, and the notes were generally addressed to Spouse.

Significantly more of the genuine suicide notes contained references to Father, and the genuine suicide notes contained significantly more frequent references to Father than the simulated suicide notes. This suggests that, at least for males, the person's relationship with his father may play an important role in suicidal behaviour.
While Mother was generally scored for literal references to the author's own mother, references to male authority figures, most commonly to god, accounted for many cases in which Father was scored, which implied distortion according to the scoring rules. Every case in which distortion occurred in interactive relationships between Father and Ego involved Moving Toward relationships. This may be interpreted as an expression of an unconscious wish on the part of the suicide for affection and approval from his father. In view of the frequent references made in suicide notes to difficulties in heterosexual relationships, this wish may be related to the suicide's feelings of inadequacy in terms of his values and beliefs concerning what it means to be a man.

The genuine suicide notes also contained more frequent references to Peer Male than the simulated suicide notes. This is consistent with reports that the genuine suicide notes contain more references to persons than the simulated suicide notes (Gottschalk & Cleser, 1960; Ogilvie, Stone & Shneidman, 1966). Since the authors of the notes were male, references to unspecified others such as "anyone" or "people" were scored as Peer Male. In addition, according to the scoring rules, when Ego came to harm, the implied subject was scored as Peer Male. For example, a request to be cremated was scored as Peer Male Moving Against Ego.

The interactive statements of the simulated suicide
notes contained more frequent references to Symbolic nouns than those of the genuine suicide notes. The Symbolic nouns in the genuine suicide notes tended to involve references to specific things such as the author's job, home, alcohol or drugs, in contrast to those scored in the simulated suicide notes which almost invariably involved references to abstract concepts. This is consistent with the results of other studies (Gottschalk & Gleser, 1960; Ogilvie, Stone & Shneidman, 1966) which noted that the genuine suicide notes contained more references to specific persons, places, and objects, and (Edelman & Renshaw, 1982) which noted that the genuine suicide notes were more concrete than the simulated suicide notes. The differences found in the present study may be attributed to two general differences in the content of the genuine and simulated suicide notes. The first difference, previously noted by Spiegel and Neuringer (1963), is that the simulated suicide notes made more frequent references to suicidal intent, which resulted in the scoring of related concepts such as "life" and "death." Suicides may feel that their intentions are self-evident, or may avoid direct references because they feel ambivalent about their decision to commit suicide. The second difference is related to the description of events that precipitated the suicide. While the authors of the genuine suicide notes described specific incidents which resulted in scoring of
interactive relationships between two characters, the authors of the simulated suicide notes tended to make vague references to "fate," "problems," and "suffering," which resulted in scoring of interactive relationships between Ego and Symbolic nouns. In other words, the authors of the simulated suicide notes were less specific in their fabrications of their motives for suicide than were the authors of the genuine suicide notes in their descriptions of events that were distressing to them.

Contrary to predictions, the interactive statements of the simulated suicide notes did not contain more frequent positive modification of nouns and verbs than those of the genuine suicide notes. In fact, the simulated suicide notes contained significantly more frequent negative modification of nouns and verbs. This appeared to be related to more frequent negative modification of Ego and of verbs, and each of these differences barely missed significance level.

Edelman and Renshaw (1982) employed a computer language analysis program, and the specific criteria for determining whether nouns and verbs were positively or negatively modified were not described. The difference in the results reported by Edelman and Renshaw (1982) and in the present study, however, is likely due to use of different operational definitions. The criteria for scoring positive and negative modifiers in the present study were
broad. For example, apologies for behaviour, references to illness and suffering or to intentions to die, and expression of feelings of being confused or overwhelmed by circumstances could all result in scoring of negative modification of nouns. Henken (1976) reported that the simulated suicide notes contained more references to weakness of inability to act, which could result in scoring of negative modification of nouns. In addition, the authors' references to their possessions would be scored as negatively modified Ego in the interactive statements. The tendency of the simulated suicide notes to contain more frequent negative modification of Ego may reflect the authors' tendency to overestimate the extent to which suicides express self-depreciation, or a critical attitude toward persons who commit suicide.

Interactive verbs were also negatively modified under a variety of circumstances. For example, negated verbs were assigned negative modifiers. The simulated suicide notes have been reported to contain more frequent qualified verb phrases (Osgood & Walker, 1959), and more frequent references to cognitive processes (Gottschalk & Gleser, 1960; Ogilvie, Stone & Shneidman, 1966), which may result in scoring of negative modification of interactive verbs. The data were not consistent with the hypothesis that the genuine suicide notes would express more ambivalence than the simulated suicide notes.
Other measures of ambivalence considered in the present study did not discriminate significantly between the genuine and simulated suicide notes. The data were not consistent with the results reported by Leenaars and Balance (1984a, 1984b) and Leenaars et al. (1985) indicating that independent judges more frequently considered the genuine suicide notes to express contradictory feelings and attitudes toward other persons. In the present study, the genuine suicide notes did not contain both positive and negative modifiers applied to the same characters significantly more often than the simulated suicide notes. This Scoring System for Latent Structure apparently is not sensitive to the kind of information that the judges in the previous studies responded to based on clinical judgement. The data were also not consistent with results reported by Osgood and Walker (1959) indicating that the genuine suicide notes contained more ambivalent assertions than the simulated suicide notes. The results reported by these authors, however, were only significant at $p < .10$.

A number of limitations to the present study related to the assumptions of the scoring system have been noted above. There are also limitations associated with the sample material employed. For example, demographic information provided concerning the authors of the notes describes the group as a whole rather than the author of
each note. The results of research investigating the content of suicide notes suggests that there are psychological differences among suicides in different demographic groups. Important information may be lost when suicides are considered as a group since this group is not homogeneous. The genuine suicide notes in the present sample were controlled in terms of at least two important demographic characteristics: sex and marital status. In order to make meaningful comparisons based on demographic variables, a much larger sample would be required than was employed in the present study, representing a broader spectrum of demographic groups. Just as it is likely that suicides in various demographic groups differ in some respects, however, it is likely that they are similar in some respects, and the results obtained with one group may provide tentative descriptions of other groups subject to verification.

The control sample employed in the present study was a set of simulated suicide notes written by non-suicidal persons who were carefully screened by means of interviews and psychological tests to eliminate those who may have been distressed by this task (Shneidman & Farberow, 1957a). The criteria for making this selection were not specified by the authors, but it seems likely that persons considered to have significant psychological disturbances would have been eliminated from the control group. It is necessary to
compare genuine suicide notes with other samples of verbal material in order to clarify the ways in which the subjective state of the suicide differs from other forms of psychological distress. For example, would suicide notes differ from material written by depressed patients with respect to frequency of distortions? Darbonne (1969a) has demonstrated that simulated suicide notes written by persons who had threatened suicide were similar to simulated suicide notes written by non-suicidal persons in some respects, and to genuine suicide notes in others. Since one of the motives for research concerning suicide is to develop methods for identifying persons at risk, information effective in making such discriminations would be of great practical as well as theoretical importance.

There are also limitations associated with the question of whether and to what degree the results of research with suicide notes may be applied to suicides in general. Suicides who leave notes are likely different in some respects from suicides who do not. The nature of these differences is not known. For example, individuals who attempted suicide who left notes have been considered to have more lethal intent than those who did not (Beck et al., 1974; Lester et al., 1975). On the other hand, it has been suggested that the act of leaving a suicide note reflects ambivalence about suicide (Gottschalk & Gleser, 1960). It is also likely, however, that suicides who leave suicide
notes are similar in some respects to suicides who do not. The results of research using suicide notes may be generalized in a tentative way to other suicides just as results of research may be generalized among demographic groups until further data is available to provide a basis for making finer distinctions.

Suicide notes share the same limitations as other self-report data. The objectivity of the information provided is questionable. In addition, persons experiencing a suicidal crisis may be unable to clearly communicate their situation. The results of the present study, in fact, support this conclusion. It is unrealistic, however, to expect suicide notes alone to provide an accurate and complete explanation of suicidal behaviour. The greatest advantage of suicide notes is that they may provide clues to the authors' subjective state immediately prior to suicide.

With the above cautions in mind, what do the results of the present study suggest concerning the subjective state of the suicide? Suicides are influenced by unconscious motives. These motives appear to involve wishes for affiliation and affection from others, particularly the suicide's spouse and father. The results of the present study were not consistent with the hypothesis that suicides would express an unusual degree of ambivalence, although this may be due to the type of data reduction employed in
the scoring system.

The results of the present study indicate that Poulkes' (1978) Scoring System for Latent Structure provides a reliable, empirical method for detecting distortions and interpreting manifest content that is to some degree effective. The scoring system is sensitive to systematic differences between the genuine and simulated suicide notes that are not obvious and easy to "fake." For example, the genuine suicide notes contained more interactive relationships between third persons and between third persons and objects, which implied distortion according to the scoring rules. This type of information has implications for the assessment of lethality. Poulkes' (1978) Scoring System for Latent Structure also contributes to the development of a set of testable hypotheses which may be used to validate psychodynamic theories. Such an advance in methodology will provide new strategies for understanding suicide notes as well as other data.
APPENDIX A
DESCRIPTION OF THE RULES FOR
FOULKES'S SCORING SYSTEM FOR LATENT STRUCTURE
Rules for Scoring Interactive Statements

The procedures for scoring interactive relationships described below are derived from Foulkes's (1978) Scoring System for Latent Structure. Interactive statements are expressed as subject-verb-object constructions. Interactive statements are assumed to reflect the motives of the speaker or writer.

Verb Categories

The defining characteristic of the interactive statement is a verb which defines the relationship between the subject and object of the statement. Relationships of the following four types are coded as interactive verbs:

- Moving Toward ➔ interest, affection, help, approach, talk to
- Moving From ← leave, neglect, actively withdraw or inhibit action
- Moving Against ← hurt, deprive, hostility toward, break, cause misfortune
- Creating ↔ make, discover, teach, think up, nurture

Noun Categories

References to the author of the note are coded as Ego. Other persons referred to in the note are assigned to one of the noun categories described below. There is also a category which includes animals, inanimate objects, and concepts. In order to score this Symbolic content, the name of the animal, inanimate object, or concept is written in the position of the subject or object of a statement as indicated.
Father  F  father, old man, uncle, grandfather, male authority figures
Mother  M  mother, old woman, aunt, grandmother, female nurturant figures
Parent  P  score when sex of parent is unspecified
Sibling  Si  brother or sister
Peer Male  Pm  male of same generation as Ego
Peer Female  Pf  female of same generation as Ego
Child  C  person of younger generation than Ego

Ego must be either the subject or the object of each interactive statement, and may not be both the subject and the object. In statements that describe interactions between third persons, Ego is inferred according to the following decision rules:

1. When the subject and the object are the same age and the same sex, Ego is scored in the subject position.
2. When the subject and the object are the same age and of opposite sexes, Ego is scored in the position of the character of the same sex as Ego.
3. When the subject and object are different ages and are both the same sex as Ego, Ego is scored in the position of the character of the same age as Ego.
4. When the subject and the object are different ages
and are both the opposite sex from Ego, Ego is scored in the subject position.

5. When the subject and the object are different ages and opposite sexes, Ego is scored in the same position as the character of the same sex as Ego.

When statements describe interactions between third persons and Symbols rather than between two persons, age and sex information is not available to indicate whether the subject or the object should be scored as Ego. The following decision rules apply to interactions between third persons and Symbols:

1. In Moving From and Moving Against relationships, if the person is scored as a parent, the Symbol is scored as Ego.

2. In Moving From and Moving Against relationships, if the person is not scored as a parent, the person is scored as Ego if the person is the same sex as Ego, and the Symbol is scored as Ego if the person is the opposite sex from Ego.

3. In Moving Toward and Creating relationships, the person is scored as Ego if the person is the same sex as Ego, and the Symbol is scored as Ego if the person is the opposite sex from Ego.

When statements are expressed in the passive voice and Ego is the recipient of the action, a subject is assumed to be a person of the same age and sex as Ego.
For example, "I was hurt" is scored Pm→E when the author is male. If a third person is the recipient of the action, Ego is scored as the subject. For example, "She became ill" is scored E→Pf.

When a statement contains an implicit or explicit repetition of the subject-verb-object relationship, the statement is rescored for each relationship expressed. For example, "You tried to help me. So did my friends." is scored: Pm→E, Pm→E.

Modification of Verbs

The context of the subject-verb-object constructions allows us to infer the authors' feelings about the subject, the action and the object. Our inferences are coded as modification of the noun or verb. Verbs are scored + if the context implies an enhancement in the relationship described, and - if the context implies that the relationship described has been diminished. In the above example, "You tried to help me.", the verb is scored - because the word "tried" detracts from the effectiveness of the help. In the sentence, "I ran quickly to the stairwell," the verb is scored + because the adverb "quickly" indicates a greater adequacy of the action.

Submissive or dependent relationships are scored -.

For example, "I asked her," is scored E→Pf.

Actions that are negated are scored -, for example, "You don't love me," is scored Pm→E. Negation is
different from active cessation of a relationship, which is scored in two steps to indicate the initial relationship and the subsequent withdrawal of the relationship. For example, "You stopped loving me," is scored Pf → E, ← Pf,E.

Actions modified by a word expressing cognitive activities such as "think," "know," "believe," "imagine," or "want" are scored -.

Verb tenses other than present tense (I), simple past (I went), and past progressing (I was going) result in a - scoring. For example, "I will go home," is scored E → home.

References to time are also scored as modifiers of verbs. If an action is described as occurring in the past or the future, the verb is scored - because this is considered to imply distancing of the relationship. Conversely, an action described as occurring in the present is scored + because this is considered to emphasize the immediacy of the relationship. For example, "Then, I looked at her," is scored E → Pf.

When a statement indicates that an inhibition has been overcome, the verb is scored both + and -. For example, "I tried not to listen to him." is scored E → Pm.

Modification of Nouns

Nouns are scored + when they are described in terms that are positive or that enhance the adequacy of the noun to carry out the relationship involved. Nouns are scored -
when they are described in terms that are negative or that diminish the adequacy of the noun to carry out the relationship involved. For example, "She is kind," is scored $\overset{\text{E}}{\rightarrow} \overset{\text{Pm}}{\text{Pf}}$. "I was angry. I argued with her," is scored $\overset{\text{E}}{\rightarrow} \overset{\text{Pf}}{\text{Pf}}$, but "I was angry. I kissed her," is scored $E \rightarrow Pf$.

Plural nouns are scored $+$, such as we ($\overset{\text{E}}{\text{E}}$) or they ($\overset{\text{E}}{\text{Pm}}$). Inclusive noun categories should only be used when the membership is ambiguous. For example, "I looked for Jack and Jill," is scored $E \rightarrow \overset{\text{Pm}}{\text{Pf}}$, $E \rightarrow Pf$ rather than $E \rightarrow \overset{\text{Pm}}{\text{Pf}}$.

Possessive nouns are scored $-$. For example, "We will go to your house," is scored $\overset{\text{E}}{\rightarrow} \overset{\text{Pm}}{\text{Pm}}$.

**Rules for Scoring Associative Statements**

The procedures for scoring associative statements described below are derived from Foulkes's (1978) Scoring System for Latent Structure. Associative statements are also expressed as subject-verb-object constructions. The defining characteristic of associative statements are the verbs which describe the relationships between the subject and object. The three associative verb categories are described below. The noun categories employed in associative statements, and the rules for modification of nouns and verbs are the same in associative statements as in interactive statements described above.

**With**

This is the most inclusive associative verb category. With statements are scored for the following relationships:
1. Physical relationships that do not involve interaction. For example, "He was near the bureau," is scored \( [Pm \downarrow \text{bureau}] \).

2. Mental associations. For example, "He is similar to my father," is scored \( [Pm \downarrow F] \).

3. Passive perceptual acts. For example, "I saw him," is scored \( [E \uparrow Pm] \), whereas "I looked at him," is scored \( E \rightarrow Pm \).

4. Ownership. For example, "I have a car," is scored \( [E \downarrow \text{car}] \).

5. A part/whole relationship is articulated or implied. For example, "I was reading a book. One of the pages was missing," is scored \( E \rightarrow \text{book}, \ [\text{book} \downarrow \text{page}] \).

6. A noun is introduced that will be scored in an interactive statement but has not been previously scored in an associative statement. If there is a logical relationship between the new noun and one of the nouns in the previous associative or interactive statement, a With statement is scored between the related nouns. For example, "I was reading a book. I tore one of the pages," is scored \( E \rightarrow \text{book}, E \leftarrow \text{page}, \ [\text{page} \downarrow \text{book}] \). If there is no logical relationship between the new noun and one of the nouns in the previous associative or interactive statement, a With statement is scored between the new noun and the nouns other than Ego in the previous statement.
Means

Means statements are scored when a character or object is responsible for or mediates a relationship between two characters or objects. Means statements are scored in the following cases:

1. A relationship between characters or objects is attributed to the cognitive operations of characters other than Ego, in which case the verb is negatively modified. For example, "My mother hoped I would call her," is scored E→M, \( [M=E\overline{E}M] \), whereas "I hoped to call my mother," is scored as simply E→M.

2. An object was employed in carrying out the relationship, or the place in which the relationship occurred is specified. For example, "I stole his radio," is scored as E←Pm, \( [\text{radio}=E\overline{E}Pm] \).

3. A topic is introduced. For example, "I talked to him about the garden," is scored E→Pm, \( [\text{garden}=E\overline{E}Pm] \). Propositions, however, are not scored as Means statements. For example, "I told him I saw the garden," is scored E→Pm, \( [E\overline{E}\text{ garden}] \).

Equivalence

Equivalence statements are scored when two characters or objects are described as being the same character or object, and when a character is described in a role. For example, "He is a police officer," is scored \( [Pm=F] \).
APPENDIX B

SCORING EXAMPLES
The notes scored below are one of the genuine and one of the simulated suicide notes published by Shneidman and Farberow (1957a). The first is a genuine, and the second is a simulated suicide note.

<table>
<thead>
<tr>
<th>Text</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear Mary.</td>
<td>E→Sp</td>
</tr>
<tr>
<td>I am writing to you,</td>
<td>E→Sp</td>
</tr>
<tr>
<td>as our divorce</td>
<td>← E,Sp</td>
</tr>
<tr>
<td>is not final,</td>
<td>← Sp,E</td>
</tr>
<tr>
<td>and will not be</td>
<td></td>
</tr>
<tr>
<td>till next month,</td>
<td></td>
</tr>
<tr>
<td>so the way things stand now</td>
<td>+</td>
</tr>
<tr>
<td>you are still my wife,</td>
<td>[E$Sp]</td>
</tr>
<tr>
<td>which makes you entitled to the things</td>
<td></td>
</tr>
<tr>
<td>which belong to me,</td>
<td>[E$possession]</td>
</tr>
<tr>
<td>and I want you</td>
<td>+</td>
</tr>
<tr>
<td>to have them.</td>
<td>[Sp$possession]</td>
</tr>
<tr>
<td>Don't let anyone</td>
<td></td>
</tr>
<tr>
<td>take them from you</td>
<td>E&lt;Sp</td>
</tr>
<tr>
<td>as they are yours.</td>
<td>[possession=E(Pm)&lt;Sp]</td>
</tr>
<tr>
<td>Please see a lawyer</td>
<td>Sp→E</td>
</tr>
</tbody>
</table>
and get them
as soon as you can.

I am listing
some of the things,
they are:

- A Blue Davenport
  and chair
- a Magic Chef stove,
- a large mattress,
- an Electrolux cleaner,
- a 9x12 Rug
- redish flower design
  and pad.

All of the things
listed above
are almost new.

Then there is
my 30-30 rifle,
books,
typewriter,
tools
and a hand contract
for a house
in Chicago,
a Savings account
in Boston, Mass.
Your husband
William H. Smith

Dearest Mary,
As I sit here
with this gun
in my Hand,

which in a few minutes
I will take my life
I am thinking
of all the wonderful minutes,
Days,
years,
I have spent with you.

I know
if I talked this all over
again

with you.
you would talk me out of 
what I am about to do. Sp<→E

I know the mistakes
I have made
are not
in the least bit
your fault. Sp<→E

But as you know
in my small way
I will always try
to place part
of the Blame
on you. E<→Sp

So I hope
you will forgive me
all or partly
for what I am about to do. Sp→E

Goodbye dear ←E,Sp

I hope
we will meet
again
in some other place;
where we can be as happy [E‡Sp]
as I have been
since I married you.
Goodby sweetheart.
Yours as always,

Bill
REFERENCES


VITA AUCTORIS

1975: Graduated from Essex District High School

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